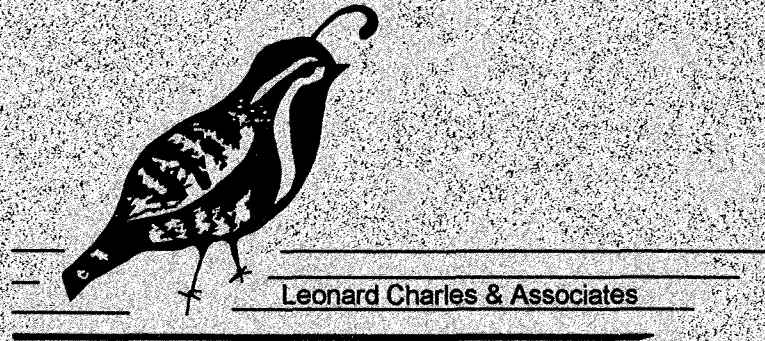


# SOUTHWEST DIXON SPECIFIC PLAN



DRAFT  
ENVIRONMENTAL IMPACT REPORT

# **SOUTHWEST DIXON SPECIFIC PLAN**

## **DRAFT ENVIRONMENTAL IMPACT REPORT**

**April 2003**

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## **1.0 INTRODUCTION**



# 1.0 INTRODUCTION

## 1.1 PURPOSE OF THE EIR

This Draft Environmental Impact Report (EIR) addresses the potential impacts of the proposed Southwest Dixon Specific Plan, as well as individual development applications for five sites within the 477-acre Specific Plan area. The Specific Plan and individual development applications would allow for commercial, single- and multi-family residential, and public facilities development in the Specific Plan area and public facility improvements outside the plan area that are necessary to support plan area development.

This EIR has been prepared in conformance with the provisions of the *California Environmental Quality Act (CEQA) Guidelines* as amended to date. CEQA requires that public agencies prepare and certify an EIR before carrying out projects that may have significant effects on the environment (Public Resources Code Section 21080). Preparation of an EIR is the responsibility of the "lead agency," the public agency that has the principal responsibility for carrying out or approving the project (Public Resources Code, Section 21067). Because the City of Dixon is the agency that would approve the proposed project, it is the lead agency for the project.

The EIR has been prepared under contract to the City of Dixon. This EIR is an informational document that is intended to inform the City (the Lead Agency), other public agency decisionmakers, and the public of the significant environmental effects of the proposed project and alternatives to the proposed project. The City will consider the information in this EIR along with other information presented during the decisionmaking process when determining whether to adopt or modify the proposed project or an alternative. The information contained in this EIR does not control the City's ultimate decision on the project. If the City decides to approve the project, however, then the City must respond to each significant effect identified in the EIR by making findings under Section 15091 of the *CEQA Guidelines* and, if necessary, making a Statement of Overriding Consideration under Section 15093.

## 1.2 CONTENTS OF THE EIR

This section of the EIR includes a description of aspects of the CEQA process. While this information is not required in an EIR, the authors believe it aids the public in understanding what an EIR is meant to be and what information it must contain. In the past, EIRs varied considerably in scope and substance. A growing body of legal decisions has clarified what impacts are to be examined and how these impacts are to be judged. The discussion here outlines certain basic CEQA concepts.

This EIR addresses all the areas of potentially significant impact as well as other potential impact areas that CEQA requires an EIR to investigate. The environmental effects of the project are analyzed for each topic. The *CEQA Guidelines* define the effects of a project as changes from the environmental setting (i.e., existing conditions) that are attributable to the project.

Section 15151 of the *CEQA Guidelines* specifies that "an EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

Amendments to the *CEQA Guidelines* (adopted in October 1998) re-emphasize the fact that the purpose of the EIR is "to compel governments to make decisions with environmental consequences in mind." Technical perfection is not necessary, but "adequacy, completeness, and a good-faith effort at full disclosure" are required. "CEQA requires that decisions be informed and balanced. It must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development or advancement," (*CEQA Guidelines*, Section 15003, as amended).

## **A. Significant Effect**

In accordance with Section 15143 of the *CEQA Guidelines*, this EIR focuses on the significant effects on the environment. Discussion of each major topic includes criteria used to evaluate whether an environmental impact is significant or insignificant. As explained in Section 15002(g) of the *CEQA Guidelines*, a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.

The significance criteria for each topic have been developed based on standard City practice and the consultants' experience. The *CEQA Guidelines* include standards for determining whether an impact meets thresholds of significance. This EIR lists the thresholds of significance for each area of impact and assesses whether the project's impacts exceed these thresholds. If the impact does not exceed the threshold or if the recommended mitigation measures reduce the impact below the thresholds, then the impact is considered to be less than significant.

## **B. Decision on Whether to Approve the Project**

The *CEQA Guidelines* provide that public agencies should not approve projects as proposed until all feasible means available (i.e., mitigation measures or alternatives to the project) have been employed to substantially decrease the significant effects of such projects. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, environmental, legal, social, and technological factors (*CEQA Guidelines*, Section 15364). A public agency can approve a project with unmitigated, significant impacts only if it finds that specific economic, legal, social, and/or technological factors make infeasible the mitigation measures or project alternatives identified in the Final EIR for the project (*CEQA Guidelines*, Section 15091).

If there are one or more significant unavoidable impacts that cannot be substantially and feasibly mitigated and the Lead Agency decisionmakers (the Dixon City Council) decide to approve the project, the Lead Agency decisionmakers, under CEQA, must prepare a

Statement of Overriding Considerations (per *CEQA Guidelines*, Section 15093) setting forth in writing the reasons for approving the project despite the environmental impacts which may result from project construction. This process requires the decisionmakers to balance the benefits of a proposed project against its potential significant environmental impacts in determining whether to approve a project. The Statement is prepared after the Final EIR has been completed and certified as complete and adequate, and it is preserved in the record of the project approval (if the project is approved).

## **1.3 PUBLIC REVIEW AND COMMENT**

### **A. Initial Study and Notice of Preparation**

The City of Dixon issued a Notice of Preparation (NOP) of a Draft Environmental Impact Report and an attached Initial Study for the Southwest Dixon Specific Plan and four individual development applications on October 29, 2001. The NOP and Initial Study are contained in Appendix A of this EIR. The Initial Study identified potentially significant impacts in the following areas: Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Population/Housing, Public Services, Recreation, Transportation/Traffic, Utilities/Service Systems, and Mandatory Findings of Significance.

On April 5, 2002, the City of Dixon circulated a revised Initial Study that included a fifth individual development application, the proposed Clark Ranch Estates/Clark Property-Ryder Homes project. The revised Initial Study is included in Appendix A of this EIR.

In response to the NOP, the City received letters from the following agencies:

- State Clearinghouse
- State Department of Toxic Substances Control
- State Department of Transportation (Caltrans)
- Dixon Fire Department
- Dixon Solano Municipal Water Service
- Solano County Transportation Department

These comment letters are included in Appendix A of this EIR.

### **B. Distribution of the Draft EIR**

A public review period of 45 days is provided for this Draft EIR. This review period begins on the publication date of the Notice of Completion of the Draft EIR. Public agencies and interested individuals may submit comments on the Draft EIR in writing to Stephen Streeter, Community Development Director, City of Dixon, 600 East A Street, Dixon, California 95620-3697.

## **C. Certification of the Final EIR**

Once the public review period is closed, a Final EIR will be prepared. The Final EIR will incorporate this Draft EIR by reference. It will contain all comments on this Draft EIR, responses to those comments, and any revisions to the text of this Draft EIR. The Final EIR will be considered by the Dixon Planning Commission. When the Planning Commission considers the EIR to be complete and accurate, it will recommend that the City Council certify the document. The City Council will then consider the EIR and certify the document. The Final EIR must be certified before any action on the project can occur. After the City Council has certified the EIR and, if it approves the project, it will file a Notice of Determination with the State Office of Planning and Research and the Solano County Clerk.

Before the project is approved, the City Council would be required (in accordance with *CEQA Guidelines* Section 15091) to make one of the following findings for each significant impact of the project: (1) that changes in the project decrease the impact to a level that is less than significant, (2) that such changes are within the jurisdiction of a public agency other than the City, or (3) that mitigation measures and alternatives are infeasible. For impacts that the City determines cannot be mitigated to a less than significant level, it would be necessary for the City Council to issue a Statement of Overriding Considerations (per *CEQA Guidelines* Section 15093) that describes how benefits of the project outweigh those impacts.

## **1.4 PROJECT LOCALE AND SETTING**

The 477+ acre Southwest Dixon Specific Plan area is located in the southwestern part of the City of Dixon (see Figures 1 to 4). The Specific Plan area, which is generally rectangular in shape, is bounded by Interstate 80 (I-80) on the west and West A Street on the north. Pitt School Road forms the eastern boundary of most of the plan area, with approximately 55 acres of the plan area located east of this road. The eastern portion of the plan area is bounded by Hillview Drive on the north and Spruce Street on the east. The southern boundary of the Specific Plan area corresponds with the southernmost Dixon city limits.

### **A. Surrounding Land Uses**

The land north and east of the Specific Plan area is developed with single-family residential and commercial land uses. Lands to the south and west of the plan area are unincorporated and support agricultural and rural residential land uses.

### **B. Specific Plan Area Characteristics**

The Specific Plan area consists of nearly level terrain. The area currently supports agricultural, rural residential, and commercial land uses, as well as scattered trees. Most of the Specific Plan area is used for agriculture.

The plan area contains a total of 14 existing housing units, consisting of 12 rural residences and two mobile homes. Commercial uses consist of a fruit stand and two restaurants in the northwestern corner of the plan area, near I-80.

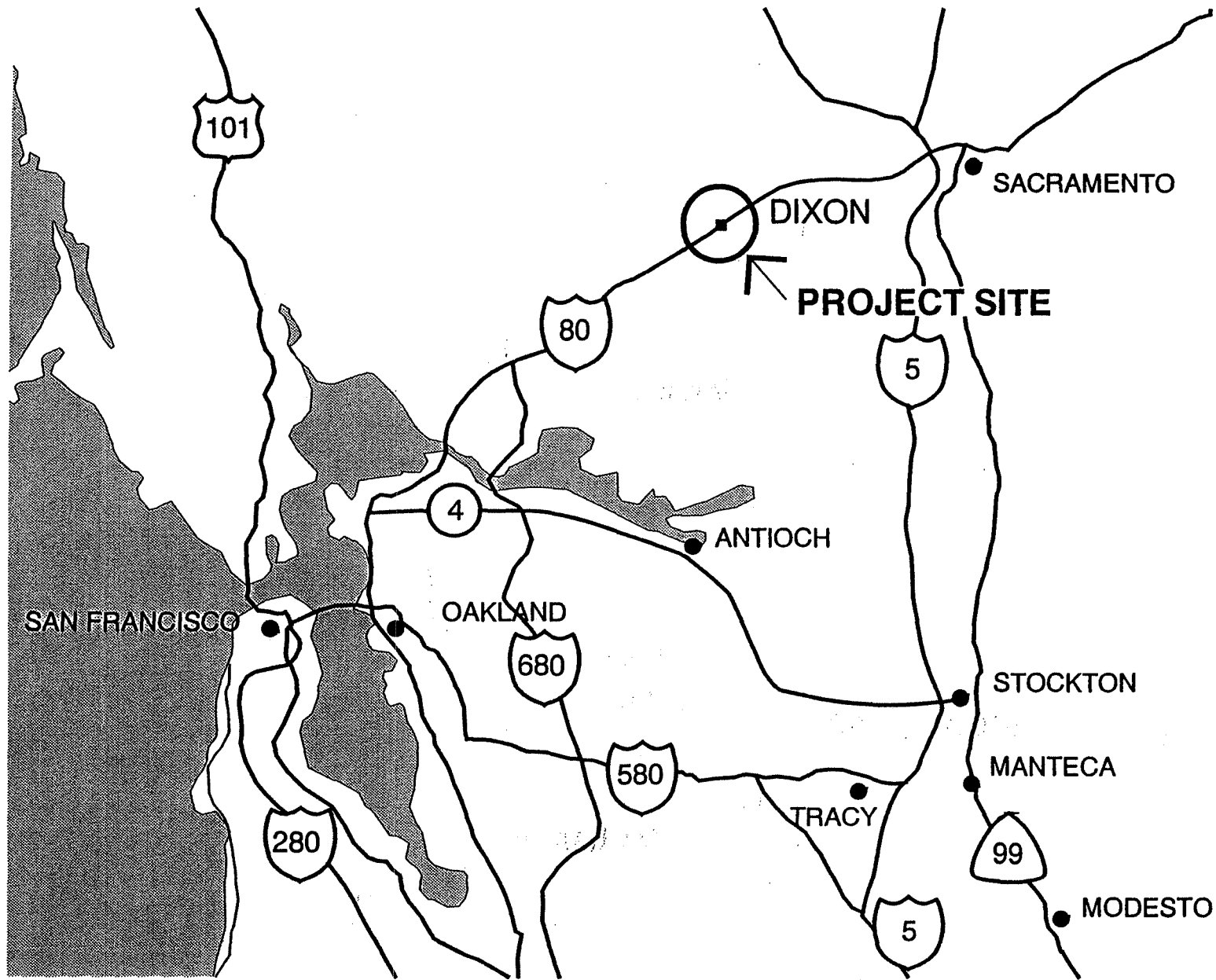


Figure 1: REGIONAL LOCATION

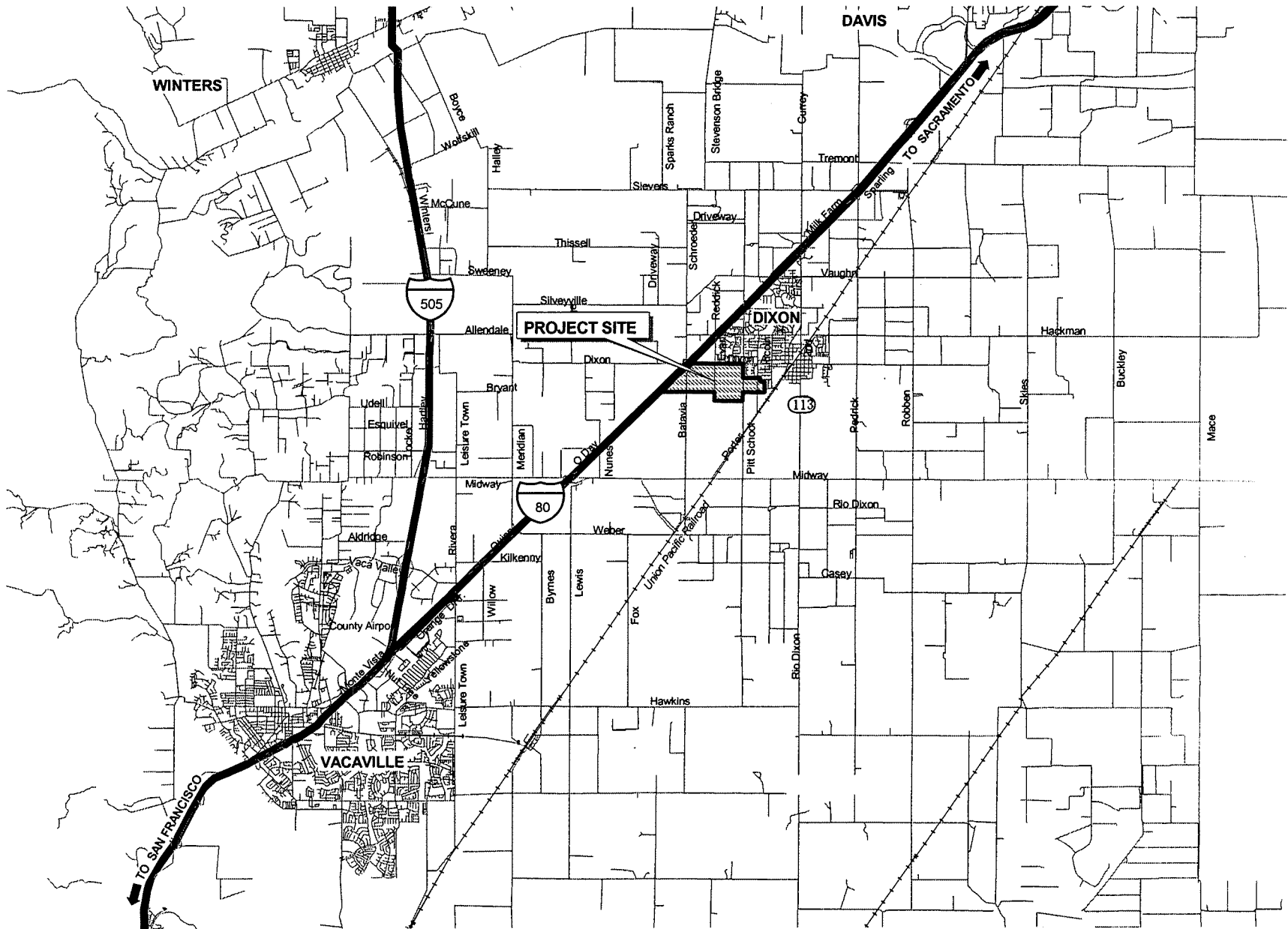


Figure 2: VICINITY MAP

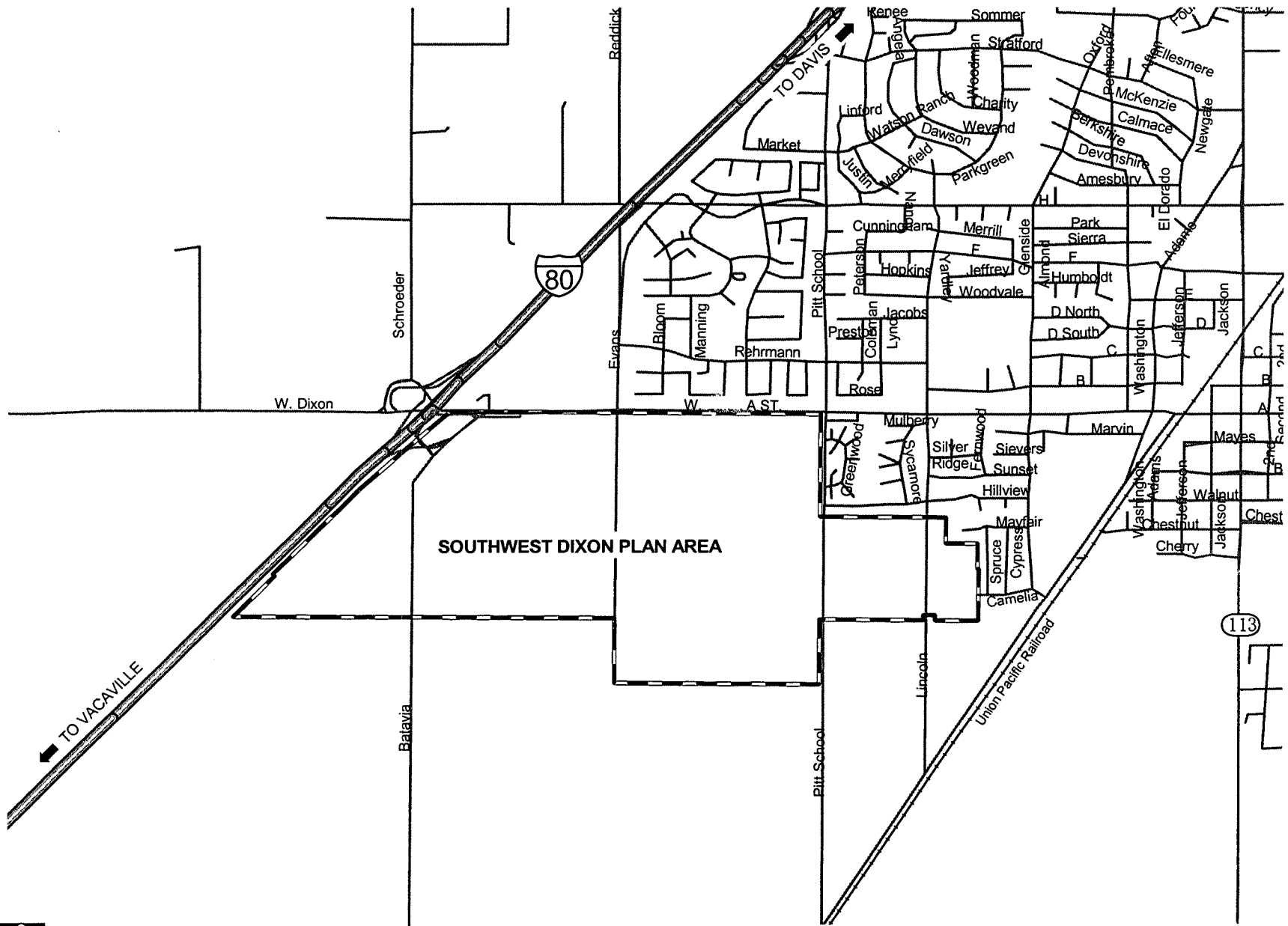


Figure 3: SOUTHWEST DIXON PLAN AREA



SOURCE: U.S. Census Tiger 2002 Data



Figure 4: AERIAL PHOTO





The Solano Irrigation District's Weyand Canal extends in a north-south direction through the western portion of the plan area. It serves agricultural properties in and beyond the plan area. The Solano Irrigation District also owns and maintains various lateral pipes located throughout the plan area. These facilities provide irrigation water for agricultural uses in the vicinity.

### C. Property Ownership

Figure 5 illustrates existing property ownership in the Specific Plan area, and Table 1 lists property acreages by owner. As indicated in the figure and in the table, a total of 16 property owners own land within the plan area.

**Table 1  
Existing Property Ownership in Southwest Dixon Specific Plan Area**

<b>Property Owner</b>	<b>Assessor's Parcel Number</b>	<b>Acreage</b>
Andrews Dixon LLC	114-011-010, 030, & 040	121.64
Azevedo	114-012-020	58.65
Clark	114-011-020	19.95
Crittenden	114-011-080	0.96
Dupratt	114-141-240	1.26
Garcia	114-040-020 & 030	19.99
Lezano	114-011-050	3.02
O'Neill	114-141-230	3.80
Sadeghinia	114-011-130	1.00
Sanders	114-011-040 & 060	30.32
Schroeder	109-030-090 & 100	58.56
Sotuela	114-141-250	1.98
Steil	114-012-030 & 114-020-010	69.55
State of California	Not applicable	6.23
Tenbrink	114-011-120	0.58
Weyand	114-012-040	79.91
<b>TOTAL</b>		<b>477.40</b>

Source: Nolte Associates, Inc.

### D. Regulatory Background

In the early 1990s, the Solano County Local Agency Formation Commission (LAFCo) approved annexation of the 477+ acre Southwest Dixon area into the City of Dixon, and amended the City's Sphere of Influence (SOI) to be consistent with the new city limits. The Southwest Dixon Specific Plan, Land Use Map, and Zoning District Map were then

proposed to provide detailed goals, policies, and implementation programs to guide development of the area. The Dixon City Council considered (but did not formally adopt) the Specific Plan and accompanying land use and zoning maps in November 1995. The City certified a Final EIR and adopted a Statement of Overriding Considerations for development of the Specific Plan area. The City also amended the Dixon General Plan Map to allow development in the Specific Plan area

In 2001, the current project applicant, Southwest Area Landowners Group, submitted new applications for City approval of a Specific Plan, General Plan amendment, and other related approvals. The currently proposed Specific Plan is similar to the 1995 Specific Plan, but provides for some changes, such as relocation of the proposed community park and fire station, elimination of a previously-proposed elementary school site, changes in proposed road alignments, and more detailed infrastructure plans. Concurrently, five property owners submitted applications for approval of individual developments for five sites within the Specific Plan area.

## **1.5 PROJECT DESCRIPTION**

The Specific Plan project applicant, Southwest Area Landowners Group, has submitted the Southwest Dixon Specific Plan and related documents (*Draft Preliminary Capital Improvement Program, Draft Drainage Master Plan Report, Draft Water Master Plan Report, Draft Sanitary Sewer Master Plan Report, and Draft Solano Irrigation District (SID) Irrigation Master Plan Report*) for City approval. Concurrently, five property owners in the Specific Plan area (Andrews Dixon LLC, Weyand, Garcia, Sanders and Clark) have submitted individual development applications for their properties. The following text describes the proposed Specific Plan and the five individual development applications.

The Southwest Landowners Group includes the following individuals (as provided by Nolte & Associates, Inc.): Vicki and Butch Azevedo, Mercedes Garcia, Abe Sadeghinia, Roxie and Bernard Sanders, Charlene Tenbrink, Ernie Weyand, Elaine and Bill Clark, David Stroud, Reed Onate, Jay Ryder, Dan Nicolaus, Stephen O'Neill, and Gunther Boccus.

### **A. Proposed Southwest Dixon Specific Plan**

#### **1. Project Objectives**

The proposed Southwest Dixon Specific Plan (Nolte Associates, Inc., *Draft Southwest Dixon Specific Plan*, March 2003, page 1-8) identifies the following project objectives:

- Provide residential, commercial, and employment center development that would be responsive to the needs of the surrounding community.
- Implement the Specific Plan as the comprehensive, cohesive plan for the physical and economic development of the project site and surrounding community.
- Implement and establish a development that is consistent with the City's General Plan within a 20-year buildout period.

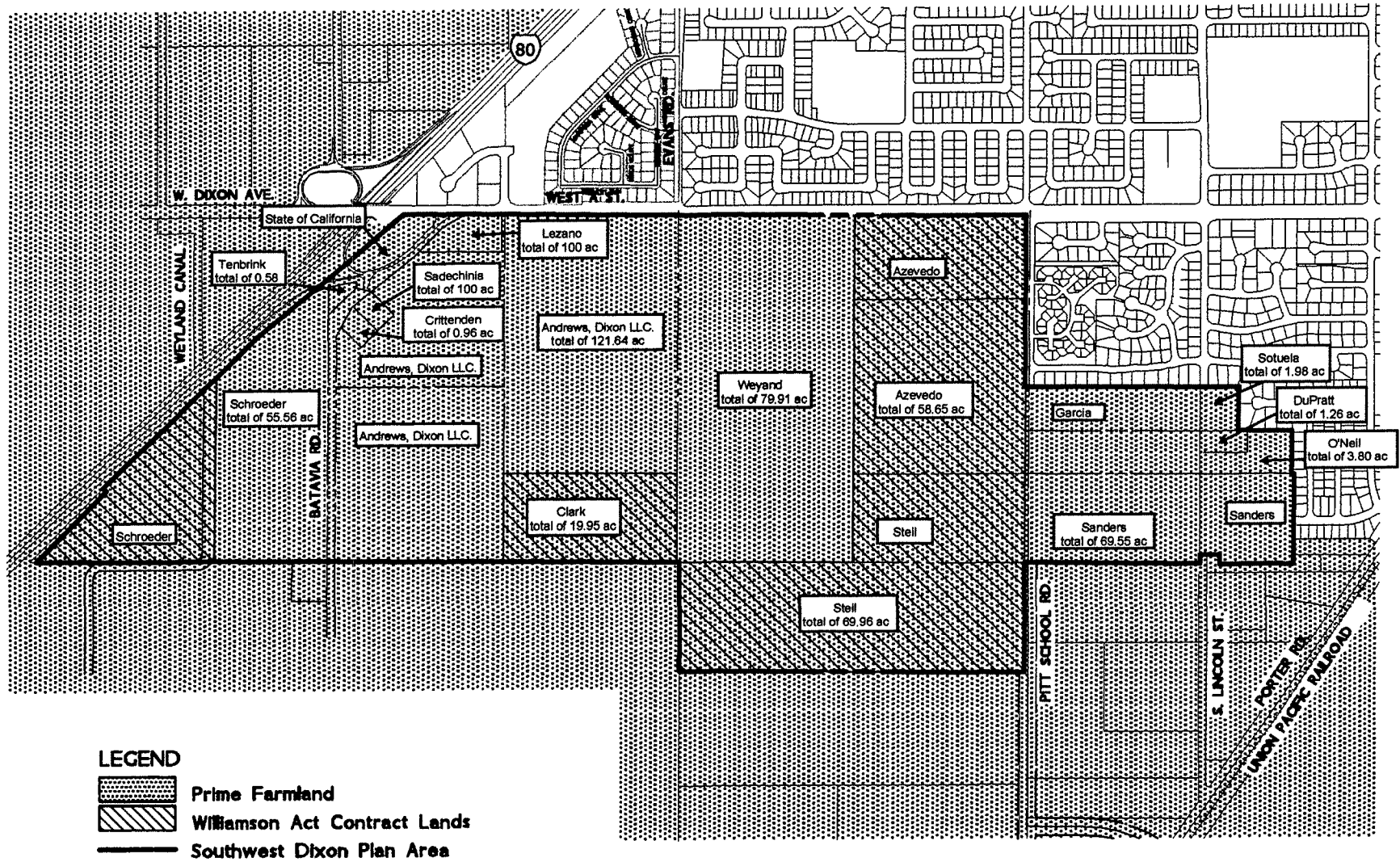


Figure 5: EXISTING PROPERTY OWNERS AND PROPERTIES UNDER THE WILLIAMSON ACT CONTRACT



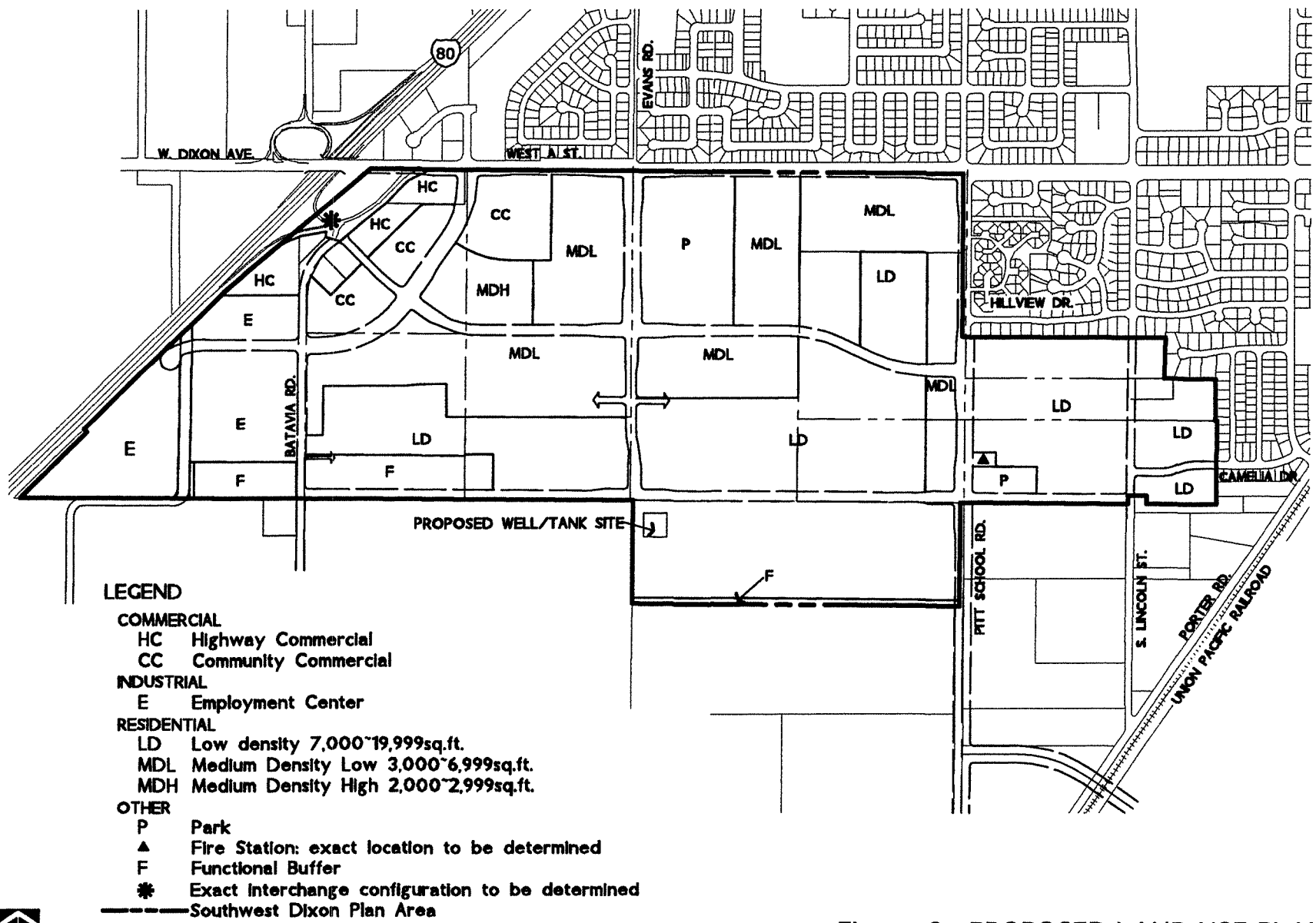
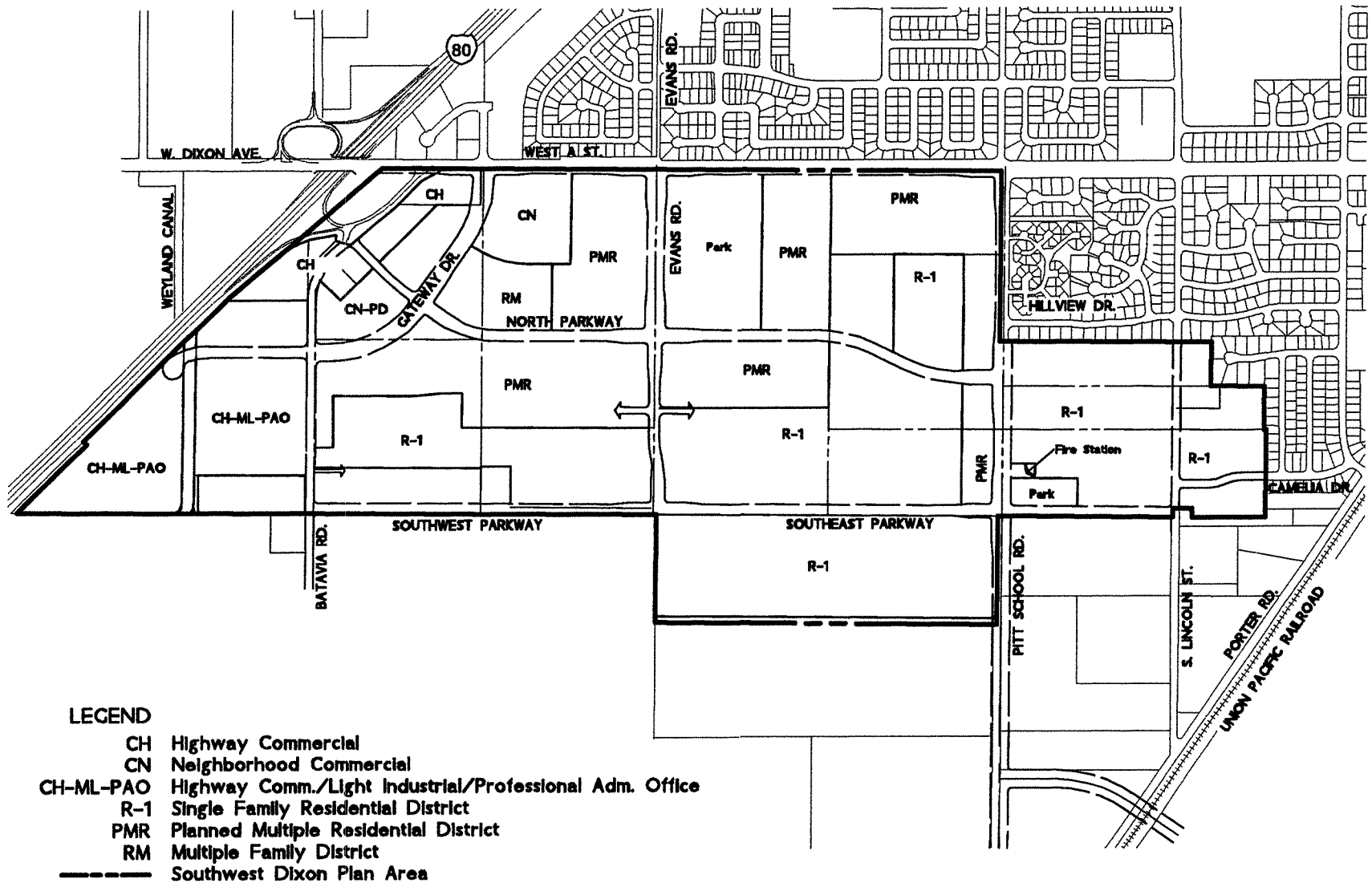


Figure 6: PROPOSED LAND USE PLAN





NOTE: Designation are schematic and subject to refinement.

Figure 7: PROPOSED ZONING



- Establish a plan that will provide well-integrated land uses compatible with the surrounding area.
- Maintain a high level of quality in planning, design, landscaping and architecture in the project,
- Provide a variety of residential unit types, located close to shopping areas and public facilities.
- Establish a plan that will provide for a sufficient pedestrian, bicycle, and vehicle circulation system and connections to existing and planned roadways.
- Implement individual developments that are compatible with the land use designations shown in the City's adopted General Plan and Specific Plan.
- Phase developments so that development will be orderly, timely, and well-planned.

## **2. Proposed Land Uses**

Figure 6 illustrates the proposed Southwest Dixon Specific Plan land use map, and Table 2 shows a breakdown of proposed land uses within the Specific Plan area. As shown on the figure and in the table, the Specific Plan would allow development of the following land uses within the plan area.

### ***Residential Uses***

*Housing Units.* The Specific Plan would allow development of 1,221 housing units on a total of approximately 307 acres. The plan provides for three residential density categories:

- Low Density Residential (LD) – baseline density (i.e., maximum normal gross density, excluding arterial and major collector streets) of 3.25 units per acre;
- Medium Density-Low Residential (MDL) – baseline density of 5.5 units per acre; and
- Medium Density-High Residential (MDH) – baseline density of 11.0 units per acre.

Housing would be located throughout the Specific Plan area, with higher density (MDL and MDH) housing clustered in the northern part of the plan area, on the south side of West A Street (see Figure 6). The highest density (MDH) housing would be located adjacent to designated Community Commercial areas near the I-80/West A Street interchange.

In accordance with the City of Dixon's recently adopted ordinance implementing the Measure B residential growth plan, 20 percent (or 244 units) of the 1,221 total housing units must be multi-family. The Measure B implementation ordinance was adopted after the Specific Plan application was submitted to the City. As shown in Table 2, the Specific Plan currently provides for 100 multi-family units. These units would be located in the Evans Ranch portion of the Specific Plan area. As described in Section B, "Proposed Individual Development Applications," below, the Evans Ranch project includes an application for a density bonus that would allow development of a total of 126 multi-family units on the site. The remaining 118 multi-family units required by the Measure B implementation ordinance would likely be provided on the Evans Ranch, Steil, or Azevedo

**Table 2  
Proposed Southwest Dixon Specific Plan: Land Use Summary**

Land Use Designation	Land Use Map Symbol <sup>1</sup>	Area (gross acres)	For Residential Areas:		For Commercial/Industrial Areas:
			Number of Housing Units	Baseline Density <sup>2</sup>	Approximate Building Area (square feet)
<b>RESIDENTIAL</b>					
Medium Density-High Residential	MDH	9.70	100 <sup>3</sup>	11.0 units per acre	—
Medium Density-Low Residential	MDL	112.04	531	5.5 units per acre	—
Low Density Residential	LD	185.53	590	3.25 units per acre	—
<b>Subtotal</b>		<b>307.27</b>	<b>1,221</b>		
<b>COMMERCIAL</b>					
Community Commercial	CC	20.85	—	—	266,800
Highway Commercial	HC	11.30	—	—	185,130
<b>Subtotal</b>		<b>32.15</b>			<b>451,930</b>
<b>INDUSTRIAL</b>					
Employment Center	E	41.83	—	—	511,830
<b>Subtotal</b>		<b>41.83</b>			<b>511,830</b>
<b>OTHER</b>					
Community and Neighborhood Parks	P	22.47	—	—	—
Fire Station	FS	0.47	—	—	—
Functional Buffer	F	9.19	—	—	—
Streets (Arterials and Collectors)	—	51.13	—	—	—
Detention Basin	—	9.44	—	—	—
Canal	—	2.64	—	—	—
Southwest Facility (water facilities)	—	0.81	—	—	—
<b>Subtotal</b>		<b>96.15</b>			
<b>TOTAL</b>	<b>—</b>	<b>477.40</b>	<b>1,221</b>	<b>—</b>	<b>963,760</b>

Source: Nolte Associates, Inc.

<sup>1</sup> See Figure 3.

<sup>2</sup> "Baseline density" is defined as maximum normal gross density, excluding arterial and major collector streets.

<sup>3</sup> Does not include 26 multi-family housing units currently proposed through a density bonus on the Evans Ranch project site, and an additional units to provided elsewhere in the Specific Plan area in accordance with the City of Dixon's recently-adopted ordinance implementing the Measure B residential growth plan. (The Measure B implementation ordinance requires that 20 percent of total units be multi-family. For the Specific Plan area, this requirement translates to 244 multi-family units, i.e., 20 percent of the 1,221-unit total.)

properties within the Specific Plan area, and would be subject to future, site-specific environmental analysis (letter from Cathy Spence-Wells to Leonard Charles, 6/5/02). In evaluating the currently proposed Specific Plan, this EIR assumes that the total number of housing units in the plan area would not exceed the 1,221-unit total specified by the Specific Plan

*Residential Population.* According to the Association of Bay Area Governments (ABAG) (Projections 2002, December 2001, page 242), the average number of persons-per-household in Dixon will gradually decrease from 3.20 in 2005 to 3.14 in 2025. Assuming an average density of 3.20 persons per housing unit, the 1,221 units allowed by the Specific Plan would house a population of approximately 3,907 people. (See Section 3.9, Population and Housing, for details.)

### ***Commercial Uses***

The Specific Plan would allow development of approximately 32 acres of commercial uses, consisting of almost 21 acres of Community Commercial (CC) uses and 11 acres of Highway Commercial (HC) uses. Allowable uses would be defined through planned development zoning and through zoning classifications specific to each commercial site. The commercial designations would yield approximately 266,800 square feet of Community Commercial building space and 185,130 square feet of Highway Commercial building space, for a total of approximately 451,930 square feet of building space. Commercial uses would be clustered near the I-80/West A Street interchange and along Batavia Road (see Figure 6).

The proposed 451,930 square feet of commercial building space would be expected to house approximately 1,000 employees. This estimate is based on a standard commercial employee yield rate of 450 square feet of building space per employee.

### ***Industrial Uses***

The Specific Plan would allow development of almost 42 acres of industrial (employment center) land uses, located at the western end of the plan area on the east side of I-80, west of Batavia Road (see Figure 6). Allowable uses would be defined through planned development zoning and through zoning classifications specific to each industrial (employment center) site. The industrial (employment center) area would yield approximately 511,830 square feet of building area.

The proposed 511,830 square feet of industrial (employment center) building space would be expected to house approximately 2,050 employees. This estimate is based on a standard industrial (office/business park) employee yield rate of 250 square feet of building space per employee.

### ***Community and Neighborhood Parks***

The Specific Plan would provide for two parks: a 20-acre community park located in the northcentral part of the plan area at the southeast quadrant of the West A Street/Evans Road intersection, and a 2.47-acre neighborhood park located in the southeast corner of the plan area, on the east side of Pitt School Road (see Figure 6). Both parks would be dedicated to the City of Dixon. The parks will be developed in accordance with the City's Park Master Plan.



## **Fire Station**

The Specific Plan would provide for a 0.47-acre fire station site in the southeast corner of the plan area, on the east side of Pitt School Road immediately north of the proposed neighborhood park site (see Figure 6). The fire station site would be dedicated to the City of Dixon (Fax communication from Cathy Spence-Wells, 5/03/02).

## **Other Uses**

The Specific Plan designates a "functional buffer" along portions of the southern boundary of the plan area (see Figure 6). The buffer includes an approximately 350-foot wide zone that includes detention basins and a road. This buffer extends from west of Batavia Road onto the Clark property. Further to the east, the buffer consists of the approximately 75-foot right of way for South Parkway. This proposed road extends east to South Lincoln Street. East of South Lincoln Street, there is no proposed buffer. The buffer would separate proposed low density residential and industrial (employment center) areas from two proposed detention ponds: Batavia Pond, to be located along the southern boundary of the Specific Plan area on the west side of Batavia Road; and West Pond, to be located near Batavia Pond on the east side of Batavia Road. The "functional buffer" designation would cover the entire detention pond area. The additional "functional buffer" designated along the southern plan area boundary east of the pond sites (see Figure 6) would separate low density residential areas from the adjacent agricultural area to the south.

The 0.81-acre "Southwest Water Facility" listed in Table 2 would consist of a 1,500 gallon-per-minute (gpm) water supply well, a one-million-gallon water storage tank, and a 2,000 gpm booster pump station. The Southwest Water Facility is tentatively sited in the southcentral part of the plan area, at the southern terminus of Evans Road.

Other land uses listed in Table 2 include the Weyand Canal, which occupies an estimated 2.64 acres in the Specific Plan area. The canal extends in a north-south direction through the western corner of the plan area, immediately east of the proposed Batavia Pond site. The canal then extends west along the southern boundary of the Specific Plan area. The applicant proposes that the canal remain in its current location and configuration (letter from Bridgette Williams, Nolte Associates, Inc., to Leonard Charles, 7/16/02). (See further discussion in Section 3.12, Water, of this EIR.)

Arterial and collector streets would occupy the remaining approximately 51 acres of the Specific Plan area.

The Dixon-Solano Municipal Water Service and Solano Irrigation District would own and operate water and irrigation facilities in the Specific Plan area. The City of Dixon would own and maintain arterial and collector streets.

## **3. Circulation and Access**

### **Street Modifications**

Currently, four streets extend generally in a north-south direction off West A Street through the Specific Plan area: Batavia Road, Alfalfa Street (an extension of Evans Road), Pitt School Road, and South Lincoln Street. As illustrated on Figure 8, these streets would be modified and improved as necessary to accommodate development

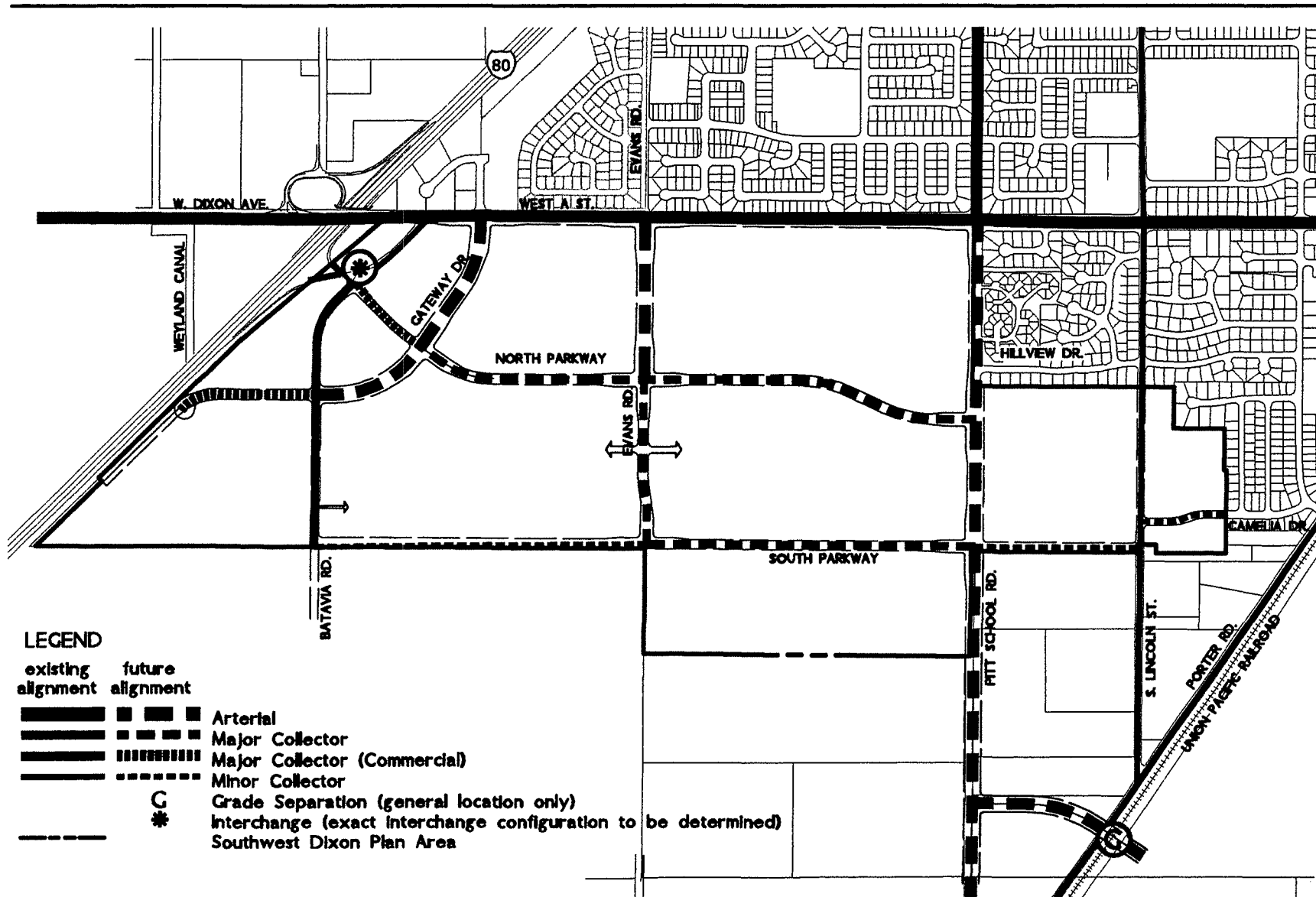


Figure 8: TRAFFIC CIRCULATION PLAN



under the Specific Plan. In addition, a new arterial street, Gateway Drive, would extend southwest from West A Street across Batavia Road; and North and South Parkways, providing combined vehicle, bicycle, and pedestrian circulation, would extend in an east-west direction through the plan area. All streets illustrated on Figure 8 would be dedicated to the City of Dixon. (See Section 3.4, Traffic and Circulation, for details.)

### ***Proposed I-80 Interchange Modifications***

The Specific Plan provides for possible realignment of Batavia Road to reconfigure its intersection with the I-80 on- and off-ramps, as anticipated by Caltrans. The Specific Plan recommends that Batavia Road be realigned to turn eastward and connect with Gateway Drive. (See Section 3.4, Traffic and Circulation, for details.)

### ***New Railroad Crossing***

The Dixon General Plan identifies the construction of a future minor arterial that would link Pitt School Road with South First Street. This arterial would include a grade-separated crossing of the railroad tracks. The Specific Plan shows this proposed road in conformance with the General Plan. The City has not determined the precise route for this proposed new road. Once a final route is determined, the City will conduct a project-level CEQA analysis of this road project. Given the lack of a precise project description, this present EIR discusses possible impacts of this new road at a general level.

### ***Bike Lanes (On-Street)***

The Specific Plan provides for Class II bike lanes in the following locations in the Specific Plan area: along the south side of West A Street, along both sides of Pitt School Road (except on the east side adjacent to existing residential development), along both sides of the proposed North and South Parkways, on both sides of Gateway Drive, along Evans Road, along Batavia Road, and along Lincoln Street. (See Section 3.4, Traffic and Circulation, for details.)

### ***Pedestrian Walkways***

The Specific Plan provides for sidewalks along all streets within the plan area. Along arterials and landscaped street collectors, the sidewalk will be separated from the street by landscaping, rather than located immediately adjacent to the curb. (See Section 3.4, Traffic and Circulation, for details.)

## **4. Drainage**

The Specific Plan includes a Drainage Master Plan for the Specific Plan area (on file at the City of Dixon Community Development and Public Works Departments). The Drainage Master Plan proposes drainage facilities that would include two detention ponds (Batavia Pond and West Pond) and a series of underground pipelines and drainage inlets that would collect surface water runoff. These facilities would be designed to handle surface water flows from a 10-year storm (i.e., a storm of a peak magnitude likely to occur once every 10 years) (*Draft Drainage Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2). Drainage from Batavia Pond will be via a storm drain constructed along the east side of I-80 with an outfall at McCune Creek about 2,000 feet south of the plan area. (See Section 3.2, Hydrology and

Water Quality, for details. The *Draft Drainage Master Plan Report* is on file at the City of Dixon Public Works Department.)

## **5. Public Services and Utilities**

### ***Water***

The Dixon-Solano Municipal Water Service (DSMWS) would provide water to the majority of the Specific Plan area via a system of water lines to be installed underneath proposed streets. The California Water Service Company would serve the portion of the plan area east of South Lincoln Street. The Specific Plan area water system would be connected to systems proposed for construction southeast of the plan area in the Southpark (Valley Glen) project area, consistent with a January 2000 DSMWS master plan (*Draft Southwest Dixon Specific Plan*, page 7-4). (See Section 3.12, Water, for details. The complete DSMWS master plan is on file at the City of Dixon Community Development and Public Works Departments.)

The Specific Plan also provides for construction of a new well (the "Southwest Water Facility") to serve the Specific Plan area. The facility would include a 1,500 gallon-per-minute groundwater well, a one-million-gallon welded steel storage tank, and booster pumps (*Draft Southwest Dixon Specific Plan*, Nolte Associates, Inc., August 2002, page 7-4; and *Draft Water Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2). (The complete *Draft Water Master Plan Report* is on file at the City of Dixon Community Development and Public Works Departments.)

### ***Wastewater Collection, Treatment, and Disposal***

The City of Dixon would provide for sewage collection and treatment for development within the Specific Plan area. The Specific Plan proposes installation of a series of sewer lines under streets throughout the Specific Plan area. The system would collect sewage flows generated within the plan area and convey them to an east-west connector in Pitt School Road. The east-west connector would extend from the West A Street/Pitt School Road intersection south along Pitt School Road, then east to South Lincoln Street, south along South Lincoln to Porter Street, south along Porter Street to a future road intersection at the southern border of the Southpark project, and then east to a recently constructed east-west connector at South First Street (*Draft Sanitary Sewer Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2). (See Section 3.13, Wastewater Collection, Treatment and Disposal, for details. The complete *Draft Sanitary Sewer Master Plan Report* is on file at the City of Dixon Community Development Department.)

### ***Police, Fire Protection, and Emergency Medical Services***

The City of Dixon Police Department would provide police services to development within the Specific Plan area. The City of Dixon Fire Department would provide fire protection and emergency medical services. As noted above, the Specific Plan would provide for a 0.47-acre fire station site in the southeast part of the plan area, on the east side of Pitt School Road immediately north of the proposed neighborhood park site. (See Section 3.11, Fire Protection and Emergency Medical Services, and Section 3.14, Police Services, for details.)

## **6. Relocation of Solano Irrigation District (SID) Facilities**

Development in accordance with the Specific Plan would include relocation of various Solano Irrigation District (SID) irrigation facilities located in the plan area. The applicant would be required to relocate and adequately size all facilities at their expense. Certain facilities would require abandonment as part of Specific Plan development (Fax communication from Cathy Spence-Wells, 5/03/02). (See Section 3.12, Water, for details.)

Currently, SID's Weyand Canal enters the western portion of the plan area via a 54-inch pipe located at approximately the mid-point of the plan area's western border (adjacent to I-80). The canal travels directly south to the plan area's southern boundary, where it turns west on the adjacent southern property. The canal is a lined channel approximately six feet deep. The canal's 1,350-foot length through the plan area is contained within a 60-foot-wide property owned by SID by fee title. SID also owns and maintains various lateral pipes located throughout the plan area. (*Draft Solano Irrigation District (SID) Irrigation Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, pages 3 through 5).

Under the Specific Plan as currently proposed, the existing Weyand Canal would remain in its current location and configuration (letter from Bridgette Williams, Nolte Associates, Inc., to Leonard Charles, 7/16/02). (See Section 3.12, Water, for details. The complete *Draft Solano Irrigation District (SID) Irrigation Master Plan Report* is on file at the City of Dixon Community Development Department.)

## **7. Specific Plan Goals, Policies, and Design Guidelines**

Following an introductory chapter, the proposed Specific Plan contains seven chapters that provide goals, policies, and implementation programs for the following issue areas:

- Urban development and community design;
- Natural environment (including agriculture and wildlife habitat);
- Residential environment (including residential diversity, affordable housing, and residential energy efficiency);
- Economic development (including commercial and employment center land uses);
- Transportation and circulation (including traffic circulation, bicycle circulation, pedestrian circulation, public transit, and parking);
- Public facilities and services (including water service, wastewater service, drainage, parks and recreation, public safety, public schools, solid waste service, and other community facilities and services); and
- Administration and implementation (including government actions, financing, and Specific Plan administration).

In addition, Appendix A of the Specific Plan contains design guidelines and standards for the Specific Plan area. The guidelines and standards include general design provisions

(for building design, landscape treatment, and signage) and specific provisions for non-residential and residential development.

This EIR describes and references proposed Specific Plan goals, policies, implementation programs, and design guidelines where they are applicable to the analysis of environmental issues. The complete text of the draft Specific Plan is available for review and on file with the Dixon Community Development Department. The *Draft Preliminary Capital Improvement Program, Draft Drainage Master Plan Report, Draft Water Master Plan Report, Draft Sanitary Sewer Master Plan Report, and Draft Solano Irrigation District (SID) Irrigation Master Plan Report* are on file at the City of Dixon Community Development Department.

## **B. Proposed Individual Development Applications**

As explained earlier, five property owners in the Specific Plan area have submitted individual development applications for their properties. The City of Dixon is considering these five separate development applications concurrently with the proposed Southwest Dixon Specific Plan. Figure 9 illustrates the locations of the five developments, which are known as Evans Ranch, Orchard Estates-Sanders, Orchard Estates-Garcia, Dixon Ridge, and Clark Ranch Estates/Clark Property-Ryder Homes.

### **1. Evans Ranch Development**

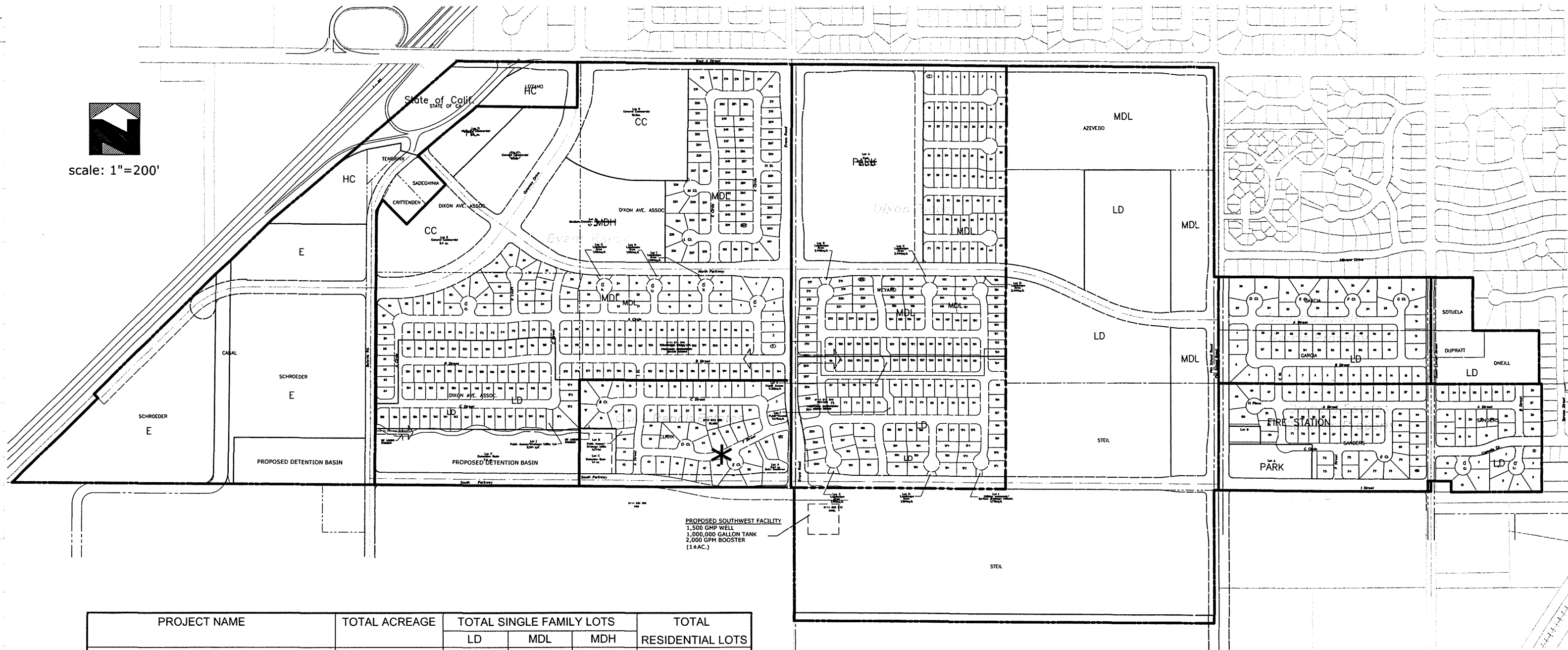
The approximately 121-acre Evans Ranch project site (Assessor's Parcel Numbers 114-011-010, -030, and -040) is located in the western part of the Specific Plan area. The site is bound by Batavia Road on the west, West A Street on the north, Evans Road on the east, and the proposed South Parkway alignment on the south (see Figures 9 and 10). The site currently contains one single-family house, active agricultural uses, and open space.

The proposed Evans Ranch project consists of applications for approval of a Tentative Subdivision Map, conditional use permit (for a Planned Unit Development with density bonus), conditional use permit for commercial development, and development agreement between the City of Dixon and the project applicant. These approvals would allow development of 263 single-family lots on 63.2 acres, 126 multi-family housing units on 9.7 acres, three community commercial lots totaling 20.9 acres, one 2.6-acre highway commercial lot, a 7.9-acre detention basin, 17 acres of streets, 0.13 acre of landscape corridors, and 0.12 acre of public access, drainage, and utility areas. The proposed development areas are illustrated on Figure 10, which shows the proposed Evans Ranch Tentative Subdivision Map. Figure 11 illustrates proposed development plans for the multi-family residential lot and one of the community commercial lots (Lot B).

#### ***Single-Family Residential Development***

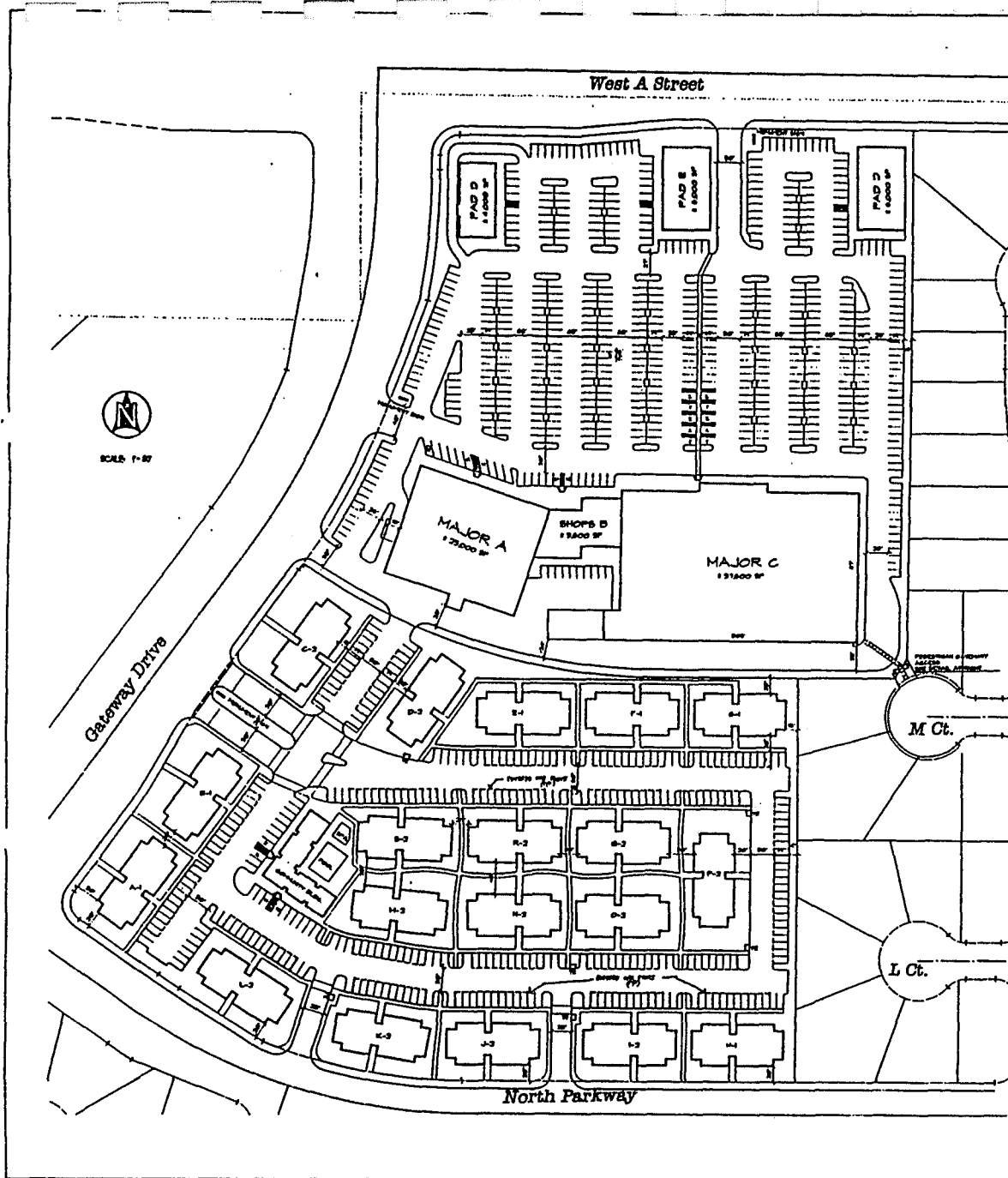
The 63.2-acre, 263-lot single-family residential development would consist of (a) 203 lots on 49.5 acres designated Medium Density-Low (MDL) by the proposed Specific Plan, and (b) 60 lots on 13.7 acres designated Low Density (LD) by the proposed Specific Plan.

The MDL lots would range in size from 6,663 to 15,362 square feet with a net density (i.e., number of units per acre of land not including streets, landscape corridors, or detention basin) of 4.1 units per acre. Twenty-five lots within the MDL area would be 10,000 square feet or larger. The proposed Tentative Map also provides for three



PROJECT NAME	TOTAL ACREAGE	TOTAL SINGLE FAMILY LOTS			TOTAL RESIDENTIAL LOTS
		LD	MDL	MDH	
EVANS RANCH (ASB PROPERTIES)	121± AC	60	203	100	363
ORCHARD ESTATES-SANDERS PROPERTY (SCHULER HOMES)	30± AC	89	-	-	89
ORCHARD ESTATES-GARCIA PROPERTY (SCHULER HOMES)	20± AC	57	-	-	57
DIXON RIDGE (CITATION NORTHERN)	80± AC	74	156	-	230
CLARK RANCH ESTATES (RYDER HOMES)	20± AC	53	-	-	53

\* LOT LAYOUT WITH REVISED STREET ALIGNMENT HAS NOT BEEN DETERMINED.



ANDREWS DIXON LLC.

**PROJECT SUMMARY:**

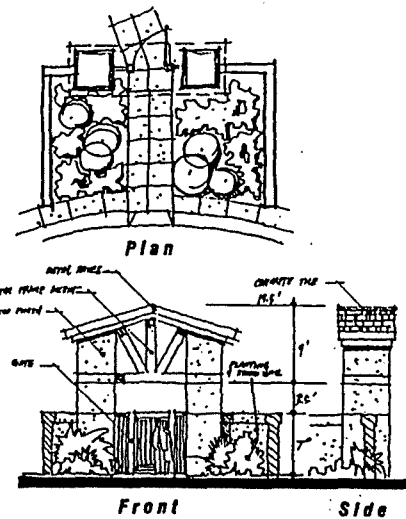
**LOT A - MEDIUM DENSITY - HIGH RESIDENTIAL**  
 MAXIMUM DENSITY ALLOWED: 8 UNITS/ACRE (200 UNITS)

SITE AREA: 44- 67 ACRES  
 UNITS PROVIDED: 800 UNITS  
 60 2-BR UNITS + 180 SF;  
 60 3-BR UNITS + 200 SF;

PARKING REQUIRED: 300 SPACES  
 PARKING PROVIDED: 300 SPACES

**LOT B - GENERAL COMMERCIAL**

SITE AREA: 44- 100 ACRES  
 BUILDING AREA: 240,000 SQ. FT.  
 SITE BUILDING PATIO: 500' 00" 200' 00"  
 PARKING PROVIDED: 800 SPACES



**Pedestrian Gateway**

1800 California Street  
 Suite 100  
 Berkeley CA 94704  
 415.863.3333  
**Nadel**  
 Architecture  
 Interiors  
 Landscape  
 Architecture Inc.

DIXON MASTER PLAN  
 CALIFORNIA  
 DIXON

Figure 11: EVANS RIDGE MULTI-FAMILY AND COMMERCIAL DEVELOPMENT

MAY 4, 2001  
 0010000



**GENERAL NOTES:**

**APPLICANT**  
Schuler Homes of California  
1726 Pine Street, Ste. 200  
Walnut Creek, California 94596  
PH: (925) 943-7438  
Alan Voss, President

**SUBDIVIDER / OWNER**  
Lancaster 1981 Associates Trust  
880 Highway 99, Ste. 200  
Bliss, California 95620

**PLANNER / ENGINEER**  
North Fork Associates, Inc.  
1726 Creekside Oaks Drive, Suite 200  
Sacramento, California 95833  
PH: (916) 941-1509  
Michael Lee, Clerk

**ASSESSOR PARCEL NUMBERS**  
114-011-048-048 and 114-154-000

**ACREAGE**  
30.332 Acres

**EXISTING LAND USE**  
Agriculture & Open Space

**PROPOSED LAND USE**  
69 Single Family Residential Lots (incl. 7,800sq.ft.)  
1 Park Lot  
1 Fire Station Lot

**EXISTING ZONING**  
E1-19

**PROPOSED ZONING**  
E1-19

**DOMESTIC WATER SUPPLY**  
Shasta State Municipal Water Service (DSMWS)  
California Water (East of Lincoln St.)

**SANITARY SEWER SERVICE**  
City of Dixon

**STORM DRAINAGE**  
City of Dixon

**SOLID WASTE DISPOSAL**  
City of Dixon

**ELECTRICAL SERVICE**  
Pacific Gas & Electric

**NATURAL GAS SERVICE**  
Pacific Gas & Electric

**TELEPHONE SERVICE**  
Pacific Bell

**CABLE TELEVISION SERVICE**  
Charter Communications

**SCHOOL DISTRICT**  
Dixon Unified School District

**PARK AND RECREATION**  
City of Dixon

**FIRE PROTECTION**  
City of Dixon  
All fire hydrants to be installed per City of Dixon standard specifications.

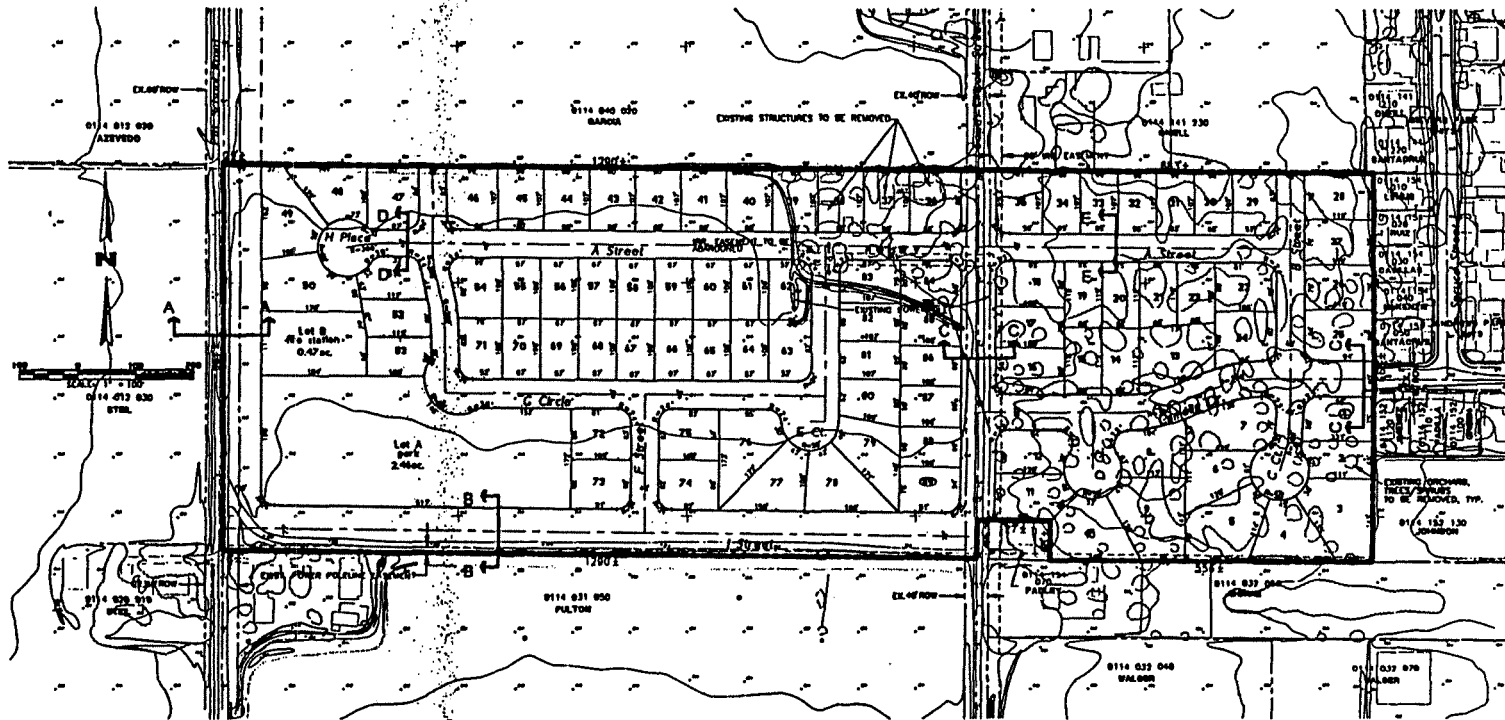
**PHOSPHORUS**  
Final mapping may occur in phases.  
Multiple final maps may be required based on this tentative subdivision map.

**SOURCE OF TOPOGRAPHIC DATA**  
BY CARTWRIGHT AERIAL SURVEY INC. JUL 1999

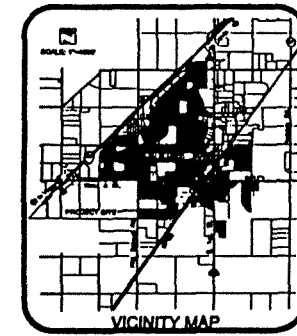
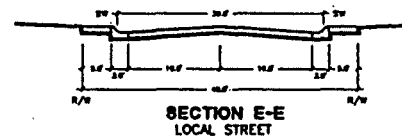
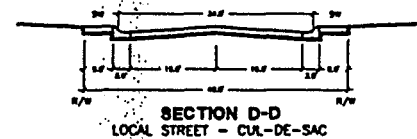
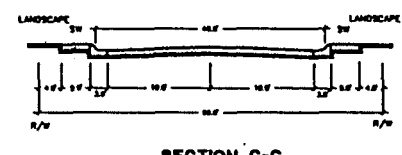
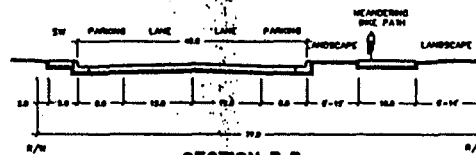
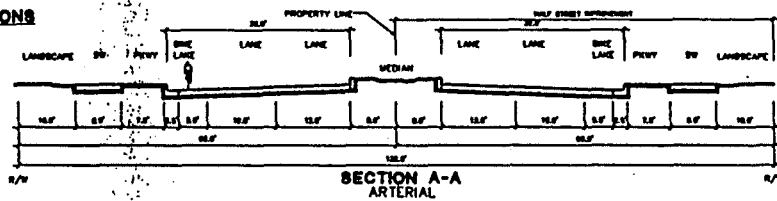
**DESCRIPTION**  
REAL PROPERTY in the City of Dixon, County of Solano, State of California, described as follows:  
**PARCEL 50:**  
Lot 57-59 (59) as the same is shown on that certain map entitled "Map of Subdivision of the Hayes Home Place", that for record is in the Office of the County Recorder of Solano County, California, January 17, 1972.

**PARCEL 50:**  
The westerly part of Lot 57-59 (59) Hayes Home Place, beginning at the southwest corner of said Lot 54, and extending thence north along the center line of Private Street, 10,000 inches to the southeast corner of said Lot 56; thence east along the westerly boundary line of said Lot 56, 16,346 inches; thence south 69° 07' West, 19,173 inches to the westerly boundary line of said Lot 58; thence north 0° 46' East, along said westerly boundary line 16,346 inches to the point of beginning.

**EXCEPTION FROM PARCEL 50:**  
The following described parcel of land Beginning at the southwest corner of Lot 56, thence from said point of beginning, South 09° 46' East along the westerly line of said Lot 56, a distance of 127.00 feet; thence along the westerly line of said Lot 56, westerly parallel to the westerly line of said Lot 56, a distance of 68.00 feet; thence north 09° 46' West parallel to the westerly line of said Lot 56, a distance of 127.00 feet to the westerly line of said Lot 56; thence south along the westerly line of said Lot 56, a distance of 68.00 feet to the point of beginning.



**STREET SECTIONS**  
scale: 1"=10'



Orchard Estates-Sanders Property  
TENTATIVE MAP

**NOTE**  
BEYOND ENGINEERING  
1726 CREEKSIDE OAKS DR., SUITE 200, SACRAMENTO, CA 95833  
PH: 916-941-1509 FAX: 916-941-0337

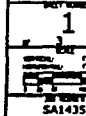


Figure 12: ORCHARD ESTATES - SANDERS PROPERTY TENTATIVE MAP

**GENERAL NOTES:**

**APPLICANT**  
Schular Homes  
1250 Pine Street  
Walnut Creek, CA 94596  
PH: (925) 943-2629  
Attn: Vince Fisher

**SUBOWNER / OWNER**  
Carcia Properties  
1063 Elm Rock Lane  
San Jose, California 95128-4001  
PH: (415) 352-9908

**PLANNER / ENGINEER**  
Noble Associates, Inc.  
1758 Crossroads Oaks Drive, Suite 200  
Sacramento, California 95833  
PH: (916) 841-1500  
Attn: Leo Clark

**ASSESSOR PARCEL NUMBERS**  
111-040-20 and 111-040-030

**ACREAGE**  
204 Acres

**EXISTING LAND USE**  
Agriculture & Open Space

**PROPOSED LAND USE**  
57 Single Family Residential Lots (min. 8,400 sq. ft.)

**EXISTING ZONING**  
R1-PD

**PROPOSED ZONING**  
R1-PD

**DOMESTIC WATER SUPPLY**  
Dean Saterre Multiple Water Service (DSMWS)

**SANITARY SEWER SERVICE**  
City of Dixon

**STORM DRAINAGE**  
City of Dixon

**SOLID WASTE DISPOSAL**  
City of Dixon

**ELECTRICAL SERVICE**  
Pacific Gas & Electric

**NATURAL GAS SERVICE**  
Pacific Gas & Electric

**TELEPHONE SERVICE**  
Pacific Bell

**CABLE TELEVISION SERVICE**  
Charter Communications

**SCHOOL DISTRICT**  
Dean Unified School District

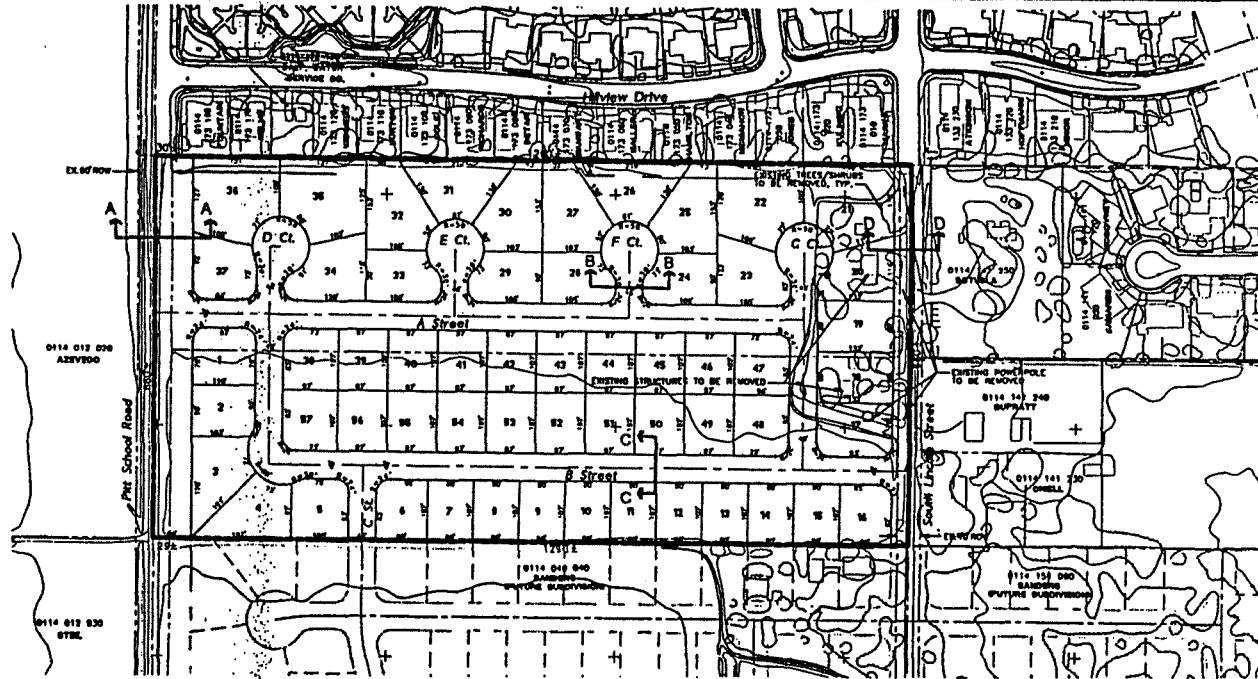
**PARK AND RECREATION**  
City of Dixon

**FIRE PROTECTION**  
City of Dixon  
All fire hydrants to be installed per City of Dixon standard specifications

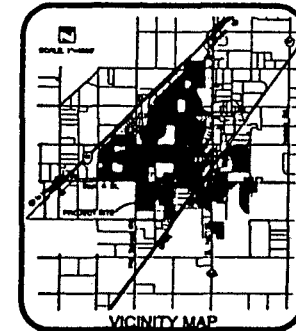
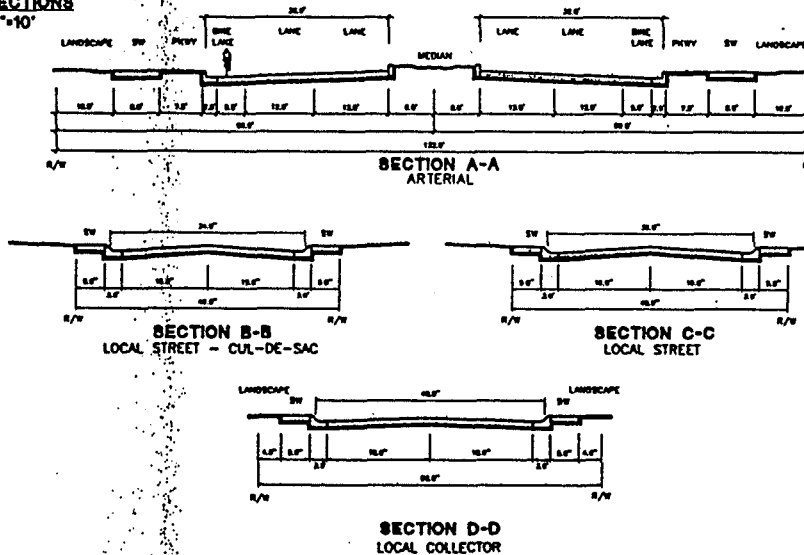
**PHASING**  
Final phasing may occur in phases.  
Multiple final maps may be recorded based on this tentative subdivision map.

**SOURCE OF TOPOGRAPHIC DATA**  
BY DAYTONA AERIAL SURVEY INC. AUG. 1999

**DESCRIPTION**  
REAL PROPERTY in the City of Dixon, County of Solano, State of California, described as follows:  
Lot 64, as shown on that certain Map and Plat "Map of Subdivision of the Maple Grove Place", filed in the Office of the Solano County Recorder on January 17, 1973 in Book 4 of Maps, Page 7.

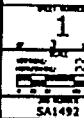


**STREET SECTIONS**  
scale: 1"=10'



Orchard Estates-Garcia Property  
TENTATIVE SUBDIVISION MAP

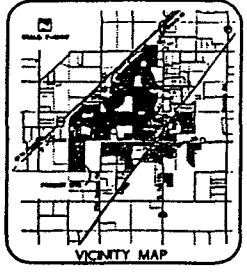
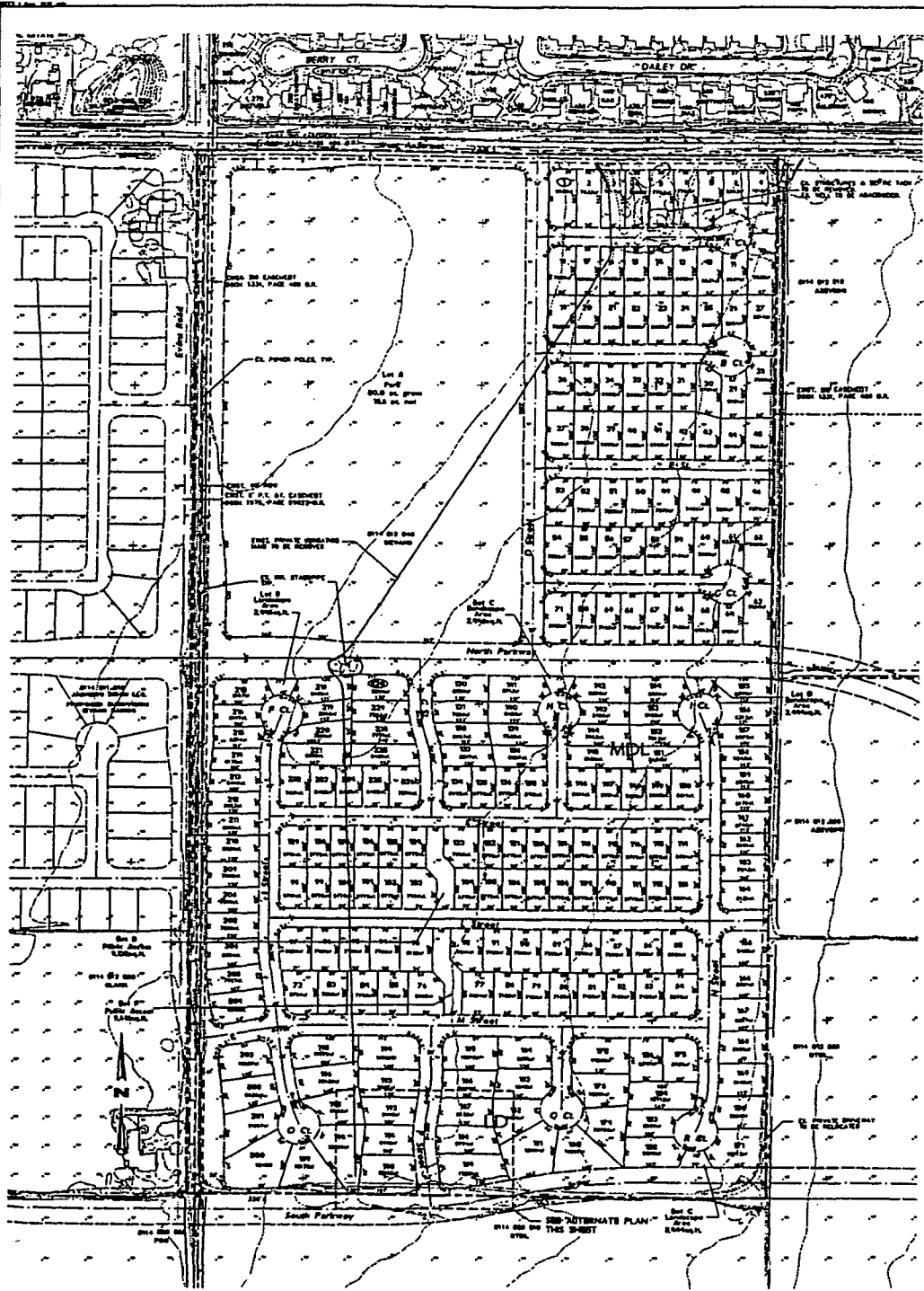
**NOTE**  
BEYOND ENGINEERING  
1796 CHAMBERLAIN DRIVE, SUITE 204, SACRAMENTO, CA 95834  
916.441.1108 FAX 916.441.1133 FAX  
WWW.NAITE.COM



DATE SUBMITTED: 5/11/01

PREPARED FOR: Schular Homes

Figure 13: ORCHARD ESTATES - GARCIA PROPERTY TENTATIVE MAP



**GENERAL NOTES:**

**APPLICANT**  
 North Fork Associates, P.C.  
 1700 Commons Lane Drive, Suite 200  
 Dallas, Texas 75243  
 P.O. Box 277-1300  
 P.O. (767) 479-2000

**SUBDIVIDER / OWNER**  
 North Fork Associates, P.C.  
 1700 Commons Lane Drive, Suite 200  
 Dallas, Texas 75243  
 P.O. Box 277-1300  
 P.O. (767) 479-2000

**PLANNING / ENGINEER**  
 North Fork Associates, P.C.  
 1700 Commons Lane Drive, Suite 200  
 Dallas, Texas 75243  
 P.O. Box 277-1300  
 P.O. (767) 479-2000

**ADJACENT PARCELS NUMBER**  
 10-21-20

**ACRES**  
 200 Acres

**EXISTING LAND USE**  
 200 Single Family Residential Homes  
 Agricultural & Open Space

**PROPOSED LAND USE**  
 200 Single Family Residential Lots  
 - LAND USE - LOTS 1 - 200, 201 - 400, ETC.

**EXISTING ZONING**  
 R-100-10, S-100-10

**PROPOSED ZONING**  
 R-100-10, S-100-10

**BIOMETRIC WATER SUPPLY**  
 South Fork Municipal Water Service District

**SANITARY SEWER SERVICE**  
 City of Stone

**STORM DRAINAGE**  
 City of Stone

**SOLID WASTE DISPOSAL**  
 Stone Sanitary

**ELECTRICAL SERVICE**  
 Public Gas & Electric

**NATURAL GAS SERVICE**  
 Public Gas & Electric

**TELEPHONE SERVICE**  
 Public Gas

**CABLE TELEVISION SERVICE**  
 Charter Communications

**SCHOOL DISTRICT**  
 Stone District School District

**PARK AND RECREATION**  
 City of Stone

**FIRE PROTECTION**  
 City of Stone  
 All lots eligible to be included in city of Stone standard classification

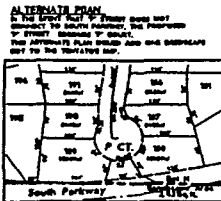
**PHASING**  
 Phasing may occur in stages.  
 North Fork Associates may be required to install an SDC (Solid Waste Disposal) facility.

**SOURCE OF TOPOGRAPHIC DATA**  
 BY GARDNER JOHN, SURVEY CO., INC. 1995

**DESCRIPTION**  
 200 PARCELS IN THE CITY OF STONE, COUNTY OF STONE, STATE OF MISSOURI.  
 LOTS 201, 202, 203 AND 204 AS SHOWN ON THE MAP ENTITLED "THE STONE TOWN, PLAN, DATED JANUARY 17, 1976, BOOK 6 OF PLANS, PAGE 1, STONE COUNTY RECORDS."  
 PROPERTY BOUNDARY SHOWN HEREON IS BASED ON RECORD BOUNDARY SURVEYS.

**AGGREGATE DOT AREA TABLE**

LOT AREA RANGE (SQ. FT.)	NUMBER OF DOTS	
	100	200
1,500-4,999	24	-
5,000-9,999	44	-
10,000-14,999	24	24
15,000-19,999	12	20
20,000-24,999	6	12
25,000 and/or greater	1	10
<b>TOTAL</b>	<b>111</b>	<b>66</b>



NOTE: LOT LAYOUT WITH REVISED STREET ALIGNMENT HAS NOT BEEN DETERMINED

**OWNER'S STATEMENT:**  
 I consent to the proposed subdivision.

Property Owner \_\_\_\_\_

Prepared under supervision of:  
 Registered Professional Engineer: **BESTER D. CLARK** SCE 6514



**DIXON RIDGE TENTATIVE SUBDIVISION MAP**

NO.	DATE	DESCRIPTION

Figure 14: DIXON RIDGE TENTATIVE MAP



landscape lots (consisting of 1,930 square feet each) within the MDL area. A lighting and landscape district would own and maintain these three lots (Fax communication from Cathy Spence-Wells, 5/03/02).

The LD lots, which would be located in the southwestern portion of the project site, would range in size from 7,018 to 14,167 square feet with a net density of 5.3 units per acre. A meandering, 25-foot-wide landscaped street corridor would be located along the southern boundary of the LD area, adjacent to the rear property line of 17 of the proposed LD lots. The LD area would also include a 5,314-square-foot public access/drainage utility lot that would provide access to the proposed landscaped street corridor from the proposed "C" Street. A lighting and landscape district would own and maintain the parkway and public access/drainage utility lot (Fax communication from Cathy Spence-Wells, 5/03/02).

### ***Multi-Family Residential Development***

The proposed Tentative Subdivision Map would create one 9.7-acre lot (Lot A) that would be designated for multi-family residential uses. The project proposes a Planned Unit Development with an application for a density bonus to allow development of 126 housing units on the 9.7-acre lot, at a density of 13 units per acre. Figure 11 illustrates the proposed development plan for Lot A.

As the figure illustrates, the proposed multi-family residential development would be located at the northeast corner of the proposed intersection of North Parkway and Gateway Drive. This area is designated Medium Density-High (MDH) by the proposed Specific Plan. The eastern boundary of the multi-family residential development would adjoin five of the single-family lots in the MDL area discussed above. Access to the multi-family development would be provided by Gateway Drive and North Parkway, and from the proposed commercial development to the north.

### ***Commercial Development***

The proposed Tentative Subdivision Map would create four lots that would be designated for commercial land uses. The proposed commercial lots (Lots B through E) would be 10.0 acres, 5.0 acres, 2.6 acres, and 5.9 acres in size, respectively. The 2.6-acre lot (Lot D) would be designated for Highway Commercial land uses under the proposed Specific Plan. The remaining three lots, totaling 20.9 acres, would be designated for Community Commercial uses.

Figure 11 illustrates the proposed development plan for the 10.0-acre Lot B. As the figure shows, the commercial development would be located north of the proposed multi-family residential development, at the southeast quadrant of the proposed West A Street/Gateway Drive intersection. Lot B is within the area designated Community Commercial by the proposed Specific Plan, adjacent to ten of the single-family residential lots in the MDL area described above. Lot B would be developed with five retail commercial buildings providing 104,200 square feet of building area. The proposed development plan provides for 506 parking spaces. (The City of Dixon would review the parking ratio as part of Design Review applications for future commercial development on the site.) A pedestrian pathway would connect Lot B to "M" Court in the MDL area. Two driveways off Gateway Drive and one driveway off West A Street would provide vehicular access to the commercial development.

There are currently no development plans for the remaining commercial Lots C through E (Stephen Streeter, Community Development Director, City of Dixon; personal communication, 6/13/02; and letter from Bridgette Williams, Nolte Associates, Inc., to Leonard Charles, 7/16/02.)

## **2. Orchard Estates-Sanders Development**

The approximately 30.33-acre Orchard Estates-Sanders project site (Assessor's Parcel Numbers 114-040-040 and 114-154-060) is located in the easternmost part of the Specific Plan area. As shown on Figures 9 and 12, the site is bound by Pitt School Road on the west and existing residential development along Spruce Street to the east. The southern boundary is coterminous with the Dixon city limits, and the northern boundary is coterminous with the southern boundary of the proposed Orchard Estates-Garcia project (see below). The site currently contains one single-family house, as well as agricultural uses and open space.

The proposed Orchard Estates-Sanders project consists of applications for approval of a Tentative Subdivision Map and a development agreement between the City of Dixon and the project applicant. These approvals would create 89 single-family residential lots on approximately 27.4 acres, a 2.47-acre neighborhood park site, and a 0.47-acre fire station site. The proposed single-family residential lots would be located in an area designated Low Density (LD) by the proposed Specific Plan; each lot would be a minimum of 7,000 square feet in size. The proposed development areas are illustrated on Figure 12, which shows the proposed Orchard Estates-Sanders Tentative Subdivision Map.

## **3. Orchard Estates-Garcia Development**

The approximately 20-acre Orchard Estates-Garcia project site (Assessor's Parcel Numbers 114-040-020 and 114-040-030) is located in the easternmost part of the Specific Plan area. As shown on Figures 9 and 13, the site is bound by Pitt School Road on the west, South Lincoln Street on the east, and existing residential development along Hillview Drive to the north. The southern boundary of the site is coterminous with the northern boundary of the proposed Orchard Estates-Sanders project (see above). The site currently contains two single-family houses, as well as agricultural uses and open space.

The proposed Orchard Estates-Garcia project consists of applications for approval of a Tentative Subdivision Map and a development agreement between the City of Dixon and the project applicant. These approvals would create 57 single-family residential lots at a density of 3.5 housing units per acre. The proposed single-family residential lots would be located in an area designated Low Density (LD) by the proposed Specific Plan. Figure 13 illustrates the proposed Orchard Estates-Garcia Tentative Subdivision Map.

## **4. Dixon Ridge Development**

The approximately 80-acre Dixon Ridge project site (Assessor's Parcel Number 114-012-040) is located in the central portion of the Specific Plan area. As shown on Figures 9 and 14, the site is bound by West A Street on the north, Evans Road on the west, and the proposed South Parkway on the south. The eastern boundary of the project site lies at approximately the midpoint between Evans Road and Pitt School Road. The proposed alignment of North Parkway would bisect the project site. The site currently supports one single-family house, agricultural production, and open space.

The proposed Dixon Ridge project consists of applications for approval of a Tentative Subdivision Map and a development agreement between the City of Dixon and the project applicant. These approvals would create 230 single-family residential lots and one community park site. Figure 14 illustrates the proposed Dixon Ridge Tentative Subdivision Map.

### ***Single-Family Residential Development***

Of the 230 proposed single-family residential lots, 156 would be located in an approximately 31-acre area designated Medium Density-Low (MDL) by the proposed Specific Plan (see Figures 6 and 13). These lots would range from 5,500 to 10,000 square feet or more in size, for an average density of five housing units per acre. Only one lot in this area would exceed 10,000 square feet in size.

The remaining 74 single-family lots would be located in an approximately 20-acre area designated Low Density (LD) by the proposed Specific Plan. These lots would range in size from 7,000 to 10,000 square feet or more in size, for an average density of 3.7 units per acre. Eighteen of these lots would exceed 10,000 square feet in size, with the largest being 16,169 square feet.

The applicant anticipates that the single-family lots would be developed in three phases, beginning with 65 lots in the northern part of the site, followed by 90 lots in the central part of the site and then 75 lots in the southern part of the site. Development would be phased based on estimated infrastructure needs.

### ***Community Park***

The Dixon Ridge project would provide for a 20-acre community park site bound by West A Street on the north, Evans Road on the west, the proposed North Parkway on the south, and the proposed "D" Street on the east (see Figures 8 and 13).

### ***Public Access and Landscape Lots***

The proposed Dixon Ridge Tentative Map includes three landscape lots of 2,445 square feet each, and a 9,132-square-foot public access strip extending in a north-south direction from P Street in the southern part of the project to G Street in the central part of the project. The public access strip would provide residents with pedestrian access to the community park, located in the northwestern part of the project site. The Tentative Map also includes a 9,618-square-foot public access strip to provide residents in the southern part of the site with access to the community park, as well as one 2,444-square-foot landscape lot along the southern boundary of the site. The applicant anticipates that these lots would be owned either by the City of Dixon or by an established maintenance district.

## **5. Clark Ranch Estates/Clark Property-Ryder Homes Development**

The approximately 20-acre Clark Ranch Estates/Clark Property-Ryder Homes project site (Assessor's Parcel Number 114-011-020) is located in the south-central portion of the Specific Plan area. As shown on Figures 9 and 15, the site is bound by Evans Road on the east, the proposed South Parkway on the south, and the boundaries of the proposed

Evans Ranch development on the north and west. The site currently supports one single-family house, agricultural activities, and open space.

The proposed Clark Ranch Estates/Clark Property-Ryder Homes project consists of applications for approval of a Tentative Subdivision Map and a development agreement between the City of Dixon and the project applicant. These approvals would create 54 single-family residential lots, one detention basin lot, and one public access/drainage utility lot. The applicant intends that the project be developed in a single phase (Tentative Map Application, Exhibit A, page 1). Figure 15 illustrates the proposed Clark Ranch Estates/Clark Property-Ryder Homes Tentative Subdivision Map.

### ***Single-Family Residential Development***

The 54 proposed single-family residential lots would be located in an approximately 16-acre area designated Low Density (LD) by the proposed Specific Plan (see Figures 5 and 11). The lots would range from 7,000 to 12,000 square feet or more in size, for an average density of 2.8 housing units per acre.

One of the proposed single-family lots would encompass the existing house, allowing preservation of that building. This lot would be approximately 27,880 square feet in size. The property owners recognize, however, that the existing house may need to be relocated to maintain a reasonable east-west road alignment (e-mail communication from Stephen Streeter, City of Dixon Community Development Director, December 26, 2002).

### ***Detention Basin and Access/Drainage Utility Lots***

The proposed Tentative Subdivision Map also includes one 1.4-acre detention basin lot and one 0.1-acre public access/drainage utility lot that would provide access to the detention basin. The detention basin lot would also provide a landscaped street corridor offering pedestrian and bicycle access. Both the detention basin and the landscaped street corridor would be extensions of the proposed basin and road on the Evans Ranch site immediately west of the Clark Ranch Estates site. A landscape and lighting district would maintain the detention basin and the public access/drainage utility lot (Fax communication from Cathy Spence-Wells, North Fork Associates, May 3, 2002).

## **C. Specific Plan and Individual Project Assessment in this EIR**

This EIR assesses the environmental impacts of the proposed Southwest Dixon Specific Plan and the proposed Evans Ranch, Orchard Estates-Sanders, Orchard Estates-Garcia, Dixon Ridge, and Clark Ranch Estates/Clark Property-Ryder Homes development applications. The EIR provides a "program-level" review of the Specific Plan (and the related infrastructure master plans), and a "project-level" review of the five proposed development applications. This approach is consistent with *CEQA Guidelines* Sections 15161 and 15168, which define "project EIR" and "program EIR," respectively. A project EIR typically reviews a specific development project such as the Evans Ranch, Orchard Estates-Sanders, Orchard Estates-Garcia, Dixon Ridge, and Clark Ranch Estates/Clark Property-Ryder Homes development applications. A program EIR evaluates one large project (such as a Specific Plan) that involves a series of related actions.



The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. In the analysis of the five individual development applications, project-specific impacts and mitigation measures are identified in as much detail as possible. Where the proposed Specific Plan or related infrastructure master plans call for specific improvements, or the program-level EIR calls for plan area mitigations, the project-specific mitigation measures indicate either that (1) the identified improvements must be in place prior to project occupancy, or (2) the applicant must provide specific final design mitigations, consistent with the plan area mitigations, to address the impact, subject to City of Dixon or other applicable agency approval. A Financing Plan and Implementation Program are to be approved with the Final Specific Plan.

For purposes of the EIR analysis, it is assumed that development would proceed substantially in accordance with the proposed Southwest Dixon Specific Plan and the five individual development applications submitted to the City of Dixon and described in this section of the EIR. If future subsequent applications or plans differ substantially from those described here, the City may require additional environmental review.

## **1.6 PROJECT REVIEW AND REQUIRED APPROVALS**

Once the City of Dixon (the Lead Agency) certifies the EIR, the Planning Commission and City Council will consider the merits of the proposed Southwest Dixon Specific Plan and the five individual development applications and approve, conditionally approve (including possible approval of a project alternative), or deny the applications.

### **A. Approvals Required From Lead Agency (City of Dixon)**

#### **1. Southwest Dixon Specific Plan Approvals**

The proposed Southwest Dixon Specific Plan would require the following approvals from the City of Dixon (the Lead Agency):

- Amendment of the Dixon General Plan, to make adjustments in General Plan land use designations to achieve consistency between the Specific Plan and the General Plan;
- Adoption of the Southwest Dixon Specific Plan, including the development regulations and design guidelines contained in the Specific Plan (to be adopted by ordinance);
- Rezoning, to achieve consistency among Specific Plan and General Plan land use designations and corresponding zoning classifications;
- Approval of the Storm Drainage Master Plan Report, Solano Irrigation District Master Plan Report, Water Master Plan Report, Sanitary Sewer Master Plan Report, and Preliminary Capital Improvement Program for the Specific Plan area; and
- Amendment of the City of Dixon Master Bikeways Plan (March 1993), to conform the Master Bikeways Plan designations to the Specific Plan bikeway designations.

This EIR addresses all of the above actions.

## **2. Individual Development Project Approvals**

Each of the five proposed individual development plans would require Tentative Subdivision Map and development agreement approval from the City of Dixon.

Future City of Dixon approvals required for each of the five individual development plans would include:

- Design Review approval by the Planning Commission, which serves as the City's Design Review Commission;
- A Development Agreement that would include housing allocation approval in accordance with Measure B, which allows only a certain number of housing units to be built in Dixon each year;
- Review and approval of subdivision improvement plans (i.e., plans for streets, utilities, and grading) by the City of Dixon Public Works Department;
- Final Subdivision Map approval by the Dixon City Council;
- Building permit approval by the City of Dixon Community Development Department; and
- Occupancy permit approval by the City of Dixon Building Department.

This EIR is intended to cover all of the above approvals, assuming that future plans for the five individual project sites are substantially in conformance with the plans described and evaluated in this EIR.

## **B. Approvals Required From Responsible Agencies**

Responsible Agencies are agencies that must issue some form of permit or determination for the project and, thus, rely on the EIR for the environmental documentation required prior to issuing said permit. Potential Responsible Agencies are listed below.

### **1. Federal Agencies**

- U.S. Army Corps of Engineers – regulates activities that have the potential to affect navigable waters under Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) and waters of the United States under Section 404 of the Federal Clean Water Act (Section 404 permit).

The Federal Clean Water Act has as its goal to restore and maintain the physical, chemical, and biological integrity of the nation's waters. Section 404 of the Federal Clean Water Act regulates the discharge of fill material into "waters of the United States," which includes wetlands. Based on the Corps' determination that any wetlands on the site are under its jurisdiction, filling of wetlands would require a permit to alter these resources. The Corps would evaluate the need to hold a public hearing on the permit. Any person may request that a public hearing be held.

The Army Corps of Engineers may require a permit under the Clean Water Act for any alteration of the Weyand Canal.

- U.S. Fish and Wildlife Service (USFWS) – administers the Federal Endangered Species Act and the Marine Mammal Protection Act. The USFWS operates under a number of statutory and administrative authorities. Its basic responsibilities concern migratory birds, anadromous fish, and endangered species. The USFWS is an advisory agency to the Army Corps of Engineers on Section 404 and Section 10 projects. The USFWS will review mitigation plans for these projects. Briefly, the USFWS policy identifies four different resource categories with criteria and mitigation goals for each. The USFWS will review the resources on the site and assign a category to each. Each category has a specific set of mitigation requirements.

## **2. State Agencies**

- Regional Water Quality Control Board (RWQCB) – regulates discharges to waterways through the adoption of Waste Discharge Requirements (WDR) and National Pollution Discharge Elimination System (NPDES) permits. The RWQCB must approve a project's Stormwater Pollution Prevention Plan (SWPPP).

The RWQCB will issue General Construction Permits for projects pursuant to the National Pollution Discharge Elimination System (NPDES). The RWQCB would use the EIR to determine the acceptability of mitigation measures before granting a permit. The RWQCB may delegate formal action in compliance with this requirement to Solano County, in which case the County would be responsible. As part of the Corps Section 404 permit review process, the RWQCB must issue a Section 401 Water Quality Certification or Waiver. The RWQCB also has regulatory authority in connection with the California Department of Fish and Game's Stream Alteration Agreement to grant Water Quality Certification (or Waiver) to cover any in-channel construction.

As wetlands do not occur on the site and work within stream channels is not required, it is likely that RWQCB's authority for this project would be limited to issuance of General Construction Permits and review and approval of Stormwater Pollution Prevention Plans (SWPPPs).

- Department of Transportation (Caltrans) – issues encroachment permits for projects that involve work within Caltrans right-of-way. Development in the western portion of the Specific Plan area, adjacent to I-80, may require encroachment permits from Caltrans. Caltrans would also be responsible for approval of the alignment of the I-80 offramp/Batavia Road intersection.
- California Department of Fish and Game (CDFG) – has authority to oversee work done in streams pursuant to California Fish and Game Code Sections 1601 and 1603. An applicant who proposes to substantially divert the natural flow of a stream, substantially alter its bed or bank, or use any material from the streambed must first enter into a "Streambed Alteration Agreement" with CDFG. Such an agreement would include a requirement that there be no net loss of wildlife habitat values or that lost acreage would be replaced. The Department is also responsible for the protection of plant and wildlife populations and for overseeing the California Endangered Species Act. The Federal Fish and Wildlife Coordination Act gives the CDFG authority to

comment on U.S. Army Corps of Engineers permits. Any waterway subject to CDFG jurisdiction is also subject to Corps regulations.

Any alteration of the Weyand Canal may require a stream alteration agreement under California Fish and Game Code Sections 1601 and 1603. Because the Southwest Dixon project may affect State-listed wildlife species (e.g., burrowing owl and Swainson's hawk), CDFG may also have the authority to review mitigation plans for these species.

- California Department of Conservation -- must approve any cancellations of Williamson Act contracts.

### **3. Local Agencies**

- Solano Irrigation District – would require an agreement for any alteration of the Weyand Canal. The development agreement would address relocation, reconstruction, and protection of District facilities.
- Yolo County Air Quality Management District – has jurisdiction over regional air quality issues. Development within the Specific Plan area would be required to comply with Rule 2.13, which addresses use of asphalt paving materials during construction of roads and streets, and other relevant regulations.
- Dixon-Solano Municipal Water Service (DSMWS) and California Water Service Company – would review proposed development for conformance with applicable regulations.
- Solano Transportation Authority – would subject development proposals to a land use impact analysis and review process in accordance with the Solano County Congestion Management Program (CMP).
- Solano County Transportation Department – would review and approve any traffic mitigation measures that would affect County roads.
- Dixon Unified School District – provides school services in the City of Dixon and would review proposed development to determine the District's capacity to serve the anticipated student population.

## **1.7 RELATIONSHIP TO OTHER PROJECTS**

This EIR assesses the impacts of the "project" (i.e., the Southwest Dixon Specific Plan, including the five individual development applications), as well as the project plus anticipated future projects in the area. The latter are assessed as "cumulative impacts." Assessment of cumulative impacts on environmental conditions is based on the following additional projects in the area, as identified by City staff:

- Proposed development of the Pheasant Run #7 project, consisting of 108 single-family residential lots and a 4.7-acre highway commercial site, on a 38.7-acre site located immediately north of the Southwest Dixon Specific Plan area;

- Proposed development of the Southpark (now called the Valley Glen project) project, consisting of 837 single- and multi-family housing units, a 3.75-acre neighborhood commercial site, and a five-acre neighborhood park on a 211-acre site located generally southeast of the Southwest Dixon Specific Plan area, on the east side of the Union Pacific Railroad right-of-way;
- Proposed development of the Northeast Quadrant Specific Plan area, consisting of 142.2 acres of highway commercial uses, 51.9 acres of community commercial uses, 105.4 acres of professional and administrative office uses, 214.4 acres of light industrial uses, and 129.1 acres of roads, drainage easements, and open space on a 643-acre site located in the northeast quadrant of the North First Street/Vaughn Road intersection, adjacent to Dixon's northernmost city limits.

Assessment of cumulative traffic impacts assumes buildout of all of the above projects plus other development predicted to occur in the City by the year 2025. Because air quality and noise impacts are related to traffic impacts, the cumulative noise and air quality impacts are also assessed for full development in the City to the year 2025. Assessment of cumulative impacts on agricultural and biological resources, wastewater service and water capacity, fire protection, police services, and solid waste services includes those impacts that would occur from development of all of the projects listed above. Cumulative impacts on schools and parks and recreational facilities would occur mainly from the Pheasant Run and Southpark projects, which have a residential component. Other cumulative impacts, such as impacts on visual resources, are assessed based on impacts from development of projects close to the proposed Southwest Dixon Specific Plan area, namely the Pheasant Run and Southpark projects. Analysis of cumulative impacts on drainage conditions includes the Pheasant Run and Southpark projects, which are located in two separate watersheds, both of which extend through portions of the Southwest Dixon Specific Plan area.

## **2.0 SUMMARY**

# 2.0 SUMMARY SECTION

## 2.1. Summary of Impacts

This Draft EIR identifies a number of impacts that would result from implementation of the Draft Southwest Dixon Specific Plan and the five specific project applications for properties within the Specific Plan area. This summary section begins with brief narrative discussions of the more substantial impacts. It is followed by a series of tables that catalogue the impacts and the mitigations for these impacts. This section also contains a summary of the alternatives to the project as proposed. The reader should note that this section is a summary. The full descriptions of impacts, mitigations, and alternatives are presented in the third and fourth sections of this EIR.

### 1. Geology and Soils

The Specific Plan area, like most of the surrounding area, is subject to earthquakes. This EIR recommends mitigation measures to ensure the safety of new buildings and other improvements; these mitigations would reduce potential seismic hazards for the Specific Plan and the five projects to a less than significant level.

Future construction could generate substantial amounts of erosion which could lead to sedimentation of storm drains and receiving waterways. This EIR requires preparation of an erosion control plan to reduce this potential impact for the Specific Plan and the five projects to a less than significant level.

All geologic and soil impacts can be reduced to a less than significant level both for the Specific Plan as a whole and for the five individual projects.

### 2. Hydrology and Water Quality

The plan area contains flat to mildly-sloping terrain, and is drained by various canals and pipelines. Development in accordance with the Specific Plan would create new impervious surfaces, increasing the rate and amount of stormwater runoff and possibly contributing to local or downstream flooding. The increased runoff and potential for flooding represent a potentially significant impact. As mitigation, this EIR recommends completion of the Specific Plan Drainage Master Plan, payment of applicable fees, and applicant demonstration of appropriate storm drain improvements before approval of the first Final Subdivision Map or issuance of occupancy permits.

Runoff from new impervious surfaces would contain urban contaminants that could degrade receiving water quality, representing a potentially significant impact. As mitigation, this EIR recommends that the applicant identify proposed urban stormwater runoff Best Management Practices that would be incorporated into project design.

Another potentially significant impact would involve use of groundwater as a domestic supply, which could result in changes in groundwater levels or groundwater areas of influence, or induce subsidence. As mitigation, this EIR recommends that the applicant identify a program to minimize project effects on groundwater levels that could affect domestic and agricultural wells.

The mitigation measures recommended in this EIR would reduce hydrologic and water quality-related impacts from future Specific Plan area development and the five individual projects to less than significant levels.

### **3. Biological Resources**

The plan area is essentially devoid of native vegetation. The Draft Specific Plan calls for protecting the few existing trees to the degree feasible. Because of the lack of significant native vegetation, impacts of future development on vegetation would be less than significant. Due to the lack of native vegetation, the plan area does not support a diverse wildlife assemblage. Two sensitive species, Swainson's hawk and burrowing owl, potentially inhabit or forage on the plan area, but neither of these species were found to permanently inhabit the plan area. The plan area does contain foraging habitat for Swainson's hawk. The loss of this habitat due to future development would be a significant impact. Consistent with the California Department of Fish and Game's adopted mitigation standards for this species, this EIR recommends that replacement Swainson's hawk habitat will be purchased or protected through a conservation easement. The mitigation requires that this habitat equal the same amount of habitat that would be developed on the plan area and that it be protected as Swainson's hawk habitat in perpetuity.

While Swainson's hawk and burrowing owl do not currently occupy the plan area, it is possible they could move into the plan area prior to construction of future projects. This EIR requires pre-construction surveys to determine their presence. If either species is found to be present on a project site, then appropriate avoidance of nests or transplanting of owls would reduce the impact for the Specific Plan and the five projects to a less than significant level.

Incorporating EIR-recommended mitigation measures would reduce all impacts to biological resources to a level that is less than significant.

### **4. Traffic**

Buildout of the plan area would generate approximately 36,690 daily trips by the year 2005 and 53,250 trips at full buildout. These new trips would cause congestion on local streets and at intersections. By 2005, with development projections based on the currently proposed Tentative Subdivision Maps, eleven intersections would operate below the minimum acceptable level of service (LOS) established by the City. As mitigation, this EIR recommends preparation of project-specific traffic analyses based on the EIR traffic study to determine individual applicant responsibilities for intersection improvements. With full buildout of the Specific Plan, ten intersections would operate below the minimum acceptable LOS. This EIR recommends mitigation measures to improve those intersections so they would operate at an acceptable level of service. With cumulative development, full buildout would also cause A Street between Interstate 80 and the eastern City limits and State Route 113 from the southern City limits to West H Street and from Industrial Drive to Dorset Drive to operate at an unacceptable level of service. There are no feasible mitigation measures for the impacts to the two streets, and the impact to those two streets would be a significant cumulative impact.

Mitigation measures recommended in this EIR would ensure that 1) new streets within the plan area conform with City street standards; 2) adequate pedestrian and bicycle facilities and access would be provided; and 3) adequate transit opportunities (e.g., bus



stops, turnouts, and vehicles) would be provided. All traffic impacts can be reduced to a less than significant level except for the cumulative impacts to A Street and State Route 113 (First Street).

## **5. Air Quality**

Air quality in the Dixon area is classified by the U.S. Environmental Protection Agency as nonattainment for ground level ozone and by the State as severe nonattainment for ground level ozone and nonattainment for small particulates (PM10). Traffic generated by buildout of the Specific Plan area will generate substantial amounts of ozone precursor pollutants (i.e., pollutants that cause the creation of ozone) and PM10. This EIR recommends a number of methods of reducing vehicle trips, thereby decreasing the emission of these pollutants. However, the reduction in emissions would not be sufficient to reduce the impact to a less than significant level. As such, the impact to regional air quality is considered a significant impact for plan area buildout and is also a significant cumulative impact.

## **6. Noise**

The plan area is currently relatively noisy due to noise generated by traffic on I-80 to the west and from railroad operations to the east. Additional noise sources are vehicular traffic on nearby streets, particularly West A Street. This existing noise would be exacerbated by the additional traffic generated by plan area buildout and other new development in Dixon.

New development in most of the plan area would be subject to noise levels that the Dixon General Plan considers "Conditionally Acceptable." Mitigation measures recommended in this EIR include paving new streets and re-paving certain existing streets with "quiet" pavement to reduce traffic noise. "Quiet" pavement is a type of pavement that was developed to allow the passage of water through the pavement. The open pores in this pavement also reduce the amount of noise from tires traveling over the pavement. This type of paving can reduce noise levels by 2 to 5 decibels or more depending on the type of road and traffic. Where the use of "quiet" pavement does not adequately reduce traffic-generated noise, this EIR recommends the construction of sound barriers or open space buffers along affected streets. These mitigations would reduce noise impacts at new residences on the plan area. However, because residents in the plan area would continue to be exposed to freeway and railroad-generated noise (in the eastern portion of the plan area) exceeding the level the Dixon General Plan considers "Normally Acceptable," the impact on future residents is considered a significant impact.

New traffic generated by plan area development as well as other development in Dixon would create significant noise impacts to residences along West A Street from Gateway Drive to First Street, on Evans Road from West A Street to Pitt School Road, on Pitt School Road from West H Street to South Parkway, and potentially on Porter Street between Midway Road and West A Street. To reduce this new noise, this EIR recommends re-paving affected streets with "quiet" pavement. Where the use of such pavement would not adequately reduce traffic-generated noise, the only other option for reducing noise outside homes is to construct sound barriers. Because such barriers would likely be infeasible in some locations and ineffective in others (due to the need to provide driveways and other access points through the sound barrier), there are locations which could be exposed to significant new noise. This would be a significant impact.

These two impacts (i.e., exposure to unacceptable noise levels and creation of substantial new noise along existing streets) are also significant impacts for each of the five projects and for the cumulative impact.

## **7. Aesthetics**

Development of that portion of the plan area fronting Interstate 80 would transform views of open space to views of light industrial and highway commercial development. To mitigate the impact to views from the freeway, this EIR recommends development and implementation of a landscaping plan that would screen views from the freeway within no more than ten years. The landscaping plan would include the use of a variety of trees, shrubs, and flowering species so that the eventual freeway frontage would provide visual interest and not simply "screen" views of plan area development.

Development along West A Street would alter open space views from that street as well as existing residences north of the street. If re-paving West A Street with "quiet" pavement does not adequately reduce traffic noise along this street, then existing soundwalls might need to be increased in height and new soundwalls constructed in locations where they do not exist. Increasing the height of existing walls and/or constructing new soundwalls would have a significant impact on residents living behind the walls. Other than the potential impacts of the soundwalls, visual impacts along West A Street can be reduced by implementing EIR-recommended landscaping, restricting lighting and signs, requiring the preparation of an overall design plan for all new commercial development, and requiring design review for all new development. However, the overall loss of open space views plus the potential impacts of new or enlarged soundwalls would be significant impacts.

Future development would also displace open space views from portions of Pitt School Road, S. Lincoln Street, and residences adjacent to the plan area. The EIR recommends landscaping, design review, and lighting and sign restrictions to reduce the visual impacts to these vantage points. However, the overall loss of open space views plus the potential impacts of new or enlarged soundwalls would be significant impacts.

While visual impacts can be reduced by implementing EIR-recommended mitigation measures, the overall loss of open space views plus the potential impacts of new or enlarged soundwalls are considered significant impacts. These would be significant impacts for the five specific projects and Specific Plan area buildout as a whole. The cumulative impacts of additional soundwalls and loss of open space views would also be significant impacts.

## **8 Hazards and Hazardous Materials**

The plan area has been commercially farmed for many years. The use of agricultural chemicals has resulted in residues of some of these chemicals being left in the soil. The one Risk Assessment done for one of the plan area properties showed low levels of toxic materials on the site. Risk Assessments will be required for all project sites in the plan area to ensure that workers and future residents are not exposed to hazardous levels of these chemicals. Engineering controls and warnings to workers and residents may be required.

The use of agricultural chemicals by farmers on or adjacent to the plan area could pose a health risk for future residents and workers on the plan area. This EIR recommends

extending the proposed "no spray" buffers from the proposed 100 feet to at least 200 feet to reduce the potential health hazard.

All new commercial and industrial businesses will be required to safely transport, store, and use any potentially toxic materials needed for their operations.

The mitigation measures recommended in this EIR would reduce all health risks from future Specific Plan area development and the five individual projects to a less than significant level.

## **9. Population and Housing**

The plan area contains 14 housing units that house an estimated 44 residents. Development in accordance with the Specific Plan would likely displace most of these housing units and residents. This would be considered a less than significant impact, given that the 14 units and 44 residents are not considered a "substantial" number, in relation to Dixon's existing population; and loss of these housing units would not require replacement elsewhere, since the units would be replaced on-site through housing development consistent with the Specific Plan.

The substantial population growth induced by the Specific Plan (an estimated 3,907 residents) would also be considered a less than significant impact, since the increase would not exceed regional population projections.

Residential development in the Specific Plan could fail to meet the City's housing affordability goals specified by the Association of Bay Area Governments (ABAG) regional housing need determinations and related Dixon General Plan policies. This potential represents a potentially significant impact of the Specific Plan. As mitigation, this EIR recommends that the applicant be required to submit a Project Housing Strategy that specifies project housing affordability goals, and a Housing Mix and Affordability Monitoring Program that would allow for monitoring of project housing goals each year. These documents would be incorporated into the affordable housing provisions of the applicable development agreements.

The Specific Plan would not comply with the Measure B provision and related Dixon General Plan policy requiring a mix of 80 percent single-family and 20 percent multi-family housing. This inconsistency would represent a potentially significant impact. As mitigation, this EIR recommends that the Specific Plan be revised so that 20 percent (244 units) of the proposed 1,221 total housing units are multi-family. The Project Housing Strategy and Housing Mix and Affordability Program would serve as further mitigation by ensuring that multi-family housing is developed concurrently with single-family housing, as specified by the City of Dixon ordinance implementing Measure B. Future development agreements would further ensure compliance with Measure B growth limitations.

The mitigation measures recommended in this EIR would reduce population and housing impacts from future Specific Plan area development and the five individual projects to a less than significant level.

## **10. Land Use**

Development of the plan area would remove about 475 acres of prime farmland from production. The loss of the prime agricultural soils and displacement of agriculture are

significant impacts for the Specific Plan and each of the five projects. It is also a significant cumulative impact. While the EIR recommends that each project contribute to the City's proposed agricultural conversion program, this mitigation would not reduce the impact to a less than significant level.

The construction of residential development adjacent to commercial farming operations could lead to additional restrictions on those farming operations. The Draft Specific Plan contains requirements that future residents be notified about adjacent agricultural operations and the Right to Farm Ordinance as well as other mitigations to reduce impacts to neighboring farmers. The proposed programs included in the Draft Specific Plan, as modified by the EIR, would reduce impacts to neighboring farmers to a less than significant level. The EIR discusses how the presence of neighboring residential development could pressure or induce adjacent farmers to stop farming and seek development approvals for their properties. However, it was concluded that it is speculative that such a chain of events would occur and that future development would be approved by the Solano County Local Agency Formation Commission and the City.

The plan area contains properties that are under Williamson Act contracts. Prior to development of those properties, the Williamson Act contracts would need to be canceled or not renewed consistent with State law. The City must adopt a resolution to allow construction of public service improvements on those properties if the Williamson Act contracts are still in force.

The EIR discusses how various proposed components of the Specific Plan could be inconsistent with adjacent land uses. A range of mitigation measures that clarify performance standards and design guidelines included in the Draft Specific Plan and require adequate protection from irrigation canals and detention basins are recommended in the EIR. These mitigation measures, when added to policies and programs of the Draft Specific Plan, would reduce land use consistency impacts to a less than significant level.

The EIR also discusses consistency of the Specific Plan and the five projects with the City's General Plan and finds that if EIR-recommended mitigation measures are implemented, the Specific Plan and the projects would be consistent with the Plan.

The mitigation measures recommended in the EIR would reduce all land use impacts to a less than significant level except for the loss of prime agricultural soils and agricultural use of those soils.

## **11. Fire Protection and Emergency Response**

Development in the plan area would generate calls for fire response and emergency medical aid. While the Specific Plan provides for a 0.47-acre fire station site within the plan area, the EIR recommends additional mitigation measures that would be necessary to reduce the impact on fire protection and emergency medical services to a less than significant level. These measures include ensuring that the new fire station is constructed, staffed, and equipped by the time that no more than 30 percent of the plan area is developed; and requiring alarm systems and sprinklers in commercial buildings as required by the local fire code.

Development of the plan area may also increase the demand for water to suppress fires. The EIR recommends measures necessary to reduce this impact to a less than significant level.

## **12. Water**

The plan area currently does not have domestic water service; water facilities on the site consist of individual wells serving rural residences and commercial areas, and Solano Irrigation District (SID) canals and pipes providing farmland irrigation. The proposed Specific Plan land uses would generate demand for domestic water service, representing a potentially significant impact. As mitigation, this EIR recommends completion of the Specific Plan Water Master Plan, development of wells to serve project development, payment of applicable fees, and confirmation of adequate fire flow before approval of the first Final Subdivision Map or issuance of occupancy permits.

Development in accordance with the Specific Plan would also include relocation or abandonment of various SID irrigation facilities in the plan area. Potential effects on these facilities would represent a potentially significant impact. As mitigation, this EIR recommends completion of the Specific Plan SID Irrigation Master Plan and compliance with SID policies and requirements for replacement and reconstruction of facilities and abandonment of easements.

The mitigation measures recommended in this EIR would reduce water service impacts from future Specific Plan area development and the five individual projects to less than significant levels.

## **13. Wastewater Collection, Treatment, and Disposal**

No wastewater collection or treatment facilities currently serve the plan area; existing residences and businesses rely on septic tanks and leach fields. The proposed Specific Plan land uses would generate demand for wastewater service, representing a potentially significant impact. As mitigation, this EIR recommends completion of the Specific Plan Sanitary Sewer Master Plan and demonstration of adequate wastewater capacity at the Final Subdivision Map stage.

Another potentially significant impact involves the potential for groundwater infiltration of the sewage collection system proposed for the plan area. As mitigation, this EIR recommends incorporation of adequate design features into the collection system and construction of off-site connections to the wastewater treatment plant at the start of project construction.

The mitigation measures recommended in this EIR would reduce wastewater service impacts from future Specific Plan area development and the five individual projects to less than significant levels.

## **14. Police Services**

Development in the plan area would generate calls for police response. In addition to measures included in the Specific Plan, the EIR recommends measures for Police Department review of Tentative and Final Subdivision Maps to ensure that police services will be adequate, and that features such as street layout and names, address numbering, and emergency access are acceptable. These measures would reduce the impact to a less than significant level.

## **15. Solid Waste**

Development in the plan area would increase demand for solid waste collection and disposal services. The EIR concludes, however, that impacts on landfill capacity would be less than significant.

## **16. Recreation**

Development in the plan area would generate demand for parks and recreational facilities. The Specific Plan provides for a 20-acre community park and a 2.47-acre neighborhood park. As additional mitigation, the EIR recommends that the neighborhood park be increased in size to three acres. This mitigation measure would make the Specific Plan consistent with Dixon's Parks Master Plan and reduce the impact on parks and recreational facilities to a less than significant level.

For impacts from the five individual projects, the EIR also recommends that each project comply with the parkland dedication/acquisition and development fee requirements levied by the City of Dixon in accordance with the City's Subdivision Ordinance and Assembly Bill (AB) 1600. Combined with the measures recommended for or included in the Specific Plan, this measure would reduce park impacts of the individual projects to a less than significant level.

## **17. Schools**

Residential development in the plan area would be expected to house an estimated 855 students who would need to be accommodated in Dixon Unified School District schools. Specific Plan policies and implementation programs would ensure that adequate school capacity would be available as the plan area is developed; for example by requiring confirmation of adequate capacity before Final Subdivision Maps and building permits for the area are approved. The EIR therefore concludes that the effect of Specific Plan development on schools would represent a less than significant impact

## **18. Energy**

Construction of new development would use substantial amounts of energy. Future use of plan area residences and businesses would also consume substantial quantities of energy. The Draft Specific Plan contains policies and programs to conserve energy, and these policies and programs would reduce the impact to a less than significant level, though the EIR does suggest additional measures the City could require that would further reduce energy consumption.

## **19. Cultural Resources**

The plan area contains several homes and other buildings over 50 years old. While there is no evidence that these structures are important historical resources, there is the potential that one or more of the structures could meet the criteria defining an important historical resource. The EIR recommends review of these structures by a qualified architectural historian. If the structures warrant it, a Historic Evaluation Report would be prepared prior to any demolition, restoration, or rehabilitation of the structures. While there is no evidence of archaeological resources on the plan area, such resources could be found during site construction. The EIR recommends appropriate mitigations to ensure those resources, if found, are adequately studied and protected. EIR-recommended

mitigation measures would reduce all impacts to cultural resources to a less than significant level.

## **20. Project Alternatives**

This EIR assesses four project alternatives to the Draft Southwest Dixon Specific Plan. These alternatives (which are addressed in detail in Section 4.3 of this EIR) include:

1. No project
  - a. No development (existing conditions)
  - b. Future development in accordance with existing Dixon General Plan
2. Reduced residential density
3. Land use changes (reduced residential/increased community commercial and employment center)
4. Increased residential density (Measure B)

Each of the alternatives was compared to the Draft Specific Plan as proposed and the Draft Specific Plan complete with the EIR-recommended mitigation measures to determine the "environmentally superior" alternative. In terms of impacts to the physical environment, Alternative 2 would have the fewest impacts and would be considered the "environmentally superior" alternative. Alternative 3 would reduce certain impacts but increase others, compared with the proposed Specific Plan. Alternative 4 would have slightly greater impacts than the proposed Specific Plan (though there would be no new significant impacts) but would be consistent with Measure B and meet all project objectives.

## **2.2 Significant Unavoidable Impacts**

This EIR identifies a number of potentially significant impacts that would result from adoption of the Draft Specific Plan and future buildout per that plan. The EIR presents mitigation measures that would eliminate those impacts or decrease all Specific Plan impacts to a level that is considered less than significant with the exceptions listed below.

The seven impacts listed below are all considered significant impacts of the Draft Specific Plan.

1. Development of the plan area would remove about 475 acres of prime agricultural soils from agricultural use.
2. Future development would eliminate views of open space from a number of public and private vantage points.
3. Soundwalls may be required along portions of existing streets and new plan area streets. These soundwalls would block views from residences and streets.
4. Future residents of the plan area would be exposed to noise levels (from noise generated by Interstate 80 and the railroad) which exceed the levels the Dixon General Plan considers "Normally Acceptable."

5. Traffic generated by future plan area development would increase noise levels along existing streets. It is possible that re-paving of those streets with "quiet" pavement and the use of traffic calming engineering would not reduce the noise impacts to a less than significant level along portions of those streets. Soundwalls may not be feasible in some of those locations. In locations where soundwalls and other alternate noise reduction measures are either infeasible or inadequate, the noise impact would be significant.
6. Traffic generated by plan area buildout would emit significant quantities of ozone precursor pollutants and PM10, thereby exacerbating existing air pollution problems.
7. Traffic at full buildout when combined with new traffic from other development in the City would cause West A Street between Interstate 80 to just east of the City limits and State Route 113 from the southern City limits to West H Street and from Industrial Drive to Dorset Drive to operate at an unacceptable level of service. As shown on Figure 24, sections of both of these streets would operate at Level of Service D, E, and F.

These same impacts, except for No. 6, are considered significant impacts for each of the five specific projects addressed in the EIR. All the impacts would also be significant cumulative impacts.

## 2.3 Areas of Controversy and Issues to be Resolved

The Summary Chapter must identify known areas of controversy and issues to be resolved. Known areas of controversy (all of which are assessed in this EIR) are listed below. This list of issues is based on comments made in comment letters on the Notice of Preparation and comments submitted on the 1995 EIR prepared for the plan area. **Please note that the following list of potential impacts are not the conclusions of the EIR, but, rather, areas of impact or concern raised by members of the public and/or other public agencies.**

- Development could eliminate habitat necessary to Swainson's hawks and burrowing owls.
- Development could cause soil erosion and sedimentation of storm drains and streams.
- There could be inadequate storm drain facilities to handle Specific Plan-generated runoff leading to on- and off-site flooding.
- Future development could generate traffic that causes unacceptable levels of congestion on local streets and at critical intersections.
- New residential development on the plan area could be subject to unacceptable noise levels.
- Traffic generated by future development could generate unacceptable levels of noise on nearby streets.



- Noise mitigation could require construction of soundwalls which would have deleterious visual impacts.
- Future development could eliminate open space views and replace those views with new residential, commercial, and industrial development.
- There could be inadequate public services and infrastructure to serve plan area buildout.
- The plan area could be contaminated by chemical residues resulting from past farming activities. These residues could pose a health risk.
- Future spraying of adjacent farms could expose plan area residents and employees to harmful chemical exposure.
- Development of the plan area could eliminate about 475 acres of prime agricultural soils and displace commercial farming operations.
- Future development could be inconsistent with existing land use patterns near the plan area.
- Future development could be inconsistent with various goals, policies, and implementation programs of the Dixon General Plan.

Each of these issues is assessed in this EIR. Issues to be resolved include:

1. Should the City of Dixon approve the Draft Specific Plan to allow the proposed level of development?
2. Should the City of Dixon approve the five specific project proposals?
3. Should the City of Dixon require the mitigation measures recommended in this **ER** for the Draft Specific Plan and the five projects?
4. Should the City approve the environmentally superior alternative rather than the Draft Specific Plan, as proposed?

## **2.4 Impact and Mitigation Table**

Table 3 on the following pages provides a summary of the impacts identified in this Draft EIR. The first column of the table describes the impact that would result from buildout of the project. Following that impact is a description of the level of significance that impact has. Levels of significance include "beneficial," "less than significant" (that is, less than significant as measured against significance criteria established for each area of impact), "potentially significant" (i.e., significant prior to implementation of mitigation measures), or "significant." A "significant" impact is an impact where the degree of impact exceeds the significance criterion for the resource in question even with the implementation of recommended mitigation measures.

The next column lists the recommended mitigation measures for the impact. Finally, there is a column that describes the significance of the impact after mitigation measures have been implemented.

**TABLE 3 - IMPACT AND MITIGATION SUMMARY**

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
<b>3.1</b>	<b>Geology</b>			
3.1-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses could fail during an earthquake.	PS	1. Require a geotechnical study prior to final design of each project within the Specific Plan area. The geotechnical study will be prepared by a registered geotechnical engineer or engineering geologist. The design report will contain specific construction recommendations for all buildings, roads, and other improvements to ensure that those improvements can withstand the maximum probable earthquake predicted for the area. The geotechnical report shall also provide construction guidelines to address expansive soils and any other soil constraints identified by the geotechnical consultant. Final project design will include the recommendations contained in the geotechnical report.	LS
3.1-B	Construction of Specific Plan area improvements could result in substantial soil erosion..	PS	1. Detention Pond A and the West Pond Complex will act as sedimentation ponds and will decrease downstream sediment loading. A pond sediment monitoring program will be developed and approved by the City. This program will provide a schedule for monitoring and removal of sediments and who will be responsible for those actions.  2. Each project developer shall prepare and implement a Stormwater Pollution Prevention Program (SWPPP) for on-site and off-site activities which will be submitted to the Regional Water Quality Control Board (RWQCB) as part of the National Pollution Discharge Elimination System (NPDES) General Construction Activity Stormwater Permit (General Permit). The SWPPP shall include Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in each project SWPPP would likely include <i>in-situ</i> protection, seeding and mulching of bare ground, planting of trees and shrubbery in disturbed riparian areas, and installation of other types of biotechnical slope stabilization, such as appropriately staked straw bale perimeters and silt fences. No grading should occur between October 15 and April 15. Project applicants would implement the final BMPs and measures included in the General Permit obtained from the RWQCB.	LS
3.1-C	Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address protecting residents and improvements from geologic and soils constraints and hazards.	LS	No mitigation is required beyond the measures recommended for Impacts 3.1-A and B.	LS
3.1-D	Improvements constructed for the five projects could fail during an earthquake..	PS	The mitigation measure recommended for Impact 3.1-A would also apply to each project.	LS
3.1-E	Construction of the five projects and off-site improvements could result in substantial soil erosion.	PS	The mitigation measure recommended for Impact 3.1-B would also apply to each project.	LS
3.1-F	Development of Specific Plan area projects would combine with other anticipated projects to increase erosion and sedimentation.	PS	The mitigation measure recommended for Impact 3.1-B would also apply to each project.	LS

**NOTE:** S = Significant                      PS = Potentially Significant  
 LS = Less than Significant            B = Beneficial

**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
<b>3.2</b>	<b>Hydrology</b>			
3.2-A	Development of new residences, commercial and employment center businesses, and other Specific Plan area land uses would create new impervious surfaces, increasing the rate and amount of stormwater runoff. This runoff could contribute to local or downstream flooding.	PS	<ol style="list-style-type: none"> <li>1. Before the first Tentative Subdivision Map approval for the plan area, the Specific Plan Drainage Master Plan shall be completed and submitted for City of Dixon review and approval. The Drainage Master Plan shall demonstrate that the system contains specific storm drainage design features to control increased runoff from the project site and will not increase runoff over current conditions. This may be achieved through one or more of the following: on-site conveyance and detention facilities, off-site detention facilities, and/or channel modification, or equally effective measures to control the rate and volume of runoff. To demonstrate the effectiveness of the proposed system to prevent additional flooding at off-site (downstream) locations, all necessary hydrologic and hydraulic calculations and assumptions and design details shall be submitted to the City Public Works Department for review and approval. The design of all features proposed by the project applicant shall be consistent with the most recent version of the City's Storm Drainage Guidelines and Criteria, and standard design and construction specifications and details.</li> <li>2. Before the first Tentative Subdivision Map approval for the plan area, the project applicant shall demonstrate to the City Public Works Department that development of the Specific Plan will not preclude future installation and operation of storm drain improvements anticipated in the plan area and that facility improvements will be consistent with the Specific Plan Storm Drainage Master Plan.</li> <li>3. Before the first Tentative Subdivision Map approval for the plan area, the project applicant shall demonstrate that an appropriately sized and located storm drainage system shall be installed or adequately financed (through fair-share payment of fees or other means).</li> <li>4. All project applicants shall pay their fair share toward citywide drainage improvements, as identified in the City's Assembly Bill (AB) 1600 fee program.</li> </ol>	LS
3.2-B	The impervious surfaces and associated storm water runoff created by development in the Specific Plan area would affect the capacity of stormwater facilities in Basin A identified in the City's 1999 Storm Drain Report.	PS	<ol style="list-style-type: none"> <li>1. The City of Dixon shall require and confirm that adequate stormwater drainage capacity is available as a condition of approving any Tentative Subdivision Maps for the plan area.</li> <li>2. As a condition of approving any Tentative Subdivision Maps in the plan area, the project applicant shall, in accordance with the AB 1600 fee program, fund a fair share of the drainage facilities improvements identified by the City of Dixon in the 1999 Storm Drain Report for Basin A and the City of Dixon AB 1600 Facilities and Equipment Study (March 2000). In addition, the City of Dixon shall establish a maintenance district encompassing properties using Basin A facilities to pay a fair share of the maintenance costs.</li> </ol>	LS

**NOTE:** S = Significant                      PS = Potentially Significant  
 LS = Less than Significant            B = Beneficial

**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPAIRMENTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
3.2-C	Storm drain facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects outside the plan area.	PS	<ol style="list-style-type: none"> <li>1. South Lincoln Street between the plan area and Porter Road shall be constructed to meet City standards for travelway and shoulder width.</li> <li>2. Approval for construction of the pipeline from the plan area to McCune Creek shall be obtained prior to construction of any improvements generating new runoff to Batavia Pond.</li> <li>3. Carry out mitigation measures identified for Impact 3.2-A above. These measures would require the Drainage Master Plan for the Specific Plan area to demonstrate that the storm drain system would not increase runoff over current conditions.</li> </ol>	LS
3.2-D	Runoff from new impervious surfaces would contain urban contaminants that could degrade the quality of receiving waters.	PS	<ol style="list-style-type: none"> <li>1. Before each Tentative Subdivision Map approval, each project applicant shall obtain an approved General Construction Activity Stormwater Permit from the RWQCB as required under Mitigation No. 2 for Impact 3.1-B.</li> <li>2. The project applicant shall comply with mitigation measures identified in Section 3.8, Hazards and Hazardous Materials, of this EIR.</li> </ol>	LS
3.2-E	Use of groundwater as a domestic water supply for development in the Specific Plan area could result in changes in groundwater levels or groundwater areas of influence or induce subsidence.	PS	<ol style="list-style-type: none"> <li>1. Before approval of the first Tentative Subdivision Map for the Specific Plan area, the applicant shall identify specific steps to be taken to minimize project effects on groundwater levels that could affect existing domestic (public and private) and agricultural wells. The applicant's program shall establish site-specific and local baseline groundwater levels, existing and proposed wells, uses and rates, and areas of influence. The program shall also establish criteria that will be used to determine whether the effect on non-project wells may be considered adverse (e.g., groundwater levels shall not fall below a specific elevation during the irrigation season). This information shall be used to appropriately site and design the project well throughout project buildout to minimize the effects on existing wells and locations that could be affected by groundwater pumping associated with the proposed project. Final siting of wells shall require the approval of the Dixon-Solano Municipal Water Service (DSMWS); the DSMWS uses proximity limitations in determining well locations.  See also mitigation measures for impacts on water supply (Impact 3.12-A in Section 3.12, Water, of this EIR).</li> </ol>	LS
3.2-F	Development of the five projects would increase demands on storm drain facilities and contribute to water quality degradation and groundwater effects.	PS	The mitigation measures recommended for Impacts 3.2-A to 3.2-E apply to the five projects.	LS
3.2-G	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on storm drain facilities and cumulative water quality degradation and groundwater effects.	PS	Carry out mitigation measures recommended for Impact 3.2-A and 3.2-F.	LS

**NOTE:** S = Significant PS = Potentially Significant  
 LS = Less than Significant B = Beneficial

**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
<b>3.3</b>	<b>Wildlife and Vegetation</b>			
3.3-A	Future Specific Plan area development could adversely impact sensitive wildlife species.	PS	<ol style="list-style-type: none"> <li>1. Pre-construction surveys within 0.25 miles of any development on the Specific Plan area and for plan area-required off-site pipeline and roadway improvements are recommended prior to construction activities that would occur between March 1 and August 15. In the event that a Swainson's hawk nest is located within 0.25 miles of the project site, seasonal construction restrictions may be necessary to eliminate the potential for noise disturbance to nesting hawks. The necessity of such restrictions is dependent on the location of the nest with respect to construction and should be determined by a qualified biologist.</li> <li>2. For every acre developed within the Specific Plan area, the developer of each project will be responsible for preserving one acre of Swainson's hawk habitat per the California Department of Fish and Game's <i>Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (Buteo swainsoni) in the Central Valley of California</i> (CDFG, 1994). Because the first developments on the Specific Plan area will fragment the remaining habitat, the 1:1 mitigation will be required for the entire Specific Plan area prior to the start of construction for the first project. The first developers will be responsible for funding the plan area-wide mitigation and will be re-paid by future developers. The area to be preserved will be confirmed as adequate Swainson's hawk habitat by CDFG. Proof of purchase of the property or a suitable conservation easement shall be provided to the City of Dixon prior to the start of construction. The habitat purchase or purchase of development rights may be combined with land preserved to offset loss of agricultural lands as described in the mitigation for Impact 3.10-A.</li> <li>3. For all development within the Specific Plan area and for plan area-required off-site pipeline and roadway improvements, pre-construction surveys for burrowing owl should be conducted as outlined in CDFG's (1995) <i>Staff Report on Burrowing Owl (Athene cucularia) Mitigation</i>. If active burrows are found, a qualified biologist should determine temporal restrictions on construction and/or grading activities. If owls need to be moved, they should be passively relocated prior to February 1 or after August 31 using standard methodologies described in CDFG's <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG, 1995). As construction will likely take several years and owls could move on the site during the duration of construction, pre-construction surveys should be repeated prior to each phase of ground disturbance.</li> </ol>	LS
3.3-B	Future development of the Specific Plan area could be inconsistent with the Dixon General Plan.	PS	The mitigation required for Impact 3.3-A applies.	LS

**NOTE:** S = Significant                      PS = Potentially Significant  
 LS = Less than Significant              B = Beneficial

**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.3-C	Future development of the five proposed projects could adversely impact sensitive wildlife species.	PS	<ol style="list-style-type: none"> <li>Each development will be responsible for the pre-construction surveys described under the mitigation measures for Impact 3.3-A and will abide by the guidelines listed in those mitigation measures if Swainson's hawks or burrowing owls are found on the subject property or within 0.25 miles of the property for Swainson's hawk.</li> <li>Each new developer will be responsible for their fair share of the cost of acquiring and protecting Swainson's hawk habitat as described under Mitigation Measure No. 2 under Impact 3.3-A.</li> </ol>	LS
3.3-D	Future development of the Specific Plan area plus other projects could adversely impact sensitive wildlife species.	PS	No mitigation beyond those recommended for Impacts 3.3-A and 3.3-C is required.	LS
<b>3.4 Traffic and Circulation</b>				
3.4-A	Implementation of the proposed Specific Plan would cause an increase in a.m. and p.m. peak hour traffic volumes at study intersections, causing unacceptable levels of service and warranting the installation of traffic signals.	PS	<ol style="list-style-type: none"> <li><u>West A Street/Schroeder Road Intersection.</u> The project applicant shall install a traffic signal at the West A Street/Schroeder Road intersection and provide right-turn overlap phasing with the southbound left-turn movement. The project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Element Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant shall pay a fair share for future improvements. Implementation of this mitigation measure would provide acceptable LOS B operations during both the a.m. and p.m. peak hours under existing plus project conditions.</li> <li><u>West A Street/Batavia Road Intersection.</u> The project applicant shall modify the Specific Plan to eliminate the connection of Batavia Road to the eastbound I-80 on- and off-ramps and install a signal system to accommodate project traffic along West A Street. Existing access to commercial uses at the intersection could remain. Although the traffic volumes at this intersection would satisfy the peak hour volume warrant for signalization, the installation of a traffic signal at the Eastbound I-80 Ramps/Batavia Road intersection is not feasible because there would be insufficient storage for queued vehicles on the eastbound off-ramp, causing potential vehicle spillback onto I-80.  The elimination of this connection will cause a redistribution of traffic to the West A Street/Gateway Drive and West A Street/Batavia Road intersections. These intersections will provide access to I-80 and the office and commercial land uses in the western portion of the Specific Plan with the elimination of the connection. To accommodate the traffic redistribution, traffic signals shall be</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>installed on West A Street at Batavia Road and Gateway Drive to provide a signal system that can be coordinated, which will minimize vehicle queues and improve vehicle progression along West A Street.</p> <p>In November 1999, a detailed plan-line study was initiated that identified and evaluated intersection improvement options at the I-80/West A Street interchange. Summary figures and tables from the plan-line study are available for review and are on file with the Dixon Community Development Department. Alternative 1 from this study identified signalization, coordination, and turn lane improvements at the West A Street/Gateway Drive and West A Street/Batavia Road intersections that would provide acceptable operations through year 2010, without the Batavia Road connection to the I-80 eastbound ramps, and without reconstruction of the interchange. The following lane configurations, which are based on Alternative 1, shall be provided at the West A Street/Gateway Drive and West A Street/Batavia Road intersections:</p>	
		<p><u>West A Street/Gateway Drive</u></p> <ul style="list-style-type: none"> <li>• Dual exclusive left-turn lanes and a shared through/right-turn lane on the northbound approach;</li> <li>• One exclusive left-turn lane and a shared through/right-turn lane on the southbound approach;</li> <li>• Dual exclusive left-turn lanes, two through lanes, and an exclusive right-turn lane on the eastbound approach;</li> <li>• One exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the westbound approach</li> </ul> <p><u>West A Street/Batavia Road</u></p> <ul style="list-style-type: none"> <li>• One exclusive left-turn lane and one exclusive right-turn lane on the northbound approach;</li> <li>• One through lane and an exclusive right-turn lane on the eastbound approach; and</li> <li>• One exclusive left-turn lane and one through lane on the westbound approach.</li> </ul> <p>No project-specific phasing program has been submitted with the Specific Plan and no housing allocations have been awarded, so mitigation timing is unknown at this time. The timing of improvements would depend on the location and amount of development. Furthermore, not all of the improvements (i.e., traffic</p>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>signals on West A Street) may be necessary with the elimination of the Batavia Road/I-80 ramps connection. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant shall pay a fair share for future improvements.</p> <p>3. <u>Eastbound I-80 Ramps/Batavia Road Intersection.</u> The project applicant shall implement Mitigation Measure 2 above, which would provide acceptable LOS B operations during both the a.m. and p.m. peak hours under existing plus project conditions.</p> <p>4. <u>West A Street/Gateway Drive Intersection.</u> The project applicant shall implement Mitigation Measure 2 above, which would provide acceptable LOS B operations during a.m. peak hour and LOS C operations during the p.m. peak hour under existing plus project conditions.</p> <p>5. <u>West A Street/Evans Road Intersection.</u> The project applicant shall install a traffic signal at the West A Street/Evans Road intersection and widen the northbound, southbound, eastbound, and westbound approaches to provide the following turn lane configurations:</p> <ul style="list-style-type: none"> <li>• One exclusive left-turn lane and a shared through/right-turn lane on the northbound approach;</li> <li>• One exclusive left-turn lane, a shared through/right-turn lane, and exclusive right-turn lane on the southbound approach;</li> <li>• One exclusive left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach; and</li> <li>• One exclusive left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.</li> </ul> <p>No project-specific phasing program has been submitted with the Specific Plan and no housing allocations have been awarded, so mitigation timing is unknown at this time. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation</p>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPAIRMENTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>and Circulation Element Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant will pay a fair share for future improvements. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.</p> <p>6. <u>Pitt School Road/Eastbound I-80 Ramps Intersection.</u> The project applicant shall install a traffic signal at the Pitt School Road/Eastbound I-80 Ramps intersection and widen the eastbound approach to include an exclusive left-turn lane, one through lane, and an exclusive right-turn lane. In addition, provide right-turn overlap phasing on the northbound, eastbound, and westbound approaches. Installation of the traffic signal is included in the City of Dixon AB 1600 Facilities and Equipment Study (March 2000) as being funded by traffic impact fees imposed on new development. However, the proposed Specific Plan could require implementation of the improvements prior to their programmed installation. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and widening prior to the programmed installation of these improvements, then the project applicant shall be required to install the improvements and shall be reimbursed. If the traffic signal is installed prior to the programmed installation of these improvements, then the project applicant shall be responsible for widening the intersection and modifying the signal. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.</p> <p>7. <u>West A Street/Pitt School Road Intersection.</u> The project applicant shall install a traffic signal at the West A Street/Pitt School Road intersection and widen the northbound, eastbound, and westbound approaches to provide the following turn lane configurations:</p> <ul style="list-style-type: none"> <li>• One exclusive left-turn lane and a shared through/right-turn lane on the northbound approach;</li> <li>• One exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound approach; and</li> <li>• One exclusive left-turn lane, two through lane, and an exclusive right-</li> </ul>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p align="center">turn lane on the westbound approach.</p> <p>In addition, provide right-turn overlap phasing on the southbound, eastbound, and westbound approaches. Installation of the traffic signal is included in the City of Dixon AB 1600 Facilities and Equipment Study (March 2000) as being funded by traffic impact fees imposed on new development. However, the proposed project could require implementation of the improvements prior to their programmed installation in AB 1600. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Element Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and widening prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be required to install the improvements and shall be reimbursed by AB 1600. If the traffic signal is installed prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be responsible for widening the intersection and modifying the signal. Implementation of this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.</p> <p>8. <u>West A Street/Lincoln Street Intersection.</u> The project applicant shall install a traffic signal at the West A Street/Lincoln Street intersection and widen the northbound and southbound approaches to include a shared through/left-turn lane and an exclusive right-turn lane. In addition, provide right-turn overlap phasing on the northbound, southbound, and eastbound approaches. The project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.</p> <p>9. <u>West A Street/North Adams Street Intersection.</u> The project applicant shall reimburse the City for the cost to modify the traffic signal cycle length and green time allocations "splits" at the West A Street/North Adams Street intersection. Signal timing modifications are done on a routine basis to account for change in demand and hourly variations in traffic flow. The reimbursement shall be completed prior to the issuance of building permits. Implementation of</p>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>10. this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.</p> <p><u>West A Street/First Street Intersection.</u> The project applicant shall install a traffic signal at the West A Street/First Street intersection and re-stripe the eastbound and westbound approaches to provide one exclusive left-turn lane and a shared through/right-turn lane, which will require the elimination of about 24 existing on-street parallel parking spaces. These improvements are consistent with the recommendations that were identified in the City of Dixon First Street (SR 113) and A Street Intersection Operations Study (January 10, 2001). Installation of the traffic signal is included in the City of Dixon AB 1600 Facilities and Equipment Study (March 2000). This improvement is funded with construction anticipated in 2003. If construction of this improvement does not occur as anticipated, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and re-striping prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be required install the improvements and shall be reimbursed by AB 1600. Implementation of this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.</p>	
3.4-B	Implementation of the proposed Specific Plan would create inconsistencies with roadway-related standards of the City of Dixon Engineering Design Standards & Construction Specifications (June 1, 2000).	<p>PS 1. The project applicant shall modify the proposed street classifications and street cross-sections to be consistent with the standards identified in the City of Dixon Engineering Design Standards &amp; Construction Specifications. This modification would result in consistency of the Specific Plan with General Plan policy.</p>	LS
3.4-C	The project would add traffic to existing segments of Batavia Road, Pitt School Road, and South Lincoln Street which currently do not meet City of Dixon minimum roadway cross-section design standards.	<p>PS 1. For segments of Batavia Road, Pitt School Road, and South Lincoln Street that are located within the Specific Plan area, the project applicant shall modify the proposed street classifications and roadway cross-sections to be consistent with the standards identified in the City of Dixon Engineering Design Standards &amp; Construction Specifications.</p> <p>2. South Lincoln Street between the plan area and Porter Street shall be improved to standards identified in the City of Dixon Engineering Design Standards &amp; Construction Specifications.</p> <p>3. For segments of Batavia Road and Pitt School Road located outside the plan area in unincorporated Solano County, the project applicant shall make a fair-share contribution toward reconstruction of the road to meet City of Dixon standards. The fair-share contribution would be based on the project's traffic</p>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.4-D	Implementation of the proposed Specific Plan would increase demand for public transit service.	PS	<p>contribution relative to existing traffic on the roadway.</p> <p>1. The project applicant shall contribute its fair share of the capital cost associated with providing public transit service to the Specific Plan area. It is anticipated that new transit vehicles would be required to provide the additional service within the plan area. However, the final determination of additional capital equipment or other costs shall be determined by the City of Dixon and Fairfield-Suisun Transit. The fair-share cost or a plan for providing the fair-share cost over time shall be submitted to the City of Dixon prior to the issuance of building permits.</p>	LS
3.4-E	Implementation of the proposed Specific Plan would create inconsistencies with transit-related policies in the Dixon General Plan.	PS	<p>1. The project applicant shall modify the proposed Specific Plan to identify the specific locations for transit stops and bus turnouts. The City of Dixon and Fairfield-Suisun Transit shall approve the location, design, and implementation and timing of the park-and-ride lots, transit stops and bus turnouts prior to the issuance of building permits. This modification would result in consistency of the Specific Plan with the applicable General Plan policies.</p>	LS
3.4-F	Implementation of the five proposed projects would cause an increase in a.m. and p.m. peak hour traffic volumes at study intersections, causing unacceptable levels of service and warranting the installation of traffic signals.	PS	<p>1. As a condition of all development approvals, each project applicant shall prepare a project-specific traffic analysis based on the traffic study presented in this EIR to determine their responsibilities for intersection improvements and pro-rata share of mitigations for cumulative impacts. City staff shall review and approve each project-specific traffic analysis before development approval.</p>	LS
3.4-G	Implementation of the five proposed projects would create inconsistencies with roadway-related standards of the City of Dixon Engineering Design Standards & Construction Specifications (June 1, 2000).	PS	<p>1. The proposed Specific Plan roadway circulation system, including street classifications and cross-sections, shall be modified as described in the mitigation measures for Impacts 3.4-B and 3.4-C above. The five proposed projects shall be modified as necessary to reflect these changes.</p> <p>2. City of Dixon staff shall review the revised individual project plans and apply any necessary conditions of Tentative Subdivision Map approval to ensure compliance with the roadway-related standards of the City of Dixon Engineering Standards &amp; Construction Specifications (June 1, 2000).</p>	LS
3.4-H	Implementation of the five proposed projects would increase demand for public transit service.	PS	<p>1. Each project applicant shall contribute its fair-share of the capital cost associated with providing public transit service to the project area. It is anticipated that new transit vehicles would be required to provide the additional service within the plan area. However, the final determination of additional capital equipment or other costs shall be determined by the City of Dixon and Fairfield-Suisun Transit. The fair-share cost or a plan for providing the fair-share cost over time shall be submitted to the City of Dixon prior to the issuance of building permits.</p>	LS
3.4-I	Implementation of the five proposed projects would create inconsistencies with transit-related policies in the City of Dixon General Plan.	PS	<p>1. Project applicants shall modify the proposed Tentative Subdivision Maps to identify the specific locations for transit stops and bus turnouts. The City of Dixon and Fairfield-Suisun Transit shall approve the location, design, and implementation and timing of the park-and-ride lots, transit stops and bus turnouts prior to the issuance of building permits. This modification would result in consistency with the applicable General Plan policies.</p>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.4-J	Development of the proposed Specific Plan would generate about 53,250 daily vehicle trips, adversely affecting cumulative peak hour traffic operations.	PS	1. The project applicant shall participate in the road financing program in effect at the time for Specific Plan approval. A financing program is being developed to fund the improvements identified in the City of Dixon Draft Street Master Plan. The fee mechanism shall be established to fully fund necessary roadway/freeway improvements prior to approval of any tentative maps or issuance of building permits within the boundaries of the Specific Plan. These fees shall subsequently be charged for all development that proceeds in the Specific Plan area.	S
<b>3.5</b>	<b>Air Quality</b>			
3.5-A	Construction associated with buildout of the Specific Plan area would generate substantial emissions of ozone precursors and PM10 that could contribute to both local and regional violations of the ambient air quality standards for both PM10 and ozone.	PS	<p>Measures recommended by YSAQMD plus additional measures to reduce PM10 and ozone precursor pollutants include:</p> <ol style="list-style-type: none"> <li>1. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.</li> <li>2. Cover all hauling trucks or maintain at least two feet of freeboard. Dust-proof chutes shall be used as appropriate to load debris onto trucks during demolition.</li> <li>3. Pave, apply water daily, or, as appropriate, apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</li> <li>4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.</li> <li>5. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas that are inactive for 10 days or more).</li> <li>6. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.</li> <li>7. Limit traffic speeds on any unpaved roads to 15 mph.</li> <li>8. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>9. Replant vegetation in disturbed areas as quickly as possible.</li> <li>10. Install wheel washers for all exiting trucks, or wash off the tires or tracks of all</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>trucks and equipment leaving the site.</p> <ol style="list-style-type: none"> <li>11. Install wind breaks, or plant trees/vegetative wind breaks at the windward side(s) of construction areas.</li> <li>12. Suspend excavation and grading activity when winds exceed 25 mph and dust clouds extend beyond construction areas.</li> <li>13. Limit the area subject to excavation, grading, and other construction activity at any one time.</li> <li>14. Properly maintain construction equipment and avoid unnecessary idling near residences.</li> <li>15. If feasible, 20 percent of mobile construction equipment used at the site should be considered "new" (i.e., manufactured after 1996). Construction contractors will maintain records to demonstrate compliance.</li> <li>16. Where reasonable and feasible, use cleaner burning (low NOx and low PM) diesel fuels.</li> <li>17. At least once per month, the YSAQMD shall ensure that construction mitigation measures are in place.</li> </ol>	
3.5-B	Future use of the Specific Plan area development would emit levels of ozone precursor pollutants and fine particulate matter (PM10) that exceed quantitative long-term emissions thresholds established by the YSAQMD.	<p>PS</p> <p>The following mitigation measures would indirectly reduce air pollutant emissions. The City should consider requiring these design recommendations as Specific Plan development standards.</p> <ol style="list-style-type: none"> <li>1. Pedestrian facilities. Pedestrian access should be maximized for each project within the plan area. Developers should provide pedestrian egress at the ends of cul-de-sacs wherever feasible. Similarly, access should be provided from medium/high density residential homes to the shopping area facing Gateway Drive.</li> <li>2. Street standards. To encourage walking and bicycling, the City could require narrower streets. The City may wish to consider limiting on-street parking on local streets and cul-de-sacs. However, it is recognized that the City may determine that narrower streets are not desirable due to safety and emergency access needs. If long road sections are allowed, then traffic calming features should be incorporated into the design.</li> <li>3. Safe crossing points. Safe crossings should be designated at all intersections along Gateway Drive, North Parkway, and South Parkway. These crossings should utilize well-marked crosswalks, where warranted, and a central median (refuge). These safe crossings should be developed with input from the Dixon Unified School District.</li> </ol>	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<ol style="list-style-type: none"> <li>4. School transit. Because parents driving children to and from school is a major source of local trips, the City could require that developers finance school bus service to serve all projects within the plan area.</li> <li>5. Commuter facilities. The park and ride facility described in Policy 6.4.3 of the Draft Specific Plan shall be developed. The City shall determine the location and size of this facility. Consistent with Implementation Program 6.4a of the Draft Specific Plan, commercial facilities within 0.5 mile of Interstate 80 should designate 5 percent or more of their peripheral parking spaces for park and ride use. These spaces should be near Interstate 80 on and off ramps.</li> <li>6. Transit infrastructure. Consistent with Implementation Program 6.4b of the Draft Specific Plan, provide bus turnouts, covered benches, signage, and other facilities that serve local residents. The City and local transit providers should determine the location of these facilities.</li> <li>7. Shade trees and landscaping. Trees (approved by the City) should be planted along streets and in parking lots sufficient to shade approximately 50 percent of the asphalt on a typical summer afternoon within 10 years.</li> <li>8. Encourage use of electrical/natural gas appliances and vehicles. For all dwelling units, provide outdoor electrical outlets and encourage use of electrical landscape maintenance equipment. Also, provide electrical outlets for recharging electrical automobiles in commercial and industrial parking lots as well as new residences. Provide 220 V outlets in each residential garage suitable for electrical auto recharging. Provide a natural gas outlet at the back of each unit.</li> <li>9. Encourage use of solar power. Consider use of solar water heating in commercial, industrial and residential units. As an alternative, use additional insulation, better windows and doors, and other energy conservation measures sufficient to reduce energy use by 15 percent below that assumed using minimum Title 24 standards.</li> <li>10. Woodburning restrictions. The City should consider not allowing the use of any woodburning devices in new residences on the plan area. At a minimum, any new woodburning devices must comply with the most current EPA requirements for emissions.</li> <li>11. Neighborhood commercial development. To reduce motor vehicle trips, the City could consider allowing or requiring small neighborhood commercial centers (e.g., convenience market, video rentals, etc.) on the North Parkway and/or Pitt School Road.</li> </ol>	
3.5-C	Traffic generated by buildout of the Specific Plan area would increase carbon monoxide levels at congested intersections.	No mitigation is required.	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
3.5-D	Future industrial projects could generate toxic air contaminants and/or odors.	PS	<ol style="list-style-type: none"> <li>As a condition of approval, new projects in the Southwest Dixon Specific Plan Area shall comply with all rules of the YSAQMD regarding control of toxic air contaminants and odors.</li> <li>All new applications for industrial and commercial projects will submit a list of all materials and processes that could possibly emit toxic air contaminants or odors into the environment. The City will request YSAQMD to review the list to determine whether there is a potential for human health risk from these materials and processes. If YSAQMD determines that there is a risk that contaminants or odors could escape into the air and potentially cause a risk or nuisance to residents in the area, a Human Health Risk Assessment shall be prepared. If that Assessment determines that emissions would result in exceedances of YSAQMD, State, or Proposition 65 standards, the project will be denied unless changes are made to reduce emissions or odors to safe levels.</li> </ol>	LS
3.5-E	Future development of the plan area could be inconsistent with policies of the Dixon General Plan.	LS	No mitigation is required.	LS
3.5-F	Future development of the five proposed projects could adversely impact air quality.	PS	No mitigation is required beyond the mitigations required for Impacts 3.5-A and 3.5-B.	LS
3.5-G	Future development of the plan area and other areas could have significant air quality impacts.	PS	No mitigation is required beyond the mitigations required for Impacts 3.5-A and 3.5-B.	S
<b>3.6</b>	<b>Noise</b>			
3.6-A	Development of the Specific Plan area would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	PS	<ol style="list-style-type: none"> <li>A design-level noise study shall be performed for all subdivision maps where noise would exceed 60 dBA Ldn. The noise study will include noise attenuation design features to reduce exterior noise levels to below 60 dBA Ldn, or to the maximum degree feasible if a level of 60 dBA Ldn cannot be achieved. If quiet pavement is proposed, the noise study shall determine whether this paving adequately reduces noise levels to below 60 dBA Ldn, or whether additional mitigation is required. A report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA Ldn noise contour distances of local streets to show that future noise levels will not exceed 60 dBA Ldn or not exceed the ambient noise caused by I-80 and the railroad.</li> <li>Incorporate noise insulation treatments in residential units as necessary to achieve "acceptable" interior noise levels.</li> </ol> <p>All single- and multi-family residential land uses located within the 60 dBA Ldn contour distances shall be designed such that the indoor Ldn level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist, and the necessary noise control treatments included in the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants' discretion. Additional noise control treatments could include sound rated</p>	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA Ldn noise contour distances. A similar report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA Ldn noise contour distances to show how interior noise levels will be reduced to below 60 dBA Ldn. or not exceed ambient noise levels generated by traffic on I-80 and by the railroad operations.	
3.6-B	Development of the Specific Plan area would permanently increase the noise environment at existing noise-sensitive land uses as a result of vehicular traffic accessing the plan area.	PS 1. A design level noise study, as recommended for Impact 3.6-A, shall be conducted to identify measures to reduce plan area-generated traffic to less than a 3 dBA increase along West A Street between Gateway Drive and Almond Street and along Pitt School Road between West H Street and South Parkway. Measures may include paving or re-paving with quiet pavement, construction of new sound barriers, expansion of existing soundwalls, and/or construction of open space buffers.	S
3.6-C	The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.	PS 1. Implement construction noise control measures at all construction sites. The following measures are recommended and should be added as implementation programs.  <ul style="list-style-type: none"> <li>• Noise-generating activities at the construction site or in areas adjacent to the construction site associated in any way with new development on the plan area should be restricted to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities within 500 feet of residences should occur on Saturdays, Sundays, or holidays.</li> <li>• Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.</li> <li>• Unnecessary idling of internal combustion engines should be strictly prohibited.</li> <li>• Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise-sensitive receptors. Construct temporary barriers to screen stationary noise-generating equipment when located in areas adjoining noise sensitive land uses.</li> <li>• Utilize "quiet" air compressors and other stationary noise sources where technology exists.</li> <li>• Route all construction traffic to and from the project site via designated truck routes. Prohibit construction-related heavy truck traffic in residential areas where feasible. Prohibit construction truck traffic in the project vicinity prior to 7:00 a.m. or after 7:00 p.m. on</li> </ul>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>allowable construction days.</p> <ul style="list-style-type: none"> <li>• Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.</li> <li>• Notify adjacent residents to the project site of the construction schedule in writing.</li> <li>• Designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a noise disturbance coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)</li> </ul>	
3.6-D	Future non-residential land uses on the Specific Plan area would generate noise.	<p>PS</p> <ol style="list-style-type: none"> <li>1. An acoustical study prepared by a qualified acoustical consultant will be required for any proposed hotels or motels. The study will recommend design-level mitigation measures to provide acceptable interior levels within the guest rooms.</li> <li>2. An acoustical study prepared by a qualified acoustical consultant will be required for any other type of non-residential land use. This study will identify all on-site noise sources, including groundborne noise and vibrations, generated by the project and the effect on nearby residences. On-site noise generated by the proposed project will not be allowed to create additional noise at nearby residences that would exceed 60 dBA Ldn in the outdoor living space or 45 dBA Ldn in interior living spaces. If the noise levels at existing residences exceed 60 dBA Ldn prior to project operation, then the project-generated noise would not be allowed to exceed the then existing Ldn. The acoustical study may recommend mitigation measures that would reduce noise impacts to the acceptable levels described above.</li> </ol> <p>Groundborne vibrations will not be allowed to be noticeable at the nearest residence.</p> <p>The acoustical study shall also examine periodic noise events such as back-up beepers, idling delivery trucks, and periodic machine noise. Design-level mitigation measures shall be included to ensure that nearby residents are not exposed to periodic noise occurring on a regular basis.</p>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		3. Construct ballfields on the community park site as near the south end of the park site as feasible.  4. As part of the project-level CEQA review for the future arterial between Pitt School Road and South First Street, conduct an acoustic analysis of the effects of traffic on that street on residences near the street. If noise levels would increase ambient noise levels by greater than 3 dBA Ldn, require the use of quiet pavement or other noise reduction techniques that reduce the noise increase to less than 3 dBA Ldn, or provide soundwalls or berms between the road and residences to reduce the noise increase to less than 3 dBA Ldn.  5. Insulate the pump at the Southwest Water Facility so that it is inaudible at the nearest residential property.	
3.6-E	Future development of the Specific Plan area could be inconsistent with the Dixon General Plan.	LS	LS
3.6-F	Future development could generate excessive groundborne vibrations and/or noise, and future residents could be exposed to excessive groundborne vibrations and/or noise.	PS	LS
3.6-G	The construction of the five projects would temporarily elevate noise levels at existing and future noise-sensitive land uses.	PS	LS
3.6-H	The Evans Ranch project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	PS	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>2. Alternatively, pave or re-pave streets with "quiet" pavement. A design-level acoustical study will be conducted to show whether such paving reduces traffic-generated noise on local streets to less than 60 dBA Ldn or does not exceed ambient noise levels generated by traffic on I-80 and by the railroad operations. It is possible that noise barriers may not be required on all or some of the affected streets if such alternate methods are employed.</p> <p>3. Incorporate noise insulation treatments in residential units as necessary to achieve "acceptable" interior noise levels. All single- and multi-family residential land uses located within the 60 dBA Ldn contour distances should be designed such that the indoor Ldn level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants' discretion. Additional noise control treatments could include sound rated windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA Ldn noise contour distances.</p>	
3.6-I	The Orchard Estates - Sanders Property project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	PS The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-9 feet in elevation.	S
3.6-J	The Orchard Estates - Garcia Property project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	PS The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-9 feet in elevation.	S
3.6-K	The Dixon Ridge project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	PS The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-13 feet in elevation.	S
3.6-L	The Clark Ranch Estates/Clark Property-Ryder Homes project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.	LS No mitigation is required.	LS
3.6-M	Traffic generated by Specific Plan development plus other new development would increase noise levels along roadways.	PS The same mitigation measures recommended for Impact 3.6-B will apply. It is possible that the use of quiet pavement could reduce year 2005 cumulative noise impacts to less than a 3 dBA increase. If use of this pavement does not adequately reduce noise, then sound barriers could be required due to the combination of plan area buildout and other new development in the City. The City will monitor traffic noise on the affected streets and determine if and when sound barriers are needed. Specific Plan area developers and other new development generating traffic on the affected streets will pay for this monitoring. If sound walls are required, they will be financed by Specific Plan area	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		developers and other new development.	
<b>3.7</b>	<b>Aesthetics</b>		
3.7-A	Future development of the Specific Plan area would alter views from Interstate 80.	<p>PS</p> <p>The following mitigations will be added as Implementation Programs under Goal 2.2 of the Specific Plan.</p> <ol style="list-style-type: none"> <li>1. A landscaping plan for the Interstate 80 frontage shall be designed by a qualified landscape architect. This plan shall include provisions for the following:               <ol style="list-style-type: none"> <li>a. The species of trees to be planted will be trees capable of growing and surviving in the Dixon climate.</li> <li>b. The trees will be capable of growing to a height of at least 30-feet tall within the shortest time feasible, but no more than ten years.</li> <li>c. Trees shall be planted close enough together to provide thorough screening. Alternatively, the trees that will eventually provide canopy screening can be interplanted with shrubs or small trees in the foreground that will provide dense screening from 6-12 feet in height.</li> <li>d. The City should consider whether the landscaping should provide more than a "screen." Given the importance of this freeway frontage, the landscaping plan should include a variety of native and non-native shrubs west of the trees. These shrubs should include flowering species. The City may also wish to require plantings of native and non-native wildflowers west of the shrubs to provide additional color and visual interest.</li> <li>e. The landscaping plan shall show how each of these landscape components would be placed within the landscaping buffer. If the City requires more than simply a line of screening trees, then the buffer may need to be widened in order to provide foreground flowers, midground flowering shrubs and small trees, and background taller evergreen trees. The width of the landscaping buffer will be determined once a satisfactory landscaping plan is designed and adopted by the City. In some locations, it is expected that the buffer would need to be at least 50-feet wide.</li> <li>f. A complete fertilization, irrigation, and landscape maintenance program shall be included for all landscape components.</li> </ol> </li> <li>2. The landscaping plan for the Interstate 80 frontage shall be prepared and approved by the City prior to approval of the first subdivision map. The landscaping shall be installed prior to occupancy of the first residence or</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>business on the Specific Plan area.</p> <p>3. The Specific Plan shall identify which entity is responsible for the planting of the Interstate 80 frontage landscaping and its maintenance. The responsible entity will ensure that all trees and shrubs that die are replanted within the next growing season. Maintenance and replanting of dead or diseased trees and shrubs will be the responsibility of the responsible entity for at least 10 years or whatever duration determined desirable by the City of Dixon. Similarly, if wildflowers or other flowering herbaceous species are required for the foreground portion of the landscape buffer, the responsible entity will be responsible for replanting said species if they do not naturally reseed. The City will determine when the flowering plant population has declined to a point where it needs to be replanted or supplemented with additional seeding/plantings.</p> <p>4. An overall design plan shall be prepared by the developer for the General Commercial development on the Evans Ranch property. Subsequent applications to develop other General Commercial, Highway Commercial, and Employment Center sites will be required to be consistent with the design motif of the commercial development on the Evans Ranch site unless the City determines that an alternative design motif is aesthetically pleasing and acceptable.</p> <p>5. Night lighting of non-residential buildings will be limited to the minimum number needed. Other lighting requirements include:</p> <ul style="list-style-type: none"> <li>a. Lighted commercial signs, other than the Gateway tower sign discussed in Impact 3.7-B, should not be visible from the freeway south of West A Street.</li> <li>b. All lighting shall be shielded and directed downward.</li> <li>c. Lighting elements will be recessed within fixtures to prevent glare.</li> <li>d. High-angle, high-candela lighting distribution shall be prohibited.</li> <li>e. Lighting fixtures will be selected so they can be further shielded after installation, if a problem is identified.</li> <li>f. Because light trespass effects are subjective and site-specific, quantifiable criteria (such as controlling the amount of luminescence or restricting certain angles of lighting) usually cannot be identified. For this reason, project applicants shall consult a lighting design specialist to determine light source locations, light intensities, and types of light sources for all non-residential development. A lighting plan for non-residential development, roadways, and public areas shall be</li> </ul>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.7-B	Future development of the Specific Plan area would alter views from West A Street.	<p align="center">developed and incorporated into final project plans.</p> <p>The following mitigation measures shall be added as Implementation Programs under Goal 2.2 of the Specific Plan.</p> <ol style="list-style-type: none"> <li>1. Prior to Specific Plan approval, the City should determine whether the tall tower sign is allowable per the Zoning Ordinance. If the sign is not permitted, then reference to said sign should be deleted from the Specific Plan. If this sign is allowed, an implementation program shall be added to the Specific Plan stating that the sign shall be designed by a qualified architect or sign designer. The design and the information to be placed on the sign shall be subject to Design Review.</li> <li>2. Commercial signs along West A Street shall be kept to a minimum in number and size. No temporary signs shall be allowed (e.g., banners announcing special sales events). Lighting of signs shall be reviewed by the City to ensure that lights are not excessively bright in color or otherwise aesthetically displeasing.</li> <li>3. A lighting plan and the other lighting mitigations recommended under Mitigation Measure No. 6 for Impact 3.7-A shall be required.</li> <li>4. The landscaping along the south edge of West A Street will include shrubs and small trees planted between the larger trees proposed in the Specific Plan. The aim of this landscaping will be to provide a vegetative screen towards the commercial center and highway commercial uses. The landscaping buffer along the frontage of the commercial development shall be of sufficient width to allow screening of parked cars; this width may exceed the minimum widths set forth in Section 12.26.07 of the Dixon Zoning Ordinance. While the screening will not be total due to intervening streets and driveways, the resulting screening will soften the appearance of the new commercial development and parking lots. This additional landscaping will be included as a component in a landscaping plan which will be required for all new non-residential development fronting West A Street. The landscaping could also include low-growing flowering plants. All landscaping will be subject to a landscape maintenance plan.</li> <li>5. An overall design plan shall be prepared by the developer for the General Commercial development on the Evans Ranch property. Subsequent applications to develop other General Commercial, Highway and parking, and Employment Center development will be required to be consistent with the design motif of the commercial development on the Evans Ranch site unless the City determines that an alternative design motif is aesthetically pleasing and acceptable.</li> <li>6. Alternate methods to reduce noise as recommended in the mitigation measures</li> </ol>	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
			<p>for Impact 3.6-C should be implemented. Soundwalls should be installed only if absolutely necessary to reduce noise impacts.</p> <p>7. Prior to development of the Community Park, a lighting plan shall be prepared consistent with Implementation Program 7.6e of the Draft Specific Plan. As far as feasible, ballfield lighting shall be directed and/or shielded so as to not create glare at existing residences on the north side of West A Street and the east side of Pitt School Road south of West A Street. Developers of all residences adjacent to the community park that are to be constructed prior to full park development shall notify in writing potential buyers that a park complete with lighted ballfields will be constructed on the park site.</p>	
3.7-C	Future development of the Specific Plan area would affect views from other vantage points adjacent to or on the Specific Plan area.	PS	<p>The following mitigation measures shall be added as Implementation Programs under Goal 2.2 of the Specific Plan.</p> <ol style="list-style-type: none"> <li>1. A landscaping plan shall be required for all new General Commercial and Employment Center projects. The landscaping plan will include tree screening and other landscaping similar to that described for Mitigation Measure No. 1 for Impact 3.7-A between all non-residential buildings and adjacent residential areas.</li> <li>2. Signs facing residential areas shall be prohibited.</li> <li>3. Lighting facing residential areas shall be kept to a minimum and shielded so no glare extends to residential areas.</li> <li>4. Alternate methods to reduce noise as recommended in the mitigation measures for Impact 3.6-B should be implemented. Soundwalls should be installed only if absolutely necessary to reduce noise impacts.</li> <li>5. The Southwest Water Facility should be relocated immediately east or west of Batavia Road. If this facility is not relocated as recommended, then a design and landscaping plan shall be prepared and approved by the City. This plan shall include extensive landscaping to ensure that the tank and attendant facilities are screened to the extent possible from adjacent public streets and residences.</li> <li>6. When constructing the new arterial connecting Pitt School Road and South First Street, provide landscaping, berms, or fencing to screen views of the new road from residences within 150 feet of that new road. The future CEQA study that will be conducted for this future project may require additional landscaping or design mitigation measures.</li> </ol>	S
3.7-D	Future development of the Specific Plan area could be inconsistent with City General Plan policies and other City regulations.	PS	The other mitigations recommended for Aesthetics apply to this impact.	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.7-E	Future development of the Evans Ranch project would alter views from public and private vantage points.	PS	<ol style="list-style-type: none"> <li>The mitigations required for Impacts 3.7-A, 3.7-B, and 3.7-C will apply to this project. For the recommended mitigation measures for Impact 3.7-B, the improvements to West A Street shall be completed prior to approval of project occupancy.</li> <li>The landscaping plan must include sufficient landscaping between residential units and parking lots so that parked cars will not be visible from residential units.</li> </ol>	S
3.7-F	Future development of the Dixon Ridge project would alter views from public and private vantage points.	PS	The mitigations required for Impact 3.7-A and Mitigation Nos. 4 and 6 for Impact 3.7-B shall apply to this project. For the recommended mitigation measures for Impact 3.7-B, the improvements to West A Street shall be completed prior to approval of project occupancy.	S
3.7-G	Future development of the Clark Ranch Estates, Orchard Estates - Sanders Property, and Orchard Estates - Garcia property projects would alter views from public and private vantage points.	PS	No additional mitigation is required for these three projects, other than the required landscaping recommended in Mitigation Measures No. 1 and No. 2 for Impact 3.7-A would apply.	S
3.7-H	Future development of the General Commercial development on the Evans Ranch and adjacent Highway Commercial development would combine with development on the Gateway Center and the Pheasant Run site to impact views along West A Street.	PS	No additional mitigation measures are feasible.	S
<b>3.8</b>	<b>Hazards and Hazardous Materials</b>			
3.8-A	Future commercial and light industrial businesses could use hazardous materials which could escape into the environment.	PS	<ol style="list-style-type: none"> <li>The following section shall be added to Implementation Program 5.2a:   <b>Hazardous Materials</b>                       Each project proposal shall provide the Solano County Department of Environmental Health with a complete list of all chemicals and other potentially hazardous materials that will be used, stored, or sold on the project site.                       If the Solano County Department of Environmental Health determines that the materials used, stored, or sold could pose a potential safety hazard, the applicant shall provide a Hazardous Materials Business Plan with the Solano County Department of Environmental Health, and the applicant shall implement the adopted plan. Such a plan will identify the plans, as applicable, for storage and use of all hazardous materials, describe the safety procedures to be employed by workers, and detail the proposed notification and emergency response actions in the event of an accidental release of chemicals from the facility. The plan shall contain similar information pertaining to the storage and use of gasoline, diesel fuel, or other fuels. Material storage areas shall include appropriate containment for hazardous materials used in the operation of each project.</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>Each project will comply with all pertinent State and Federal laws regarding hazardous materials transport, handling, and storage and worker safety. Each project shall prepare any additional information requested by the Solano County Department of Environmental Health and shall comply with any additional requirements established by the City and/or the Solano County Department of Environmental Health.</p> <p>2. The addition described above shall also be added as Implementation Program 5.1d to ensure that the same protections are provided for commercial business that may use hazardous materials.</p>	
3.8-B	The Specific Plan area contains areas of contamination that could pose a safety hazard for workers and residents.	<p>PS</p> <p>Add the following mitigation measures as a new policy and/or implementation programs to the Specific Plan.</p> <p>1. A Phase I Environmental Site Assessment of the Specific Plan area or for each project shall be prepared pursuant to the requirements set forth in ASTM E 1527-97. If this Site Assessment determines there are potential soil or groundwater contamination, the areas of contamination shall be evaluated to determine the level of remediation needed to satisfy the requirements of the Solano County Department of Environmental Management and the recommendations shall be implemented.</p> <p>2. Risk Assessments of each project site shall be conducted to determine the health risk from workers and residents being exposed to chemical residues in the soil. Even if those Risk Assessments determine that chemical residue levels are not a significant health risk and are below Proposition 65 no significant risk levels, the City may require that engineering controls, as recommended by the Solano County Department of Environmental Management, and warnings to workers and future residents be implemented.</p>	LS
3.8-C	The use of agricultural chemicals by neighboring agricultural operators could pose a health risk for residents and workers in the Specific Plan area.	<p>PS</p> <p>Revise Implementation Program 3.1b of the Specific Plan to incorporate the following mitigation measures:</p> <p>1. A ground spray application buffer of at least 200 feet will be provided between the point of spray application and the nearest residential property or park on the plan area. This buffer is required only if the adjacent agricultural operation uses Category One or Two materials. This buffer can be on the Specific Plan area and/or on adjacent agricultural properties. The following options are possible:</p> <p>a. The buffer can be located entirely on the Specific Plan area.</p> <p>b. The buffer can be entirely on the adjacent agricultural property. Developers of Specific Plan area properties will be required to provide evidence of an easement with the neighboring landowner that binds the owner that the point of spraying of Category One or Two materials will</p>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
		<p>be at least 200 feet from the nearest non-target portion of the Specific Plan area. The easement must be in a form that is acceptable to the City.</p> <p>c. The buffer can be partly on the Specific Plan area and partly on adjacent agricultural properties. Because Permit Condition G already requires a 100-foot spray restriction, the remaining 100 feet of buffer could be entirely or partly on the Specific Plan area.</p> <p>2. If pedestrian paths and/or bike lanes are provided along South Parkway, then at least a 200-foot buffer will be provided between spray operations and the pedestrian path and/or bikelane or the pedestrian and bicycle facilities shall be signed to warn users of spray operations when Category One or two materials will be sprayed within 200 feet of the path or bike facility. Signs shall be placed at each street intersecting South Parkway. Southwest Dixon Specific Plan policies shall be modified to permit sign posting on Specific Plan properties.</p>		
3.8-D	Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address protecting residents from hazardous materials.	PS	The mitigation required for Impact 3.8-C applies to this impact.	LS
3.8-E	The five project sites could include areas of soil and groundwater contamination. Exposure to this contamination could pose a significant health risk.	PS	The mitigation measure required for Impact 3.8-B would apply to each future project.	LS
3.8-F	The Evans Ranch project includes commercial development which could use, store, or handle hazardous materials.	PS	The mitigation required for Impact 3.8-A would apply to this project	LS
3.8-G	The five projects all abut agricultural properties where spray drift could adversely affect future residents and workers.	PS	The mitigation measure recommended for Impact 3.8-C would apply to each project.	LS
<b>3.9</b>	<b>Population and Housing</b>			
3.9-A	The Specific Plan would induce a substantial increase in population in the plan area.	LS	No mitigation is required.	LS
3.9-B	Development in accordance with the Specific Plan may displace existing housing units and residents in the plan area.	LS	No mitigation is required.	LS
3.9-C	If residential development in the Specific Plan area fails to meet the affordability needs of a range of households and income levels, it might not comply with the Association of Bay Area Governments' regional housing need determinations and related Dixon General Plan policies.	PS	<p>1. Require the applicant to submit (a) a Project Housing Strategy that specifies project housing affordability goals, and (b) an associated Housing Mix and Affordability Monitoring Program that evaluates progress in meeting affordability goals. Incorporate these documents into the affordable housing provisions of the applicable development agreements.</p> <p>The Project Housing Strategy should identify (a) the City's remaining affordable housing needs, based on ABAG's housing needs determinations; and (b) fair share housing responsibilities and mechanisms that will be incorporated into future development plans for individual properties within the Specific Plan area.</p>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
		The Housing Mix and Affordability Monitoring Program should consist of an annual housing report to the City to provide a basis for evaluating whether the Project Housing Strategy housing type and affordability goals are being met. The annual reports could coincide with the annual review of the Specific Plan provided for by Specific Plan Policy 8.3.2 and Implementation Program 8.3a. The results of these annual reports should be considered in the review and approval of future individual project subdivision plans.		
3.9-D	Development in accordance with the Specific Plan has the potential to affect the citywide jobs/housing balance.	LS	No mitigation is required.	LS
3.9-E	Residential development proposed by the Specific Plan has the potential to conflict with the City of Dixon's Measure B, as well as the City ordinance implementing this measure and the related Dixon General Plan policy specifying a mix of 80 percent single-family and 20 percent multi-family housing.	PS	<ol style="list-style-type: none"> <li>1. Require the applicant to revise the Specific Plan so that 20 percent (244 units) of the proposed 1,221 total housing units are multi-family.</li> <li>2. Require the applicant to submit a Project Housing Strategy and a Housing Mix and Affordability Monitoring Program, as specified in the mitigation measure for Impact 3.9-C above, to provide a mechanism for ensuring "development of multi-family housing concurrently with the development of any single-family housing," as required by the Measure B implementing ordinance (City of Dixon, Ordinance No. 02-003, Section 1.01(k)).</li> <li>3. Address compliance with Measure B growth limitations in future development agreements for individual projects within the Specific Plan area.</li> </ol>	LS
<b>3.10</b>	<b>Land Use</b>			
3.10-A	Development of the Specific Plan area would displace "Prime Farmland."	PS	<ol style="list-style-type: none"> <li>1. Each developer will acquire off-site land within the Dixon Planning Area or within a ten-mile radius of the City, or each developer will participate in the City's master agricultural conversion program. Each developer will pay the fee established for this program at the time of the City's approval of the tentative subdivision map.</li> </ol>	S
3.10-B	Development of the Specific Plan area could result in agricultural operators within and adjacent to the Specific Plan area being required to restrict their operations and/or to cease those operations.	PS	The mitigation measures recommended for Impact 3.8-C apply.	LS
3.10-C	Development of the Specific Plan area could be inconsistent with the Williamson Act.	PS	<ol style="list-style-type: none"> <li>1. Relocate the Southwest Water Facility as recommended in Mitigation No. 5 for Impact 3.7-C.</li> </ol>	LS
3.10-D	Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address the preservation of agriculture and agricultural soils.	LS	No mitigation is required beyond those required for Impacts 3.10-A and B.	LS
3.10-E	Development of the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies and zoning provisions that address future land use patterns.	LS	No mitigation is required.	LS

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(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
3.10-F	The Specific Plan would create the potential for conflicts between on-site residential uses and commercial and employment center uses.	PS	1. Modify the proposed Design Guidelines and Standards (Specific Plan Appendix A) to include the following guideline (which is already provided for highway commercial use – see Specific Plan Appendix A, page A-19):  "Provide a satisfactory buffer where community commercial or employment center use adjoins multi-family residential use. A minimum planter width of five feet is needed, with plantings which will provide a 15-foot high evergreen screen within five years. To avoid glare problems affecting neighboring residential use, lighting on community commercial or employment center property shall be strictly controlled in keeping with the Zoning Ordinance. Organize use of the property so that trash collection areas and other noise-producing activities are located away from the common property boundary with residential use."	LS
3.10-G	The Specific Plan would create the potential for conflicts between on-site residential uses and the community and neighborhood parks.	LS	No additional mitigation is required.	LS
3.10-H	The Specific Plan would create the potential for conflicts between new development and existing lower density, rural residential development within the Specific Plan area that would remain as the plan area develops.	LS	No additional mitigation is required.	LS
3.10-I	Proposed single-family and multi-family residential areas may differ in character and scale, creating the potential for building shadowing, view blockage, traffic, noise, and other land use-related effects.	LS	No additional mitigation is required.	LS
3.10-J	In several locations (along West A Street, Pitt School Road, Evans Road, Gateway Drive, and North Parkway), proposed residential development would adjoin proposed major (arterial or commercial collector) streets. The location of these residential areas next to these future busy roads has the potential to create visual, noise, and air quality problems for project residents.	PS	1. Incorporate design criteria into the proposed Specific Plan and/or future design plans for areas where residential development would adjoin arterial or collector streets. These design criteria shall be modified to reflect the mitigation measures recommended in Sections 3.4 (Traffic and Circulation), 3.5 (Air Quality), 3.6 (Noise), and 3.7 (Aesthetics) of this EIR.	LS
3.10-K	The Specific Plan would create potential land use conflicts and safety hazards by allowing urban development adjoining the existing Weyand Canal and two proposed detention ponds (Batavia Pond and West Pond).	PS	1. As a condition of approval for development on the Schroeder property, require applicant compliance with SID requirements for undergrounding or fencing of the Weyand Canal. (See Section 3.12, Water, of this EIR.)  2. As a condition of approval for development on the Andrews-Dixon (Evans Ranch) property, require applicant compliance with safety measures (e.g., fencing, setbacks) adjacent to the proposed Batavia and West Ponds. (See Section 3.2, Hydrology and Water Quality, of this EIR.) (See also Section 3. Project-Specific Impacts below.)	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
3.10-L	Proposed development of the Specific Plan area would alter the existing agricultural/rural residential land use character of the south Dixon vicinity by introducing urban development, road modifications, project-related traffic and noise, and other changes.	LS	No mitigation is required.	LS
3.10-M	Development of the five projects would result in loss of Prime Farmland and adversely affect neighboring agricultural operations.	LS	No mitigation is required.	LS
3.10-N	The Evans Ranch project would create the potential for conflicts between on-site residential uses and commercial uses.	PS	1. Carry out mitigation measures recommended for Impact 3.10-F, and apply the relevant performance standards and design guidelines to the Evans Ranch project. Also carry out mitigation measures recommended for Impact 3.6-G in Section 3.6, Noise, of this EIR.	LS
3.10-O	The Dixon Ridge and Orchard Estates-Sanders projects would create the potential for conflicts between residential uses and parks.	LS	No mitigation is required.	LS
3.10-P	On the Clark site, proposed residential development would create the potential for conflicts with the existing rural residence on the site, which would be preserved.	LS	No mitigation is required.	LS
3.10-Q	On the Evans Ranch and Dixon Ridge sites, proposed single-family and multi-family residential areas would differ in character and scale, creating the potential for building shadowing, view blockage, traffic, noise, and other land use-related effects.	LS	No mitigation is required.	LS
3.10-R	On the Evans Ranch, Dixon Ridge, Orchard Estates-Garcia, and Orchard Estates-Sanders sites, proposed residential development would adjoin proposed major (arterial or commercial collector) streets. The location of these residential areas next to these future busy roads has the potential to create visual, noise, and air quality problems for project residents.	PS	1. Carry out mitigation measures recommended for Impact 3.10-J, and apply the relevant design criteria to the Evans Ranch, Dixon Ridge, Orchard Estates-Garcia, and Orchard Estates-Sanders projects.	LS
3.10-S	On the Evans Ranch and Clark sites, low density housing would adjoin the proposed West Pond detention basin, creating the potential for land use conflicts and safety hazards.	PS	1. As conditions of approval for the Evans Ranch and Clark Ranch Estates/Clark Property-Ryder Homes Tentative Subdivision Maps, require that the areas adjoining the detention basin be fenced, or that the applicants demonstrate to City satisfaction that the basin is designed so as not to represent a safety risk.	LS
3.10-T	Development of the Clark site has the potential to be inconsistent with General Plan policies calling for phasing of development in an orderly, contiguous manner.	PS	1. As a condition of approval of the Clark Ranch Estates/Clark Property-Ryder Homes Tentative Subdivision Map, specify that the City of Dixon will not issue building permits for residential lots on the site until building permits for lots adjoining the Clark site on the Evans Ranch and Dixon Ridge sites have been issued.	LS
3.10-U	Development of the cumulative projects would result in loss of Prime Farmland and adversely affect neighboring agricultural operations.	PS	No additional mitigation is feasible.	S

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
3.10-V	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative changes in the land use character of the south Dixon area.	LS	No additional mitigation is required.	LS
<b>3.11</b>	<b>Fire Protection and Emergency Medical Response</b>			
3.11-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for fire response. The proposed Specific Plan would provide for a 0.47-acre fire station site within the plan area.	PS	<ol style="list-style-type: none"> <li>1. Ensure that the new on-site fire station is constructed, staffed with a minimum of six firefighters/paramedics, and equipped with one fire engine by the time that 30 percent of the plan area is developed.</li> <li>2. Require alarm systems and sprinklers in commercial buildings as required by the local fire code.</li> </ol>	LS
3.11-B	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for emergency medical aid.	PS	The mitigations required for Impact 3.11-A would apply.	LS
3.11-C	Development in the Specific Plan area may increase the demand for water to suppress fires.	PS	No additional mitigations beyond those required under Section 3.12, Water, are required	LS
3.11-D	Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies that address Dixon Fire Department service capabilities and adequate water flow for fire suppression.	PS	Mitigation measures recommended for Impacts 3.11-A and 3.11-C would resolve the potential inconsistencies with Dixon General Plan policies.	LS
3.11-E	Development of the five projects would increase calls for fire and emergency medical aid and demands for emergency water.	PS	No additional mitigation is required	LS
3.11-F	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for fire protection services, emergency medical services, and emergency water.	PS	Mitigation measures recommended for Impacts 3.11-A and 3.11-C apply.	LS
<b>3.12</b>	<b>Water</b>			
3.12-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for water service.	PS	<ol style="list-style-type: none"> <li>1. Before the first Final Subdivision Map approval for the Specific Plan area, the Specific Plan Water Master Plan shall be completed and submitted to the DSMWS and the City of Dixon for review and approval.</li> <li>2. The City and DSMWS shall update the DSMWS Water Master Plan and fee schedule, as needed, to include the development of a well to serve project development. The location and phasing of the well and related facilities shall be described in greater detail in the Specific Plan Public Facilities Financing Plan and Capital Improvements Plan. Individual projects proposed within the plan area shall pay for the construction of the new well. Facilities required prior to build-out shall be advanced by the developer and be subject to later reimbursement or credit.</li> <li>3. Before approval of the first Final Subdivision Map, the project applicant shall</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>provide confirmation that adequate fire flow exists throughout the development to meet the current DSMWS standards for fire flow and meets the approval of the City Engineer, DSMWS Engineering Staff, and Fire Chief.</p> <p>4. In its findings for future development agreements and other approvals carrying out the Specific Plan, the City of Dixon shall address water availability in accordance with SB 610 and SB 221.</p> <p>5. The applicant shall comply with mitigation measures identified for impacts on groundwater supply (Impact 3.2-E) in Section 3.2, Hydrology and Water Quality, of this EIR.</p> <p>6. The Southwest Water Facility shall be designed by the DSMWS, and plans and specifications shall be provided by the DSMWS. Construction may be contracted by the DSMWS, or the developer with inspection by the DSMWS. The facility shall be built at the developer's expense. Credit of the cost of construction against the developer's connection fees is a matter to be arranged between the developer and the City of Dixon.</p> <p>7. Sizing of the main water pipelines throughout the development area shall be determined by the DSMWS Engineer using computer modeling, which shall be done at the developer's expense.</p> <p>8. Plans and specifications for the water system construction shall be submitted to the DSMWS for review and approval. The DSMWS plan review fees apply and shall be due upon submittal of the maps or plans for review.</p> <p>9. The water distribution system shall be installed at the developer's expense. All construction shall conform to the DSMWS rules, regulations, and standards. All water system construction shall be inspected by the DSMWS at the developer's expense, the cost of which is not included in the DSMWS connection fees. The Southwest Water Facility site shall be one acre in size unless DSMWS approves a smaller size.</p> <p>10. The developer shall pay connection fees and meter installation fees adopted by the DSMWS for each service from the system, unless otherwise agreed between the developer and the City of Dixon.</p> <p>11. The portions of the Orchard Estates subdivisions east of South Lincoln Street are to be served by Cal Water per the Settlement Agreement and Mutual General Release among the Solano Irrigation District, City of Dixon, and California Water Service Company, dated July 8, 1992 (the Settlement Agreement). Any revision of the boundary would require an amendment to the Settlement Agreement and shall be coordinated between the DSMWS and Cal Water.</p>	

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.12-B	Development in accordance with the Specific Plan would include relocation or abandonment of various Solano Irrigation District (SID) irrigation facilities located in the plan area.	PS	<ol style="list-style-type: none"> <li>1. Before the first Final Subdivision Map approval and/or issuance of an occupancy permit for the Specific Plan area, the Specific Plan SID Irrigation Master Plan shall be completed and submitted to the SID and the City of Dixon for review and approval.</li> <li>2. The applicant shall be responsible for the costs of replacement of the existing Weyand Canal with an underground pipe. Alternatively, if the Weyand Canal is to be retained, the applicant shall apply for and receive approval of a variance from the SID policy requiring replacement of open canals with underground pipes in developed areas. To receive a variance from this SID policy, the developer would be required to submit a formal Letter Request for approval by the SID Board of Directors.</li> <li>3. Laterals in developed areas shall be reconstructed using rubber gasketed-reinforced concrete pipe. In addition, if agricultural irrigation service to a development area is waived or the land is detached from the SID, the capacity of the lateral through that area shall be sufficient to ensure that the rate of flow leaving the area is the same as that entering the area.</li> <li>4. The applicant shall be required to buy back any unused or abandoned SID easements that are not replaced with new rights-of-way. In all cases involving abandonment or realignment of facilities, the applicant shall enter into a standard SID Agreement for the Protection, Relocation or Reconstruction of District Facilities with the SID that specifies any required reimbursements.</li> <li>5. The applicant shall pay detachment fees for any properties detached from the SID service area.</li> </ol>	LS
3.12-C	Water facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects, for example by interfering with existing utilities and other facilities.	PS	<ol style="list-style-type: none"> <li>1. The project applicant shall identify any existing underground utilities prior to construction and avoid these utilities if possible. If avoiding interference with the utility is not feasible, the project applicant shall coordinate with the utility in question to alleviate the interference.</li> <li>2. South Lincoln Street between the plan area and Porter Street shall be widened to meet City standards for roadway and shoulder width.</li> </ol>	LS
3.12-D	Development of the five projects would increase demand for water service and require alteration in SID facilities.	PS	The mitigation measures recommended for Impacts 3.12-A to 3.12-C apply.	LS
3.12-E	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on water facilities.	PS	The mitigation measures recommended for Impacts 3.12-A to 3.12-D apply.	LS
<b>3.13</b>	<b>Wastewater Collection, Treatment, and Disposal</b>			
3.13-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for wastewater collection, treatment, and	PS	<ol style="list-style-type: none"> <li>1. Before the first Final Subdivision Map approval for the Specific Plan area, the Specific Plan Sanitary Sewer Master Plan shall be completed and submitted to the City of Dixon for review and approval.</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
	disposal service.	<ol style="list-style-type: none"> <li>2. Before approval of each Final Subdivision Map in the Specific Plan area, the applicant shall demonstrate that wastewater treatment plant capacity is adequate to serve the flows generated by new development covered by the Subdivision Map.</li> <li>3. Before approval of each Final Subdivision Map, the City of Dixon shall ensure that adequate sewer capacity is available in the conveyance system and at the wastewater treatment plant.</li> <li>4. Before approval of any Final Subdivision Map in which wastewater generated from development would exceed treatment or conveyance capacity, the City shall identify the program for plant capacity expansion and the project applicant shall agree to pay their fair share, in accordance with the AB 1600 fee program, of the wastewater treatment and collection facilities improvements identified by the City of Dixon.</li> <li>5. Widen South Lincoln Street as described in Mitigation No. 1 for Impact 3.2-C.</li> </ol>	
3.13-B	Groundwater could infiltrate the sewage collection system proposed for the Specific Plan area, causing flows into the conveyance line or the City's wastewater treatment plant to exceed capacity.	<ol style="list-style-type: none"> <li>1. The Specific Plan shall require that the sewer collection system be designed to reduce the potential for groundwater infiltration. The design shall comply with criteria established by the City, when such criteria are adopted. If such criteria have not been adopted before the first Tentative Subdivision Map approval for the plan area, each individual project shall identify specific design features that will be incorporated into wastewater line design and installation to minimize groundwater infiltration into the conveyance line and the wastewater treatment plant to ensure that these facilities are not adversely affected.</li> <li>2. Off-site infrastructure connections to the wastewater treatment plant shall be constructed at the start of project construction.</li> </ol>	LS
3.13-C	Sewer facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects, for example by interfering with existing utilities and other facilities.	<ol style="list-style-type: none"> <li>1. The project applicant shall identify any existing underground utilities prior to construction and avoid these utilities if possible. If avoiding interference with the utility is not feasible, the project applicant shall coordinate with the utility in question to alleviate the interference.</li> <li>2. Widen South Lincoln Street as described in Mitigation No. 1 for Impact 3.2-C.</li> </ol>	LS
3.13-D	Development of the five projects would increase demand for wastewater collection, treatment, and disposal service and create the potential for groundwater infiltration into the sewage collection system.	The mitigations recommended for Impacts 3.13-A to 3.13-C apply.	LS
3.13-E	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on wastewater facilities.	The mitigations recommended for Impacts 3.13-A to 3.13-C apply.	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
<b>3.14</b>	<b>Police Services</b>		
3.14-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for police response.	<p>PS</p> <ol style="list-style-type: none"> <li>1. Before approval of any Final Subdivision Map in the Specific Plan area, require a written indication from the Police Department that Department services will be adequate to serve the proposed development. Increase Department staffing and/or budget as necessary. The Department shall monitor its ability to serve development in the Specific Plan area on an ongoing basis through analysis of (a) the number of calls for service and crimes associated with development in the plan area, (b) the ratio of number of officers to residential population (with the goal of providing 1.5 officers per 1,000 population), and (c) the adequacy of required impact fees and General Fund revenues to provide the necessary level of service. The City shall consider other funding options, such as special taxes, benefit assessment districts, and utility user taxes, as necessary to provide the necessary level of police service. This measure would assist in carrying out Specific Plan Policies 7.7.2 and 7.7.5, and Implementation Program 7.7e.</li> <li>2. Before approval of any Tentative Subdivision Map in the Specific Plan area, require applicant compliance with Police Department requirements for street layout and emergency access. This measure would assist in carrying out Specific Plan Policy 7.7.3. The Police Department would work in conjunction with the Public Works Department and Fire Department.</li> <li>3. Before approval of any Final Subdivision Map in the Specific Plan area, require applicant compliance with Police Department requirements for (a) emergency access and surveillance (e.g., visible building entries), (b) distinct street names, and (c) visible address numbers. This measure would assist in carrying out Specific Plan Policies 7.7.3 and Implementation Program 7.7c. The Police Department would work in conjunction with the City Clerk and Fire Department.</li> </ol>	LS
3.14-B	Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies that address Dixon Police Department service capabilities.	Mitigation measures recommended for Impact 3.14-A would resolve the potential inconsistencies with Dixon General Plan policies.	LS
3.14-C	Development of the five projects would increase calls for police services.	Carry out mitigation measures recommended for Impact 3.14-A.	LS
3.14-D	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for police services.	Carry out mitigation measures recommended for Impact 3.14-A.	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
<b>3.15</b>	<b>Solid Waste Services</b>			
3.15-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would increase demand for solid waste collection and disposal services.	LS	No mitigation is required.	LS
3.15-B	Development of the five projects would increase demand for solid waste collection and disposal services.	LS	No mitigation is required.	LS
3.15-C	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for solid waste services and specifically for capacity at the B&J Landfill. B&J Landfill is expected to have adequate capacity to accept solid waste generated by cumulative development, however.	LS	No mitigation is required.	LS
<b>3.16</b>	<b>Parks and Recreation</b>			
3.16-A	New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for parks and recreational facilities. The proposed Specific Plan would provide for a 20-acre community park and a 2.47-acre neighborhood park. Certain Specific Plan provisions would need to be revised, however, to achieve consistency with Subdivision Ordinance requirements as well as Dixon General Plan and Parks Master Plan policies (see also Impact 3.16-B).	PS	<ol style="list-style-type: none"> <li>1. Revise Specific Plan Implementation Program 7.6a to state as follows: "Require developers of new residential subdivisions in Southwest Dixon to dedicate land and to pay fees for the development of parkland, or to pay a comprehensive fee in lieu of dedication for the acquisition and development of recreation facilities to serve the new population, in accordance with Dixon General Plan, Parks Master Plan, Subdivision Ordinance, and Assembly Bill (AB) 1600 fee requirements."</li> <li>2. Further revise Specific Plan Implementation Program 7.6a to delete the following two sentences, which are not necessary and may create confusion in determining applicable parkland dedication requirements: "Based on this standard, and baseline densities, a minimum of 18.3 acres of parkland would be required for residential buildout of the Plan Area. The Specific Plan proposes a total of 22.47 acres of parkland, including neighborhood and community parks."</li> <li>3. Carry out mitigation measures identified for Impact 3.16-B.</li> </ol>	LS
3.16-B	Park development in the Specific Plan area has the potential to be inconsistent with (1) Dixon General Plan provisions that address the location of the community park site in the plan area, and (2) Parks Master Plan provisions for the acreage of neighborhood parkland provided..	PS	<ol style="list-style-type: none"> <li>1. Revise the Specific Plan land use map to increase the size of the neighborhood park site to three acres, and make corresponding revisions to the Specific Plan text.</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS		SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
3.16-C	Development of the five projects would increase demand for parks and recreational facilities. The proposed 2.47-acre neighborhood park in the Orchard Estates-Sanders project would be inconsistent with the Parks Master Plan, which calls for a three-acre neighborhood park in the Southwest Dixon area.	PS	<ol style="list-style-type: none"> <li>1. Require each project to comply with the parkland dedication/acquisition and development fee requirements levied by the City of Dixon in accordance with the City's Subdivision Ordinance and Assembly Bill (AB) 1600.</li> <li>2. Revise the Orchard Estates-Sanders tentative subdivision map to increase the size of the neighborhood park to three acres, in accordance with the Dixon Parks Master Plan.</li> <li>3. Require each project to comply with applicable Specific Plan provisions and mitigation measures identified for Impacts 3.16-A and 3.16-B.</li> </ol>	LS
3.16-D	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area that have a residential component, would contribute to cumulative demands on parks and recreational facilities.	PS	Carry out mitigation measures recommended for Impacts 3.16-A through 3.16-C.	LS
				LS
<b>3.17</b>	<b>Schools</b>			LS
3.17-A	The 1,221 new residences proposed for the Specific Plan area would be expected to house an estimated 855 students who would need to be accommodated in Dixon Unified School District schools.	LS	No mitigation is required.	LS
3.17-B	Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan provisions that call for (1) provision of a school site in the plan area (General Plan land use map), and (2) certification from the Dixon Unified School District that all major requirements imposed by the District have been met (Public Services and Facilities Element Policy 34).	LS	No mitigation is required.	LS
3.17-C	Residential development proposed by the five projects would produce students who would need to be accommodated in Dixon Unified School District schools. The District's schools are currently operating over-capacity, and do not have room for additional students.	LS	No mitigation is required.	LS
3.17-D	Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area that have a residential component, would contribute to cumulative demands for school services.	LS	No mitigation is required.	LS
				LS
<b>3.18</b>	<b>Energy</b>			
3.18-A	Construction and future use of new development within the Specific Plan area would use large amounts of energy.	LS	No mitigation is required.	LS
3.18-B	Construction and future use of new development within the five projects would use large amounts of energy.	LS	No mitigation is required.	LS
3.18-C	Construction and future use of new development plus other cumulative projects would use large amounts of energy.	LS	No mitigation is required.	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY**  
(Continued)

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION	
<b>3.19</b>	<b>Cultural Resources</b>			
3.19-A	Development of the Specific Plan area could demolish historical resources.	PS	<p>The following should be added to the Specific Plan as implementation measures.</p> <ol style="list-style-type: none"> <li>1. Prior to approval of tentative subdivision maps for any property containing a structure over 50 years old on the Specific Plan area, a qualified architectural historian will conduct a preliminary assessment of each structure to determine whether its structural integrity is intact (i.e., that it has not been modified, thereby destroying its historic integrity). If the structural integrity remains, then the architectural historian will prepare a Historic Evaluation Report on each of those structures. This Evaluation will include a discussion of the construction of the building, an architectural description, an architectural evaluation, drawings of the building and its important features, and photographs to document the structure. Once this Historic Evaluation Report is completed and accepted by the City, the structures can either be demolished, restored, rehabilitated, reconstructed, or moved. If the structure is restored, reconstructed, or rehabilitated, the work shall comply with the Secretary of Interior's <i>Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings</i> or the <i>Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i>.</li> <li>2. Where feasible, future developers should strive to preserve any building identified as a historical resource.</li> <li>3. Where feasible, historical resources that cannot be preserved <i>in situ</i> should be moved to the proposed park, functional buffer areas, and/or Specific Plan area entryways.</li> </ol>	LS
3.19-B	Development of the Specific Plan area could damage archaeological resources.	PS	<p>Add the following mitigation measures as a policy or implementation programs to Chapter 3 of the Specific Plan.</p> <ol style="list-style-type: none"> <li>1. In the event that archaeological artifacts are encountered during project construction, work in the area shall halt until a qualified archaeologist evaluates the nature and significance of the find.</li> <li>2. If archaeological artifacts are encountered, a qualified archaeologist shall monitor subsequent excavations and spoils in the vicinity of the find for additional archaeological resources.</li> <li>3. If the archaeologist determines the discoveries are of importance, the resources shall be properly recovered and curated. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact locations and depths,</li> </ol>	LS

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**TABLE 3 - IMPACT AND MITIGATION SUMMARY  
(Continued)**

IMPACTS	SIGNIFICANCE BEFORE MITIGATION	MITIGATION	SIGNIFICANCE AFTER MITIGATION
		<p>and include other pertinent information. The lead agency shall submit the report to the appropriate Information Center and the California State Historic Preservation Officer.</p> <p>4. In the event that human remains are encountered, the state shall contact the Solano County Coroner in accordance with Section 7050.5 of the State Health and Safety Code.</p>	
3.19-C	Development of the five proposed projects could demolish historical resources.	PS The mitigation measure recommended for Impact 3.19-A will apply to each project.	LS
3.19-D	Development of the five proposed projects could damage archaeological resources.	PS The same mitigations required for Impact 3.19-B will apply.	LS

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## **3.0 ENVIRONMENTAL IMPACT ANALYSIS**

# 3.0 ENVIRONMENTAL IMPACT ANALYSIS SECTION

## A. Format of the Analyses

This section of the EIR addresses in detail the interaction of the proposed project with its natural environment. Each area or topic of environmental concern which is addressed in this EIR is discussed using the following format:

### 1. Setting

This section includes a description of the existing physical and environmental conditions as regards the particular environmental factor under consideration (per *CEQA Guidelines* Section 15125). This section includes a listing of City of Dixon General Plan policies that are pertinent to the environmental resource being assessed.

### 2. Potential Impacts and Mitigations

#### a. Criteria Used to Determine Impact Significance

This section begins with a list of the criteria that are used to determine impact significance. The criteria are based on the list of impacts typically considered significant as listed in the *CEQA Guidelines*. These significance criteria were reviewed by the City of Dixon Community Development Department to ensure that the criteria were appropriate for reviewing projects within the jurisdiction of the City of Dixon. This section identifies the significance criteria under which the project would have a less than significant impact, based on the Initial Study that was prepared and circulated for public review. For those criteria under which the Initial Study concluded the project could have a significant impact, this section describes the possible significant impacts (per *CEQA Guidelines* Section 15126a and b).

#### b. Specific Plan Area Impact Assessment

Each impact is identified, described, and assessed per the appropriate significance criteria. Impacts are described at the "Program EIR" level for development per the Specific Plan. Each impact discussion includes a description of the goals, policies, and implementation programs pertinent to the impact that are proposed in the Specific Plan. The impact discussion includes a conclusion of whether the proposed goals, policies, and implementation programs sufficiently reduce the impact to a less than significant level. The impact discussion includes assessment of Specific Plan consistency with the pertinent policies of the Dixon General Plan. If it is determined that Specific Plan development would have a potentially significant impact that is not reduced to a level that is less than significant by proposed Specific Plan goals, policies, and implementation programs, the EIR then presents recommended mitigation measures. Each impact analysis then concludes with a determination of whether the impact is significant or less than significant given inclusion of the recommended mitigation measures.

When warranted, the impact discussions include assessments of the possible impacts resulting from improvements needed for Specific Plan development but constructed off

the plan area. These include: 1) a 36-inch storm drain extending from the south edge of the plan area to McCune Creek along the Interstate 80 right-of-way; 2) extension of a storm drain, water line, and wastewater collector south of the plan area within the right-of-way of South Lincoln Street, Porter Road, and beneath the railroad tracks to connect to new development on the Southpark development (for water and sewer) or to Pond A (for the storm drain); and 3) the future construction of a minor arterial that would connect South First Street with Pitt School Road (including a grade separation at the railroad tracks). The precise route of this minor arterial (which is identified as a future road improvement in the Dixon General Plan) has not been identified. This EIR addresses the general impacts of this road extension. A design-level CEQA study will be done for this road project once a final route and design are completed.

### **c. Individual Project Assessment**

Impacts for the five subdivision applications are then described. Usually, all five projects are assessed together, unless there are specific differences in setting and impact for one or more of the five project sites; in the latter case, individual impact analyses are provided. In many cases the impacts that would result from the five projects are the same or similar to the impacts identified for the Specific Plan area as a whole. Similarly, mitigations recommended for the Specific Plan may be the same mitigations recommended for the five projects. In those cases, the reader will be referred back to the impact discussion and recommended mitigations for the Specific Plan, thereby reducing the need to reiterate the same discussions. Where project-specific impacts are potentially significant and not reduced to a less than significant level by proposed Specific Plan goals, policies, and implementation programs, additional mitigation measures are recommended.

### **d. Cumulative Impacts**

Each section also contains an assessment of potentially significant cumulative impacts resulting from the project in combination with the other pertinent projects listed in Section 1.7. Potentially significant cumulative impacts are impacts where Specific Plan area development would combine with impacts of other projects to create a new impact or substantially increase an impact already identified for the Specific Plan or the five projects. Where warranted, mitigation measures are recommended for potentially significant cumulative impacts.

## **B. Previous Specific Plan Area EIR**

An EIR was prepared and certified by the City of Dixon for the Specific Plan area in 1995 (*Final Environmental Impact Report for Southwest Dixon Specific Plan*, WPM Planning Team, Inc. 1995). This EIR assessed the impacts of the then current Specific Plan proposal. Because that proposal has been revised, there are now five specific projects (or subdivision applications), and some environmental conditions have changed since that EIR was prepared and certified, the City of Dixon has required the preparation of this new EIR.

However, much of the data in the 1995 EIR describing the Specific Plan area setting and impacts have not changed. Information provided in that EIR has been used, when it remains accurate, in subsequent sections of this EIR. Where such data are used, this EIR will reference the 1995 EIR.

## C. Initial Study

Prior to preparing this EIR, the City prepared an Initial Study of the potential impacts of buildout of the Specific Plan area and construction of the five individual projects. This Initial Study was circulated for review as part of the Notice of Preparation. The Initial Study identified which resources and services could be potentially significantly affected by development of the Specific Plan area. Thus, the Initial Study "focused" the analyses required for this EIR. In each of the subsequent sections of this EIR where the Impact Significance Criteria are presented, this EIR identifies those criteria under which the Initial Study concluded the project would have no or a less than significant impact. This EIR does not assess impacts under those criteria. The Initial Study is included in Appendix A of this EIR so the reader can understand how the City reached its determination regarding the impacts to be assessed in this EIR.

# 3.1 GEOLOGY AND SOILS

The following Setting section is taken from the certified 1995 EIR prepared for the previous Specific Plan.

## A. Setting

### 1. Introduction

This section provides a summary of the general geological conditions within the Specific Plan area and assesses the potential influence of those conditions upon future development. The scope of this investigation included a general review of pertinent geologic maps and reports, review of previous geotechnical reports, a site reconnaissance by an engineering geologist, and preparation of the environmental assessment.

### 2. Regional Geology

The proposed development is located on the west side of the Sacramento Valley. The North Coast Range borders the Sacramento Valley on the west, and the Sierra Nevada Mountain range borders the valley on the east. The Sacramento Valley has been the site of more or less continuous deposition of both marine and non-marine sediments since the Jurassic Period (approximately 150 million years ago). The source of the sedimentary deposits was erosion of the recently uplifted Sierra Nevada Mountains and the North Coast Range mountains. The sediments consisted of interbedded clay, silt, sand, and gravel deposits. These sediments have accumulated to thicknesses of several thousand feet. The deeper materials are generally marine sediments that were deposited within a shallow sea which formerly filled the basin. The marine deposits are in streams, floodplains, and shallow lakes. These alluvial sediments were almost all deposited in the Tertiary and Quaternary Periods (65 million years ago to the present).

The Specific Plan area is located on a very flat alluvial plain which slopes to the southeast toward the Sacramento River Delta. The flat topography continues to the east. The first, easternmost foothills of the North Coast Mountain Ranges are located approximately 6 miles to the west.

### 3. Local Geology

The surface materials consist of alluvial deposits of Quaternary age (less than 2 million years old). Most of the Specific Plan area is underlain by unconsolidated floodplain deposits consisting of interlayered clay, silt, sand, and gravel. The slight topographic rise in the center of the Specific Plan area (i.e., Dixon Ridge) which trends north-south is underlain by levee deposits. These materials were deposited next to an old stream channel during floods. The stream channel is no longer present, probably because of stream capture by a nearby stream many years ago. The levee deposits consist of interlayered sand and silt.

There have been several geotechnical engineering investigations on adjacent properties during the last few years, and one investigation within the Specific Plan area. The subsurface materials generally consisted of clay and silt or dense clayey sand. Consequently, the foundation soil appears to have a relatively high strength and low compressibility.

The Quaternary alluvial deposits probably extend to depths of more than a hundred feet. These are in turn probably underlain by the Tehama Formation of Pliocene age. This formation consists of sand, gravel, silt and silty clay with irregularly interstratified volcanoclastic gravel dominated by pumiceous and vesicular volcanic pebbles. This formation is often an aquifer and supplies water to many wells throughout the Sacramento Valley.

#### **4. Seismic Conditions**

The Specific Plan area, along with the rest of Solano County, is in a region of California which is seismically active. The seismicity of the region is controlled by the San Andreas Fault System which is a transform fault that separates the North American continental plate from the Pacific oceanic basin plate. The relative movement of these two tectonic plates causes movement on the San Andreas Fault System which results in periodic earthquakes. These earthquakes can cause ground shaking throughout western California including Solano County. The county is also affected by earthquakes along the Sierra Nevada foothills, although these earthquakes are usually of less magnitude compared to the San Andreas Fault System earthquakes.

The Specific Plan area is not within a State of California "Special Studies Zone" as determined by the California Geological Survey (CGS, formerly the California Division of Mines and Geology). Prior research by the CGS has determined that the surface trace of a well-defined and sufficiently active earthquake fault does not pass through the Specific Plan area. The State Office of Planning and Research has placed the Dixon area in Seismic Activity Intensity Zone II with maximum intensity earthquake of VII or VIII.

Active faults in the area include an unnamed fault 11 miles north of Dixon and the Cordelia Fault about 20 miles southwest of Dixon. The Association of Bay Area Government's (ABAG) *Earthquake Hazard Map for Dixon Based on Underlying Geologic Materials* shows most of the area subject to a "moderately high" shaking amplification. The area that comprises a major portion of the proposed Evans Ranch property would be subject to "very high" shaking amplification (ABAG, 1995). A review of the *Shaking Intensity Maps* shows that the plan area would be most affected by earthquakes on the Greenville (7.2 earthquake) and the Concord-Green Valley (6.8) Faults. For these earthquakes, most of the Specific Plan area would experience a shaking intensity of VI while the Evans Ranch site would experience a shaking intensity of VII.

Hazards that are likely to occur in the Specific Plan area due to earthquake activity appear to be limited to moderate to strong ground shaking. The hazard of surface displacement along an active fault is unlikely to occur in this area. Borings on the Specific Plan area did not reveal liquefaction potential. Other nearby borings have not encountered sand near the surface, and groundwater is at least 30 feet below the surface.

Although the Specific Plan area will be affected by earthquakes in the future, the potential risk of future damage from seismic activity here is probably less than in other areas in

Solano County, especially those areas closer to the Delta or the active Green Valley Fault in the western part of the County.

## 5. Soil Conditions

There are two types of soil deposits within the Specific Plan area; the Brentwood clay loam and the Yolo silty clay loam (Bates, 1977). These are residual soils which formed as a result of weathering of the underlying alluvial deposits. These soils have a moderate to high expansion potential and a moderately slow permeability.

## 6. Groundwater Conditions

Ground subsidence caused by groundwater or petroleum withdrawal has occurred in several areas in the Central Valley (mainly in the eastern part of San Joaquin County, central Stockton, west of Fresno, and near Bakersfield). However, there is not any evidence to indicate that ground subsidence has occurred in the Dixon area to the present time. Groundwater withdrawal in the Specific Plan area has not resulted in a net loss in available groundwater. That is, the amount of groundwater recharge by rainfall and importation of irrigation water from outside the area is greater than the amount of groundwater withdrawal from wells. If increasing groundwater withdrawal in the future results in a net loss in available groundwater, it is possible ground subsidence due to consolidation of sedimentary deposits could occur. This could in turn lead to damage to structures in the area, especially large long structures such as canals, pipelines, and long industrial buildings.

Geotechnical investigations in adjacent areas has determined that the water table is 30 feet or more below the ground surface. Therefore, it appears that the water table is not near the surface in the Specific Plan area.

## 7. Pertinent City of Dixon Policies

The Natural Environment Element of the City of Dixon General Plan contains the following policies relevant to geology and soils conditions in the Specific Plan area:

**Policy 3**      *The City shall, to the greatest extent possible, preserve natural resource and wildlife habitat areas, reduce risk in hazardous areas and provide recreational opportunities by reserving the following areas for open space uses:...*

- **Hazardous Areas** – Fault zones and floodways...

**Policy 11**      *The City shall strive to reduce the risks to life and property arising from seismic activity to an acceptable level.*

**Policy 12**      *The City shall ensure that structures intended for human occupancy are designed and constructed to retain their structural integrity when subjected to seismic activity, in accordance with the Uniform Building Code.*

**Policy 23**      *The City shall use zoning and other land use regulations to control, and in some instances prohibit, development in hazardous areas. The extent of*

*development limitation will be commensurate both with the degree of hazard involved and with the public costs which would be incurred if emergency or remedial public actions became necessary.*

## **B. Potential Impacts and Mitigations**

### **1. Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a. Exposes people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving any of the following:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. *(Assessed under Impacts 3.1-A and D.)*
  - Strong seismic shaking. *(Assessed under Impacts 3.1-A and D.)*
  - Seismic-related ground failure, including liquefaction. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
  - Landslides. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- b. Results in substantial soil erosion or the loss of topsoil. *(Assessed under Impacts 3.1-B, E, and F.)*
- c. Is located in a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. *(The Initial Study determined that the project would have a less than significant impact vis-à-vis this criterion.)*
- d. Is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property. *(The Initial Study determined that the project would have a less than significant impact vis-à-vis this criterion.)*
- e. Has soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- f. Directly or indirectly destroys a unique geologic feature. *(There are no unique geologic features within the Specific Plan area.)*
- g. Results in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*



- h. Results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. (*The Initial Study determined that the project would have no impact vis-à-vis this criterion.*)

## 2. Impacts – Proposed Southwest Dixon Specific Plan

### **Impact 3.1-A New residences, commercial and employment center businesses, and other Specific Plan area land uses could fail during an earthquake.**

The East Strand of the Midland Fault passes through the eastern portion of the Specific Plan area. While this fault is not considered active, it is possible it could become active at some point in the future. In addition, earthquakes occurring on the nearby Concord-Green Valley, Greenville, Calaveras, Antioch, San Andreas, or Hayward faults can be expected to generate strong ground movement in the Specific Plan area.

Given the potential seismic activity in the region, it is expected that a major earthquake will affect the Specific Plan area. Unless buildings and other improvements are constructed to withstand the maximum probable earthquake, they could fail resulting in property damage and potential injury and loss of life. This would be a potentially significant impact.

#### ***Mitigation Measures***

1. Require a geotechnical study prior to final design of each project within the Specific Plan area. The geotechnical study will be prepared by a registered geotechnical engineer or engineering geologist. The design report will contain specific construction recommendations for all buildings, roads, and other improvements to ensure that those improvements can withstand the maximum probable earthquake predicted for the area. The geotechnical report shall also provide construction guidelines to address expansive soils and any other soil constraints identified by the geotechnical consultant. Final project design will include the recommendations contained in the geotechnical report.

#### ***Impact Significance After Mitigation***

Requiring a geotechnical report for new development ensures that all improvements (and not just buildings) are designed and constructed to withstand the maximum probable earthquake. The recommended mitigation measure also ensures that new improvements can withstand expansive soils or other soil constraints in the Specific Plan area. With inclusion of this mitigation measure, the impact would be reduced to a level that is less than significant, and the Specific Plan would be consistent with Dixon General Plan policies. While some risk of earthquake damage would remain, it is a risk that is accepted by everyone who chooses to live in a seismically-active area.

### **Impact 3.1-B Construction of Specific Plan area improvements could result in substantial soil erosion.**

Grading the site, digging foundations, and conducting other earthwork necessary to build new developments on the Specific Plan area would all result in bared, unprotected soils. Erosion can also be caused by constructing off-site drainage and other pipeline improvements and the new arterial that would connect Pitt School Road with South First Street. Unless adequately protected, these soils can be washed off the site during the wet season and blow off the site during the dry season. This eroded soil can cause significant water quality impacts (i.e., sedimentation of streams and drainage systems) and air quality impacts (i.e., the creation of Inhalable dust particulates). The air quality impact is discussed in the subsequent section on Air Quality. The erosion and sedimentation impact is a potentially significant impact.

### ***Mitigation Measures***

1. Detention Pond A and the West Pond Complex will act as sedimentation ponds and will decrease downstream sediment loading. A pond sediment monitoring program will be developed and approved by the City. This program will provide a schedule for monitoring and removal of sediments and who will be responsible for those actions.
2. Each project developer shall prepare and implement a Stormwater Pollution Prevention Program (SWPPP) for on-site and off-site activities which will be submitted to the Regional Water Quality Control Board (RWQCB) as part of the National Pollution Discharge Elimination System (NPDES) General Construction Activity Stormwater Permit (General Permit). The SWPPP shall include Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in each project SWPPP would likely include *in-situ* protection, seeding and mulching of bare ground, planting of trees and shrubbery in disturbed riparian areas, and installation of other types of biotechnical slope stabilization, such as appropriately staked straw bale perimeters and silt fences. No grading should occur between October 15 and April 15. Project applicants would implement the final BMPs and measures included in the General Permit obtained from the RWQCB.

### ***Impact Significance After Mitigation***

The recommended mitigation measures basically codify what the RWQCB would require prior to issuing a General Permit. Preparation of an SWPPP and complying with the General Permit conditions would ensure that future projects are consistent with the RWQCB guidelines for controlling erosion and sedimentation. Thus, the impact would be reduced to a level that is less than significant, and the Specific Plan would be consistent with policies of the City General Plan.

**Impact 3.1-C      Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address protecting residents and improvements from geologic and soils constraints and hazards.**

The mitigation measures recommended for Impacts 3.1-A and 3.1-B would ensure that future development is consistent with the previously listed policies of the Dixon General

Plan. The impact would be reduced to a less than significant level with inclusion of the recommended mitigation measures.

### **3. Project-Specific Impacts**

#### **Impact 3.1-D Improvements constructed for the five projects could fail during an earthquake.**

The potential seismic impacts were discussed above under Impact 3.1-A. Because the site is essentially flat, seismic hazard is essentially the same throughout the Specific Plan area. Improvements constructed on the five project sites could fail during a major earthquake, causing improvement damage and possible injury or loss of life. This is a potentially significant impact for each project.

#### ***Mitigation Measure***

The mitigation measure recommended for Impact 3.1-A would also apply to each project.

#### ***Impact Significance After Mitigation***

Require improvements to be constructed per the recommendations of a geotechnical report would reduce the impact to a less than significant level, and the projects would be consistent with policies of the Dixon General Plan.

#### **Impact 3.1-E Construction of the five projects and off-site improvements could result in substantial soil erosion.**

The potential erosion impacts were discussed above under Impact 3.1-B. Because the site and the surrounding area where off-site improvements would be made are essentially flat, and soils have similar erosion potential throughout the Specific Plan area, the erosion and sedimentation potential for the five project sites and off-site improvement areas is similar to the conditions for the Specific Plan area as a whole. The erosion and sedimentation potential for each site is a potentially significant impact.

#### ***Mitigation Measure***

The mitigation measure recommended for Impact 3.1-B will also apply to each project.

#### ***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the erosion and sedimentation impacts of each project to a less than significant level.

## 4. Cumulative Impacts

The project would not combine with other projects to cause an increase in seismic impact; that impact is specific to each project site. The only potentially significant cumulative impact would be from sites that could contribute sediment to the same storm drain systems that would drain the Specific Plan area.

**Impact 3.1-F      Development of Specific Plan area projects would combine with other anticipated projects to increase erosion and sedimentation.**

The other projects that would drain to the same ponds and/or streams as the Specific Plan area are the Pheasant Run project and the Southpark Specific Plan project. Each of those projects obtained a General Permit from RWQCB. Given RWQCB-approved General Permits for those projects and for projects in the Specific Plan area, sedimentation would be reduced to a level that the RWQCB finds acceptable. The cumulative impact would be less than significant, given the already-recommended mitigation measures. No additional mitigation is required.

# 3.2 HYDROLOGY AND WATER QUALITY

## A. Setting

### 1. Hydrology of Dixon Area

The Dixon area lies within the Sacramento Valley subsection of the Great Central Valley of California. Dixon is situated on an alluvial fan formed by Putah Creek, located north of the City. Land in the area generally slopes downward from the northwest to the southeast. Drainage follows the courses of Dickson Creek and Dudley Creek, by way of canals and sloughs, to the Sacramento River. Ponding occurs in some low-lying parts of Dixon. According to Federal Emergency Management Agency (FEMA) insurance rate maps, areas along Dickson Creek and Dudley Creek are expected to flood as a result of a 100-year storm (i.e., the single storm with the greatest rainfall that could be expected over a 100-year period) (Dixon General Plan, page 22).

### 2. Groundwater Resources

In the Sacramento Valley, fresh groundwater resources are found in Post-Eocene continental sediments deposited in the last 38 million years. The main water-bearing formation in the Dixon area is the Tehama Formation, which contains coarse, clean sandy deposits. The Tehama Formation can range up to 2,250 feet thick.

Overlying the Tehama Formation are sediments of the Putah Plain. These sediments are approximately 165 feet thick, and also yield water. However, these sediments have limited ability to yield, store, and transmit groundwater due to the presence of finer-grained, muddier sediments that act as impermeable barriers to water movement (Dixon General Plan, page 22).

Groundwater provides the domestic water supply in the City of Dixon. The two water companies that serve the City, Dixon-Solano Municipal Water Service and the California Water Service Company, obtain their water supplies from local wells. (See further discussion in Section 3.12, Water, of this EIR.) A 1995 report prepared by the Solano Water Authority found that water levels and groundwater availability in Dixon have remained fairly constant, other than minor fluctuations due to dry and wet years. The report concluded that groundwater supplies necessary to meet current City of Dixon needs were "more than adequate," and that an incremental increase in the number of wells or groundwater pumping would not adversely affect groundwater availability. However, the report recommended continued monitoring of water use and groundwater levels to verify that groundwater pumping in Dixon is not negatively affecting groundwater resources (*North Central Solano County Groundwater Resources Report*, Solano Water Authority, May 16, 1995, page 27).

As discussed in Section 3.1, Geology and Soils, of this EIR, geotechnical investigations in areas adjacent to the Specific Plan area have determined that the water table is 30 feet

or more below the ground surface. Therefore, it appears that the water table in the Specific Plan area is generally not near the surface. According to Solano Irrigation District representatives, some shallow observation wells in the area have indicated water depths of around four to ten feet (from ground surface to water surface). During the 1970s, several deep drainage wells were drilled to pump this shallow groundwater. The shallow water levels do not measure the levels of groundwater that supply Dixon-Solano Municipal Water Service wells. (E-mail communication from Jim Daniels, Solano Irrigation District, March 20, 2003.)

### **3. Citywide Storm Drain Facilities**

A conventional storm drain system collects runoff from existing developed areas in the City of Dixon. The system consists mainly of drainage inlets located at low points in concrete gutters and reinforced concrete lateral and trunk pipelines. The trunk system carries runoff to an open channel southeast of the City (EIP Associates and Rainey Planning & Management, 2000, page 4.5-1.)

The Dixon Resource Conservation District (DRCD) operates the canals and sloughs that collect runoff from the City and nearby agricultural areas. These facilities transport the runoff into a drainage canal operated by Reclamation District 2068. This canal delivers the runoff to the Sacramento River via Hass and Cache Sloughs. The current agreement between the City of Dixon and the DRCD limits the amount of runoff allowed into the system at the Dixon main drain (Dixon General Plan, page 60).

The drainage facilities that convey runoff from the City of Dixon and downstream agricultural areas have inadequate capacity for flows greater than a typical two-year storm. This level of runoff has caused flooding in the City and downstream. The City of Dixon has addressed this problem in its Master Drainage Plan and subsequent Storm Drain Report (EIP Associates and Rainey Planning & Management, 2000, pages 4.5-1). (See further discussion under Subsection 7. City of Dixon Storm Drain Plan Provisions below.)

### **4. Existing Drainage in Specific Plan Area and Vicinity**

#### ***Drainage Patterns in Plan Area***

The Southwest Dixon Specific Plan area contains flat to mildly-sloping terrain, the majority of which is currently used for agriculture. Existing drainage sheds in the plan area are divided by a series of water supply and drain canals and channels that irrigate and drain the agricultural areas. As shown in Figure 16 (Existing Drainage Patterns in Specific Plan Area), the drainage sheds are mainly delineated by the Weyand Canal, the Dixon Ridge, and Pitt School Road. Each of these features extends through the plan area in a north-south direction.

The Solano Irrigation District's Weyand Canal runs north-south through the western part of the plan area, approximately 950 feet west of Batavia Road. The drainage shed west of the Weyand Canal drains away from the canal in a southwest direction. A second drainage shed, bounded by Interstate 80 to the north, Batavia Road to the east, and the Weyand Canal to the west, drains generally southeast to a drain that flows south along the western edge of Batavia Road and then south of the plan area. East of Batavia Road, runoff flows southeast to a north-south drain.

The Dixon Ridge runs generally north-south approximately 2,000 feet west of Pitt School Road. West of the Dixon Ridge and Evans Road, runoff drains toward the southwest. Lands immediately east of the Dixon Ridge mainly drain southeast and into a drain that flows south along the west edge of Pitt School Road. The portion of the Dixon Ridge within the plan area is also regionally significant as the dividing line between the Ulatis Project Watershed and the Dixon-Dudley Creek Watershed.

Pitt School Road extends in a north-south direction through the eastern part of the plan area. The drainage shed east of Pitt School Road drains mainly to the south. This portion of the plan area is bisected by South Lincoln Street and bounded by existing housing to the east and north and existing orchards to the south (*Draft Drainage Master Plan Report for the Southwest Dixon Specific Plan Area*, August 2002, pages 6-7).

According to FEMA insurance rate maps, none of the Specific Plan area is located within a 100-year flood zone.

### ***Drainage Patterns Outside Plan Area***

Drainage sheds outside the Southwest Dixon Specific Plan area that contribute runoff to the plan area are for the most part located north of West A Street and Interstate 80, north of Dixon. A large (360-acre) drainage shed mainly containing agricultural land uses drains to a series of pipe culverts under Interstate 80. Surface runoff concentrates and ponds behind these culverts on the northwest side of Interstate 80 before being released on the southeast side. The runoff then splits into two distinct paths. The primary path is to the southwest along Interstate 80 to the north side of the Dixon Avenue-West A Street overpass; partially channeled flow is directed to a field type inlet and then into the existing storm drain system in West A Street. The other direction is a shallow sheet type of flow that enters a temporary field inlet at the end of Gateway Drive, and then an existing storm drain in Gateway Drive that connects to the West A Street storm drain system. The developing area around Gateway Drive also drains into the West A Street storm drain system. Flow that exceeds the system's capacity will run and pond in the north gutter of West A Street. Additional areas north of West A Street and north and west of Interstate 80 also contribute runoff to the West A Street system (*Draft Drainage Master Plan Report for the Southwest Dixon Specific Plan Area*, August 2002, pages 7-8).

### ***Storm Drain Facilities in Plan Area and Vicinity***

Several drain canals extend along Batavia Road, Evans Road, and Pitt School Road, and through other parts of the Specific Plan area. West of the Dixon Ridge, roadside ditches and culvert crossings carry drainage south and west to McCune and Sweeney Creeks. East of the Dixon Ridge and Pitt School Road, roadside ditches carry drainage south to Porter Road (*Draft Southwest Dixon Specific Plan*, page 7-13). (See further discussion of SID facilities in Section 3.12, Water, of this EIR.)

Just outside the Specific Plan area, storm drains constructed by the West A Street Assessment District established by the City of Dixon extend under West A Street and Pitt School Road. These storm drains serve existing development north and east of the Specific Plan area (*Draft Drainage Master Plan Report for the Southwest Dixon Specific Plan Area*, August 2002, page 4). Some properties in the Specific Plan area are included in the West A Street Assessment District; owners of these properties are currently

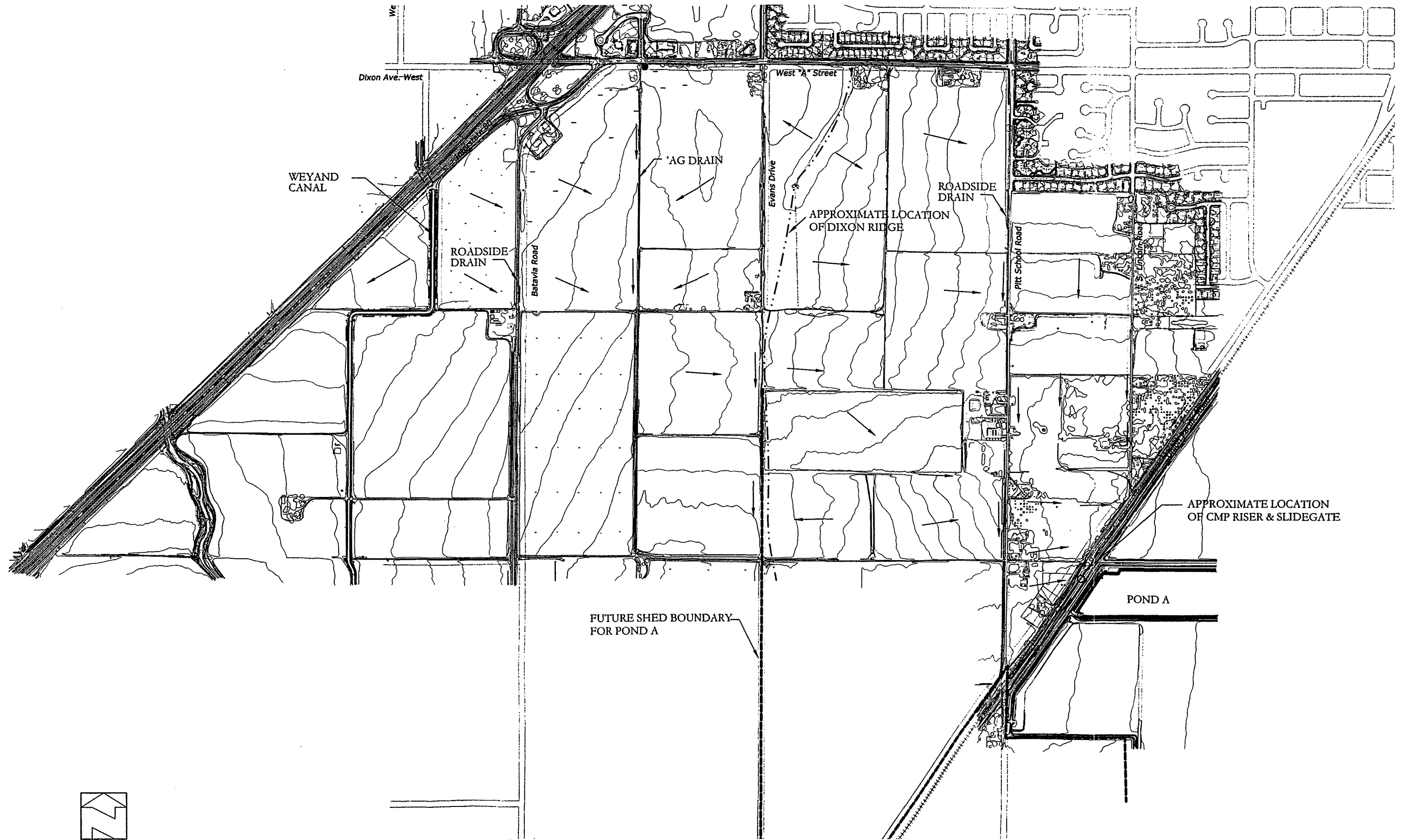


Figure 16: EXISTING DRAINAGE SHEDS ONSITE & SOUTH OF SWDSP AREA



paying assessments for oversizing of the Pitt School Road drain line to provide for existing agricultural drainage (*Draft Southwest Dixon Specific Plan*, page 7-13).

### ***Water Quality Conditions in Plan Area***

None of the existing land uses in the Specific Plan area are known to significantly degrade water quality conditions. Generally speaking, rural residences such as those in the plan area are not expected to have significant effects on water quality, due to the low density and character of the use. It is possible, however, that fuels and chemicals used in the agricultural portions of the plan area have spilled or leaked from storage tanks and sites. If such leakage or spillage has occurred, it could have degraded water quality through contamination of soil or groundwater. In addition, residues from pesticides, herbicides, and other agricultural chemicals remaining in the soil have the potential to contaminate storm runoff and groundwater. (See further discussion in Section 3.8, Hazards and Hazardous Materials, of this EIR.)

## **5. Drainage Fee Requirements**

The City of Dixon levies fees on new development to support storm drain services. These fees are currently under study and are being updated by geographic area (Memo from Warren Salmons, City Manager, City of Dixon, to Steve Streecher, Community Development Director, re. "Southwest Dixon Specific Plan EIR," 12/12/02).

## **6. Pertinent City of Dixon General Plan Policies**

### ***Hydrology and Flooding***

The Natural Environment Element of the Dixon General Plan contains the following policies relevant to hydrology and flooding:

- Policy 7***      ***The City shall establish performance standards to limit water pollution.***
- Policy 8***      ***The City shall strive to reduce the risks to life and property arising from flooding to an acceptable level, consistent with the City's Master Drainage Plan.***
- Policy 9***      ***The City shall ensure that floodways will be left open for agricultural and recreational use in areas of particular risk, and where the need for protection is minimal.***
- Policy 10***     ***The City shall ensure that measures to reduce flood damage to individual properties will only be undertaken where the potential for hazard due to flood erosion is not increased on other properties.***

### ***Storm Drainage Facilities***

The Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to provision of public services in the Specific Plan area; these policies are listed in Section 3.11 (Fire Protection and Emergency Medical Services) of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to storm drainage facilities:

**Policy 15**     *The City shall ensure that improvements in drainage facilities and services will be financed from impact fees levied on new development.*

**Policy 16**     *The City shall ensure that development provides the drainage improvements necessary to accommodate peak flows.*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific Plan area. These policies are listed in Section 3.11 (Fire Protection and Emergency Medical Services) of this EIR.

## **7. City of Dixon Storm Drain Plan Provisions**

The City of Dixon's 1991 Storm Drain Master Plan recommended storm drain system modifications to improve drainage conditions in the City. The City's subsequent 1999 Storm Drain Report evaluated the need for capital improvements identified in the 1991 Storm Drain Master Plan and refined the recommendations for citywide drainage system modifications.

The Storm Drain Report divided Dixon and the tributary areas outside the City into eight basins. The Southwest Dixon Specific Plan area is located in Basin A. A 2001 agreement with the Solano County Water Agency provides for an outfall capacity of 15 cubic feet per second (cfs) into McCune Creek from this basin. Existing storm drain pipes discharge to Pond A, located south of the Specific Plan area, east of Pitt School Road and south of the Union Pacific Railroad tracks. This pond is currently functioning as an interim retention/detention basin. Future drainage facilities for Basin A include (a) a small detention basin and a 15-cfs pumped outfall located at the west edge of the City (West Pond), and (b) deepening of the western portion of Pond A and construction of an outfall discharging at a rate of 75 cfs to Ulatis Creek.

The Storm Drain Report (page 4-14) contains the following specific recommendations for the Specific Plan area:

A portion of the upstream agricultural area and the western portion of SWDSP [the Southwest Dixon Specific Plan area] are expected to drain to the West Pond...A more detailed drainage study is needed before development of the SWDSP area commences.

As the SWDSP area develops, drainage facilities will be constructed. The developer should provide an updated design report for the proposed drainage facilities including phasing. This will provide the City the information necessary to confirm compliance with the new design standards and to better define the improvements needed for development...

It is assumed that the [West Pond] detention site would be between 8 and 10 acres located near the western boundary of the SWDSP area.

The 1999 Storm Drain Report identifies developers of the Southwest Dixon Specific Plan area as the "responsible party" for collection facilities within the Specific Plan area. These developers would also share responsibility for the Pond A improvements. Developers of the 190 acres of the western part of the Specific Plan area that would

drain to West Pond would be responsible for the West Pond improvements with the City of Dixon. (*Dixon Storm Drain Report*, March 1999, Table 4-6, pages 4-12 through 4-13)

## **8. Water Quality Regulations**

The Regional Water Quality Control Board (RWQCB) regulates water quality on behalf of the State of California. The Dixon area, including the Specific Plan area, is located within the RWQCB Central Valley Region (Region V). This region extends from Kern County to the south through central California to Shasta and Modoc Counties to the north. The region is defined by hydrologic basins that ultimately contribute to the Sacramento and San Joaquin River watersheds.

The RWQCB's Water Quality Control Plan (Basin Plan) for the Central Valley Region establishes water quality objectives and Federal effluent limitations. The Basin Plan includes a definition of existing and potential beneficial uses for various surface water bodies in the region.

At the local level, City of Dixon design standards specify procedures and requirements for site design and construction. These procedures and requirements are intended to control erosion, thereby protecting water quality (*LSA Associates*, 2000, pages 4.4-2 through 4.4-4).

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on storm drainage or water quality if it:

- a. Would violate any water quality standards or waste discharge requirements. (*Assessed in Impacts 3.2-D, F, and G below.*)
- b. Would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted). (*Assessed in Impacts 3.2-E, F, and G below.*)
- c. Would substantially alter the drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site. (*Assessed in Impacts 3.2-A, F, and G below.*)
- d. Would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. (*Assessed in Impacts 3.2-A, F, and G below.*)

- e. Would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. *(Assessed in Impacts 3.2-A, B, D, F, and G below.)*
- f. Would otherwise substantially degrade water quality. *(Assessed in Impacts 3.2-D, F, and G below.)*
- g. Would place housing within the 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- h. Would place within a 100-year flood hazard area structures that would impede or redirect flood flows. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- i. Would expose people or structures to significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- j. Is subject to inundation by seiche, tsunami, or mudflow. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- k. Would result in or require the construction of new storm drain water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *(Assessed in Impact 3.2-C below.)*
- l. Would conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed under "Consistency with Dixon General Plan Policies" below.)*

## 2. Impacts – Proposed Southwest Dixon Specific Plan

**Impact 3.2-A      Development of new residences, commercial and employment center businesses, and other Specific Plan area land uses would create new impervious surfaces, increasing the rate and amount of stormwater runoff. This runoff could contribute to local or downstream flooding.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would create new impervious surfaces, which would not absorb runoff water. The rate and amount of runoff would thus increase. This runoff could contribute to flooding, either in the plan area or downstream. The increased rate and amount of runoff and the potential for local or downstream flooding would represent a potentially significant impact.

The Specific Plan includes a draft Drainage Master Plan for the Specific Plan area (on file at the City of Dixon Community Development Department). The Drainage Master Plan proposes drainage facilities that would include two detention ponds (Batavia Pond and West Pond – see Figure 6, Proposed Land Use Plan, in Section 1.0, Introduction, of this EIR) and a series of underground pipelines and drainage inlets that would collect surface water runoff. These facilities would be designed to handle surface water flows from a 10-year storm (i.e., a storm of a magnitude likely to occur once every 10 years) (*Draft Drainage Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2).

In addition, the proposed Specific Plan contains the following goal, policies, and implementation programs that address demand for storm drain facilities in the plan area (Draft Southwest Dixon Specific Plan, pages 7-14 through 7-15 and 8-5):

**Goal 7.5** *To accommodate runoff from existing and projected development in Southwest Dixon in a cost-effective and environmentally sound manner.*

**Policy 7.5.1** *Drainage Improvements - The City shall ensure that new development provides the drainage improvements necessary to accommodate peak flows.*

**Policy 7.5.2** *Financing - The City shall ensure that drainage facilities and services are financed from equitable impact fees levied on new development.*

**Policy 7.5.3** *Drainage Channels - Encourage multi-use drainage facilities with bike paths, pedestrian circulation, and wildlife habitat, where economically feasible and where proper long-term arrangements have been made for maintenance. Use landscape treatment to improve visual quality.*

**IP 7.5a** *Storm Drainage System Master Plan - Project proponents have prepared a Storm Drainage System Master Plan for the Southwest Dixon project in accordance with the Public Works Department Standard Specifications. The City, project proponents, and successors-in-interest shall implement such Master Plan as needed to accommodate the location and rate of flow of increased project runoff. Final drainage facility designs recommended by this Master Plan shall be implemented as part of the design of individual developments.*

**IP 7.5b** *Drainage Improvement Financing - The City shall levy impact fees (or other suitable financing mechanism) as needed on new development contributing to the need for storm drainage and flood control facilities, to finance necessary improvements in drainage facilities and services for those new areas.*

**IP 7.5c** *Drainage Right-of-Way and Easements - As a condition of project approvals, the City shall require reservation of right-of-way and easements for designated drainage facilities. Acquisition of appropriate rights-of-way for areas outside of the Plan Area will be required for adequate storm drainage service. The project area Financing Plan shall include an item for the full acquisition costs for such off-site rights-of-way. All costs associated therewith, shall be the responsibility of the landowners/developers in the Plan Area, and other benefiting areas as determined by the City.*

**Policy 8.2.7 Maintenance** – A Storm Drainage Maintenance Assessment District must also be established.

**IP 8.2b Maintenance Financing** – A Storm Drainage Maintenance Assessment District must also be established.

### **Mitigation Measures**

The proposed drainage improvements included in the Specific Plan have been reviewed by City staff to determine their efficacy and consistency with the City's Storm Drain Master Plan. The following mitigation measures are consistent with City staff's review and recommendations (Ponticello, personal communication). The same is true for the recommended mitigation measures for other impacts in this section of the EIR.

1. Before the first Tentative Subdivision Map approval for the plan area, the Specific Plan Drainage Master Plan shall be completed and submitted for City of Dixon review and approval. The Drainage Master Plan shall demonstrate that the system contains specific storm drainage design features to control increased runoff from the project site and will not increase runoff over current conditions. This may be achieved through one or more of the following: on-site conveyance and detention facilities, off-site detention facilities, and/or channel modification, or equally effective measures to control the rate and volume of runoff. To demonstrate the effectiveness of the proposed system to prevent additional flooding at off-site (downstream) locations, all necessary hydrologic and hydraulic calculations and assumptions and design details shall be submitted to the City Public Works Department for review and approval. The design of all features proposed by the project applicant shall be consistent with the most recent version of the City's Storm Drainage Guidelines and Criteria, and standard design and construction specifications and details.
2. Before the first Tentative Subdivision Map approval for the plan area, the project applicant shall demonstrate to the City Public Works Department that development of the Specific Plan will not preclude future installation and operation of storm drain improvements anticipated in the plan area and that facility improvements will be consistent with the Specific Plan Storm Drainage Master Plan.
3. Before the first Tentative Subdivision Map approval for the plan area, the project applicant shall demonstrate that an appropriately sized and located storm drainage system shall be installed or adequately financed (through fair-share payment of fees or other means).
4. All project applicants shall pay their fair share toward citywide drainage improvements, as identified in the City's Assembly Bill (AB) 1600 fee program.

### **Impact Significance After Mitigation**

The above-noted measures, combined with the provisions of the Specific Plan, would ensure that the impact of increased runoff and flooding potential would be reduced to a less than significant level.

**Impact 3.2-B      The impervious surfaces and associated storm water runoff created by development in the Specific Plan area would affect the capacity of stormwater facilities in Basin A identified in the City's 1999 Storm Drain Report.**

As indicated above, the City of Dixon's 1999 Storm Drain Report identified eight basins in the City; the Specific Plan area is located in Basin A. The effect of runoff from the Specific Plan area on the capacity of storm drain facilities in the basin would represent a potentially significant impact.

***Mitigation Measures***

1. The City of Dixon shall require and confirm that adequate stormwater drainage capacity is available as a condition of approving any Tentative Subdivision Maps for the plan area.
2. As a condition of approving any Tentative Subdivision Maps in the plan area, the project applicant shall, in accordance with the AB 1600 fee program, fund a fair share of the drainage facilities improvements identified by the City of Dixon in the 1999 Storm Drain Report for Basin A and the City of Dixon AB 1600 Facilities and Equipment Study (March 2000). In addition, the City of Dixon shall establish a maintenance district encompassing properties using Basin A facilities to pay a fair share of the maintenance costs. (AB 1600 fees are updated annually, and applicants will be responsible for the fees in effect at the time of payment.)

***Impact Significance After Mitigation***

The above-noted measures, combined with the provisions of the Specific Plan, would ensure that the impact on capacity of existing and planned storm drain facilities would be reduced to a less than significant level.

**Impact 3.2-C      Storm drain facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects outside the plan area.**

The storm drainage line that will transport plan area runoff to Pond A will be constructed within street rights of way within and outside the plan area. One of these lines will travel south of the plan area via South Lincoln Street to Porter Road. City staff has determined that South Lincoln Street south of the plan area has inadequate width to allow construction of storm drains, water mains, and wastewater collectors within its existing paved travelway, and the road has inadequate travelway to safely handle projected traffic volumes (Tribbett, personal communication). This is a potentially significant impact.

A new storm drainage line will be constructed to connect Batavia Pond in the western part of the plan area to McCune Creek which is located about 2,000 feet south of the plan area. The drainage line will consist of a 36-inch force main for some distance (not yet calculated) until the appropriate elevation is reached where gravity flow is possible. The pipeline will be constructed within the I-80 right of way, and project applicants will be responsible for obtaining that right of way. Because the pipeline would be within the freeway right of way and the area it traverses is mainly open grassland or a ruderal (i.e.,

weedy) area, construction of this pipeline is not expected to result in any significant impacts to natural resources.

### **Mitigation Measures**

1. South Lincoln Street between the plan area and Porter Road shall be constructed to meet City standards for travelway and shoulder width.
2. Approval for construction of the pipeline from the plan area to McCune Creek shall be obtained prior to construction of any improvements generating new runoff to Batavia Pond.
3. Carry out mitigation measures identified for Impact 3.2-A above. These measures would require the Drainage Master Plan for the Specific Plan area to demonstrate that the storm drain system would not increase runoff over current conditions.

### **Impact Significance After Mitigation**

The above-noted measures, combined with the provisions of the Specific Plan and other mitigation measures recommended in this EIR would ensure that environmental impacts from construction of Specific Plan-related storm drain facilities would be reduced to a less than significant level.

### **Impact 3.2-D      Runoff from new impervious surfaces would contain urban contaminants that could degrade the quality of receiving waters.**

Runoff from urban development such as that proposed for the Specific Plan area often contains oil, grease, and fuel products from vehicles, as well as other contaminants. Runoff would carry these substances into storm drains leading to drainage channels and, ultimately, the Sacramento River. Runoff from the Specific Plan area therefore has the potential to degrade the quality of these receiving waters and violate water quality standards, representing a potentially significant impact.

See Section 3.1, Geology and Soils, for more discussion of potential water quality degradation, including impacts during project construction. See Section 3.8, Hazards and Hazardous Materials, for more discussion of potentials for soil and groundwater contamination in the Specific Plan area.

### **Mitigation Measures**

1. Before each Tentative Subdivision Map approval, each project applicant shall obtain an approved General Construction Activity Stormwater Permit from the RWQCB as required under Mitigation No. 2 for Impact 3.1-B.
2. The project applicant shall comply with mitigation measures identified in Section 3.8, Hazards and Hazardous Materials, of this EIR.



### ***Impact Significance After Mitigation***

The above-noted measures would ensure that water quality impacts would be reduced to a less than significant level.

### **Impact 3.2-E      Use of groundwater as a domestic water supply for development in the Specific Plan area could result in changes in groundwater levels or groundwater areas of influence or induce subsidence.**

The possibility of changes in groundwater levels, interference with groundwater recharge, and related subsidence would represent a potentially significant impact. For more discussion of groundwater conditions, see Section 3.1, Geology and Soils, and Section 3.12, Water, of this EIR.

### ***Mitigation Measures***

1. Before approval of the first Tentative Subdivision Map for the Specific Plan area, the applicant shall identify specific steps to be taken to minimize project effects on groundwater levels that could affect existing domestic (public and private) and agricultural wells. The applicant's program shall establish site-specific and local baseline groundwater levels, existing and proposed wells, uses and rates, and areas of influence. The program shall also establish criteria that will be used to determine whether the effect on non-project wells may be considered adverse (e.g., groundwater levels shall not fall below a specific elevation during the irrigation season). This information shall be used to appropriately site and design the project well throughout project buildout to minimize the effects on existing wells and locations that could be affected by groundwater pumping associated with the proposed project. Final siting of wells shall require the approval of the Dixon-Solano Municipal Water Service (DSMWS); the DSMWS uses proximity limitations in determining well locations.

See also mitigation measures for impacts on water supply (Impact 3.12-A in Section 3.12, Water, of this EIR).

### ***Impact Significance After Mitigation***

The above-described mitigation measure would provide adequate protection for groundwater resources. The impact would be reduced to a level that is less than significant.

### **Consistency with Dixon General Plan Policies**

The proposed Southwest Dixon Specific Plan would not create any inconsistencies with the Dixon General Plan policies noted in the Setting section above. Developers within the Specific Plan area would be expected to pay required fees and provide storm drain facilities in accordance with City standards, as described in the mitigation measures recommended above. The proposed Specific Plan would therefore have no impact on

consistency with Dixon General Plan policies applicable to hydrology and storm drain facilities.

### **3. Project-Specific Impacts**

**Impact 3.2-F            Development of the five projects would increase demands on storm drain facilities and contribute to water quality degradation and groundwater effects.**

As explained in Section 1.0 (Introduction), five property owners in the Specific Plan area (Andrews Dixon LLC, Weyand, Garcia, Sanders, and Clark) have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area.

The Andrews Dixon LLC (Evans Ranch) project includes a 7.9-acre detention basin (West Pond) and other drainage/utility areas. The Clark Ranch Estates project also proposes a 1.4-acre detention basin lot and a 0.1-acre public access/drainage utility lot that would be extensions of the drainage facilities proposed for the Evans Ranch site. (See Section 1.0, Introduction, of this EIR.)

The impacts identified under Impacts 3.2-A and 3.2-E above would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts would adequately address the impacts of each of the five proposed individual development applications. No additional hydrology-related impacts have been identified for the five applications, and no additional mitigation measures are required.

### **4. Cumulative Impacts**

**Impact 3.2-G            Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on storm drain facilities and cumulative water quality degradation and groundwater effects.**

Section 1.0 (Introduction) provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark (now called Valley Glen), and Northeast Quadrant Specific Plan projects). The Pheasant Run and Southpark projects are located in two separate watersheds, both of which extend through portions of the Southwest Dixon Specific Plan area.

The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, pages 4.4-5 through 4.4-10) concluded that storm drain improvements, approval of a National Pollutant Discharge Elimination System (NPDES) permit by the Regional Water Quality Control Board, and preparation of a Storm Water Pollution

Prevention Plan would reduce construction-period and long-term impacts on storm drain conditions to a less than significant level. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, pages 4.5-6 through 4.6-9) concluded that project and cumulative impacts on storm drain facilities could be mitigated to a less than significant level through implementation of the City of Dixon Capital Improvement Program and collection of Assembly Bill (AB) 1600 fees, which would fund drainage improvements identified for Detention Basin A in the City's 1999 Storm Drain Report.

The contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative effects from the other three projects on storm drain facilities and water quality and groundwater conditions would represent a potentially significant cumulative impact.

***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.2-A to 3.2-F.

***Impact Significance After Mitigation***

Mitigation measures recommended for Impacts 3.2-A to 3.2-F above plus mitigations required for the other three projects would reduce the cumulative hydrology-related impacts to a less than significant level.

# 3.3 BIOLOGICAL RESOURCES

The assessment of biological resources was conducted by Moore Biological Consultants. The following summarizes their complete report which is included in Appendix B.

## A. Setting

### 1. Existing Biological Resources

The Specific Plan area consists of essentially level and intensively cultivated fields farmed in alfalfa, tomatoes, corn, hay crops, and almonds. A network of dirt farm roads and highly maintained irrigation ditches that are devoid of vegetation surround and transect the plan area. The edges of the roads and irrigation ditches appear to be routinely sprayed for weed control.

The plan area supports virtually no native vegetation. There are a few thin discontinuous bands of ruderal (i.e., weedy) grassland vegetation as well as some relatively tall black walnuts and ornamental trees along the edges of some of the dirt roads. There are also tall landscaping trees, English walnuts, almonds, and black walnuts, associated with farmhouses and businesses.

The plan area was surveyed for populations of sensitive species or habitat that could support such species. It was determined that no sensitive species currently inhabit the plan area. The entire undeveloped portion of the plan area does contain habitat for Swainson's Hawk.

Areas similar to the plan area often support populations of burrowing owls. None were found on the plan area. The plan area contains poor quality burrowing owl habitat due to the intensity of the farming and the type of farming (i.e., flood irrigation).

### 2. Pertinent City of Dixon Policies

The Natural Environment Element of the Dixon General Plan contains the following policy and implementation programs (IP) related to biotic resources.

**Policy 13**     *The City shall require the proponents of new development projects to submit a study identifying the presence or absence of special-status species at proposed new development sites. If special-status species are determined by the City to utilize a development site, appropriate mitigation measures must be incorporated as part of the proposed development prior to final approval.*

**IP F.**         *Consider participation in the Habitat Management Plan program currently being formulated with the state Department of Fish and Game by the City of Vacaville and Solano County as the means to establish a mitigation plan.*

- IP I.**            ***Subject all development proposals to an environmental review process to determine if the proposed development is compatible with natural processes. Do not approve development that is found to be incompatible with such processes, unless there are overriding circumstances.***

## **B.            Potential Impacts and Mitigations**

### **1.            Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a.            Has a substantial adverse effect, either directly or through habitat modification on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. (This includes reducing the number or restricting the range of an endangered, rare, or threatened species.) *(Assessed in Impacts 3.3-A, C, and D.)*
- b.            Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- c.            Has a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- d.            Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion; also see Impact 3.3-B.)*
- e.            Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- f.            Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites. *(Specific Plan area buildout would not interfere with the movement or migration of wildlife other than the fact that native habitat would be replaced; that impact is assessed in Impacts 3.3-A, C, and D.)*

- g. Substantially reduces the habitat of any fish and wildlife species. (*Buildout of the Specific Plan Area would not substantially reduce habitat useful to fish or wildlife species.*)
- h. Causes a fish or wildlife population to drop below self-sustaining levels. (*Assessed in Impacts 3.3-A, C, and D.*)

## 2. Impacts – Proposed Southwest Dixon Specific Plan

### **Impact 3.3-A Future Specific Plan area development could adversely impact sensitive wildlife species.**

The two sensitive wildlife species that could potentially be affected by future plan area development include Swainson's hawk and burrowing owl. While no Swainson's hawks currently nest on the plan area, the area does contain trees suitable for nesting. In 2000, a nest site in the north part of the plan area was used, but it has not been used since. In addition, the plan area contains habitat that can be used by these hawks for foraging. There are active nests within the general area (but not actually on the Specific Plan area), and all portions of the plan area are within one mile of at least one active nest. The loss of habitat that would result from future plan area development would be considered a potentially significant impact on Swainson's hawks. The California Department of Fish and Game's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California* requires mitigation for projects that cause loss of Swainson's hawk foraging habitat. Generally, mitigation is accomplished by protecting off-site property from development in perpetuity through establishing a conservation easement on those lands. For projects within one mile of a nest that has been active at least once during the past five years, the required mitigation is at a ratio of 1:1 (i.e., for every acre that is developed, one acre must be conserved in perpetuity).

As regards burrowing owl, the plan area does not currently support any of these owls. While the plan area provides poor burrowing owl habitat, some of the fields provide potential foraging habitat for these owls.

If either of these species nested on the plan area at the time construction occurs, the nest disturbance/destruction would be considered a potentially significant impact. Similarly, loss of Swainson's hawk foraging habitat would be a potentially significant impact. Construction of off-site improvements, including pipelines and road improvements, could also adversely affect nesting.

No other sensitive wildlife species were found or are expected on the plan area.

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan includes the following policies and implementation programs (IP) to address the hazard and impact.

**Policy 3.2.1 Existing Trees** - *Protect existing healthy trees in the Plan Area, where feasible and require tree plantings with new development.*

**Policy 3.2.2 Wildlife Habitat** - Include plantings for urban adapted wildlife habitat in open spaces and buffers in the Plan Area, consistent with safety and security needs.

**IP 3.2a Existing Trees** - For sites where there are existing trees, development plans shall indicate the species, location, size, and general health of trees. Unless there are compelling reasons for tree removal, existing trees shall be protected. Before beginning construction, provide fencing at the drip line of the trees.

**3.2b Existing Trees** - A detailed tree inventory by a certified arborist identifying species and health will be completed. No trees will be removed prior to the completed development process or without approval from the City Community Development Director.

**IP 3.2b Wildlife Habitat** - Utilize planned detention basins and functional Buffers to encourage wildlife habitat use. Where appropriate, the preservation of off-site wildlife habitat should be encouraged.

### **Mitigation Measures**

1. Pre-construction surveys within 0.25 miles of any development on the Specific Plan area and for plan area-required off-site pipeline and roadway improvements are recommended prior to construction activities that would occur between March 1 and August 15. In the event that a Swainson's hawk nest is located within 0.25 miles of the project site, seasonal construction restrictions may be necessary to eliminate the potential for noise disturbance to nesting hawks. The necessity of such restrictions is dependent on the location of the nest with respect to construction and should be determined by a qualified biologist.
2. For every acre developed within the Specific Plan area, the developer of each project will be responsible for preserving one acre of Swainson's hawk habitat per the California Department of Fish and Game's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (Buteo swainsoni) in the Central Valley of California* (CDFG, 1994). Because the first developments on the Specific Plan area will fragment the remaining habitat, the 1:1 mitigation will be required for the entire Specific Plan area prior to the start of construction for the first project. The first developers will be responsible for funding the plan area-wide mitigation and will be re-paid by future developers. The area to be preserved will be confirmed as adequate Swainson's hawk habitat by CDFG. Proof of purchase of the property or a suitable conservation easement shall be provided to the City of Dixon prior to the start of construction. The habitat purchase or purchase of development rights may be combined with land preserved to offset loss of agricultural lands as described in the mitigation for Impact 3.10-A.
3. For all development within the Specific Plan area and for plan area-required off-site pipeline and roadway improvements, pre-construction surveys for burrowing owl should be conducted as outlined in CDFG's (1995) *Staff Report on Burrowing Owl (Athene cunicularia) Mitigation*. If active burrows are found, a qualified biologist should determine temporal restrictions on construction and/or grading activities. If owls need to be moved, they should be passively relocated prior to

February 1 or after August 31 using standard methodologies described in CDFG's *Staff Report on Burrowing Owl Mitigation* (CDFG, 1995). As construction will likely take several years and owls could move on the site during the duration of construction, pre-construction surveys should be repeated prior to each phase of ground disturbance.

### ***Impact Significance After Mitigation***

By conducting the surveys listed above, avoiding nests or moving owls, and acquiring or protecting other lands that can be used by Swainson's hawk, development of the Specific Plan area will have less than significant impacts on sensitive wildlife species.

### **Impact 3.3-B Future development of the Specific Plan area could be inconsistent with the Dixon General Plan.**

By implementing the mitigation measures to protect Swainson's hawks and burrowing owls, future development would be consistent with the previously cited Policy 13 and Implementation Programs "F" and "I" of the Natural Environment Element of the Dixon General Plan. All impacts to biological resources can be reduced to a less than significant level. As such, future development of the plan area would be consistent with policies and programs of the Dixon General Plan.

## **3. Project-Specific Impacts**

### **Impact 3.3-C Future development of the five proposed projects could adversely impact sensitive wildlife species.**

Development of each of the five projects could have adverse impacts on Swainson's hawk and burrowing owl as described under Impact 3.3-A. This is a potentially significant impact.

### ***Mitigation Measures***

1. Each development will be responsible for the pre-construction surveys described under the mitigation measures for Impact 3.3-A and will abide by the guidelines listed in those mitigation measures if Swainson's hawks or burrowing owls are found on the subject property or within 0.25 miles of the property for Swainson's hawk.
2. Each new developer will be responsible for their fair share of the cost of acquiring and protecting Swainson's hawk habitat as described under Mitigation Measure No. 2 under Impact 3.3-A.

### ***Impact Significance After Mitigation***

The mitigation measures will reduce the effect of each project to a less than significant impact.



#### 4. Cumulative Impacts

**Impact 3.3-D Future development of the Specific Plan area plus other projects could adversely impact sensitive wildlife species.**

Development of other projects could also adversely affect Swainson's hawk and/or burrowing owl. The mitigation measures recommended for the Specific Plan would reduce the impact for that development to a less than significant level. If similar mitigation is required for the other projects, the cumulative impact would likewise be reduced to a less than significant level. This EIR does not have the authority to require similar mitigation measures for those other projects, but it is assumed they will undergo the same level of CEQA review and that similar mitigation measures will be required.

## 3.4 TRAFFIC AND CIRCULATION

This section describes the potential impacts of the proposed Specific Plan on the transportation system near the plan area. The impact analysis examines the roadway, transit, and bicycle/pedestrian components of the overall transportation system under existing, year 2005, and cumulative (i.e., year 2025) conditions with and without the proposed Specific Plan. Significant impacts associated with the proposed Specific Plan are identified for each component and, as necessary, mitigation measures are recommended to offset those impacts.

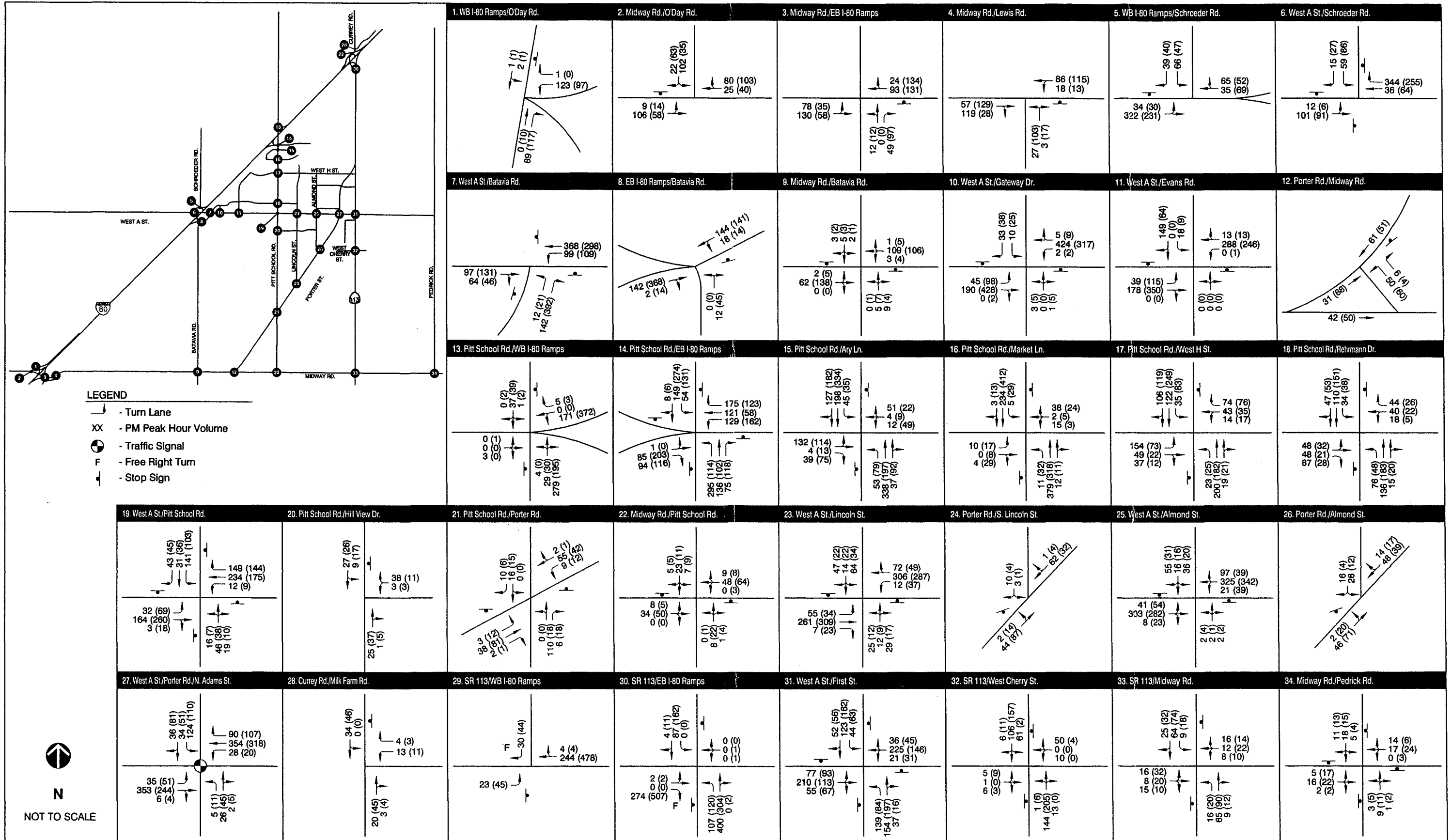
### A. Setting

Existing conditions in the study area, including the roadway, transit, bicycle, and pedestrian components of the transportation system, are described below. In addition, the existing transportation policies, laws, and regulations that would apply to the proposed project are summarized.

#### 1. Roadway System

As shown in Figure 17, the following major roadways provide for existing circulation and access in the vicinity of the Specific Plan area.

- Interstate 80 – Interstate 80 (I-80) is a major six-lane, east-west freeway facility that has a north-south orientation within Dixon's City limits. I-80 provides a major connection between the San Francisco Bay Area, Sacramento Metropolitan Area, Lake Tahoe and Nevada. I-80 also carries peak-hour commuter traffic between Sacramento, Davis, Dixon and the Bay Area. Within the study area, access to I-80 is provided at Midway Road, West A Street, Pitt School Road, State Route (SR) 113 (First Street), and Pedrick Road.
- Batavia Road – Batavia Road is a two-lane, north-south minor collector that provides circulation between Interstate 80 through the western portion of the Southwest Specific Plan area and connects to Midway Road. Batavia Road serves primarily agricultural and industrial land uses and has a substandard roadway cross-section characterized by poor pavement conditions, narrow lane widths, limited shoulders, and inconsistent striping. In addition, Batavia Road connects to the eastbound off-ramp at the Interstate 80/West A Street interchange.
- Pitt School Road – Pitt School Road is a two- and four-lane, north-south arterial that provides circulation between Interstate 80 through the eastern portion of the Southwest Specific Plan area. North of West A Street, Pitt School Road is four lanes and serves residential and commercial land uses. South of West A Street, Pitt School Road is two lanes and serves primarily agricultural and industrial land uses and has a substandard roadway cross-section characterized by poor pavement conditions, narrow lane widths, limited shoulders, and inconsistent striping.



**Figure 17: AM AND PM PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS-EXISTING CONDITIONS**

- State Route 113 – State Route (SR) 113 is a two- and four-lane, north-south arterial that connects Interstate 80 to SR 12 in southern Solano County. Between West H Street and Vaughn Road, SR 113 is four lanes and serves commercial, industrial and residential land uses. South of West H Street, SR 113 is two lanes and serves residential, commercial, industrial, and agricultural land uses and is the main north-south street through historic downtown Dixon. The SR 113/West A Street intersection provides the first east-west access (north of Midway Road) due to the Union Pacific Railroad right-of-way. In addition, there is an at-grade railroad crossing on State Route 113 between East C Street and East F Street.
- Pedrick Road – Pedrick Road is a two-lane north-south arterial that serves agricultural, industrial and rural residential land uses. All of the study intersections are stop-controlled and there is an at-grade Union Pacific Railroad crossing north of Vaughn Road. Access to Interstate 80 is provided at the Interstate 80/Pedrick Road interchange.
- Midway Road – Midway Road is a two-lane east-west arterial that serves agricultural, industrial and rural residential land uses. All of the study intersections are stop-controlled and there is an at-grade Union Pacific Railroad crossing east of the Midway Road/Porter Street intersection. Access to Interstate 80 is provided at the Interstate 80/Midway Road interchange.
- West A Street – West A Street is generally a two-lane east-west arterial that provides access to commercial and residential land uses and is the main east-west street through historic old town Dixon. West A Street is two lanes in each direction between N. Lincoln Street and Pitt School Road and two lanes westbound between Pitt School Road and Evans Road. All of the study intersections are stop-controlled with the exception of the West A Street/Porter Street/North Adams Street intersection, which is controlled by a traffic signal. There is an at-grade Union Pacific Railroad crossing east of Porter Road.

Intersections of the study area roadways are key components of the roadway system. These are the “nodes” that connect and interconnect all individual roadway segments of the system. Intersections are usually the critical elements of the roadway system in assuring adequate travel capacity, minimizing delays, maximizing safety, and minimizing environmental impacts (Institute of Transportation Engineers. 1992. *Transportation Planning Handbook*).

To determine the existing operating conditions of these roadways, 34 intersections were selected for analysis by the City of Dixon. Traffic operations were analyzed during the a.m. and p.m. peak hours for each intersection. Figure 17 shows the existing lane configurations, traffic control, and peak hour traffic volumes for each study intersection.

Operational (i.e., traffic) conditions are typically described by transportation professionals in terms of “level of service” (LOS). Level of service is a common, qualitative measure of the effect of a number of factors on traffic operating conditions, including speed, travel time, traffic interruptions, freedom to maneuver, safety, driver comfort, and convenience. The LOS for intersections ranges from “A” (the best) to “F” (the worst).

Empirical LOS criteria and methods of calculation have been developed by the Transportation Research Board (TRB) and documented in the *Highway Capacity Manual*

(HCM), Special Report 209, Third Edition, 1994. These TRB LOS definitions and calculation methods are the prevailing measurement standard used throughout the United States and are used in this study. The specific LOS definitions for signalized and stop-controlled intersections are shown in Tables 4 and 5.

**Table 4  
Signalized Intersection Level of Service (LOS) Criteria**

LOS	Average Stopped Delay (seconds/vehicle)	Description
A	≤ 5.0	Very low delay. Most vehicles do not stop.
B	5.1 - 15.0	Generally good progression of vehicles. Slight delays.
C	15.1 - 25.0	Fair progression. Increased number of stopped vehicles.
D	25.1 - 40.0	Noticeable congestion. Large portion of vehicles stopped.
E	40.1 - 60.0	Poor progression. High delays and frequent cycle failure.
F	> 60.0	Oversaturation. Forced flow. Extensive queuing.

Source: Transportation Research Board, *Highway Capacity Manual*, Special Report 209, Third Edition, 1994.

**Table 5  
Stop-Controlled Intersection Level of Service (LOS) Criteria**

LOS	Average Total Delay (seconds/vehicle)	Description
A	≤ 5.0	Little or no conflicting traffic for minor street approach.
B	5.1 - 10.0	Minor street approach begins to notice absence of available gaps.
C	10.1 - 20.0	Minor street approach begins experiencing delay for available gaps.
D	20.1 - 30.0	Minor street approach experiences queuing due to a further reduction in available gaps.
E	30.1 - 45.0	Extensive minor street queuing due to insufficient gaps.
F	> 45.0	Insufficient gaps of suitable size to allow minor street traffic demand to cross safely through a major traffic stream.

Source: Transportation Research Board, *Highway Capacity Manual*, Special Report 209, Third Edition, 1994.

The HCM methods identify LOS based on the weighted average of stopped delay for signalized intersections and the weighted average of total delay for stop-controlled intersections. These delay estimates are considered a meaningful indicator of driver discomfort and frustration, fuel consumption, and lost travel time.

Table 6 displays the existing LOS and delay estimate for each study intersection based on the information contained in Figure 17 and the analysis methods described above. The delay estimates were calculated using Version 2.1G of the Highway Capacity Software (HCS) traffic impact analysis software package. For this EIR, the HCM methods described above for signalized and stop-controlled intersections were used. The technical LOS calculation worksheets are available for review and on file with the Dixon Community Development Department.

Table 6 also indicates if the stop-controlled intersections meet the peak hour volume warrant for signalization, as defined in the *Traffic Manual*, Caltrans, July 1, 1995. This warrant is used to determine the potential need for signalization. Additionally, installation of a traffic signal is one of the typical mitigation measures considered for a stop-controlled intersection that fails to meet a minimum LOS threshold. Therefore, this evaluation will be conducted for each analysis scenario.

The results in Table 6 reveal that all of the study intersections operate at LOS C or better with the exception of the West A Street/Pitt School Road intersection, which operates at LOS F in the a.m. and p.m. peak hours. In addition, the West A Street/Batavia Road intersection, which is currently stop-controlled, has sufficient peak hour traffic volumes to warrant the installation of traffic signals.

## 2. Transit System

Dixon Redit-Ride and Fairfield-Suisun Transit provide public transit in Dixon; however, there are no transit stops adjacent to the Southwest Dixon plan area. The primary services in Dixon are summarized below.

- Dixon Local – The City of Dixon operates Redit-Ride, which is a demand-responsive transit system that provides curb-to-curb transit service within the City of Dixon. Redit-Ride operates Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. All Redit-Ride vehicles are wheelchair-accessible.
- Inter-City – Fairfield-Suisun Transit provides inter-city fixed-route service (Route 30) between Fairfield, Vacaville, Dixon, and Davis. In Dixon, Route 30 has a stop at Market Lane on Pitt School Road. This transit stop includes park-and-ride lots. Service is provided Monday through Friday excluding major holidays. Bicycles are allowed on Route 30.
- Paratransit – Fairfield-Suisun Transit operates Solano Paratransit services in Dixon, Fairfield, Suisun City, Rio Vista, and Vacaville.

The Capitol Corridor Joint Powers Authority (CCJPA) manages the operation of the Capitol Corridor inter-city rail service between the cities of San Jose and Sacramento. The City of Dixon is not currently served by the Capitol Corridor intercity rail service. However, the CCJPA, in cooperation with the Solano Transportation Authority, Yolo County Transportation District, Sacramento Regional Transit District, and the Placer County Transportation Planning Agency, has submitted a request for proposal (June 2002) to study the feasibility of providing regional commuter rail service between the cities of Auburn and Dixon to complement the CCJPA inter-city rail service.

**Table 6  
Intersection Operations Summary – Existing Conditions**

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		Is Peak Hour Signal Warrant Met?
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1. WB I-80 Ramps/O'Day Rd.	Stop Sign	2.3	A	1.7	A	No
2. Midway Rd./O'Day Rd.	Stop Sign	1.9	A	1.3	A	No
3. Midway Rd./EB I-80 Ramps	Stop Sign	1.1	A	1.0	A	No
4. Midway Rd./Lewis Rd.	Stop Sign	0.6	A	1.9	A	No
5. WB I-80 Ramps/Schroeder Rd.	Stop Sign	1.3	A	1.1	A	No
6. West A St./Schroeder Rd.	Stop Sign	4.6	A	3.7	A	No
7. West A St./Batavia Rd.	Stop Sign	3.6	A	6.2	B	Yes
8. EB I-80 Ramps/Batavia Rd.	Stop Sign	0.3	A	0.4	A	No
9. Midway Rd./Batavia Rd.	Stop Sign	0.5	A	0.4	A	No
10. West A St./Gateway Dr.	Stop Sign	0.6	A	1.0	A	No
11. West A St./Evans Rd.	Stop Sign	1.4	A	0.9	A	No
12. Porter Rd./Midway Rd.	Stop Sign	1.5	A	1.4	A	No
13. Pitt School Rd./WB I-80 Ramps	Stop Sign	2.1	A	5.3	B	No
14. Pitt School Rd./EB I-80 Ramps	Stop Sign	9.5	B	17.3	C	No
15. Pitt School Rd./Ary Ln.	Stop Sign	4.3	A	4.7	A	No
16. Pitt School Rd./Market Ln.	Stop Sign	0.7	A	1.0	A	No
17. Pitt School Rd./West H St.	Stop Sign	4.3	A	2.9	A	No
18. Pitt School Rd./Rehrmann Dr.	Stop Sign	2.9	A	1.8	A	No
19. West A St./Pitt School Rd.	Stop Sign	> 45.0	F	> 45.0	F	No
20. Pitt School Rd./Hill View Dr.	Stop Sign	1.3	A	0.8	A	No
21. Pitt School Rd./Porter Rd.	Stop Sign	1.8	A	2.8	A	No
22. Midway Rd./Pitt School Rd.	Stop Sign	1.3	A	1.2	A	No
23. West A St./Lincoln St.	Stop Sign	2.5	A	1.6	A	No
24. Porter Rd./S. Lincoln St.	Stop Sign	0.4	A	0.3	A	No
25. West A St./Almond St.	Stop Sign	1.5	A	1.2	A	No
26. Porter Rd./Almond St.	Stop Sign	1.0	A	0.7	A	No
27. West A St./N. Adams St.	Signal	14.2	B	12.8	B	-
28. Currey Rd./Milk Farm Rd.	Stop Sign	0.8	A	0.5	A	No
29. SR 113/WB I-80 Ramps	Stop Sign	4.3	A	7.3	B	No
30. SR 113/EB I-80 Ramps	Stop Sign	0.5	A	0.6	A	No
31. West A St./First St.	Stop Sign	12.3	C	9.5	B	No
32. SR 113/West Cherry St.	Stop Sign	1.1	A	0.3	A	No
33. SR 113/Midway Rd.	Stop Sign	1.4	A	1.7	A	No
34. Midway Rd./Pedrick Rd.	Stop Sign	1.2	A	1.3	A	No

Source: Fehr & Peers Associates, Inc., 2001.

Notes: sec/veh = seconds per vehicle  
WB = westbound  
EB = eastbound

### **3. Bicycle/Pedestrian System**

Bicycling and walking account for approximately 2.5 percent of all work trips made by residents and employees in Dixon. These estimates were calculated from 1990 Census data. This level of bicycling and walking is slightly lower than the estimate for Solano County as a whole, which is approximately 3.2 percent.

Within the study area, bicycling and walking activities rely heavily on the existing roadway system as summarized below:

- West A Street – West A Street has sidewalks and a multi-use bicycle/pedestrian facility between N. Lincoln Street and Pitt School Road. This is a sidewalk where shared bicycle/pedestrian multi-use is allowed and is designated with a bike route sign and a sign indicating that bicyclists must yield to pedestrians. Between Pitt School Road and Gateway Drive there are sidewalks and a Class II bike lane on the north side of the street. There are no sidewalks or designated bicycle facilities on the south side of West A Street between Pitt School Road and Gateway Drive.
- Pitt School Road – Pitt School Road has sidewalks and a multi-use bicycle/pedestrian facility north of West A Street. This is a sidewalk where shared bicycle/pedestrian multi-use is allowed and is designated with a bike route sign and a sign indicating that bicyclists must yield to pedestrians. On the east side of Pitt School Road (Fairbanks Court and West H Street), the sidewalk narrows. South of West A Street, Pitt School Road does not have designated bicycle facilities and only sidewalks on the east side of the street (Hillview Drive to West A Street).
- Evans Road – Evans Road has sidewalks and Class II bike lanes between West A Street and Pitt School Road, which connect the Class II bike lane on westbound West A Street to the Class I bike path on Pitt School Road by way of West H Street.

Although designated as Class I bike paths in the Solano Countywide Bicycle Plan (March 2001), the shared bicycle/pedestrian multi-use sidewalks on West A Street and Pitt School Road do not meet a strict interpretation of the Class I bike path, which is characterized by completely separated right-of-way with crossflows minimized.

There are pedestrian crosswalks on the north and east legs of the Pitt School Road/West A Street intersection. In addition, there are in-roadway crosswalk lighting devices at the West A Street/South Almond intersection.

### **4. Regulatory Context**

Existing transportation policies, laws, and regulations that would apply to the proposed Specific Plan are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

#### **a. Dixon General Plan**

The Dixon General Plan was adopted by City of Dixon City Council on December 14, 1993 (Resolution No. 93-123). The General Plan contains goals, policies, and implementation programs related to all aspects of new development. Key transportation policy



statements from the Transportation and Circulation Element of the General Plan are as follows:

**Policy 1**      *The City shall ensure that Dixon's existing and proposed street configuration and highway network maintains traffic operations at Level of Service "C" or better, while acknowledging that this objective may be difficult to achieve in those locations where traffic currently operates at Levels of Service below "C" for limited periods of time. Achieving this policy will require a variety of traffic improvements, including:*

- *Improving existing arterials;*
- *Construction of arterials and collector streets in newly developing areas; and*
- *Intersection improvements.*

**Policy 2**      *The City shall provide additional transportation alternatives to the private automobile (an improved transit system, park-and-ride lots, bicycle facilities, etc.).*

**Policy 3**      *The City shall encourage the continued development and expansion of local public bus/van transit systems, if it can be demonstrated that the service can be financially supported. New development should be designed to maximize access to and use of public transit, where feasible.*

**Policy 4**      *The City shall support cycling as a transportation mode, which promotes personal health, recreation and enjoyment while minimizing energy consumption and air pollution. The City shall improve and expand existing bikeway facilities in accordance with the Bikeways Master Plan, and shall provide connections to newly developed areas, where feasible.*

**Policy 5**      *The City shall support walking as a transportation mode, which promotes personal health and recreational enjoyment while minimizing energy consumption and air pollution. The City shall improve and expand existing pedestrian facilities and provide connections to newly developed areas, where feasible.*

**Policy 7**      *The City shall pursue the construction of grade-separated rail crossings within the Planning Area.*

**Policy 9**      *The City shall explore the possibility of improving I-80 ramp connections.*

**Policy 10**     *The City shall make maximum use of the existing transportation system and existing rights-of-way.*

**Policy 11**     *The City shall establish and implement uniform standards for street improvements and roadway construction.*

**Policy 12**     *The City shall cooperate with Caltrans and other agencies to ensure that the transportation facilities are constructed and maintained to appropriate standards.*

**Policy 13**     *The City shall provide adequate capacity on arterials and collectors to discourage diversion to local streets.*

**b.     City of Dixon Engineering Design Standard & Construction Specifications**

The City of Dixon Engineering Design Standard & Construction Specifications document (June 1, 2000) contains the minimum design standards for the development of public facilities in Dixon. Key transportation standards or guidelines from this document are summarized below.

- DS3-01. Street Classifications – *For the purposes of geometric and structural design, streets shall be classified according to land use frontage and proposed cumulative traffic volumes to maintain a Level of Service (LOS) “C” or better.*
  
- DS3-06. Intersection Spacing – *The minimum acceptable intersection spacing on Local roadways should not be less than 150 feet. The minimum acceptable intersection spacing between Local or Minor Collector roadways with Minor Collector roadways should not be less than 200 feet. The minimum acceptable intersection spacing between Minor Collector or Major Collector roadways with Major Collector roadways should not be less than 660 feet. The minimum acceptable intersection spacing between Major Collector roadways with Arterial roadways should not be less than 1,320 feet. The minimum acceptable intersection spacing between Arterial roadways should not be less than 2,640 feet.*
  
- DS3-10. Sight Distance at Intersections – *Streets shall not be designed with intersection on the inside of curves or at any location in general where sight distance will be inadequate for drivers to determine if they can safely enter the traffic flow or cross the street.*
  
- DS3-12. Sidewalks – *Sidewalk widths are measured from the back of curb to the back of walk. All sidewalks adjacent to arterial and collector streets shall be a minimum of 6 feet wide. Sidewalks on local and industrial streets shall be 5 feet wide for both low profile curve and gutter and vertical curb and gutter. The typical width for meandering sidewalks shall be a minimum of 8 feet and if the sidewalk serves as a bike path, sidewalk shall be a minimum of 10 feet. When a sidewalk is adjacent to a fence, soundwall, building or vertical landscaping, an additional two feet of width shall be added.*
  
- DS3-14. Curb Ramps – *Accessible curb ramps shall be constructed at all street intersections in accordance with the appropriate Construction Details 320, 322, 324, and 326 and at other locations where required by the City Engineer. Ramps shall be located at the midpoint of the curb return at four-way intersections and shall be rotated 10 degrees towards the through street at tee intersections.*

**c.     City of Dixon Bikeways Master Plan**

The City of Dixon Bikeways Master Plan (March 1993) does not contain regulatory standards or policies, but it does provide general guidelines for the implementation of General Plan Transportation and Circulation Element Policy 4, cited previously. (“The City shall support cycling as a transportation mode, which promotes personal health, recreation and enjoyment while minimizing energy consumption and air pollution. The City

shall improve and expand existing bikeway facilities in accordance with the Bikeways Master Plan, and shall provide connections to newly developed areas, where feasible.”) The Master Plan was developed prior to the adoption of the current General Plan, which was adopted by the City of Dixon City Council on December 14, 1993 (Resolution No. 93-123).

**d. Solano County Congestion Management Program (CMP)**

The Solano County CMP was most recently updated in 2001. Congestion management plans were one of the key requirements of voter approved transportation funding in June 1990. The purpose of these plans is to improve the planning and decision-making relationship between land use, transportation, and air quality. As such, the 2001 Solano County CMP sets LOS standards for roadway operations. The applicable roadway standard for this EIR is presented below.

- Roadway Operations

SR 113 (I-80 to SR 12) - LOS F

**e. Solano Countywide Bicycle Plan**

The Solano Countywide Bicycle Plan (March 2001) was developed to encourage the development of a unified bicycle system throughout Solano County. The following policy statements were identified as potentially applicable to this study.

Policy 3.0 – Identify existing and proposed bike paths, lanes, and routes, and design regional system to maximize use to the extent feasible.

Policy 3.1 – Encourage the use of existing natural and manmade corridors such as creeks, railroad right-of-way, and corridors for future bike path alignments.

Policy 4.0 – Develop a commuter bikeway system that provides direct routes between residential neighborhoods and regional employment areas, schools, and universities.

Policy 4.6 – Emphasis should be on Class II (bike lanes) and Class I (bike paths) over Class III (bike routes) wherever feasible.

The Solano Countywide Bicycle Plan documents existing and proposed bicycle facilities. In the vicinity of the proposed Specific Plan area, Class II bike lanes are proposed for Pitt School Road south of West A Street and Midway Road between I-80 and Pedrick Road.

## **B. Potential Impacts and Mitigation Measures**

Traffic and circulation impacts and mitigation measures for the proposed Specific Plan are described below following a brief summary of the impact standards of significance and a detailed discussion of the impact analysis methodology for the roadway system.

# 1. Criteria Used For Determining Impact Significance

A significant impact will occur if any of the following criteria are met.

## Roadway System

- a. Implementation of the project causes the existing or cumulative no project level of service (i.e., the future level of service that does not include development of the project) at an intersection to deteriorate from LOS A, B, or C, to LOS D, E, or F. *(Assessed in Impacts 3.4-A, F, and J.)*
- b. Implementation of the project causes the existing or cumulative no project level of service at an intersection to deteriorate from the level of service standard established by the county congestion management agency for designated roadways. *(State Route (SR) 113 (First Street) is the only road in the project area designated in the Solano County Congestion Management Plan (CMP). The CMP's LOS standard for SR 113 is LOS F, a less stringent standard than the City's standard of LOS C. Effects on SR 113 are assessed in Impacts 3.4-A, F, and J.)*
- c. Implementation of the project is inconsistent with the transportation roadway system policies or standards documented in plans adopted by the City of Dixon, Solano County, or Caltrans. *(Assessed in Impacts 3.4-B and F.)*

## Transit System

- d. Implementation of the project disrupts existing transit services or facilities. *(Assessed in Impacts 3.4-D and H.)*
- e. Implementation of the project interferes with planned transit services or facilities. *(Assessed in Impacts 3.4-D and H.)*
- f. Implementation of the project is inconsistent with the transit policies or standards documented in plans adopted by the City of Dixon, Solano County, or Caltrans. *(Assessed in Impacts 3.4-E and I.)*

## Bicycle and Pedestrian Facilities

- g. Implementation of the project disrupts existing bicycle or pedestrian facilities. *(City staff has determined that the project would not affect existing bicycle or pedestrian facilities.)*
- h. Implementation of the project interferes with planned bicycle or pedestrian facilities. *(City staff has determined that the project would complement planned bicycle and pedestrian facilities.)*
- i. Implementation of the project is inconsistent with the bikeway or pedestrian policies or standards documented in plans adopted by the City of Dixon, Solano County, or Caltrans. *(Assessed in Impacts 3.4-B, C, and G.)*

## 2. Transportation Features of Proposed Specific Plan

The following discussion summarizes features of the proposed Specific Plan related to the roadway, transit, and bicycle/pedestrian system.

The Southwest Dixon Specific Plan is a further refinement of Dixon General Plan provisions for the plan area, and outlines a detailed set of goals, policies, and implementation programs to guide development in the area.

Figures 18 and 19 illustrate the proposed Specific Plan roadway network. Figure 18 shows the proposed roadway network under existing-plus-project conditions. Figure 19 shows the roadway network under Year 2005 conditions assuming that North Parkway and South Parkway do not extend to Pitt School Road, in order to avoid development on properties currently under Williamson Act contract. (This scenario was evaluated to identify potential impacts with initial development in the Specific Plan if North Parkway and South Parkway cannot be constructed through property that will remain under Williamson Act (agricultural preserve) contract. See further discussion under "3. Method of Analysis" below.)

Descriptions of the key project roadways in the Specific Plan are provided below and are followed by a brief summary of the proposed transit and bicycle/pedestrian systems.

### a. Proposed Roadway System

The following roadways would provide the fundamental network for the Specific Plan and provide direct connections to existing roadways. Several of the roadways in the Specific Plan are designated as parkways, which include combined bicycle and pedestrian facilities and designated right-of-way for landscaping. (Street names are tentative until they are approved by the City of Dixon.)

- North Parkway – North Parkway is proposed to be a major collector from Batavia Road to Pitt School Road. Between Gateway Drive and Pitt School Road, North Parkway is designated as a major collector (landscaped street corridor), with two lanes plus a two-way center left-turn lane, bike lanes, sidewalks, and landscaping. West of Gateway Drive, North Parkway is proposed as a major collector with two lanes with a two-way center left-turn lane, bike lanes, and sidewalks. This roadway would provide a parallel route to West A Street for local traffic. Initial construction of the roadway would be dependent on the phasing of land use development within the specific plan.
- South Parkway – Extending from Batavia Road to South Lincoln Street, South Parkway is proposed to be a minor collector (landscaped street corridor) with bike lanes and no on-street parking. South Parkway is also proposed as a functional buffer between the Specific Plan and unincorporated Solano County to the south, west of Evans Road.
- Batavia Road – Batavia Road is proposed to be a two-lane major collector with a two-way center left-turn lane and seven-foot bike lanes on both sides of the roadway.

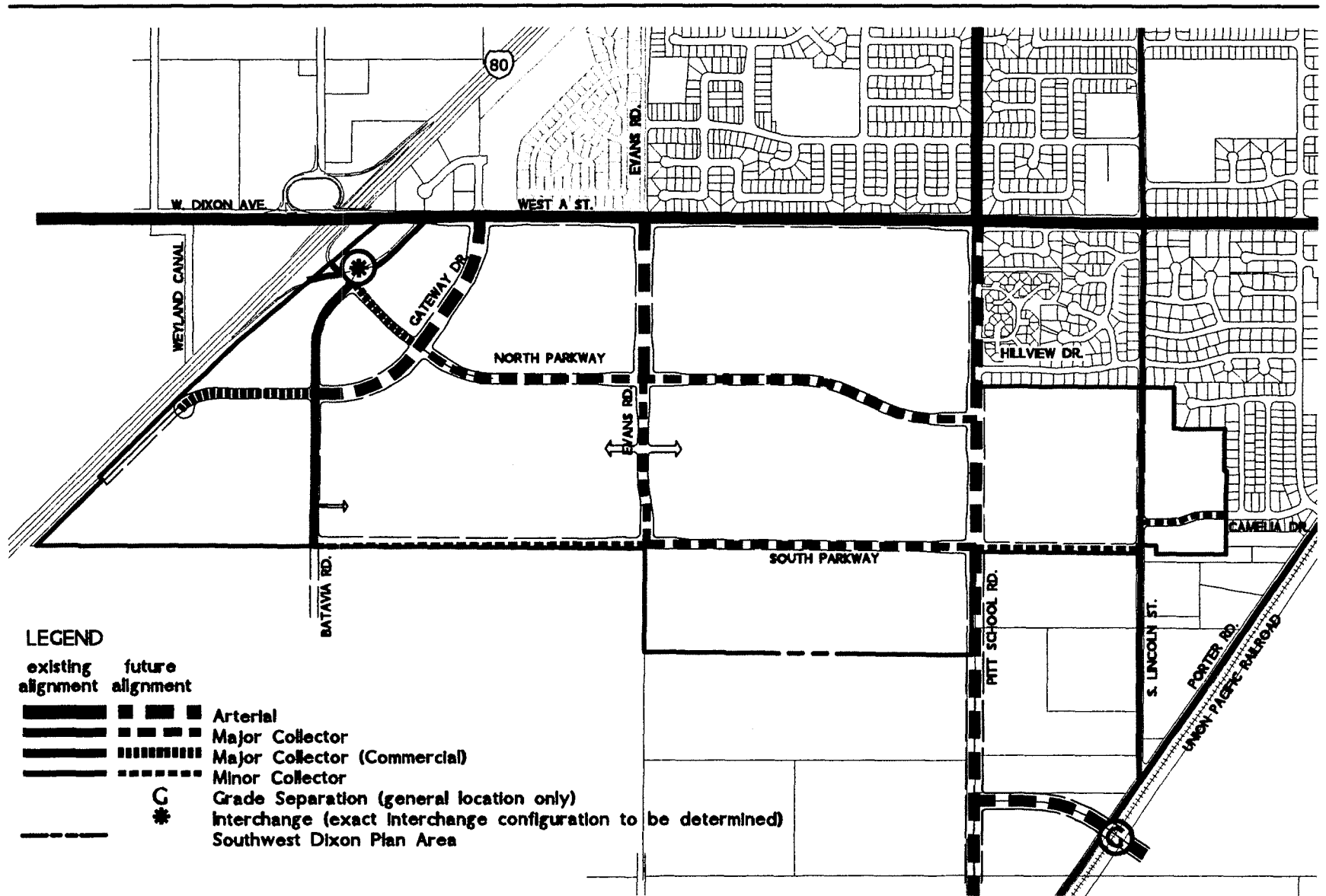


Figure 18: TRAFFIC CIRCULATION PLAN



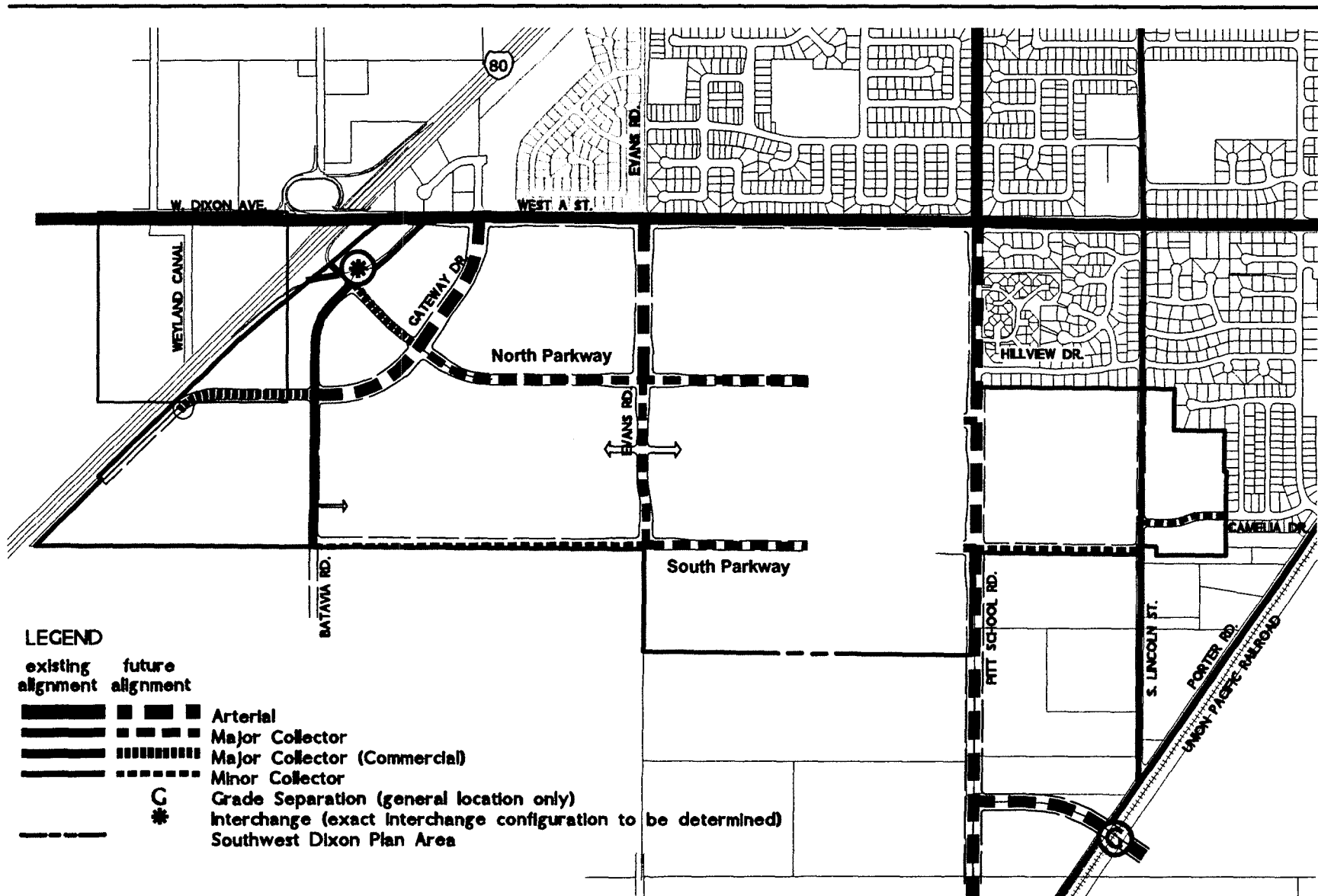


Figure 19: PROPOSED CIRCULATION SYSTEM - YEAR 2005 PLUS PROJECT CONDITIONS



- Gateway Drive – Gateway Drive is proposed to be a four-lane arterial with a raised center median between Batavia Road and West A Street. This segment of Gateway Drive will have Class II bike lanes and sidewalks on both sides of the roadway and no on-street parking. West of Batavia Road, Gateway Drive is proposed to be a major commercial collector with two lanes, a two-way center left-turn lane, and seven-foot bike lanes and sidewalks on both sides of the roadway.
- Evans Road – Evans Road is proposed to be a four-lane arterial between West A Street and North Parkway with a median strip and bicycle and pedestrian facilities on both sides of the roadway. South of North Parkway, Evans Road is proposed to be a major collector with two lanes, with a two-way center left-turn lane. Evans Road is not proposed to extend beyond South Parkway.
- Pitt School Road – Pitt School Road is proposed to be a four-lane arterial with a median and strip bicycle and pedestrian facilities on both sides of the roadway.
- South Lincoln Street – South Lincoln Street would remain a two-lane minor collector street.

**b. Proposed Transit System**

The roadways (i.e., roadway cross-sections) proposed for the Specific Plan area could accommodate bus turnouts and associated transit stops at major intersection. However, the specific locations of these turnouts are not identified in the Specific Plan. These locations can be determined at the Tentative Subdivision Map stage (Memo from Stephen Streeter, City of Dixon Community Development Director, re. "SW Dixon Admin. Draft ER Comments," December 20, 2002, page 2).

**c. Proposed Bicycle/Pedestrian System**

The Specific Plan proposes bikeway and pedestrian facilities throughout the plan area. Specific facilities include on-street bikeways (Class II Bikeways) and sidewalks on all arterials, major collectors, and minor collectors (landscaped street corridors). Class II bikeways would be provided on South Lincoln Street and the extension of Camelia Drive.

**3. Method of Analysis**

The impact analysis addresses the roadway, transit, bicycle, and pedestrian components of the transportation system. The specific methodology for the roadway system impact analysis is described below. For the transit, bicycle, and pedestrian systems impact analyses, the proposed Specific Plan was evaluated for consistency with existing and planned services and facilities, as well as consistency with related policies of the City of Dixon, Solano County, and Caltrans.

**a. Travel Demand Forecasts**

Impacts on the roadway system under existing plus project, year 2005, and cumulative (i.e., year 2025) conditions were determined by forecasting the increase in peak hour traffic volumes that would occur with implementation of the proposed Specific Plan. The



City of Dixon Travel Demand Forecasting (TDF) model (calibrated to base year 2000) conditions was used to generate the traffic volume forecasts for the study intersections. These forecasts were subsequently incorporated into the Version 2.1G of the Highway Capacity Software (HCS) traffic impact analysis software package, previously described, to measure intersection delay and LOS. The *City of Dixon Travel Demand Forecasting Memorandum – Summary of Model Validation* (September 14, 2001) is available for review at the City of Dixon Community Development Department. For this study, the model was used to generate peak hour traffic volume forecasts for the following scenarios.

- Existing (2000 Base Year) Plus Project Conditions - This scenario assumes buildout of the Southwest Dixon Specific Plan.
- Year 2005 No Project Conditions - This scenario assumes year 2005 levels of development citywide and that no new development occurs in the Specific Plan area.
- Year 2005 Plus Project Conditions - This scenario assumes year 2005 levels of development citywide and development in accordance with the five currently proposed Tentative Subdivision Maps that were identified in the April 5, 2002 Notice of Preparation (NOP) of the Draft Environmental Impact Report for the Specific Plan area:
  - Evans Ranch;
  - Orchard Estates-Sanders Property;
  - Orchard Estates-Garcia Property;
  - Dixon Ridge; and
  - Clark Ranch Estates.

This scenario was evaluated to identify potential impacts with initial development in the Specific Plan if North Parkway and South Parkway cannot be constructed through property that will remain under Williamson Act (agricultural preserve) contract. With the exception of Clark Ranch Estates, this scenario does not include development on properties under Williamson Act contracts. In addition, North Parkway and South Parkway do not extend to Pitt School Road (i.e., they terminate west of Williamson Act contract lands) under this scenario, to avoid construction on Williamson Act contract lands. (These roads would eventually be built, but were not assumed to be in place by 2005 for purposes of this analysis.)

- Year 2025 Cumulative Conditions - This scenario assumes buildout of residential development consistent with Measure B and year 2025 levels of non-residential development citywide, which includes buildout of the Specific Plan area and roadway improvements consistent with the City of Dixon Draft Street Master Plan. These improvements include intersection signalization, freeway interchange improvements, and a new grade-separated crossing of the Union Pacific Railroad and the arterial connection between SR 113 and Pitt School Road (south of West A Street).

Before the City's traffic model could be used for this study, the land use and roadway network components of the model were modified to accurately reflect each scenario.

**b. Land Use Modifications**

The land use modifications consisted of adding new traffic analysis zones (TAZs) to the model and disaggregating the project's land uses into these zones. These refinements were necessary to provide sufficient detail in the traffic model to evaluate the proposed Specific Plan.

**c. Roadway Network Modifications**

Roadway network changes included adding new roads in the project area and creating new connections to the existing and planned roadway systems under base year (year 2000), Year 2005, and Year 2025 conditions. These refinements were necessary to provide sufficient detail in the traffic model to evaluate the proposed Specific Plan. Detailed plots of the roadway networks for each analysis scenario listed above are available for review and are on file with the Dixon Community Development Department

**d. Vehicle-Trip Generation Estimates**

After the changes described above were completed, the TDF model was run for each analysis scenario. Table 7 summarizes the final a.m. peak hour, p.m. peak hour, and daily vehicle-trip estimates for the Specific Plan under Year 2005 conditions and with buildout of the proposed Specific Plan land uses.

**Table 7  
Proposed Specific Plan Vehicle-Trip Generation Summary**

Scenario	Total Vehicle Trips <sup>1</sup>		
	A.M. Peak Hour	P.M. Peak Hour	Daily
Year 2005 <sup>2</sup>	3,160	3,950	36,690
Buildout	4,950	5,960	53,250

Source: Fehr & Peers Associates, Inc., 2002.

Notes:

- (1) Trip summary based on 2001 City of Dixon TDF Model.
- (2) Year 2005 – Interim development based on the five currently proposed Tentative Subdivision Maps.

Table 7 shows that the proposed Dixon Southwest Specific Plan will generate about 53,250 vehicle trips per day, with 11 percent of these trips occurring in the p.m. peak hour. The number of daily vehicle trips under Year 2005 conditions is about 69 percent of the total daily trips generated with buildout of the Specific Plan. As stated above, the land use assumed under Year 2005 conditions is based on the five currently proposed Tentative Subdivision Maps.

After calculating the final vehicle-trip estimates, the City's TDF model produces traffic volume forecasts for roadway segments and intersection turning movements under a.m. peak hour, p.m. peak hour, and daily conditions. The discussion below describes this final step in the travel demand forecasting process.

**e. Intersection Turning Movement Forecasts**

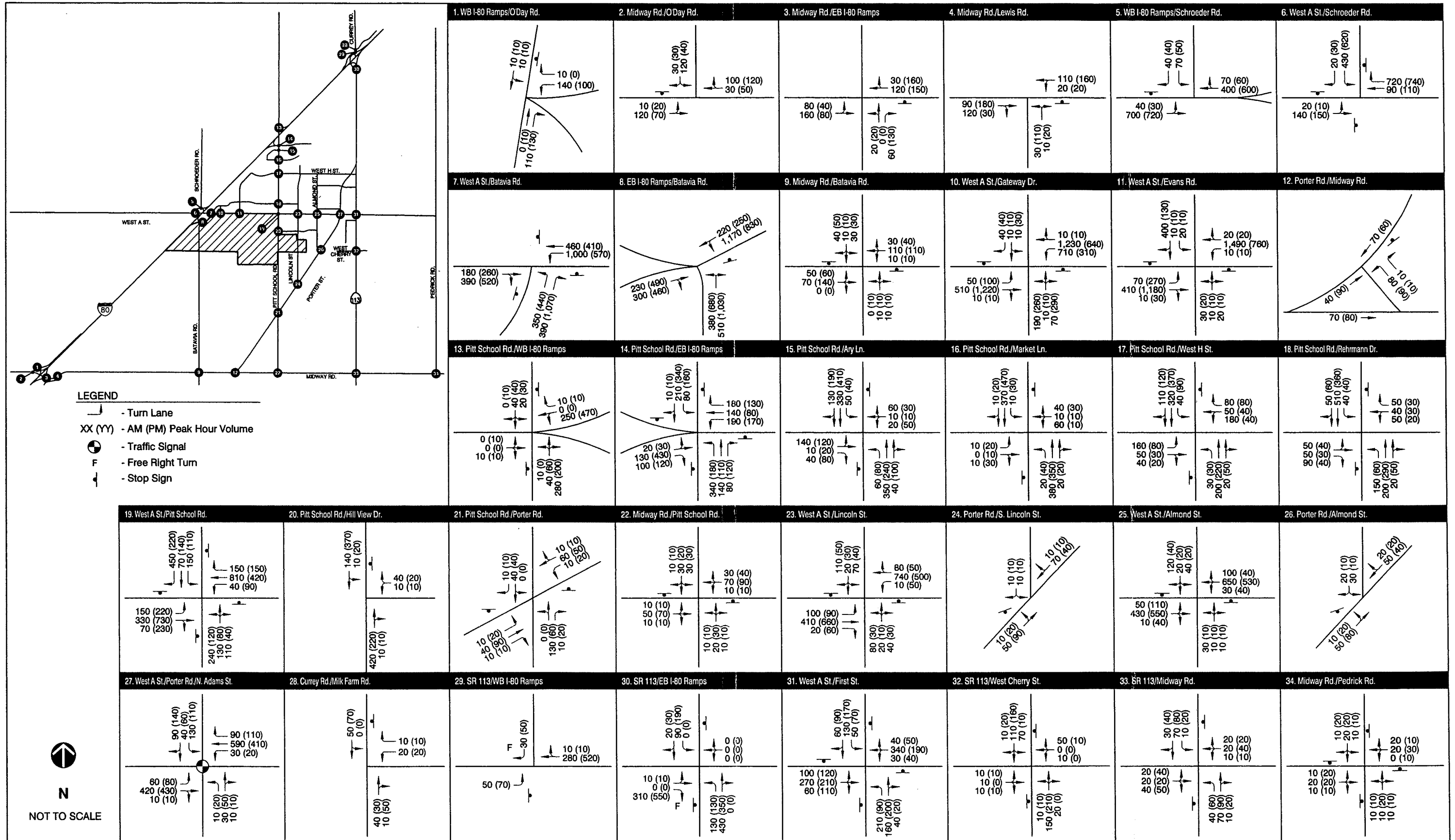
The City's TDF model was used to generate the initial a.m. and p.m. peak hour turning movement forecasts for the study intersections under each of the analysis scenarios listed above. These forecasts were adjusted in a separate refinement process to minimize the potential for model error. The refinement process involved a straightforward adjustment to the forecasts by which the differences between base year and future year projections were calculated and then added to the existing turning movement counts. This adjustment process is used by transportation professionals to minimize model errors associated with initial differences between base year traffic counts and base year traffic volumes forecast by TDF models.

The final adjusted a.m. and p.m. peak hour turning movement forecasts are shown in Figures 20 through 22. The development of these forecasts was coordinated with City of Dixon staff prior to their use in the traffic operations analysis, which is discussed below.

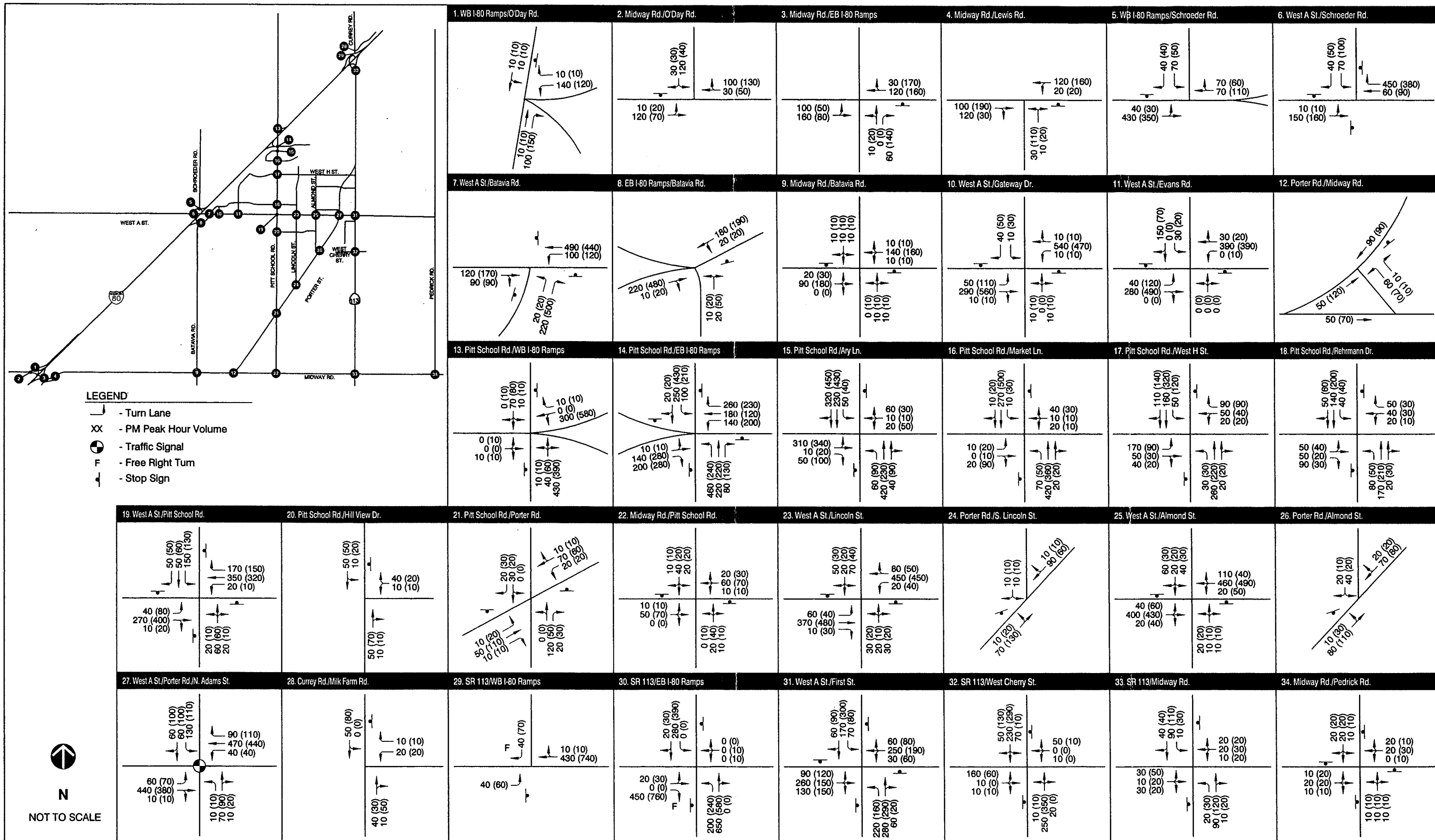
**f. Traffic Operations**

Using the intersection geometrics and traffic volumes from Figures 20 through 22, a.m. and p.m. peak hour traffic operations were analyzed for the study intersections. Table 8 provides a summary of the LOS for each study intersection under the analysis scenarios listed above. Detailed intersection results are contained in Tables 9 through 11 at the end of this section.

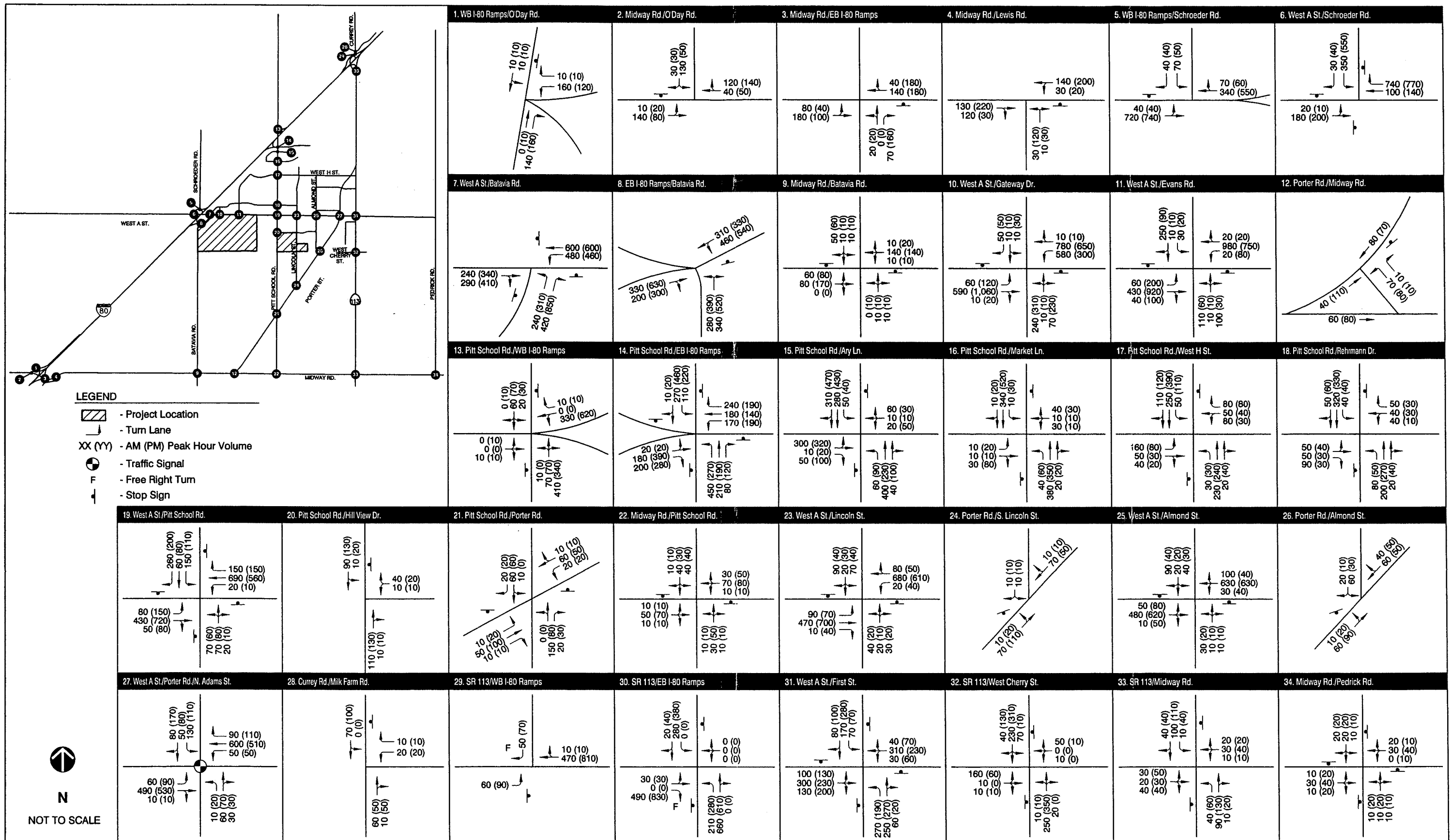
The traffic analysis results shown in Table 8 reveal that the proposed Specific Plan would adversely affect intersection operations within the study area. Under "Existing With Project" conditions, ten intersections would operate worse than the City's LOS threshold. Similarly, eleven intersections would operate worse than the City's LOS thresholds under Year 2005 "With Project" conditions. While it may seem counterintuitive to have more intersections identified under Year 2005 conditions (with only partial development of the proposed Specific Plan area) than under existing conditions (with buildout of the entire Specific Plan area), the Year 2005 forecasts include growth in background (i.e., traffic generated by other new development) traffic as well as project-related traffic. Specific impact statements and mitigation measures related to these findings are presented below.



**Figure 20: AM AND PM PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS-EXISTING PLUS PROJECT CONDITIONS**



**Figure 21: AM AND PM PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - YEAR 2005 NO PROJECT CONDITIONS**



**Figure 22: AM AND PM PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS- YEAR 2005 PLUS PROJECT CONDITIONS**

**Table 8  
Intersection Level of Service (LOS) Summary**

Intersection	Existing Conditions				2005 Conditions			
	No Project		With Project <sup>1</sup>		No Project		With Project <sup>2</sup>	
	AM	PM	AM	PM	AM	PM	AM	PM
1. WB I-80 Ramps/O'Day Rd.	A	A	A	A	A	A	A	A
2. Midway Rd./O'Day Rd.	A	A	A	A	A	A	A	A
3. Midway Rd./EB I-80 Ramps	A	A	A	A	A	A	A	A
4. Midway Rd./Lewis Rd.	A	A	A	A	A	A	A	A
5. WB I-80 Ramps/Schroeder Rd.	A	A	A	A	A	A	A	A
6. West A St./Schroeder Rd.	A	A	F	F	B	B	F	F
7. West A St./Batavia Rd.	A	B	F	F	B	F	F	F
8. EB I-80 Ramps/Batavia Rd.	A	A	F	F	A	A	F	F
9. Midway Rd./Batavia Rd.	A	A	A	A	A	A	A	A
10. West A St./Gateway Dr.	A	A	F	F	A	A	F	F
11. West A St./Evans Rd.	A	A	F	F	A	A	F	F
12. Porter Rd./Midway Rd.	A	A	A	A	A	A	A	A
13. Pitt School Rd./WB I-80 Ramps	A	B	A	C	A	F	B	F
14. Pitt School Rd./EB I-80 Ramps	B	C	F	F	F	F	F	F
15. Pitt School Rd./Ary Ln.	A	A	B	B	F	F	F	F
16. Pitt School Rd./Market Ln.	A	A	A	A	A	A	A	A
17. Pitt School Rd./West H St.	A	A	C	A	B	A	B	A
18. Pitt School Rd./Rehrmann Dr.	A	A	C	A	A	A	A	A
19. West A St./Pitt School Rd.	F	F	F	F	F	F	F	F
20. Pitt School Rd./Hill View Dr.	A	A	A	A	A	A	A	A
21. Pitt School Rd./Porter Rd.	A	A	A	A	A	A	A	A
22. Midway Rd./Pitt School Rd.	A	A	A	A	A	A	A	A
23. West A St./Lincoln St.	A	A	E	B	A	A	C	B
24. Porter Rd./S. Lincoln St.	A	A	A	A	A	A	A	A
25. West A St./Almond St.	A	A	B	A	A	A	B	B
26. Porter Rd./Almond St.	A	A	A	A	A	A	A	A
27. West A St./N. Adams St.	B	B	D	C	C	C	D	D
28. Currey Rd./Milk Farm Rd.	A	A	A	A	A	A	A	A
29. SR 113/WB I-80 Ramps	A	B	A	A	A	A	A	A
30. SR 113/EB I-80 Ramps	A	A	A	A	A	A	A	A
31. West A St./First St.	C	B	F	C	F	E	F	F
32. SR 113/West Cherry St.	A	A	A	A	B	A	A	A
33. SR 113/Midway Rd.	A	A	A	A	A	A	A	A
34. Midway Rd./Pedrick Rd.	A	A	A	A	A	A	A	A

Source: Fehr & Peers Associates, Inc., 2001.

Notes: Shaded Areas = Potentially Significant Project Impact

(1) Project = Specific Plan buildout

(2) Project = Interim development based on the five currently proposed Tentative Subdivision Maps

## 4. Impacts – Proposed Southwest Dixon Specific Plan

### a. Existing (Year 2000) Plus Project (Specific Plan Buildout) Conditions

**Impact 3.4-A** Implementation of the proposed Specific Plan would cause an increase in a.m. and p.m. peak hour traffic volumes at study intersections, causing unacceptable levels of service and warranting the installation of traffic signals.

Ten study intersections would operate worse than the City's minimum acceptable level of service (LOS) under existing (Year 2000) plus project (Specific Plan buildout) conditions (see Table 8). These intersections and their associated peak hour LOS under existing plus project conditions are listed below.

1. West A Street/Schroeder Road (LOS F – a.m. and p.m. peak hour);
2. West A Street/Batavia Road (LOS F – a.m. and p.m. peak hour);
3. EB I-80 Ramps/Batavia Road (LOS F – a.m. and p.m. peak hour);
4. West A Street/Gateway Drive (LOS F – a.m. and p.m. peak hour);
5. West A Street/Evans Road (LOS F – a.m. and p.m. peak hour);
6. Pitt School Road/Eastbound I-80 Ramps (LOS F – a.m. and p.m. peak hour);
7. West A Street/Pitt School Road (LOS F – a.m. and p.m. peak hour);
8. West A Street/Lincoln Street (LOS E – a.m. peak hour);
9. West A Street/North Adams Street (LOS D – a.m. peak hour); and
10. West A Street/First Street (LOS F – a.m. peak hour).

With the exception of the West A Street/North Adams Street intersection, which is currently signalized, each of the stop-controlled intersections would have peak hour traffic volumes that would be high enough to meet the peak hour warrant for installation of a traffic signal.

This is considered to be a potentially significant impact.

### **Mitigation Measures**

1. West A Street/Schroeder Road Intersection. The project applicant shall install a traffic signal at the West A Street/Schroeder Road intersection and provide right-turn overlap phasing with the southbound left-turn movement. No project-specific phasing program has been submitted with the Specific Plan and no housing allocations have been awarded, so mitigation timing is unknown at this time. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Element Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant shall pay a fair share for future improvements. Implementation of this mitigation measure would provide acceptable LOS B operations during both the a.m. and p.m. peak hours under existing plus project conditions.



2. West A Street/Batavia Road Intersection. The project applicant shall modify the Specific Plan to eliminate the connection of Batavia Road to the eastbound I-80 on- and off-ramps and install a signal system to accommodate project traffic along West A Street. Existing access to commercial uses at the intersection could remain. Although the traffic volumes at this intersection would satisfy the peak hour volume warrant for signalization, the installation of a traffic signal at the Eastbound I-80 Ramps/Batavia Road intersection is not feasible because there would be insufficient storage for queued vehicles on the eastbound off-ramp, causing potential vehicle spillback onto I-80.

The elimination of this connection will cause a redistribution of traffic to the West A Street/Gateway Drive and West A Street/Batavia Road intersections. These intersections will provide access to I-80 and the office and commercial land uses in the western portion of the Specific Plan with the elimination of the connection. To accommodate the traffic redistribution, traffic signals shall be installed on West A Street at Batavia Road and Gateway Drive to provide a signal system that can be coordinated, which will minimize vehicle queues and improve vehicle progression along West A Street.

In November 1999, a detailed plan-line study was initiated that identified and evaluated intersection improvement options at the I-80/West A Street interchange. Summary figures and tables from the plan-line study are available for review and are on file with the Dixon Community Development Department. Alternative 1 from this study identified signalization, coordination, and turn lane improvements at the West A Street/Gateway Drive and West A Street/Batavia Road intersections that would provide acceptable operations through year 2010, without the Batavia Road connection to the I-80 eastbound ramps, and without reconstruction of the interchange. The following lane configurations, which are based on Alternative 1, shall be provided at the West A Street/Gateway Drive and West A Street/Batavia Road intersections:

West A Street/Gateway Drive

- Dual exclusive left-turn lanes and a shared through/right-turn lane on the northbound approach;
- One exclusive left-turn lane and a shared through/right-turn lane on the southbound approach;
- Dual exclusive left-turn lanes, two through lanes, and an exclusive right-turn lane on the eastbound approach;
- One exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the westbound approach;

West A Street/Batavia Road

- One exclusive left-turn lane and one exclusive right-turn lane on the northbound approach;

- One through lane and an exclusive right-turn lane on the eastbound approach; and
- One exclusive left-turn lane and one through lane on the westbound approach.

No project-specific phasing program has been submitted with the Specific Plan and no housing allocations have been awarded, so mitigation timing is unknown at this time. The timing of improvements would depend on the location and amount of development. Furthermore, not all of the improvements (i.e., traffic signals on West A Street) may be necessary with the elimination of the Batavia Road/I-80 ramps connection. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant shall pay a fair share for future improvements.

3. Eastbound I-80 Ramps/Batavia Road Intersection. The project applicant shall implement Mitigation Measure 2 above, which would provide acceptable LOS B operations during both the a.m. and p.m. peak hours under existing plus project conditions.
4. West A Street/Gateway Drive Intersection. The project applicant shall implement Mitigation Measure 2 above, which would provide acceptable LOS B operations during a.m. peak hour and LOS C operations during the p.m. peak hour under existing plus project conditions.
5. West A Street/Evans Road Intersection. The project applicant shall install a traffic signal at the West A Street/Evans Road intersection and widen the northbound, southbound, eastbound, and westbound approaches to provide the following turn lane configurations:
  - One exclusive left-turn lane and a shared through/right-turn lane on the northbound approach;
  - One exclusive left-turn lane, a shared through/right-turn lane, and exclusive right-turn lane on the southbound approach;
  - One exclusive left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach; and
  - One exclusive left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach.

No project-specific phasing program has been submitted with the Specific Plan and no housing allocations have been awarded, so mitigation timing is unknown at this time. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain

the City's LOS thresholds identified in General Plan Transportation and Circulation Element Policy 1. If triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If the studies indicate that a project does not trigger an improvement, the project applicant will pay a fair share for future improvements. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.

6. Pitt School Road/Eastbound I-80 Ramps Intersection. The project applicant shall install a traffic signal at the Pitt School Road/Eastbound I-80 Ramps intersection and widen the eastbound approach to include an exclusive left-turn lane, one through lane, and an exclusive right-turn lane. In addition, provide right-turn overlap phasing on the northbound, eastbound, and westbound approaches. Installation of the traffic signal is included in the *City of Dixon AB 1600 Facilities and Equipment Study* (March 2000) as being funded by traffic impact fees imposed on new development. However, the proposed Specific Plan could require implementation of the improvements prior to their programmed installation. Therefore, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and widening prior to the programmed installation of these improvements, then the project applicant shall be required to install the improvements and shall be reimbursed. If the traffic signal is installed prior to the programmed installation of these improvements, then the project applicant shall be responsible for widening the intersection and modifying the signal. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.
7. West A Street/Pitt School Road Intersection. The project applicant shall install a traffic signal at the West A Street/Pitt School Road intersection and widen the northbound, eastbound, and westbound approaches to provide the following turn lane configurations:
- One exclusive left-turn lane and a shared through/right-turn lane on the northbound approach;
  - One exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound approach; and
  - One exclusive left-turn lane, two through lane, and an exclusive right-turn lane on the westbound approach.

In addition, provide right-turn overlap phasing on the southbound, eastbound, and westbound approaches. Installation of the traffic signal is included in the *City of Dixon AB 1600 Facilities and Equipment Study* (March 2000) as being funded by traffic impact fees imposed on new development. However, the proposed project could require implementation of the improvements prior to their programmed installation in AB 1600. Therefore, the project applicant shall prepare a project-

specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Element Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and widening prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be required to install the improvements and shall be reimbursed by AB 1600. If the traffic signal is installed prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be responsible for widening the intersection and modifying the signal. Implementation of this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.

8. West A Street/Lincoln Street Intersection. The project applicant shall install a traffic signal at the West A Street/Lincoln Street intersection and widen the northbound and southbound approaches to include a shared through/left-turn lane and an exclusive right-turn lane. In addition, provide right-turn overlap phasing on the northbound, southbound, and eastbound approaches. The project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. Implementation of this mitigation measure would provide acceptable LOS C operations during both the a.m. and p.m. peak hours under existing plus project conditions.
9. West A Street/North Adams Street Intersection. The project applicant shall reimburse the City for the cost to modify the traffic signal cycle length and green time allocations "splits" at the West A Street/North Adams Street intersection. Signal timing modifications are done on a routine basis to account for change in demand and hourly variations in traffic flow. The reimbursement shall be completed prior to the issuance of building permits. Implementation of this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.
10. West A Street/First Street Intersection. The project applicant shall install a traffic signal at the West A Street/First Street intersection and re-stripe the eastbound and westbound approaches to provide one exclusive left-turn lane and a shared through/right-turn lane, which will require the elimination of about 24 existing on-street parallel parking spaces. These improvements are consistent with the recommendations that were identified in the *City of Dixon First Street (SR 113) and A Street Intersection Operations Study* (January 10, 2001). Installation of the traffic signal is included in the *City of Dixon AB 1600 Facilities and Equipment Study* (March 2000). This improvement is funded with construction anticipated in 2003. If construction of this improvement does not occur as anticipated, the project applicant shall prepare a project-specific traffic analysis based on the EIR traffic study for each tentative map to confirm existing conditions and determine the specific mitigation timing that is required to maintain the City's LOS thresholds

identified in General Plan Transportation and Circulation Policy 1. Once triggered, implementation of this mitigation measure shall be completed prior to the issuance of building permits for that individual tentative map. If this intersection requires signalization and re-striping prior to the programmed installation of these improvements in AB 1600, then the project applicant shall be required install the improvements and shall be reimbursed by AB 1600. Implementation of this mitigation measure would provide acceptable LOS C operations during a.m. peak hour and LOS B operations during the p.m. peak hour under existing plus project conditions.

### ***Impact Significance after Mitigation***

These mitigation measures would reduce the potential impact to a less than significant level.

**Impact 3.4-B**      **Implementation of the proposed Specific Plan would create inconsistencies with roadway-related standards of the City of Dixon Engineering Design Standards & Construction Specifications (June 1, 2000).**

As stated in Policy 11 of the Dixon General Plan Transportation and Circulation Element, "The City shall establish and implement uniform standards for street improvements and roadway construction." In implementing this policy, the City of Dixon developed the *Engineering Design Standards & Construction Specifications* (June 1, 2000), which contains numerous standards related to roadway infrastructure for new development areas. Various street cross-sections proposed by the Draft Specific Plan would be inconsistent with these City standards. This impact is considered to be potentially significant.

### ***Mitigation Measures***

1. The project applicant shall modify the proposed street classifications and street cross-sections to be consistent with the standards identified in the *City of Dixon Engineering Design Standards & Construction Specifications*. This modification would result in consistency of the Specific Plan with General Plan policy.

### ***Impact Significance after Mitigation***

This mitigation measure would reduce the potential impact to a less than significant level.

**Impact 3.4-C**      **The project would add traffic to existing segments of Batavia Road, Pitt School Road, and South Lincoln Street which currently do not meet City of Dixon minimum roadway cross-section design standards.**

Batavia Road, Pitt School Road, and South Lincoln Street extend in a north-south direction through the plan area and south into the unincorporated area under Solano County

jurisdiction. The roads do not meet current City of Dixon minimum roadway cross-section design standards and are "functionally obsolete.". The Specific Plan proposes improvements to the segments of these roads that are located within the plan area, but these proposed roadway cross-sections do not meet current City standards. Water, sewer, and drainage lines are proposed for placement beneath South Lincoln Street between the plan area and Porter Street. The City believes the pavement width of this street is insufficient to allow construction of these lines. This impact is considered to be potentially significant.

### ***Mitigation Measures***

1. For segments of Batavia Road, Pitt School Road, and South Lincoln Street that are located within the Specific Plan area, the project applicant shall modify the proposed street classifications and roadway cross-sections to be consistent with the standards identified in the *City of Dixon Engineering Design Standards & Construction Specifications*.
2. South Lincoln Street between the plan area and Porter Street shall be improved to standards identified in the *City of Dixon Engineering Design Standards & Construction Specifications*.
3. For segments of Batavia Road and Pitt School Road located outside the plan area in unincorporated Solano County, the project applicant shall make a fair-share contribution toward reconstruction of the road to meet City of Dixon standards. The fair-share contribution would be based on the project's traffic contribution relative to existing traffic on the roadway.

### ***Impact Significance after Mitigation***

The above measures would reduce the impact to a less than significant level.

### **Impact 3.4-D Implementation of the proposed Specific Plan would increase demand for public transit service.**

The proposed Specific Plan anticipates transit service within the plan area, but does not propose contributions to the capital cost associated with providing service. This impact is considered to be potentially significant.

### ***Mitigation Measures***

1. The project applicant shall contribute its fair share of the capital cost associated with providing public transit service to the Specific Plan area. It is anticipated that new transit vehicles would be required to provide the additional service within the plan area. However, the final determination of additional capital equipment or other costs shall be determined by the City of Dixon and Fairfield-Suisun Transit. The fair-share cost or a plan for providing the fair-share cost over time shall be submitted to the City of Dixon prior to the issuance of building permits.

### ***Impact Significance after Mitigation***

This mitigation measure would reduce the potential impact to a less than significant level.

### **Impact 3.4-E Implementation of the proposed Specific Plan would create inconsistencies with transit-related policies in the Dixon General Plan.**

The Specific Plan identifies goals, policies, and implementation measures related to public transit. However, the Specific Plan does not identify the location of specific transit facilities such as park-and-ride lots, transit stops, or bus turnouts and does not identify specific measures to ensure these facilities are constructed as development occurs. This aspect of the proposed Specific Plan creates inconsistencies with the following Dixon General Plan Transportation and Circulation Element policies:

***Policy 2 The City shall provide additional transportation alternatives to the private automobile (an improved transit system, park-and-ride lots, bicycle facilities, etc.).***

***Policy 3 The City shall encourage the continued development and expansion of local public bus/van transit systems, if it can be demonstrated that the service can be financially supported. New development should be designed to maximize access to and use of public transit, where feasible.***

This impact is considered to be potentially significant.

### ***Mitigation Measures***

1. The project applicant shall modify the proposed Specific Plan to identify the specific locations for transit stops and bus turnouts. The City of Dixon and Fairfield-Suisun Transit shall approve the location, design, and implementation and timing of the park-and-ride lots, transit stops and bus turnouts prior to the issuance of building permits. This modification would result in consistency of the Specific Plan with the applicable General Plan policies.

### ***Impact Significance after Mitigation***

This mitigation measure would reduce the potential impact to a less than significant level.

## **5. Project-Specific Impacts**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area (Andrews Dixon LLC, Weyand, Garcia, Sanders, and Clark) have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. Development of these five projects has been considered as the "Year 2005 Plus Project" scenario.

a. **Year 2005 Plus Project (Five Tentative Subdivision Maps) Conditions**

**Impact 3.4-F**      **Implementation of the five proposed projects would cause an increase in a.m. and p.m. peak hour traffic volumes at study intersections, causing unacceptable levels of service and warranting the installation of traffic signals.**

Eleven study intersections would operate worse than the City's minimum acceptable LOS under year 2005 plus project conditions (see Table 8). These intersections and their associated peak hour LOS under year 2005 plus project conditions are listed below.

1. West A Street/ Schroeder Road (LOS F – a.m. and p.m. peak hour);
2. West A Street/Batavia Road (LOS F – a.m. and p.m. peak hour);
3. Eastbound I-80 Ramps/Batavia Road (LOS F – a.m. and p.m. peak hour);
4. West A Street/Gateway Drive (LOS F – a.m. and p.m. peak hour);
5. West A Street/Evans Road (LOS F – a.m. and p.m. peak hour);
6. Pitt School Road/Westbound I-80 Ramps (LOS F – p.m. peak hour);
7. Pitt School Road/Eastbound I-80 Ramps (LOS F – a.m. and p.m. peak hour);
8. Pitt School Road/Ary Lane (LOS F – a.m. and p.m. peak hour);
9. West A Street/Pitt School Road (LOS F – a.m. and p.m. peak hour);
10. West A Street/North Adams Street (LOS D – a.m. and p.m. peak hour); and
11. West A Street/First Street (LOS F – a.m. and p.m. peak hour).

With the exception of the West A Street/North Adams Street intersection, which is currently signalized, each of the stop-controlled intersections would have peak hour traffic volumes that would be high enough to meet the peak hour warrant for installation of a traffic signal.

This is considered to be a potentially significant impact.

***Mitigation Measures***

1. As a condition of all development approvals, each project applicant shall prepare a project-specific traffic analysis based on the traffic study presented in this **ER** to determine their responsibilities for intersection improvements and pro-rata share of mitigations for cumulative impacts. City staff shall review and approve each project-specific traffic analysis before development approval.

***Impact Significance after Mitigation***

This mitigation measure would reduce the potential impact to a less than significant level.

**Impact 3.4-G**      **Implementation of the five proposed projects would create inconsistencies with roadway-related standards of the *City of Dixon Engineering Design Standards & Construction Specifications* (June 1, 2000).**



See Impacts 3.4-B and 3.4-C above for a discussion of potential inconsistencies.

This impact is considered to be potentially significant.

**Mitigation Measures**

1. The proposed Specific Plan roadway circulation system, including street classifications and cross-sections, shall be modified as described in the mitigation measures for Impacts 3.4-B and 3.4-C above. The five proposed projects shall be modified as necessary to reflect these changes.
2. City of Dixon staff shall review the revised individual project plans and apply any necessary conditions of Tentative Subdivision Map approval to ensure compliance with the roadway-related standards of the *City of Dixon Engineering Standards & Construction Specifications* (June 1, 2000).

See also the mitigation measure for Impact 3.4-H below.

**Impact Significance after Mitigation**

These mitigation measures would reduce the potential impact to a less than significant level.

**Impact 3.4-H            Implementation of the five proposed projects would increase demand for public transit service.**

The Specific Plan anticipates transit service within the plan area, but does not propose to contribute to the capital cost associated with providing service. This impact is considered to be potentially significant.

**Mitigation Measures**

1. Each project applicant shall contribute its fair-share of the capital cost associated with providing public transit service to the project area. It is anticipated that new transit vehicles would be required to provide the additional service within the plan area. However, the final determination of additional capital equipment or other costs shall be determined by the City of Dixon and Fairfield-Suisun Transit. The fair-share cost or a plan for providing the fair-share cost over time shall be submitted to the City of Dixon prior to the issuance of building permits.

**Impact Significance after Mitigation**

This mitigation measure would reduce the potential impact to a less than significant level.

**Impact 3.4-I            Implementation of the five proposed projects would create inconsistencies with transit-related policies in the City of Dixon General Plan.**

The Specific Plan identifies goals, policies, and implementation measures related to public transit. However, the Specific Plan and the five individual Tentative Subdivision Maps do not identify the location of specific transit facilities such as park-and-ride lots, transit stops, or bus turnouts and do not identify specific measures to ensure these facilities are constructed as development occurs. This aspect of the five projects would be inconsistent with the following Dixon General Plan Transportation and Circulation Element policies:

**Policy 2**        *The City shall provide additional transportation alternatives to the private automobile (an improved transit system, park-and-ride lots, bicycle facilities, etc.).*

**Policy 3**        *The City shall encourage the continued development and expansion of local public bus/van transit systems, if it can be demonstrated that the service can be financially supported. New development should be designed to maximize access to and use of public transit, where feasible.*

This impact is considered to be potentially significant.

### **Mitigation Measures**

1. Project applicants shall modify the proposed Tentative Subdivision Maps to identify the specific locations for transit stops and bus turnouts. The City of Dixon and Fairfield-Suisun Transit shall approve the location, design, and implementation and timing of the park-and-ride lots, transit stops and bus turnouts prior to the issuance of building permits. This modification would result in consistency with the applicable General Plan policies.

### **Impact Significance after Mitigation**

This mitigation measure would reduce the potential impact to a less than significant level.

## **6. Cumulative Impacts**

The Dixon 1993 General Plan was adopted by the City Council (Resolution #93-123) on December 14, 1993. The General Plan is a comprehensive, long-term plan for development within the City of Dixon. Development includes the transportation system, which is addressed specifically in the Transportation and Circulation Element (Section VI) of the General Plan. Key components of the Transportation and Circulation Element include the identification of development goals and the definition of policies for guiding the location and nature of future development that will ensure that the City's goals are achieved.

The Dixon 1993 General Plan outlines steps necessary for implementation of the goals and policies outlined in the Transportation and Circulation Element. These steps include the preparation of a comprehensive traffic improvement plan for the City of Dixon to provide an equitable approach to financing roadway and circulation improvements. The City is preparing the City of Dixon Draft Street Master Plan (SMP) to fulfill the following objectives:

- Identify roadway operational deficiencies under existing conditions, and those in 2005, 2010, and 2025;
- Document programmed and planned roadway improvements already identified within the City;
- Propose roadway improvements necessary to provide adequate traffic operations consistent with the goals and policies outlined in the Transportation and Circulation Element;
- Provide conceptual cost estimates for roadway improvements; and
- Develop a transportation improvement financing program that is intended to provide sufficient funding to construct needed transportation improvements.

Table 12 summarizes roadway improvements that are included in the traffic analysis for the SMP, which include intersection signalization, roadway widening, interchange reconstruction, and a new roadway connection (with railroad grade separation) between SR 113 and Pitt School Road. These improvements are also illustrated on Figure 23. The City is preparing to conduct an alignment study of this railroad grade-separation. Since the Southwest Dixon Specific Plan is included in the City of Dixon Draft Street Master Plan, new cumulative conditions analysis was not conducted for the Southwest Dixon Specific Plan. Figure 24 shows year 2025 p.m. peak hour level of service for study area roadway segments with the improvements identified in Table 12 and on Figure 23.

**Impact 3.4-J      Development of the proposed Specific Plan would generate about 53,250 daily vehicle trips, adversely affecting cumulative peak hour traffic operations.**

The addition of project traffic without mitigation would adversely effect existing and cumulative peak hour traffic operations. Under existing plus project conditions, up to ten study intersections would operate worse than the City's minimum acceptable LOS. Under cumulative plus project conditions, the following roadways would continue to operate worse than the City's LOS C threshold, even with the improvements that are proposed for the Draft Street Master Plan:

- A Street – I-80 to just east of the City limits; and
- State Route 113 – Southern City limits to West H Street and from Industrial to Dorset Drive.

The results presented on Figure 24, assume that all of the projects that are included in the SMP can be funded by the transportation improvement financing program discussed above. However, the financing program will only fund those improvements that are included in the Draft Street Master Plan.

This impact is considered to be potentially significant.







### **Mitigation Measures**

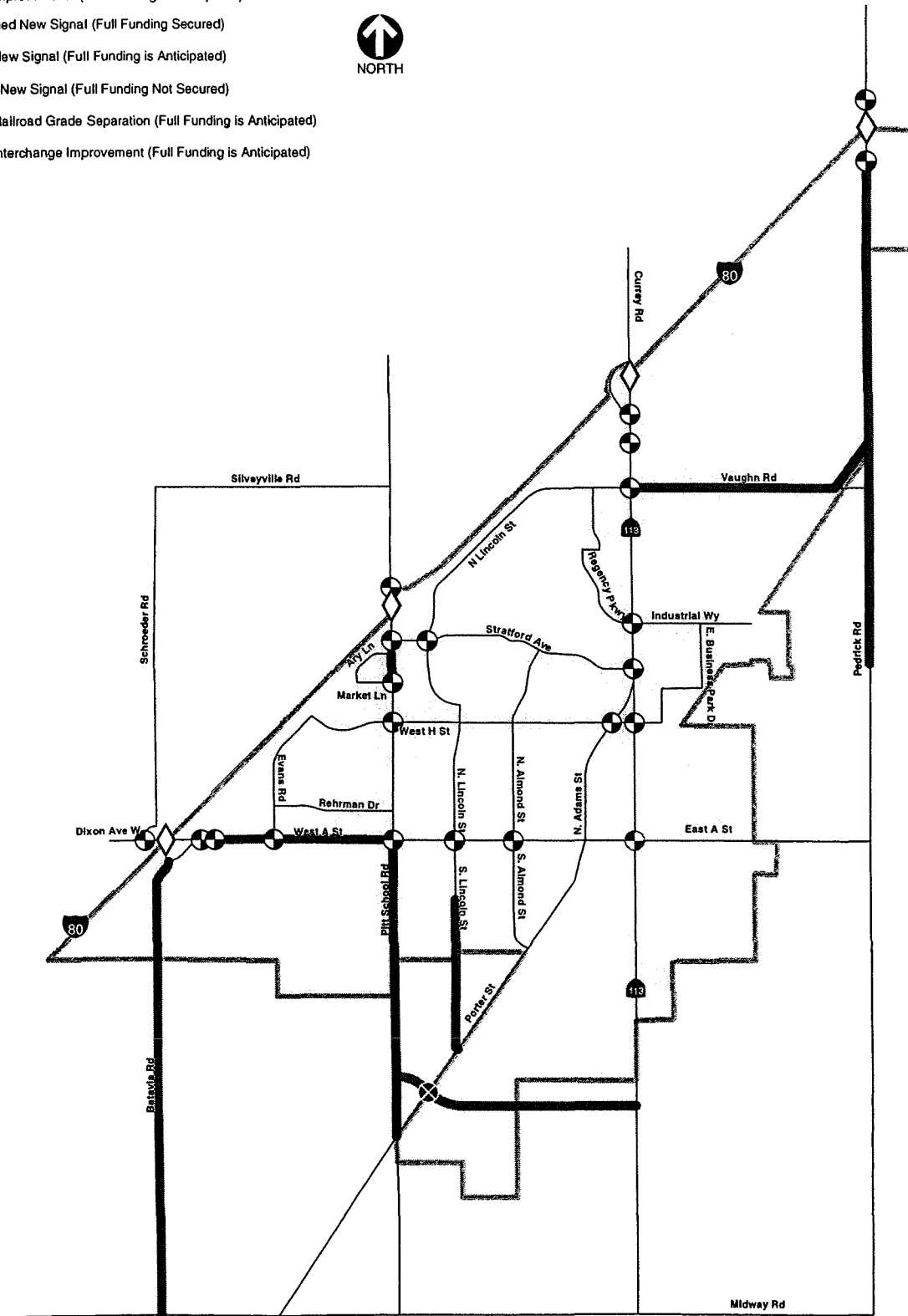
1. The project applicant shall participate in the road financing program in effect at the time for Specific Plan approval. A financing program is being developed to fund the improvements identified in the City of Dixon Draft Street Master Plan. The fee mechanism shall be established to fully fund necessary roadway/freeway improvements prior to approval of any tentative maps or issuance of building permits within the boundaries of the Specific Plan. These fees shall subsequently be charged for all development that proceeds in the Specific Plan area.

### **Impact Significance after Mitigation**

While Mitigation Measure 1 would reduce the above impact, the impact would remain significant because the roadway improvements needed to reduce the significance of the impacts identified in Figure 23 are considered infeasible due to right-of-way constraints, and because the improvements are not included in the Draft Street Master Plan.

**LEGEND**

-  - Planned Improvements (Full Funding is Anticipated)
-  - Programmed New Signal (Full Funding Secured)
-  - Planned New Signal (Full Funding is Anticipated)
-  - Proposed New Signal (Full Funding Not Secured)
-  - Planned Railroad Grade Separation (Full Funding is Anticipated)
-  - Planned Interchange Improvement (Full Funding is Anticipated)



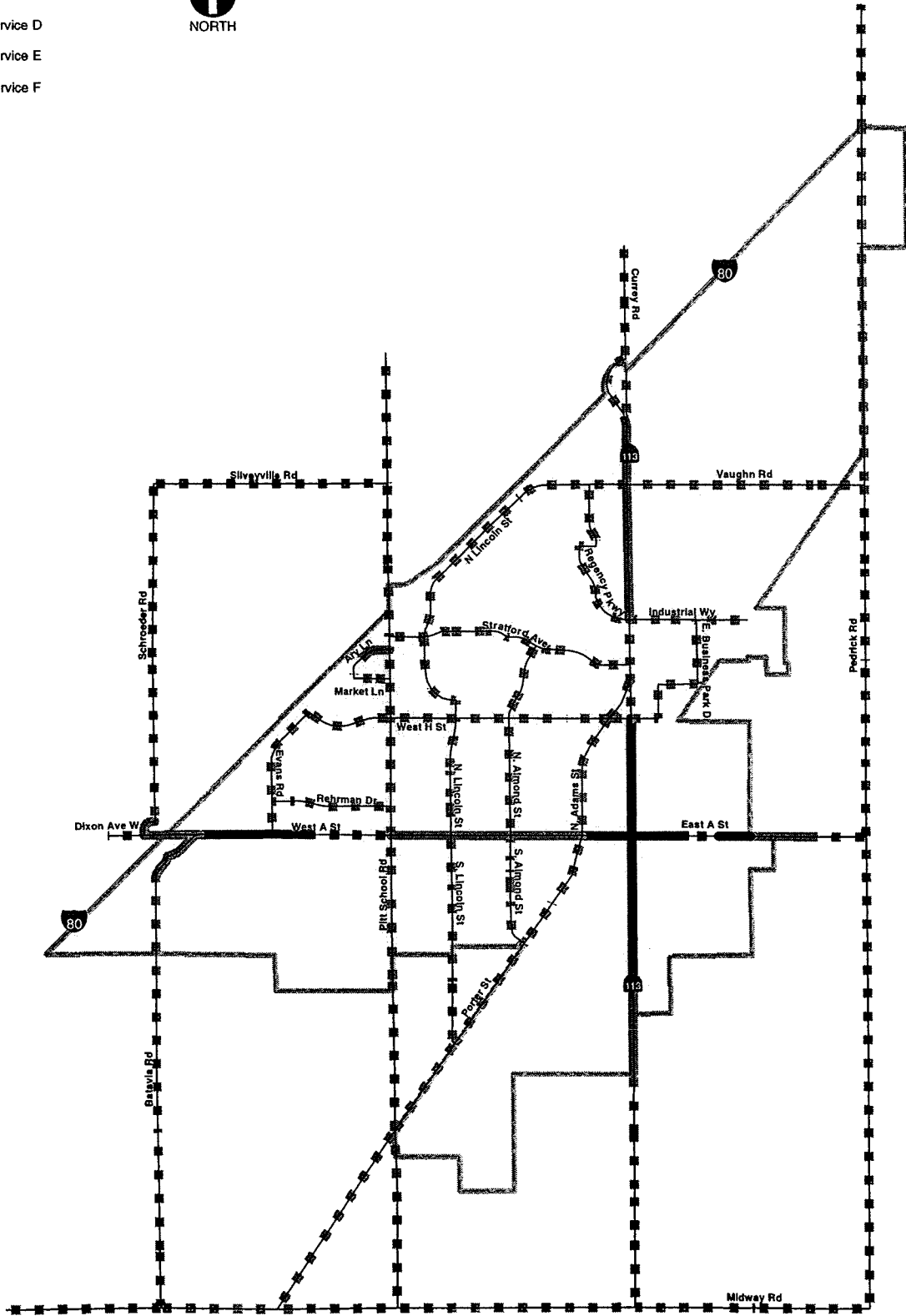
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City of Dixon

**Figure 23: YEAR 2025 PROGRAMMED, PLANNED, AND PROPOSED ROADWAY IMPROVEMENTS**

LEGEND

- - Level of Service A through C
- - Level of Service D
- - Level of Service E
- - Level of Service F



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City of Dixon

Figure 24: YEAR 2025 PM PEAK HOUR LEVEL OF SERVICE - PROGRAMMED, PLANNED, AND PROPOSED IMPROVEMENTS

**Table 9  
Intersection Operations Summary – Existing (Year 2000) Plus Project (Specific  
Plan Buildout) Conditions**

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		Is Peak Hour Signal Warrant Met?
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1. WB I-80 Ramps/O'Day Rd.	Stop Sign	2.3	A	1.7	A	No
2. Midway Rd./O'Day Rd.	Stop Sign	2.1	A	1.1	A	No
3. Midway Rd./EB I-80 Ramps	Stop Sign	1.2	A	1.2	A	No
4. Midway Rd./Lewis Rd.	Stop Sign	0.7	A	1.9	A	No
5. WB I-80 Ramps/Schroeder Rd.	Stop Sign	2.4	A	2.0	A	No
6. West A St./Schroeder Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
7. West A St./Batavia Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
8. EB I-80 Ramps/Batavia Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
9. Midway Rd./Batavia Rd.	Stop Sign	1.6	A	1.7	A	No
10. West A St./Gateway Dr.	Stop Sign	> 45.0	F	> 45.0	F	Yes
11. West A St./Evans Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
12. Porter Rd./Midway Rd.	Stop Sign	1.9	A	1.9	A	No
13. Pitt School Rd./WB I-80 Ramps	Stop Sign	3.5	A	10.9	C	No
14. Pitt School Rd./EB I-80 Ramps	Stop Sign	> 45.0	F	> 45.0	F	Yes
15. Pitt School Rd./Ary Ln.	Stop Sign	9.4	B	8.3	B	No
16. Pitt School Rd./Market Ln.	Stop Sign	1.9	A	1.4	A	No
17. Pitt School Rd./West H St.	Stop Sign	15.6	C	4.6	A	No
18. Pitt School Rd./Rehrmann Dr.	Stop Sign	10.5	C	2.9	A	No
19. West A St./Pitt School Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
20. Pitt School Rd./Hill View Dr.	Stop Sign	0.5	A	0.3	A	No
21. Pitt School Rd./Porter Rd.	Stop Sign	2.7	A	2.0	A	No
22. Midway Rd./Pitt School Rd.	Stop Sign	1.9	A	1.7	A	No
23. West A St./Lincoln St.	Stop Sign	43.8	E	7.4	B	Yes
24. Porter Rd./S. Lincoln St.	Stop Sign	0.6	A	0.7	A	No
25. West A St./Almond St.	Stop Sign	6.6	B	2.9	A	No
26. Porter Rd./Almond St.	Stop Sign	1.2	A	0.7	A	No
27. West A St./N. Adams St.	Signal	30.6	D	15.6	C	-
28. Currey Rd./Milk Farm Rd.	Stop Sign	0.8	A	0.6	A	No
29. SR 113/WB I-80 Ramps	Stop Sign	0.5	A	0.5	A	No
30. SR 113/EB I-80 Ramps	Stop Sign	0.7	A	0.7	A	No
31. West A St./First St.	Stop Sign	> 45.0	F	18.2	C	Yes
32. SR 113/West Cherry St.	Stop Sign	1.4	A	0.4	A	No
33. SR 113/Midway Rd.	Stop Sign	1.9	A	2.4	A	No
34. Midway Rd./Pedrick Rd.	Stop Sign	1.3	A	1.5	A	No

Source: Fehr & Peers Associates, Inc., 2001.

Notes: Delay = Average Delay per Vehicle in Seconds  
Shading = Potentially Significant Project Impact

sec/veh = vehicles per second  
LOS = Level of Service

**Table 10  
Intersection Operations Summary – 2005 No Project Conditions**

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		Is Peak Hour Signal Warrant Met?
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1. WB I-80 Ramps/O'Day Rd.	Stop Sign	2.3	A	1.8	A	No
2. Midway Rd./O'Day Rd.	Stop Sign	2.1	A	1.1	A	No
3. Midway Rd./EB I-80 Ramps	Stop Sign	1.1	A	1.2	A	No
4. Midway Rd./Lewis Rd.	Stop Sign	0.7	A	2.0	A	No
5. WB I-80 Ramps/Schroeder Rd.	Stop Sign	1.3	A	1.0	A	No
6. West A St./Schroeder Rd.	Stop Sign	6.5	B	6.1	B	Yes
7. West A St./Batavia Rd.	Stop Sign	5.4	B	> 45.0	F	Yes
8. EB I-80 Ramps/Batavia Rd.	Stop Sign	0.4	A	0.8	A	Yes
9. Midway Rd./Batavia Rd.	Stop Sign	0.9	A	1.0	A	No
10. West A St./Gateway Dr.	Stop Sign	0.8	A	1.5	A	Yes
11. West A St./Evans Rd.	Stop Sign	1.4	A	1.1	A	Yes
12. Porter Rd./Midway Rd.	Stop Sign	1.4	A	1.4	A	No
13. Pitt School Rd/WB I-80 Ramps	Stop Sign	4.7	A	> 45.0	F	No
14. Pitt School Rd./EB I-80 Ramps	Stop Sign	> 45.0	F	> 45.0	F	Yes
15. Pitt School Rd./Ary Ln.	Stop Sign	> 45.0	F	> 45.0	F	No
16. Pitt School Rd./Market Ln.	Stop Sign	1.2	A	1.7	A	No
17. Pitt School Rd./West H St.	Stop Sign	6.8	B	4.8	A	No
18. Pitt School Rd./Rehrmann Dr.	Stop Sign	3.1	A	2.0	A	No
19. West A St./Pitt School Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
20. Pitt School Rd./Hill View Dr.	Stop Sign	1.1	A	0.8	A	No
21. Pitt School Rd./Porter Rd.	Stop Sign	2.1	A	2.7	A	No
22. Midway Rd./Pitt School Rd.	Stop Sign	1.9	A	1.8	A	No
23. West A St./Lincoln St.	Stop Sign	4.4	A	2.5	A	Yes
24. Porter Rd./S. Lincoln St.	Stop Sign	0.5	A	0.5	A	No
25. West A St./Almond St.	Stop Sign	2.5	A	2.5	A	No
26. Porter Rd./Almond St.	Stop Sign	1.2	A	0.8	A	No
27. West A St./N. Adams St.	Signal	17.6	C	5.1	C	-
28. Currey Rd./Milk Farm Rd.	Stop Sign	0.8	A	0.6	A	No
29. SR 113/WB I-80 Ramps	Stop Sign	0.3	A	0.4	A	No
30. SR 113/EB I-80 Ramps	Stop Sign	1.1	A	2.3	A	No
31. West A St./First St.	Stop Sign	> 45.0	F	32.7	E	Yes
32. SR 113/West Cherry St.	Stop Sign	5.1	B	1.1	A	No
33. SR 113/Midway Rd.	Stop Sign	1.6	A	2.1	A	No
34. Midway Rd./Pedrick Rd.	Stop Sign	1.3	A	1.5	A	No

Source: Fehr & Peers Associates, Inc., 2001.

Notes: Delay = Average Delay per Vehicle in Seconds  
 LOS = Level of Service  
 sec/veh = seconds per vehicle



**Table 11  
Intersection Operations Summary – 2005 Plus Project (Five Tentative  
Subdivision Maps) Conditions**

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		Is Peak Hour Signal Warrant Met?
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
1. WB I-80 Ramps/O'Day Rd.	Stop Sign	2.3	A	1.7	A	No
2. Midway Rd./O'Day Rd.	Stop Sign	2.1	A	1.1	A	No
3. Midway Rd./EB I-80 Ramps	Stop Sign	1.2	A	1.2	A	No
4. Midway Rd./Lewis Rd.	Stop Sign	0.7	A	2.2	A	No
5. WB I-80 Ramps/Schroeder Rd.	Stop Sign	2.2	A	2.0	A	No
6. West A St./Schroeder Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
7. West A St./Batavia Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
8. EB I-80 Ramps/Batavia Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
9. Midway Rd./Batavia Rd.	Stop Sign	1.4	A	1.5	A	No
10. West A St./Gateway Dr.	Stop Sign	> 45.0	F	> 45.0	F	Yes
11. West A St./Evans Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
12. Porter Rd./Midway Rd.	Stop Sign	1.7	A	1.6	A	No
13. Pitt School Rd./WB I-80 Ramps	Stop Sign	6.2	B	> 45.0	F	Yes
14. Pitt School Rd./EB I-80 Ramps	Stop Sign	> 45.0	F	> 45.0	F	Yes
15. Pitt School Rd./Ary Ln.	Stop Sign	> 45.0	F	> 45.0	F	Yes
16. Pitt School Rd./Market Ln.	Stop Sign	1.5	A	1.7	A	No
17. Pitt School Rd./West H St.	Stop Sign	8.2	B	5.0	A	No
18. Pitt School Rd./Rehrmann Dr.	Stop Sign	4.2	A	2.4	A	No
19. West A St./Pitt School Rd.	Stop Sign	> 45.0	F	> 45.0	F	Yes
20. Pitt School Rd./Hill View Dr.	Stop Sign	0.8	A	0.5	A	No
21. Pitt School Rd./Porter Rd.	Stop Sign	3.1	A	2.3	A	No
22. Midway Rd./Pitt School Rd.	Stop Sign	2.2	A	2.1	A	No
23. West A St./Lincoln St.	Stop Sign	19.8	A	7.7	B	Yes
24. Porter Rd./S. Lincoln St.	Stop Sign	0.5	A	0.6	A	No
25. West A St./Almond St.	Stop Sign	5.7	A	5.4	B	Yes
26. Porter Rd./Almond St.	Stop Sign	1.5	A	0.9	A	No
27. West A St./N. Adams St.	Signal	39.3	D	26.3	D	-
28. Currey Rd./Milk Farm Rd.	Stop Sign	0.7	A	0.5	A	No
29. SR 113/WB I-80 Ramps	Stop Sign	0.5	A	0.7	A	No
30. SR 113/EB I-80 Ramps	Stop Sign	1.4	A	2.0	A	No
31. West A St./First St.	Stop Sign	> 45.0	F	> 45.0	F	Yes
32. SR 113/West Cherry St.	Stop Sign	4.8	A	1.1	A	No
33. SR 113/Midway Rd.	Stop Sign	3.3	A	3.9	A	No
34. Midway Rd./Pedrick Rd.	Stop Sign	1.4	A	1.7	A	No

Source: Fehr & Peers Associates, Inc., 2001.

Notes: Delay = Average Delay per Vehicle in Seconds  
Shading = Potentially Significant Project Impact

sec/veh = vehicles per second  
LOS = Level of Service

**Table 12  
Summary of Roadway Improvements**

Project Number	Improvement
1	I-80/West A Street Interchange Improvements - Improvements/modifications to existing I-80 on- and off-ramp junctions with West A Street.
2	I-80/North First Street Interchange Improvements - Improvements/modifications to existing I-80 on- and off-ramp junctions with North First Street.
3	I-80/Pitt School Road Interchange Improvements - Improvements/modifications to existing I-80 on- and off-ramp junctions with Pitt School Road.
4	North First Street/Dorset Drive Traffic Signal - Install traffic signal.
5	North First Street/Vaughn Road/North Lincoln Street Traffic Signal - Install traffic signal.
6	First Street/West A. Street Traffic Signal - Install traffic signal.
7	Pitt School Road/Stratford Avenue Traffic Signal - Modify the I-80 eastbound off-ramp to include a left, through and right-turn lane and Install traffic signal.
8	Pitt School Road/Market Lane Traffic Signal - Install traffic signal.
9	Pitt School Road/West A. Street Traffic Signal - Install traffic signal.
10	Evans Road/West A. Street Traffic Signal - Install traffic signal.
11	Gateway Drive/West A. Street Traffic Signal - Install traffic signal.
12	North First Street/West H. Street Traffic Signal - Install traffic signal.
13	Pitt School Road/Ary Lane Intersection Improvements - Install traffic control devices including raised median, signing, and striping.
14	Batavia Road Improvement - Reconstruct Batavia Road (West A. Street to I-80 Ramps) to provide 12-foot lanes and 6- to 8-foot usable shoulder (10,500 ft.).
15	Pitt School Road Improvement (Hillview Drive to Porter Street) - Reconstruct Pitt School Road to provide 12-foot lanes and 6- to 8-foot usable shoulder (5,300 ft.).
16	S. Lincoln Street Improvement - Reconstruct S. Lincoln Street (West A. Street to Midway Road) to provide 12-foot lanes and 6- to 8-foot usable shoulder (3,400 ft.).
17	West A. Street 4-Lane Widening (Evans Road to Batavia Road) - Widen West A. Street from one to two lanes in each direction (1,300 ft.).
18	West A. Street 4-Lane Widening (Evans Road to Pitt School Road) - Widen eastbound West A. Street from one to two lanes (2,600 ft.).
19	I-80/Pedrick Road Interchange Improvements - Improvements/modifications to existing I-80 on- and off-ramp junctions with Pedrick Road.
20	North First Street/Industrial Way/Regency Parkway Traffic Signal - Install traffic signal.
21	North First Street/Stratford Avenue Traffic Signal - Install traffic signal.
22	Pitt School Road/West H. Street Traffic Signal - Install traffic signal.
23	Fitzgerald Way Extension - Construct two-lane roadway between its current terminus and Vaughn Road (2,600 ft.).
24	North Lincoln Street/Stratford Avenue Traffic Signal - Install traffic signal.
25	West A. Street/North Lincoln Street Traffic Signal - Install traffic signal.
26	West A. Street/North Almond Street Traffic Signal - Install traffic signal.
27	I-80/West A. Street Interchange Reconstruction - Reconstruct Interchange.
28	I-80/Pitt School Road Interchange Reconstruction - Reconstruct Interchange.
29	Pitt School Road/SR 113 Railroad Grade Separation - Construct a railroad grade separation and new two-lane arterial roadway connecting Pitt School Road to SR 113 (Include grade separation).
30	Pitt School Road Widening - Widen Pitt School Road from one to two lanes in each direction (West A. Street to the Pitt School Road/SR 113 Railroad Grade Separation Connection) (4,000 ft.).
31	North Adams Street/West H. Street Traffic Signal - Install traffic signal.
32	I-80/Pedrick Road - Reconstruct Interchange.
33	Pedrick Road/Vaughn Road At-grade Railroad Crossing - Construct new roadway between Vaughn Road and Pedrick Road parallel to the Union Pacific Railroad tracks.
34	I-80/North First Street (SR 113) - Reconstruct Interchange.
35	Vaughn Road Widening - Widen Vaughn Road from one to two lanes in each direction between North First Street to Pedrick Road (6,600 ft.).
36	Pedrick Road 4-Lane Widening (I-80 NB Ramps to 1 Mile South of Vaughn Road) - Widen Pedrick Road from one to two lanes in each direction (11,900 ft.).

## 3.5 AIR QUALITY

This EIR section was prepared with technical assistance from Illingworth & Rodkin, Inc., air quality and acoustics consultants. This section has been prepared using methodologies and assumptions recommended in the Revised Air Quality Handbook prepared by the Yolo-Solano Air Quality Management District (YSAQMD, 1996). In accordance with these guidelines, this section describes existing air quality, construction period impacts, emissions associated with project operation, the impacts of project emissions on local and regional air quality, cumulative impacts, and mitigation measures to reduce or avoid identified significant impacts.

### A. Setting

#### 1. Air Quality Setting

##### a. Climate and Air Quality Conditions

The project site lies in the southwestern portion of the Sacramento Valley. The basically flat area is subject to the flow of marine air coming from the west through the Carquinez Strait. During the day, especially on summer afternoons, the prevailing wind flows from the southwest. In winter, wind flow is from the northerly or easterly directions when weather is fair, but storms often bring southerly winds. Wind speeds in the area are generally moderate, with an annual average speed of about 5 miles per hour (mph). Highest wind speeds occur during afternoons in late spring and summer. Average maximum summer temperatures are in the 90s. Maximum winter temperatures are in the 50s to low 60s, while the minimum temperatures are in the 30s.

Pollution potential is high due to the geographic and topographic features combined with transport of pollutants from the San Francisco Bay Area, the Sacramento area, and local emissions. Local emissions include agricultural burning, motor vehicles (both on-road and off-road), and industrial sources. Inversions, where a mass of warmer air traps a cooler layer below it, can occur in the Dixon area at almost any time of year. Elevated inversions in summer, which trap pollutants near the surface under warm, clear conditions, cause a buildup of smog. Light winds and very stable conditions associated with surface-based inversions during the late fall and winter contribute to the buildup of particulate matter and carbon monoxide. Trapped pollutants in fall and winter are primarily from motor vehicles, agriculture, and wood burning in fireplaces and stoves.

##### b. State and Federal Regulatory Background

The Federal and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants include carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), inhalable particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). California established ambient air quality standards as early as 1969 through the Mulford-Carrol Act. Pollutants regulated under the California Clean Air Act are similar to those regulated under the Federal Clean Air Act. In many cases, California standards

are more stringent than the national ambient air quality. A brief description of the six criteria air pollutants is presented below.

- Ozone. Ground-level ozone is the principal component of smog. It is not directly emitted into the atmosphere, but is formed by the photochemical reaction of organic gases and nitrogen oxides (known as ozone precursors) in the presence of sunlight. Ozone levels are highest during late spring through late summer when precursor emissions are high and meteorological conditions are favorable for the complex photochemical reactions to occur. Motor vehicles create the predominant source of reactive organic gas and nitrogen oxide emissions in the Dixon region.
- Carbon Monoxide. Carbon monoxide is a non-reactive pollutant that is highly toxic, invisible, and odorless. It is formed by the incomplete combustion of fuels. The largest source of carbon monoxide emissions is motor vehicles. Wood stoves and fireplaces also contribute to high levels of carbon monoxide. Unlike ozone, carbon monoxide is directly emitted to the atmosphere. The highest carbon monoxide concentrations occur during the nighttime and early mornings in late fall and winter. Carbon monoxide levels are strongly influenced by meteorological factors such as wind speed and atmospheric stability.
- Nitrogen Dioxide. Nitrogen dioxide is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the primary sources of nitrogen dioxides. Nitrogen dioxide contributes to ozone formation.
- Sulfur Dioxide. Sulfur dioxide is a colorless gas with a strong odor and potential to damage materials. It is produced by the combustion of sulfur-containing fuels such as oil and coal. Refineries and chemical plants are the primary sources of sulfur dioxide emissions in the region.
- Inhalable Particulates. Inhalable particulates, or PM10 (particulate matter 10 microns or less in diameter) and PM2.5 (particulate matter 2.5 microns or less in diameter), refer to a wide variety of solid or liquid particles in the atmosphere. These include smoke, dust, aerosols, and metallic oxides. Some of these particulates are considered toxic. Although particulates are found naturally in the air, most particulate matter found in the region is emitted either directly or indirectly by motor vehicles, industry, construction, agricultural activities, and wind erosion of disturbed areas. Most PM2.5 is comprised of combustion products (i.e., soot).
- Toxic Air Contaminants. Besides the criteria air pollutants, Toxic Air Contaminants (TAC) are found in ambient air. Sources include industry, agriculture, motor vehicles, and commercial operations. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, State, and Federal level. Diesel exhaust is the predominant TAC in urban air.

### **c. Existing Air Quality Conditions**

Air quality is affected by the rate of pollutant emissions and by meteorological conditions such as wind speed, atmospheric stability, and mixing height, all of which affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality

typically result from changes in emissions while short-term variations result from changes in atmospheric conditions.

There is no continuous air monitoring station operated by a government agency in Dixon. The nearest monitors are in Davis and Woodland. Because of the flat nature of the geography and the regional nature of most pollutants, the levels measured at these two sites are considered representative of the air quality throughout Yolo County and the Dixon area. The highest local air pollutant levels measured between 1998 and 2000 are shown in Table 13. Both State and Federal air quality standards are also shown in Table 13.

Measured air pollutant data indicate that ground-level ozone and particulate matter, specifically PM10 and PM2.5, are the air pollutants of greatest concern. While maximum 1-hour levels of ozone were below the Federal standard, the State standard was exceeded on 5-9 days annually. The 8-hour Federal ozone standard was exceeded on 2 to 5 days annually. A measured exceedance of the Federal 24-hour PM10 standard occurred on one day in 1999 during the 3-year period. Measured exceedances of the more stringent State 24-hour PM10 standard occurred on 2 to 10 days over the 3-year period. The annual standards for Federal and State PM10 were not exceeded. One exceedance of the Federal PM2.5 standard occurred in 1999. The annual standard for PM2.5 was not exceeded. The region has not experienced exceedances of any other pollutants. In fact, maximum Carbon Monoxide levels were only about 20 to 35 percent of the State standard.

#### **d. Attainment Status**

Because established air quality standards for ground level ozone and fine particulate matter are exceeded, the region has not attained air quality standards. The designation of a region or area as attainment or nonattainment is done at both the Federal and State levels. Under the Federal Clean Air Act, the US EPA has designated the region as *severe nonattainment* for ground level ozone. The region is considered *unclassified* for all other air pollutants. At the State level, the region is considered *serious nonattainment* for ground level ozone and *nonattainment* for PM10. The area is considered *attainment* or *unclassified* for all other pollutants.

#### **e. Regional Air Quality Planning**

The Yolo-Solano Air Quality Management District (YSAQMD) regulates air quality in the Dixon area. The District primarily regulates stationary sources and develops plans to achieve and maintain air quality standards. The district does not have jurisdiction over mobile sources, which is left to the California Air Resources Board (CARB) and the EPA.

The Sacramento Valley has a high potential for air pollution due to geography and climate. It is a nonattainment area (ambient levels exceed the respective State or Federal air quality standard) for ground-level ozone and PM10. Additionally, ozone precursors generated in Dixon are often transported inland, where smog is formed several hours later (hence the highest pollution levels in the Sacramento area occur in the foothills). Thus, YSAQMD tries to minimize local emissions that will contribute to an existing violation of State and Federal standards in a down-wind area (e.g. Auburn and Placerville).

To protect public health the YSAQMD has adopted plans to achieve ambient air quality standards. The YSAQMD must continuously monitor its progress in implementing

**Table 13**  
**Measured Air Pollutant Concentrations Near Dixon**

Pollutant	Average Time	National Ambient Air Quality Standard	California Ambient Air Quality Standard	Measured Levels		
				1999	2000	2001
Ozone (O <sub>3</sub> ) <i>Measured in Davis</i>	1-Hour	0.12 ppm	0.09 ppm	<b>0.12</b> ppm	<b>0.10</b> ppm	<b>0.10</b> ppm
	8-Hour	0.08 ppm	--	<b>0.09</b> ppm	<b>0.09</b> ppm	<b>0.09</b> ppm
Carbon Monoxide (CO) <i>Measured in Davis</i>	1-Hour	35 ppm	20 ppm	--	--	--
	8-Hour	9 ppm	9.0 ppm	1.4 ppm	1.3 ppm	3.4 ppm
Nitrogen Dioxide (NO <sub>2</sub> ) <i>Measured in Davis</i>	1-Hour	--	0.25 ppm	0.07 ppm	0.05 ppm	0.17 ppm
	Annual	0.053 ppm	--	0.012 ppm	0.011 ppm	0.010 ppm
Fine Particulate Matter (PM <sub>2.5</sub> ) <i>Measured in Woodland</i>	1-Hour	65 ug/m <sup>3</sup>	--	<b>70</b> ug/m <sup>3</sup>	46 ug/m <sup>3</sup>	57 ug/m <sup>3</sup>
	Annual	15 ug/m <sup>3</sup>	--	<b>16</b> ug/m <sup>3</sup>	10 ug/m <sup>3</sup>	<b>35</b> ug/m <sup>3</sup>
Respirable Particulate Matter (PM <sub>10</sub> ) <i>Measured In Woodland</i>	24-Hour	150 ug/m <sup>3</sup>	50 ug/m <sup>3</sup>	<b>179</b> ug/m <sup>3</sup>	<b>63</b> ug/m <sup>3</sup>	<b>67</b> ug/m <sup>3</sup>
	Annual	50 ug/m <sup>3</sup>	30 ug/m <sup>3</sup>	23 ug/m <sup>3</sup>	20 ug/m <sup>3</sup>	19 ug/m <sup>3</sup>

Source: California Air Resources Board

Note: ppm = parts per million  
 Values reported in **bold** exceed ambient air quality standard  
 NA = data not available.

attainment plans and must periodically report to the California Air Resources Board and the EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements.

## 2. Pertinent City of Dixon Policies

The Dixon General Plan Natural Environment Element contains the following policy relevant to air quality:

**Policy 19.** *The City shall establish performance standards to limit air pollution, consistent with the requirements established by the Yolo-Solano Air Pollution Control District.*

## **B. Potential Impacts and Mitigations**

### **1. Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a. Conflicts with or obstructs implementation of the applicable air quality plan. *(Assessed in Impacts 3.5-A through 3.5-G.)*
- b. Violates any ambient air quality standard or contributes substantially to an existing or projected air quality violation. A significant impact to local air quality is defined in this EIR as increased carbon monoxide concentrations at the closest sensitive receptors that cause a violation of the most stringent ambient standard for carbon monoxide (20 ppm for the one-hour averaging period, 9.0 ppm for the eight-hour averaging period). *(Assessed in Impact 3.5-C.)*
- c. Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). A significant impact on regional air quality is defined in this EIR as an increase in emissions of an ozone precursor or PM-10 exceeding the YSAQMD-recommended thresholds of significance. The latest guidelines issued by the air district for the evaluation of project air quality impacts consider emission increases to be significant if they exceed 82 pounds/day for ozone precursors and PM10. *(Assessed in Impacts 3.5-B, F, and G.)*
- d. Exposes sensitive receptors to substantial pollutant concentrations. A significant impact is based on the potential to generate high levels of dust from construction or expose people to elevated levels of toxic air contaminants. *(Assessed in Impacts 3.5-A and F.)*
- e. Creates objectionable odors affecting a substantial number of people. *(Assessed in Impact 3.5-D.)*

### **2. Impacts – Proposed Southwest Dixon Specific Plan**

**Impact 3.5-A**      **Construction associated with buildout of the Specific Plan area would generate substantial emissions of ozone precursors and PM10 that could contribute to both local and regional violations of the ambient air quality standards for both PM10 and ozone.**

Construction of the Specific Plan projects would occur in several phases over about a 20-year period. Project construction would produce many types of emissions; however,

ozone precursors from equipment exhaust, paints, and solvents along with PM10 from dust are the pollutants of greatest concern to the YSAQMD.

## **PM10**

Dust (which includes PM10) is generated from a variety of construction activities that would be associated with plan area development, including grading, import/export of fill material, and vehicle travel (primarily on unpaved surfaces). The rate of dust emissions is related to the type and size of the disturbance, meteorological conditions, and soil conditions. Since the plan area is relatively flat, site development would require only light to moderate grading for construction of building pads, parking lots, roadways and recreational facilities. Nevertheless, construction activities could result in localized high concentrations of PM10 and affect regional levels of PM10. High levels of PM10 can lead to adverse health effects, nuisance concerns, and reduced visibility.

The rate of construction associated with buildout of the plan area is not known at this time; therefore, it is difficult to calculate air pollutant emissions. Over a 20-year period, the amount of construction could vary considerably, but would average about 24 acres per year. It is likely that without implementing mitigation measures, construction activities would result in emissions of PM10 that would exceed the YSAQMD significance thresholds of 150 pounds of PM10 per day.

There are a number of feasible controls which would be effective at reducing PM10 emissions. Construction activities are subject to YSAQMD Regulations VIII, which require suppressing dust emissions from all sources using water, chemical stabilizers, and/or vegetative ground cover.

Since the project site is large and subject to strong afternoon winds, additional dust control measures would be necessary to reduce dust emissions. As a result, the impact to air quality from construction is considered potentially significant.

## **Ozone Precursors**

Emissions of ozone precursor pollutants (reactive organic compounds and nitrogen oxides) would vary based on the amount of equipment in use, number of trucks delivering or removing material, and uses of paints or solvents. If construction were spread out evenly over the 20-year period, then these emissions would probably be below significance levels. However, periods of intense construction are likely at times, and emissions would exceed the YSAQMD significance thresholds of 82 pounds per day for either ozone precursor pollutant during those periods. This is a potentially significant impact.

## **Mitigation Measures**

As previously mentioned, the YSAQMD requires dust control measures at construction sites (Regulation VIII). Measures recommended by YSAQMD plus additional measures to reduce PM10 and ozone precursor pollutants include:

1. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.



2. Cover all hauling trucks or maintain at least two feet of freeboard. Dust-proof chutes shall be used as appropriate to load debris onto trucks during demolition.
3. Pave, apply water daily, or, as appropriate, apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
5. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas that are inactive for 10 days or more).
6. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
7. Limit traffic speeds on any unpaved roads to 15 mph.
8. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
9. Replant vegetation in disturbed areas as quickly as possible.
10. Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
11. Install wind breaks, or plant trees/vegetative wind breaks at the windward side(s) of construction areas.
12. Suspend excavation and grading activity when winds exceed 25 mph and dust clouds extend beyond construction areas.
13. Limit the area subject to excavation, grading, and other construction activity at any one time.
14. Properly maintain construction equipment and avoid unnecessary idling near residences.
15. If feasible, 20 percent of mobile construction equipment used at the site should be considered "new" (i.e., manufactured after 1996). Construction contractors will maintain records to demonstrate compliance.
16. Where reasonable and feasible, use cleaner burning (low NOx and low PM) diesel fuels.
17. At least once per month, the YSAQMD shall ensure that construction mitigation measures are in place.

### ***Impact Significance After Mitigation***

The mitigation measures recommended above would reduce the impact to a level that is less than significant.

**Impact 3.5-B Future use of the Specific Plan area development would emit levels of ozone precursor pollutants and fine particulate matter (PM10) that exceed emission thresholds established by the YSAQMD.**

Regional air pollutant emissions primarily include changes in the use of motor vehicles (i.e., traffic increases from plan area buildout) and area sources (i.e., emissions from space and water heating) associated with the proposed development. Ozone precursor emissions (i.e., reactive organic gases and nitrogen oxides) are considered regional air pollutants. PM10 is considered both a local and regional air pollutant.

The URBEMIS7G v3.2 Model (Jones & Stokes 1998; URBEMIS is a computer model developed for the California Air Resources Board) was used to predict emissions associated with buildout of the Specific Plan area. Emissions of air pollutants were predicted for two different years: 1) interim buildout of about 69 percent of the plan area in 2005 and 2) full buildout in 2025. Default assumptions were used for the Sacramento Valley in this analysis. Trip generation rates developed by the URBEMIS7G model were adjusted to reflect the trip generation predicted by the EIR Traffic Engineers, Fehr & Peers Associates.

Total net emissions are reported in Table 14. Emissions of ozone precursor pollutants (ROG and NOx) along with PM10 would exceed the significance thresholds established by the YSAQMD. Although emissions of ozone precursor pollutants would decrease in the future due to cleaner emitting vehicles, emissions would still remain significant. Ozone levels throughout the entire Sacramento Valley often exceed State and Federal ambient air quality standards in summer; therefore, these emissions would contribute to existing violations. This is a potentially significant impact to air quality.

**Table 14  
Air Pollutant Emissions Associated with the Draft Specific Plan**

Source	Air Pollutant Emissions in pounds per day			
	ROG	NOx	CO *	PM10**
<b>INTERIM YEAR – 2005</b>				
Mobile Sources	227	264	1,802	144
Area Sources	44	23	21	143
<b>Total</b>	<b>271</b>	<b>287</b>	<b>1,823</b>	<b>287</b>
<b>FUTURE YEAR – 2025</b>				
Mobile Sources	115	221	1,361	207
Area Sources	63	33	22	207
<b>Total</b>	<b>178</b>	<b>254</b>	<b>1,383</b>	<b>414</b>
<i>YSAQMD Threshold</i>	82	82	--*	150

\* The YSAQMD does not have significance thresholds for these pollutants; however, emissions are reported as part of the URBEMIS7G output. YSAQMD does have a threshold of 550 pounds per day for single projects (e.g., stationary sources such as a factory), but this threshold does not apply to dispersed or mobile sources.  
 \*\* PM10 emissions include wintertime fireplace emissions from residential uses.

## **Mitigation Measures**

The Draft Specific Plan includes many features that would reduce automobile use and result in lower air pollutant emissions. These features include relatively good pedestrian connectivity throughout the project sites within the plan area. The Draft Plan also provides bicycle infrastructure in key places that will connect the plan area with Dixon's existing network of bike facilities. Good bicycle and pedestrian facilities allow people to travel safely in non-polluting ways. Many new residences will have convenient access to recreational facilities and shopping. These features can be improved in specific instances to increase effectiveness in reducing air quality impacts. Additional measures can also help to reduce total project impacts. Over one-fourth of all trips are less than one mile, but in many communities, three-fourths of these trips are made by car. In neighborhoods with paths and streets that connect to multiple destinations, people walk up to three times more than in similar neighborhoods where paths and streets are non-connected. Narrower and/or undulating streets promote slower traffic, can be safer, and make walking and bicycle use much more desirable. Slower traffic also makes parents more comfortable with children walking or biking on their own.

Numerous studies show that a substantial portion of morning peak hour traffic is attributable to parents chauffeuring children to school. One of the key reasons for this is that parents do not believe the streets are safe due to fast moving traffic, unsafe crossing points, or dangerous situations such as kidnapping.

The following mitigation measures would indirectly reduce air pollutant emissions. The City should consider requiring these design recommendations as Specific Plan development standards.

1. **Pedestrian facilities.** Pedestrian access should be maximized for each project within the plan area. Developers should provide pedestrian egress at the ends of cul-de-sacs wherever feasible. Similarly, access should be provided from medium/high density residential homes to the shopping area facing Gateway Drive.
2. **Street standards.** To encourage walking and bicycling, the City could require narrower streets. The City may wish to consider limiting on-street parking on local streets and cul-de-sacs. However, it is recognized that the City may determine that narrower streets are not desirable due to safety and emergency access needs. If long road sections are allowed, then traffic calming features should be incorporated into the design.
3. **Safe crossing points.** Safe crossings should be designated at all intersections along Gateway Drive, North Parkway, and South Parkway. These crossings should utilize well-marked crosswalks, where warranted, and a central median (refuge). These safe crossings should be developed with input from the Dixon Unified School District.
4. **School transit.** Because parents driving children to and from school is a major source of local trips, the City could require that developers finance school bus service to serve all projects within the plan area.
5. **Commuter facilities.** The park and ride facility described in Policy 6.4.3 of the Draft Specific Plan shall be developed. The City shall determine the location and

size of this facility. Consistent with Implementation Program 6.4a of the Draft Specific Plan, commercial facilities within 0.5 mile of Interstate 80 should designate 5 percent or more of their peripheral parking spaces for park and ride use. These spaces should be near Interstate 80 on and off ramps.

6. **Transit infrastructure.** Consistent with Implementation Program 6.4b of the Draft Specific Plan, provide bus turnouts, covered benches, signage, and other facilities that serve local residents. The City and local transit providers should determine the location of these facilities.
7. **Shade trees and landscaping.** Trees (approved by the City) should be planted along streets and in parking lots sufficient to shade approximately 50 percent of the asphalt on a typical summer afternoon within 10 years.
8. **Encourage use of electrical/natural gas appliances and vehicles.** For all dwelling units, provide outdoor electrical outlets and encourage use of electrical landscape maintenance equipment. Also, provide electrical outlets for recharging electrical automobiles in commercial and industrial parking lots as well as new residences. Provide 220 V outlets in each residential garage suitable for electrical auto recharging. Provide a natural gas outlet at the back of each unit.
9. **Encourage use of solar power.** Consider use of solar water heating in commercial, industrial and residential units. As an alternative, use additional insulation, better windows and doors, and other energy conservation measures sufficient to reduce energy use by 15 percent below that assumed using minimum Title 24 standards.
10. **Woodburning restrictions.** The City should consider not allowing the use of any woodburning devices in new residences on the plan area. At a minimum, any new woodburning devices must comply with the most current EPA requirements for emissions.
11. **Neighborhood commercial development.** To reduce motor vehicle trips, the City could consider allowing or requiring small neighborhood commercial centers (e.g., convenience market, video rentals, etc.) on the North Parkway and/or Pitt School Road.

### ***Impact Significance After Mitigation***

Although the mitigation measures recommended above would reduce air pollutant emissions, the predicted emissions associated with plan area buildout, shown in Table 14, would not be reduced below the YSAQMD significance thresholds even if all these measures were implemented. The mitigation measure would not reduce this impact to a less than significant level, and the impact is considered a significant impact.

**Impact 3.5-C Traffic generated by buildout of the Specific Plan area would increase carbon monoxide levels at congested intersections.**

Carbon monoxide emissions from traffic generated by development of the plan area would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high, localized concentrations of carbon monoxide. The carbon monoxide analysis for this EIR focused on intersections affected by plan area buildout. Intersections along West A Street would have the greatest traffic volumes and be most affected by plan area development. Carbon monoxide concentrations were modeled at the intersection of West A Street and Gateway Drive to assess project impacts to local air quality. Predicted carbon monoxide levels were compared with 1- and 8-hour standards for carbon monoxide to evaluate the significance of project impacts.

Carbon monoxide concentrations were modeled using the Caline4 Line-Source dispersion model. This model uses traffic volumes, emissions (based on the use of EMFAC7F emission factors), meteorology, and the roadway/receptor geometry. The procedure used to evaluate the local air quality impacts was based on the Carbon Monoxide Protocol developed by UC Davis (1997) and Caltrans and recommended by the YSAQMD. For this assessment, meteorological conditions most conducive for high carbon monoxide concentrations in the Central Valley, peak-hour traffic conditions (i.e., evening period), and emission factors generated by the California Air Resources Board emission factor model (i.e., EMFAC7F) were used as input to the model. Receptor locations were placed at the edge of the roadway right-of-way, regardless of the land use. Modeled concentrations were added to background levels to predict total carbon monoxide concentrations. This assessment was conducted for existing conditions in 2002, 2005 with and without the project, and 2025 with the project. Results of this assessment are shown in Table 15.

**Table 15  
Carbon Monoxide Levels Predicted at West A Street and Gateway Drive**

Scenario	Background		PM Peak Period	
	1-Hour	8-Hour	1-Hour	8-Hour
Existing Conditions (2002)	5	3.0	6.9	4.3
2005 No Project	5	3.0	7.2	4.5
2005 With Partial Buildout	5	3.0	10.1	6.6
2025 Cumulative Buildout with Project	5	3.0	12.8	8.5
<i>California Air Quality Standards</i>			20.0	9.0

The results shown in Table 15 represent the maximum CO levels that could be expected at any intersection from Specific Plan related traffic. Since predicted CO concentrations are below ambient air quality standards, the impact is considered to be less than significant, and no mitigation is required. Any mitigation measures to improve traffic flow at project affected intersections such as West A Street and Gateway Drive would result in lower CO levels than those predicted in this analysis.

**Impact 3.5-D Future industrial projects could generate toxic air contaminants and/or odors.**

It is possible that future development in the area designated as Employment Center could include light industrial uses that generate either toxic air contaminants or odors. As no project application has been submitted, it is not possible to describe what contaminants or odors might occur. Such contaminants and odors could adversely affect humans living or working in the nearby area. This is a potentially significant impact.

**Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan requires the following for new development in the area designated for Employment Center:

**Policy 5.1.3 Land Use Compatibility** - *Protect nearby residential uses from possible adverse effects through the design review process.*

**Policy 5.2.3 Land Use Compatibility** - *Ensure that there is compatibility between industrial and adjacent uses.*

**Policy 5.2.4 Performance Standards** - *Require industrial development to meet performance standards for noise, odor, light, glare, traffic generation, air emissions, soil contamination, and surface and groundwater contamination in order to minimize impacts on the environment and on adjacent uses. Require the screening and control of unsightly or excessively noisy operations.*

**Policy 5.2.5 Prohibited Uses** - *Do not allow uses which create noxious or nuisance conditions to locate within the Plan Area.*

**Policy 5.2.8 Hazardous Materials** - *Strictly regulate production, storage and transport of hazardous materials*

Per Implementation Program 5.2a, each project within the Employment Center area would be required to have approved Design Guidelines and Standards which would include appropriate restrictions on hazardous materials.

**Mitigation Measures**

1. As a condition of approval, new projects in the Southwest Dixon Specific Plan Area shall comply with all rules of the YSAQMD regarding control of toxic air contaminants and odors.
2. All new applications for industrial and commercial projects will submit a list of all materials and processes that could possibly emit toxic air contaminants or odors into the environment. The City will request YSAQMD to review the list to determine whether there is a potential for human health risk from these materials and processes. If YSAQMD determines that there is a risk that contaminants or odors could escape into the air and potentially cause a risk or nuisance to residents in the area, a Human Health Risk Assessment shall be prepared. If that Assessment determines that emissions would result in exceedances of

YSAQMD, State, or Proposition 65 standards, the project will be denied unless changes are made to reduce emissions or odors to safe levels.

### ***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the chance of the emission of toxic air contaminants and odors into the air. The impact is reduced to a less than significant level, and no additional mitigation is required.

### **Impact 3.5-E Future development of the plan area could be inconsistent with policies of the Dixon General Plan.**

The Dixon General Plan states that projects should be consistent with YSAQMD requirements. As previously stated, buildout of the plan area would emit pollutants that exceed the District's significance thresholds. Feasible mitigation measures to reduce these emissions have been recommended in previous impacts. Given the fact that the area is out of compliance for certain pollutants, it would be difficult to approve any new development without exacerbating that existing condition. As the Dixon General Plan does not include specific standards or requirements for pollutant emissions and because the Dixon General Plan allows development of the plan area, the Draft Specific Plan, complete with EIR-recommended mitigation measures, is considered consistent with the Dixon General Plan as regards air quality.

## **3. Project-Specific Impacts**

### **Impact 3.5-F Future development of the five proposed projects could adversely impact air quality.**

The construction of the five projects would have similar air quality impacts as described in Impact 3.5-A. These are potentially significant impacts. The mitigation measures required for Impact 3.5-A would apply and would reduce the impact to a less than significant level for each project.

Table 16 shows the emission of critical pollutants for each project. Based on these predictions, none of the projects, in and of themselves, would generate amounts of ozone precursor pollutants or PM10 that would exceed YSAQMD thresholds of significance. The impact to local and regional air quality from project operations would be less than significant. However, because these projects would be part of the larger plan area development, each project would be required to comply with the mitigation measures recommended for Impact 3.5-B.

**Table 16  
Emissions for the Five Projects**

Source	Emissions in Pounds Per Day		
	ROG	NO2	PM10
<b>Evans Ranch</b>			
Area	20	7	66*
Mobile	51	66	44
Total	71	73	110
<b>Orchard - Sanders</b>			
Area	5	2	15*
Mobile	11	15	10
Total	16	17	25
<b>Orchard - Garcia</b>			
Area	3	1	10*
Mobile	7	10	7
Total	10	11	17
<b>Dixon Ridge</b>			
Area	12	5	39*
Mobile	27	35	24
Total	39	40	63
<b>Clark Ranch</b>			
Area	3	1	9*
Mobile	7	9	6
Total	10	10	15
<b>YSAQMD Stds.</b>	<b>82</b>	<b>82</b>	<b>150</b>

\* = A majority (over 95%) of these emissions are from wood burning in fireplaces. The total for each project assumes that at any one time 10% of new residences would burn wood in open fireplaces. If fireplace inserts were required, these emissions would be reduced by 90%, and they would be reduced by 99% if natural gas fireplaces were required.

#### **4. Cumulative Impacts**

##### **Impact 3.5-G Future development of the plan area and other areas could have significant air quality impacts.**

As shown in Table 14, buildout of the plan area and other new development predicted to occur by 2025 and transport of pollutants from outside the area would significantly increase the emission of ozone precursor pollutants and PM10 into the air. Since the predicted increase in emissions of ozone precursor pollutants and PM10 would contribute to violations of regional ambient air quality standards, this would be a potentially significant impact.

The YSAQMD considers projects to be cumulatively significant if they require a change in existing General Plan land use designation, and projected emissions of the proposed project are greater than emissions anticipated for the site if developed under the existing land use designation. Since the Specific Plan would not change land use designations so that emissions would increase above those anticipated, the project would not be considered to have a cumulative impact under the YSAQMD criteria. However, since buildout of the plan is predicted to result in significant emissions of regional air pollutants, it is considered to have a potentially significant cumulative impact to air quality.



**Mitigation Measures**

Reasonable and feasible mitigation measures to reduce project-generated emissions are included in the mitigation measures for Impact 3.5-B.

**Impact Significance After Mitigation**

Although these measures would reduce air pollutant emissions, the measures would not be sufficient to reduce emission below significance levels. There would be a significant cumulative impact.

## 3.6 NOISE

The analysis of noise impacts was prepared with the technical assistance of Illingworth & Rodkin, Inc., acoustic and air quality consultants. See their complete report in Appendix C for a full discussion of technical definitions of the fundamental concepts of environmental acoustics, acoustic terms, methodology, and noise measurement data.

### A. Setting

#### 1. Existing Noise Environment

The existing noise environment within and around the plan area is predominantly the result of transportation noise sources including vehicular traffic along Interstate 80, West A Street, and Pitt School Road, and noise generated by railroad trains along the Union Pacific Railroad. Existing (or ambient) noise levels across most of the plan area exceed 60 dBA Ldn (i.e., decibels adjusted for a day-night average).

Existing noise levels were quantified during a noise monitoring survey from Wednesday, February 20, 2002 to Thursday, February 21, 2002. The daily trend in noise levels was monitored at four locations at or near the project site and over ten-minute durations at eleven locations throughout the plan area and in surrounding areas adjacent to the plan area. The complete report in Appendix C describes the noise measurement locations and noise levels at those locations.

#### 2. Pertinent City of Dixon Policies

The City of Dixon guides development of land uses to be compatible with the noise environment in the Natural Environment chapter of the Dixon 1993 General Plan. This element establishes noise and land use compatibility guidelines for proposed land uses and sets goals in order to minimize noise throughout the community. Pertinent policies and implementation programs include:

- Policy 14**     *The City shall protect existing noise sources from future noise-sensitive development.*
  
- Policy 15**     *The City shall establish performance standards to limit noise generation.*
  
- Policy 16**     *The City shall establish a physical development pattern compatible with the noise environment of Dixon*
  
- Policy 17**     *The city shall, where feasible, mitigate traffic and other noise to the levels defined in Figure 10. [shown below] Areas in which noise levels currently exceed, or as a result of future development, will exceed these levels of noise exposure are deemed inappropriate for the development in question.*
  
- Policy 18**     *The City shall develop buffering standards and procedures to protect residents from freeway/highway traffic and industrial noise. Acoustical*

***design to reduce noise levels will be an important consideration in all projects and developments.***

***IP G Adopt stringent buffering standards to protect new residential development from freeway, highway, railroad and industrial noise.***

***IP I Subject all development proposals to an environmental review process to determine if the proposed development is compatible with natural processes. Do not approve development that is found to be incompatible with such processes, unless there are overriding circumstances.***

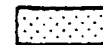
Figure 10 of the Dixon General Plan establishes "Acceptable Levels of Noise Exposure" to determine whether a proposed development or land use would be located in an area where special noise mitigating measures are required to meet exterior and interior noise standards. This noise and land use compatibility matrix defines four categories to determine the compatibility of a proposed land use with existing and projected noise levels. "Normally Acceptable" noise levels are satisfactory assuming that the proposed land use would be of normal conventional construction without any special insulation requirements. Projects considered "Conditionally Acceptable" may be permitted only after detailed analysis of noise reduction requirements and, when needed, noise insulation features are included in the design. Projects located in noise environments considered "Normally Unacceptable" are generally discouraged, but may be permitted only after detailed analysis of noise reduction requirements and, when needed, noise insulation features are included in the design. "Clearly Unacceptable" noise levels are so severe that new construction or development generally should not be undertaken because mitigation to comply with City noise policies usually is not feasible.

The Dixon Zoning Ordinance contains Noise Performance Standards (Section 12.24.03 and Vibration Performance Standards (Section 12.24.08) that provide further directions for implementing the policies of the General Plan, including restrictions on unusual noise generators, such as impulsive or periodic noise sources.

**Figure 10**  
**ACCEPTABLE LEVELS OF NOISE EXPOSURE**  
**General Plan Update Program**  
**City of Dixon, California**

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L <sub>dn</sub> OR CNEL, dB					
	55	60	65	70	75	80
	[Bar chart showing noise exposure levels for each category]					
RESIDENTIAL – LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES	[Bar chart showing noise exposure levels for Residential - Low Density]					
RESIDENTIAL – MULTI. FAMILY	[Bar chart showing noise exposure levels for Residential - Multi-Family]					
TRANSIENT LODGING – MOTELS, HOTELS	[Bar chart showing noise exposure levels for Transient Lodging]					
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES	[Bar chart showing noise exposure levels for Schools, Libraries, Churches, Hospitals, Nursing Homes]					
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES	[Bar chart showing noise exposure levels for Auditoriums, Concert Halls, Amphitheatres]					
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS	[Bar chart showing noise exposure levels for Sports Arena, Outdoor Spectator Sports]					
PLAYGROUNDS, NEIGHBORHOOD PARKS	[Bar chart showing noise exposure levels for Playgrounds, Neighborhood Parks]					
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES	[Bar chart showing noise exposure levels for Golf Courses, Riding Stables, Water Recreation, Cemeteries]					
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL	[Bar chart showing noise exposure levels for Office Buildings, Business Commercial and Professional]					
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE	[Bar chart showing noise exposure levels for Industrial, Manufacturing Utilities, Agriculture]					

**INTERPRETATION**



**NORMALLY ACCEPTABLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



**CONDITIONALLY ACCEPTABLE**

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



**NORMALLY UNACCEPTABLE**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



**CLEARLY UNACCEPTABLE**

New construction or development should generally not be undertaken.

**CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE**

**A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED**

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L<sub>dn</sub>. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L<sub>dn</sub>.

**B. NOISE SOURCE CHARACTERISTICS**

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Com-

munity Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

**C. SUITABLE INTERIOR ENVIRONMENTS**

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L<sub>dn</sub>. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

**D. ACCEPTABLE OUTDOOR ENVIRONMENTS**

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

## B. Potential Impacts and Mitigations

### 1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Exposes people to or generates noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies. (*Assessed in Impacts 3.6-A, B, D, H, I, J, K, L, and M.*)
- b. Results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (*Assessed in Impacts 3.6-A, B, D, H, I, J, K, L, and M.*)
- c. Results in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (*Assessed in Impacts 3.6-C and G.*)

Construction noise levels are treated differently than operations period noise levels, because they are intermittent and temporary. Significant noise impacts would result from construction if noise levels are sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA (i.e., decibels measured on a weighted filter) during the daytime, and above existing ambient levels, would be considered significant when the duration of noise generating activities affecting a particular receptor or group of receptors exceeds one construction season (typically one year).

- d. For projects within an area covered by an airport land use plan or within two miles of a public airport or public use airport when such an airport land use plan has not been adopted, or within the vicinity of a private airstrip, exposes people residing or working in the project area to excessive aircraft noise levels. (*The Initial Study determined that the project would have no impact vis-à-vis this criterion.*)
- e. Exposes people to or generates excessive groundborne vibration or groundborne noise levels. (*Assessed in Impact 3.6-F.*)

For both Criteria a and b, the following standards would apply.

**Noise and Land Use Compatibility.** A significant impact would be identified where noise-sensitive land uses (i.e., residences) are proposed in future noise environments exceeding the “normally acceptable” noise level range. For single-family residential projects, a significant impact would be assessed where the project is proposed in noise environments exceeding 60 dBA Ldn. Multi-family residential land uses proposed in areas where the future Ldn exceeds 65 dBA would also result in a significant impact.

**Operations Period.** According to CEQA, a significant impact would be identified if noise levels increase substantially at existing noise sensitive land uses (e.g., residences). A substantial increase to noise levels would occur if the project resulted in an increase of 3 dBA or greater at noise-sensitive land uses where the future noise level would exceed 60 dBA Ldn. Where the existing noise level is at least 5 dBA lower than the "normally acceptable" level for a particular land use, a 5 dBA or greater increase is considered substantial, causing a significant impact.

## 2. Impacts – Proposed Southwest Dixon Specific Plan

**Impact 3.6-A Development of the Specific Plan area would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" or "normally unacceptable" for those uses.**

The future noise environment within the Specific Plan area would primarily result from vehicular traffic on the roadway network. Within the westernmost portion of the Specific Plan area, traffic on Interstate 80 dominates the noise environment. General commercial and highway commercial land uses would be concentrated at the northwest corner of the Specific Plan area, and industrial land uses would be concentrated in the southwest portion of the plan area adjacent to Interstate 80. These uses would be located in a noise environment ranging from about 86 dBA Ldn at the right-of-way to about 65 dBA Ldn at a distance of about 1,300 feet (furthest proposed commercial or industrial land use areas) as a result of vehicular traffic along Interstate 80. Exterior noise levels in the vicinity of arterial roadways such as West A Street and Gateway Drive would also contribute to the noise environment of these parcels.

Near the central portion of the Specific Plan area, noise from Interstate 80 and local arterial and collector roadways would contribute to the future noise environment. Noise levels generated by Interstate 80 would range from about 65 Ldn dBA near Gateway Drive to about 60 dBA Ldn near the midpoint between Evans Road and Pitt School Road. Exterior noise levels at proposed residential land uses adjacent to arterial and collector roadways within the Specific Plan area would also be affected by vehicular traffic on the local roadways. Arterial and collector roadways such as West A Street, North Parkway, South Parkway, Batavia Road, Gateway Drive, Evans Road, and Pitt School Road would generate noise levels that would exceed the criteria for "normally acceptable" development. The combination of noise generated by Interstate 80 and local arterial and collector roadways would yield exterior noise levels throughout the central portion of the plan area that would exceed the "normally acceptable" noise and land use compatibility category.

In the easternmost portion of the Specific Plan area, noise generated by Interstate 80 would contribute to background noise levels (noise in the absence of local noise sources). The predominant noise sources in residential areas located near the midpoint between Evans Road and Pitt School Road and the easternmost boundary of the plan area would result from vehicular traffic along arterial and collector roadways such as Pitt School Road, South Lincoln Street, North Parkway, and South Parkway and railroad noise generated by the Union Pacific Railroad. Exterior noise levels would range from about 60

dBA Ldn at residential land uses proposed away from arterial and collector roadways to about 68 dBA Ldn at residential land uses adjoining Pitt School Road.

Table 17 presents the results of traffic noise modeling conducted for the future design year (2025) traffic conditions. See the complete report in Appendix C. for a description of the noise modeling methodology.

**Table 17  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Major Arterial and Collector Roadways Within the Specific Plan Area  
Abutting Noise Sensitive Development**

Roadway Segment	Noise Level in dBA (Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
West A Street east of Gateway Drive	74	240	520
West A Street east of Evans Road	73	200	440
Batavia Road	63	--	120
Gateway Drive south of West A Street	74	240	520
Evans Road south of West A Street	< 60	--	--
Pitt School Road south of West A Street	68	110	220
Pitt School Road south of South Parkway	63	--	150
South Lincoln Street	62	--	95
North Parkway east of Gateway Drive	64	--	120
North Parkway east of Evans Road	63	--	120
South Parkway east of Batavia Road	60	--	60
South Parkway east of Evans Road	60	--	60

With development of the plan area, noise levels at proposed noise sensitive residential receivers along major arterials and collectors within the plan area would range from about 60 to 75 dBA Ldn at a distance of 60 feet from the roadway centerline. These arterial and collector roadways include West A Street, Batavia Road, Gateway Drive, Evans Road, Pitt School Road, South Lincoln Street, North Parkway, and South Parkway. As noted above, noise levels between 55 and 70 dBA are considered “conditionally acceptable” for single-family residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels between 70 dBA and 75 dBA are considered “normally unacceptable” for single-family residential land uses. Single-family residential land uses proposed along certain roadway segments along West A Street and Gateway Drive would be exposed to future noise levels greater than 70 dBA Ldn. These single-family residential land uses would be considered “normally unacceptable” in noise environments greater than 70 dBA Ldn. This is a potentially significant impact for residential land uses proposed along West A Street and Gateway Drive in the Specific Plan area.

Additionally, the project proposes the development of multi-family residential land uses east of the Gateway Drive and North Parkway intersection in the western portion of the Specific Plan area. Multi-family residential land uses are considered "normally acceptable" up to 65 dBA Ldn, "conditionally acceptable" between 60 and 70 dBA Ldn, and "normally unacceptable" between 70 and 75 dBA Ldn. Multi-family residential land uses proposed by the project would be located in areas that would be considered "conditionally acceptable" to "normally unacceptable" for the proposed land use. This is a potentially significant impact.

### **Mitigation Measures**

Typically, sensitive receptors can be shielded from noise by creating open space buffers between the noise sources (typically roads) and homes or by constructing sound barriers (walls and/or berms) between the noise sources and homes. Recently jurisdictions have been paving new streets and repaving existing streets with "quiet pavement." "Quiet" pavement such as Open-Graded Asphaltic Concrete can reduce noise levels by 2 to 5+ decibels depending on the existing pavement type, traffic speed, traffic volumes, and other factors. These factors must be assessed for each affected street and would be done at the final project design stage. Paving or re-paving streets with "quiet" pavement can be less expensive than constructing sound barriers. To mitigate noise levels at plan area residences, the following measures should be implemented.

1. A design-level noise study shall be performed for all subdivision maps where noise would exceed 60 dBA Ldn. The noise study will include noise attenuation design features to reduce exterior noise levels to below 60 dBA Ldn, or to the maximum degree feasible if a level of 60 dBA Ldn cannot be achieved. If quiet pavement is proposed, the noise study shall determine whether this paving adequately reduces noise levels to below 60 dBA Ldn, or whether additional mitigation is required. A report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA Ldn noise contour distances of local streets to show that future noise levels will not exceed 60 dBA Ldn or not exceed the ambient noise caused by I-80 and the railroad.
2. Incorporate noise insulation treatments in residential units as necessary to achieve "acceptable" interior noise levels.

All single- and multi-family residential land uses located within the 60 dBA Ldn contour distances shall be designed such that the indoor Ldn level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist, and the necessary noise control treatments included in the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants' discretion. Additional noise control treatments could include sound rated windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA Ldn noise contour distances. A similar report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA Ldn noise contour distances to show how interior noise levels will be reduced to below 60 dBA Ldn, or not exceed ambient noise levels generated by traffic on I-80 and by the railroad operations.



### **Impact Significance After Mitigation**

A combination of open space buffer zones, noise barriers along the roadways, and/or use of quiet pavement would reduce traffic-generated noise from local streets. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until site plans and grading plans are developed for each portion of the Specific Plan area. Data presented in Table 17 show the largest (worst-case) open space buffer zones required to mitigate noise levels in outdoor activity areas without any additional attenuation due to topography or noise barriers. Given the future predicted noise levels along arterial and collector roadways in the Specific Plan area, noise barriers would likely range in height from six to fourteen feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

If all projects within the plan area are constructed per the mitigation measures recommended above, future residents of the plan area would not be exposed to significant noise impacts beyond the existing background noise from I-80 and the railroad. Many residences within the plan area will continue to be exposed to noise levels exceeding 60 dBA Ldn due to freeway and railroad noise. There is no mitigation for these two noise sources. Because residents would be exposed to noise levels exceeding levels that the Dixon General Plan considers normally acceptable (i.e., 60 dBA Ldn), the impact is considered a significant impact.

It is noted that Figure 10 of the Dixon General Plan does state that residences exposed to noise levels between 60 and 70 dBA Ldn are conditionally acceptable. Figure 10 states that residences exposed to such noise levels would be subject to a detailed study to include noise insulation. This EIR uses the 60 dBA Ldn maximum level as the criterion for determining significance. If a 70 dBA Ldn maximum level were used, then the noise impacts would be less than significant. It would not be unreasonable for the City to elect to use this higher noise level as acceptable since any noise above 60 dBA Ldn would be from existing rail and freeway traffic. In addition, the EIR noise analysis is a worst case analysis and does not account for potential blocking of freeway noise by future buildings constructed along the east side of the freeway. It is possible that many future residences might be exposed to freeway and railroad-generated noise less than 60 dBA Ldn once the entire area is developed with new structures.

**Impact 3.6-B      Development of the Specific Plan area would permanently increase the noise environment at existing noise-sensitive land uses as a result of vehicular traffic accessing the plan area.**

New noise would be generated by traffic traveling to and from the Specific Plan area. Table 18 presents the calculated relative increases in traffic noise based on the existing plus plan area buildout scenario, and the future year (2005) traffic conditions under the no-project and with partial plan area buildout scenarios. The existing plus plan area buildout scenario adds the existing traffic volumes plus the traffic volumes expected to result from the future development of the entire Specific Plan area. As shown, buildout of the plan area when added to existing traffic volumes would increase noise levels from 1 to 6 dBA, depending on the roadway segment.

Under the existing plus plan area buildout traffic scenario, noise levels on roadway segments including West A Street east of Almond Street, Evans Road north of West A Street, Pitt School Road south of South Parkway, Porter Street, and Lincoln Street would typically increase by 1 to 2 dBA Ldn above existing conditions. This would be a less than significant impact. Traffic noise levels generated along West A Street between Gateway Drive and Almond Street and on Pitt School Road between West H Street and South Parkway Drive would be expected to increase by about 3 to 6 decibels over existing conditions.

Residential land uses along these roadway segments include residences fronting the arterial and collector roadway that are not protected from noise by a barrier and residences that have outdoor use areas oriented toward the roadway that may or may not be protected by noise barriers. Based on a visual inspection of several of the residential types with and without noise barriers, exterior noise levels in yards adjacent to roadways are expected to currently range from about 55 dBA to 65 dBA Ldn. The predicted noise level increases resulting from the project would substantially increase the noise at existing residential receivers with or without existing noise barriers. Visual inspection of existing noise barriers indicated that these barriers were not designed to be able to mitigate traffic noise generated by the Southwest Dixon Specific Plan. The number of residences that would potentially be affected by new traffic-generated noise include the following: about 40 homes located behind existing soundwalls on the north side of West A Street between Evans Road and Lincoln Street; about 60 homes located on West A Street east of Lincoln Street and west of First Street; about 10 homes fronting Pitt School Road south of West A Street and north of the proposed South Parkway; and about 40 homes facing Pitt School Road north of West A Street to West H Street. Plan area buildout would result in a substantial increase in noise levels along West A Street west of Almond Street and on Pitt School Road north and south of West A Street. There would be a potentially significant impact on residences along these two street sections.

### ***Mitigation Measures***

1. A design level noise study, as recommended for Impact 3.6-A, shall be conducted to identify measures to reduce plan area-generated traffic to less than a 3 dBA increase along West A Street between Gateway Drive and Almond Street and along Pitt School Road between West H Street and South Parkway. Measures may include paving or re-paving with quiet pavement, construction of new sound barriers, expansion of existing soundwalls, and/or construction of open space buffers.

### ***Impact Significance After Mitigation***

It is likely that Specific Plan-generated traffic noise increases would be reduced to less than 3 dBA on Pitt School Road and on West A Street by use of "quiet" pavement. However, if the required future design-level acoustical study indicates that re-paving these streets with "quiet" pavement is either infeasible or would not reduce noise levels below a 3 dBA increase, then sound barriers would be required along West A Street between Gateway Drive and Almond Street and on Pitt School Road between West H Street and South Parkway Drive. It is likely that such barriers would not be constructed on at least some portions of these streets as landowners would not want a sound barrier constructed adjacent to their residence. In other locations, the sound barrier would not be adequate due to intervening driveways and access roads. The use of quiet

**Table 18**  
**Expected Noise Level Increases**  
**along Major Arterial and Collector Roadways Leading to the Specific Plan Area**

Roadway	Existing Plus Project	2005 No Project	2005 With Project	2025 With Project
West A Street w/o Almond Street	+ 3 to 5 dBA	+ 1 to 2 dBA	+ 3 to 5 dBA	+ 5 to 7 dBA
West A Street e/o Almond Street	+ 1 to 2 dBA	+ 1 to 2 dBA	+ 2 to 3 dBA	+ 4 to 5 dBA
Evans Road n/o West A Street	+ 2 dBA	+ 1 dBA	+ 2 dBA	+ 3 dBA
Pitt School Road n/o West A Street	+ 3 dBA	+ 1 dBA	+ 2 to 3 dBA	+ 4 dBA
Pitt School Road s/o West A Street	+ 6 dBA	+ 3 dBA	+ 4 dBA	+ 6 dBA
Pitt School Road s/o South Parkway	+ 2 dBA	+ 2 dBA	+ 3 dBA	+ 3 dBA
Porter Street	+ 1 dBA	+ 1 to 2 dBA	+ 1 to 2 dBA	+ 2 to 3 dBA
Lincoln Street	+ 2 dBA	+ 1 dBA	+ 1 to 2 dBA	+ 2 dBA

pavement and/or other alternative noise-reduction methods could reduce the impact to a less than significant level. If "quiet" pavement proves infeasible and/or inadequate, the impact would remain a significant impact. Until a design-level pavement noise study is conducted to show that the increased traffic-generated noise can be reduced below a three decibel increase, it is concluded that plan area buildout would have a significant impact along portions of West A Street and Pitt School Road.

**Impact 3.6-C      The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.**

The buildout of the Specific Plan area would occur over several years and would generate noise that would temporarily increase noise levels at existing and future noise sensitive land uses. The effects of noise resulting from construction depend on the types of construction equipment used, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise would occur in phases including demolition of existing structures on the project site, grading and excavation, the construction of foundations, the erection of the new structures, and finishing. The report in Appendix C describes typical noise levels generated during construction. The highest maximum noise levels generated by project construction would typically range from about 90 to 98 dBA at a distance of 50 feet from the noise source. Typical hourly average construction generated noise levels are about 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods. Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often results in much lower construction noise levels at distant receptors.

Construction noise would also be generated by the construction of off-site pipelines and road improvements. Water and wastewater lines would be constructed along S. Lincoln Street to Porter Street. This construction could affect 3-4 homes along this section of road. The construction of a 36-inch storm drain along the I-80 freeway right-of-way to McCune Creek should not adversely affect any sensitive receptor. The construction of the future minor arterial connecting Pitt School Road with South First Street could adversely affect 4-6 residences in the area between Pitt School Road and the railroad tracks.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction lasts over extended periods of time. Limiting the hours when construction can occur to daytime hours is often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and utilizing "quiet" construction equipment can also reduce the potential for noise impacts.

Existing or planned receptors may be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night. This is a potentially significant impact.

### ***Mitigation Measures***

1. Implement construction noise control measures at all construction sites. The following measures are recommended and should be added as implementation programs.
  - Noise-generating activities at the construction site or in areas adjacent to the construction site associated in any way with new development on the plan area should be restricted to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities within 500 feet of residences should occur on Saturdays, Sundays, or holidays.
  - Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
  - Unnecessary idling of internal combustion engines should be strictly prohibited.
  - Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise-sensitive receptors. Construct temporary barriers to screen stationary noise-generating equipment when located in areas adjoining noise sensitive land uses.
  - Utilize "quiet" air compressors and other stationary noise sources where technology exists.
  - Route all construction traffic to and from the project site via designated truck routes. Prohibit construction-related heavy truck traffic in residential

areas where feasible. Prohibit construction truck traffic in the project vicinity prior to 7:00 a.m. or after 7:00 p.m. on allowable construction days.

- Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.
- Notify adjacent residents to the project site of the construction schedule in writing.
- Designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a noise disturbance coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)

### ***Impact Significance After Mitigation***

The mitigation measures recommended above will reduce the effects of construction noise. Construction noise would be consistent with the City's Noise Performance Standards, and the impact is considered to be less than significant.

### **Impact 3.6-D Future non-residential land uses on and off the Specific Plan area would generate noise.**

Future employment center businesses could include businesses using heavy equipment that would generate noise. Commercial businesses could include truck deliveries, heating and ventilating equipment, and other noise generators. Unless these projects are properly designed, this equipment and delivery trucks could generate substantial noise affecting future residents of the plan area or residents outside the plan area. This is a potentially significant impact. Future commercial development may include hotels or motels. These visitor-serving facilities would be exposed to substantial noise. Unless the rooms were adequately insulated, the noise would be a potentially significant impact.

The proposed community park on the plan area could include outdoor recreational facilities, including ballfields that would be used both during daytime and nighttime hours. These facilities can generate noise that could adversely affect nearby residents north of West A Street. Baseball and softball games typically produce an hourly-average noise level of 65 dBA at 100 feet from the center of the playing field (from measurements and calculations done for a school project in Sonoma County; *Draft EIR for Jack London Elementary School*, Leonard Charles and Associates, 1998, p. 54). This is a potentially significant impact.

The pump for the proposed Southwest Water Facility could be located in close proximity to residences. Unless this pump is adequately muffled, it could adversely affect future adjacent residences. This would be a potentially significant impact.

The future arterial connecting Pitt School Road with South First Street will introduce new vehicle-generated noise which could adversely affect the residents of 4-6 homes located east of Pitt School Road and west of the railroad tracks. This would be a potentially significant impact.

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan requires the following policy for new development in the area designated for Commercial Land Uses:

**Policy 5.1.3 Land Use Compatibility** - *Protect nearby residential uses from possible adverse effects through the design review process.*

The Specific Plan requires the following policies and implementation program for new development in the area designated for Employment Center:

**Policy 5.2.3 Land Use Compatibility** - *Ensure that there is compatibility between industrial and adjacent uses.*

**Policy 5.2.4 Performance Standards** - *Require industrial development to meet performance standards for noise, odor, light, glare, traffic generation, air emissions, soil contamination, and surface and groundwater contamination in order to minimize impacts on the environment and on adjacent uses. Require the screening and control of unsightly or excessively noisy operations.*

**Policy 5.2.5 Prohibited Uses** - *Do not allow uses which create noxious or nuisance conditions to locate within the Plan Area.*

**IP 5.2a Employment Center Design Guidelines and Standards** - *Prior to the development An the Employment Center land use area, Design Guidelines and Standards shall be prepared as outlined below:*

**Noise Management Plan** - *This plan would be required in mixed-use areas where noise sources would be in close proximity to sensitive receptors. The objectives of the noise management plan would be to provide a high-quality acoustic environment for tenants and workers. The plan would be prepared by a qualified acoustic consultant.*

The Specific Plan requires the following regarding park development::

**Policy 7.4 Park Lighting and Noise** - *Shield or redirect exterior lighting and noise where recreation facilities are adjacent to residential or other sensitive uses.*

### **Mitigation Measures**

1. An acoustical study prepared by a qualified acoustical consultant will be required for any proposed hotels or motels. The study will recommend design-level mitigation measures to provide acceptable interior levels within the guest rooms.

2. An acoustical study prepared by a qualified acoustical consultant will be required for any other type of non-residential land use. This study will identify all on-site noise sources, including groundborne noise and vibrations, generated by the project and the effect on nearby residences. On-site noise generated by the proposed project will not be allowed to create additional noise at nearby residences that would exceed 60 dBA Ldn in the outdoor living space or 45 dBA Ldn in interior living spaces. If the noise levels at existing residences exceed 60 dBA Ldn prior to project operation, then the project-generated noise would not be allowed to exceed the then existing Ldn. The acoustical study may recommend mitigation measures that would reduce noise impacts to the acceptable levels described above.

Groundborne vibrations will not be allowed to be noticeable at the nearest residence.

The acoustical study shall also examine periodic noise events such as back-up beepers, idling delivery trucks, and periodic machine noise. Design-level mitigation measures shall be included to ensure that nearby residents are not exposed to periodic noise occurring on a regular basis.

3. Construct ballfields on the community park site as near the south end of the park site as feasible.
4. As part of the project-level CEQA review for the future arterial between Pitt School Road and South First Street, conduct an acoustic analysis of the effects of traffic on that street on residences near the street. If noise levels would increase ambient noise levels by greater than 3 dBA Ldn, require the use of quiet pavement or other noise reduction techniques that reduce the noise increase to less than 3 dBA Ldn, or provide soundwalls or berms between the road and residences to reduce the noise increase to less than 3 dBA Ldn.
5. Insulate the pump at the Southwest Water Facility so that it is inaudible at the nearest residential property.

### ***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the potential impact at a program level to a less than significant level, and no additional mitigation is required. Individual project applications will need to be reviewed per the recommended mitigation measures to ensure that new development does not cause substantial noise impacts at nearby residences. If ballfields on the community park were constructed in the southern half of the park site, they would be at least 1,400 feet from the nearest existing homes on West A Street. Noise levels generally decrease by about 6 dBA for each doubling of the distance. If ballfields would generate an hourly average noise of 65 dBA at 100 feet, then at 1,400 feet, the noise would be reduced to the existing ambient noise levels in the area. While periodic noise might be audible (e.g., when there was a loud cheer at an exciting moment of a game), the noise impact should not be significant if ballfields are sited at least 1,000 feet south of West A Street. Intervening buildings (e.g., the Community Center and the aquatic center) would also reduce the noise generated at the ballfields.

**Impact 3.6-E            Future development of the Specific Plan area could be inconsistent with the Dixon General Plan.**

Future development of the plan area will include constructing 1,221 new residential units, most of which will be exposed to noise levels exceeding 60 dBA Ldn. Mitigation measures recommended in this EIR would reduce noise impacts from traffic on local streets, but they would not reduce the noise generated by traffic on I-80 or from railroad operations. As previously explained, there is no feasible mitigation for these existing noise sources. Policy 17 of the Natural Environment chapter of the Dixon General Plan states that, where feasible, noise will be mitigated so that single-family residential neighborhoods are not subjected to noise levels exceeding 60 dBA Ldn, and multi-family residential development will not be exposed to noise levels exceeding 65 dBA Ldn. Most new residential development in the plan area would be exposed to noise levels generated by I-80 and the railroad exceeding these standards. Ambient noise levels on the plan area typically are between 60 dBA Ldn and 70 dBA Ldn. However, Table 10 of the Dixon General Plan states that these noise levels are "Conditionally Acceptable." Noise studies are required to show how interior noise levels will be adequately insulated. The mitigation measures recommended in this EIR would reduce interior noise levels to an acceptable level. As such, future plan area development is not technically inconsistent with the Dixon General Plan despite the fact that people will be exposed to external noise environments that exceed levels considered "Normally Acceptable."

With the inclusion of the mitigation measures recommended in this EIR, future plan area development would be consistent with Dixon General Plan policies related to noise and the City's Noise Performance Standards (Section 12.24.08 of the Dixon Zoning Ordinance).

**Impact 3.6-F            Future development could generate excessive groundborne vibrations and/or noise, and future residents could be exposed to excessive groundborne vibrations and/or noise.**

If future industrial projects on the plan area included the use of heavy processing equipment, these projects could generate substantial groundborne vibrations or noise that could adversely affect residences in the nearby area. Existing groundborne vibration and noise sources in the plan area are limited to traffic on Interstate 80 and local streets, both of which produce localized vibration which would not significantly affect future development. The Union Pacific Railroad is a major source of groundborne vibration and noise, but given that the railroad line is about 600 feet from the nearest part of the plan area, this groundborne vibration and noise is not expected to be significant.

If future industrial projects on the plan area included the use of heavy processing equipment, these projects could generate substantial groundborne vibrations or noise that could adversely affect residences in the nearby area. This is a potentially significant impact.

***Mitigation Measures***

Mitigation Measure No. 2 for Impact 3.6-D applies to this impact.



### ***Impact Significance After Mitigation***

The recommended mitigation measure would ensure that residents would not be exposed to significant groundborne noise or vibrations. The impact is reduced to a level that is less than significant.

### **3. Project-Specific Impacts**

The analysis of project-specific impacts focuses on whether the five projects would include noise-sensitive land uses within an area of unacceptable noise and on construction impacts. The noise impacts generated by new traffic resulting from each project were not assessed on a project-by-project basis. This is because project-specific traffic impacts were not assessed and because the assessment of traffic-generated noise impacts from each project would be meaningless since none of the projects, in and of themselves, would generate sufficient traffic to substantially increase noise levels along local streets. The traffic-generated impacts would result from all the new projects on the plan area (as well as new development in other parts of Dixon), and these impacts were discussed under Impact 3.6-B and subsequently under Impact 3.6-M.

**Impact 3.6-G      The construction of the five projects would temporarily elevate noise levels at existing and future noise-sensitive land uses.**

The construction of each project would occur in phases over a number of years. Noise impacts resulting from the projects would be similar to those described in Impact 3.6-C. Depending on the project, there are noise-sensitive land uses to the north and east of the project sites. In the future, depending on project phasing, there will be residences within the plan area that would be affected by subsequent construction. Existing or planned receptors would be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night. This is a potentially significant impact.

#### ***Mitigation Measures***

Implement construction noise control measures at all construction sites as stated in Impact 3.6-C.

#### ***Impact Significance After Mitigation***

The recommended controls on construction noise will reduce this impact to a less than significant level.

**Impact 3.6-H      The Evans Ranch project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential and commercial land uses are proposed on the Evans Ranch parcel. The future noise environment on this site would primarily result from vehicular traffic along Interstate 80 and arterial and collector roadways including Batavia Road, West A Street, Gateway Drive, North Parkway, South Parkway, and Evans Road. Table 19 presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With buildout of the plan area and other new development, noise levels would range from about 60 to 75 dBA Ldn at noise sensitive residential land uses proposed along major arterials and collectors within the project area. Noise levels throughout the project site would be at least 60 dBA Ldn as a result of noise generated by Interstate 80. Noise levels between 60 and 70 dBA Ldn are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels exceeding 70 dBA Ldn would be considered “normally unacceptable” for residential land uses. This is a potentially significant impact for residential land uses proposed on the project site adjoining arterial and collector roadways.

Additionally, residential land uses proposed near the common commercial/residential property lines would be exposed to future noise levels exceeding 60 dBA Ldn as a result of commercial activity. This is a potentially significant impact.

**Table 19**  
**Future (2025) Noise Levels and Noise Level Contour Distances for Arterial and Collector Roadways - Evans Ranch**

Roadway	Noise Level in dBA (Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
Batavia Road	64	–	150
West A Street	74	240	520
Gateway Drive	75	280	600
North Parkway	64	–	150
South Parkway	60	–	60
Evans Road	< 60	–	–

**Mitigation Measures**

1. Construct open space buffers or noise barriers to shield common outdoor use areas in multi-family residential developments and private outdoor use areas of single-family residential units from traffic noise generated along arterial and collector roadways or noise generated by commercial land uses where noise levels exceed 60 dBA Ldn.

The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels, noise barriers would likely range in height from six-feet to fourteen-feet assuming the noise source or barrier and outdoor use areas are at the same elevation. The final design of the noise barriers will be reviewed by an acoustic engineer prior to approval of the subdivision map for the

project. A report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA Ldn noise contour distances to show that future noise levels will remain below 60 dBA Ldn or not exceed ambient noise levels generated by traffic on I-80 and by the railroad operations.

2. Alternatively, pave or re-pave streets with "quiet" pavement. A design-level acoustical study will be conducted to show whether such paving reduces traffic-generated noise on local streets to less than 60 dBA Ldn or does not exceed ambient noise levels generated by traffic on I-80 and by the railroad operations. It is possible that noise barriers may not be required on all or some of the affected streets if such alternate methods are employed.
3. Incorporate noise insulation treatments in residential units as necessary to achieve "acceptable" interior noise levels. All single- and multi-family residential land uses located within the 60 dBA Ldn contour distances should be designed such that the indoor Ldn level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants' discretion. Additional noise control treatments could include sound rated windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA Ldn noise contour distances.

#### ***Impact Significance After Mitigation***

Construction of open space buffers or noise barriers and provision of acoustic insulation would reduce noise levels. The use of "quiet" pavement may also reduce the impact and reduce the need for noise barriers. As described under Impact 3.6-A, future residents would continue to be exposed to noise levels exceeding 60 dBA Ldn due to freeway and railroad noise. This would be a significant impact. As discussed under Impact 3.6-A, Figure 10 of the Dixon General Plan allows new residential development within areas with a noise environment up to 70 dBA Ldn if feasible noise insulation features are included in design and construction. Thus, the City could determine that this impact is less than significant, once the mitigations recommended above are implemented. The recommended mitigations would be required whether or not the City deems the impact significant after mitigation, since the 70 dBA Ldn environment is allowable only if feasible noise insulation features are included in the project.

**Impact 3.6-I      The Orchard Estates-Sanders Property project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" for those uses.**

Residential land uses are proposed on the Orchard Estates-Sanders site. The future noise environment on this parcel would primarily result from vehicular traffic along arterial and collector roadways including Pitt School Road and South Lincoln Street. Additionally, the site would be subjected to noise generated by Interstate 80 and the railroad. Table 20

presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the buildout of the plan area and other new development, noise levels would range from about 62 to 69 dBA Ldn along major arterials and collectors within the project area. Exterior noise levels generated by Interstate 80 and the railroad would be about 60 to 65 dBA Ldn throughout the project site. Noise levels between 60 and 70 dBA Ldn are considered "conditionally acceptable" for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial and collector roadways.

**Table 20  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Arterial and Collector Roadways - Orchard Estates-Sanders**

Roadway	Noise Level in dBA (Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
Pitt School Road	69	110	240
South Lincoln Street	62	--	95

The project also proposes a fire station near the easternmost property boundary of the Orchard Estates-Sanders parcel. At this point in the planning process, the exact specifications regarding the size of the fire station, locations of noise generating equipment, etc. are unknown. Typically, operational noise generated by satellite fire stations includes the sounds of emergency sirens and vehicles and the daily testing of equipment. The primary noise associated with the fire station would be the sound of emergency sirens and the trucks themselves as they exit and enter the station after going to and coming back from emergencies. The use of sirens or warning devices are necessary to protect the public. However, many fire stations do not routinely use the warning sirens in residential areas unless they are necessary. For example, if there is no traffic on the local road, the trucks would leave the site and not turn on the sirens until they were needed. If traffic on the road is a problem to trucks entering and exiting the station, a warning stop light system could be constructed that would allow the trucks to enter and exit the site without having to use their warning devices until they were quite far away.

Most of the time, there would be little or no noise generated at the fire station. However, every morning the emergency equipment is checked and engines are started. The emergency sirens and horn are generally tested within the garage with the doors closed, and then the apparatus is moved to the apron and the engine pumps are tested. Noise measurements conducted at similar fire stations during the morning equipment checkout indicate that maximum noise levels at a distance of 50 feet from the activity can reach 80-85 dBA. Other activities at the fire station would generally consist of regular maintenance activities not too different from maintenance at a typical home (truck washing, grounds keeping, etc.). These levels would not measurably increase noise levels that would exist in the area resulting from vehicular traffic along Pitt School Road, although they may occasionally be audible.

## **Mitigation Measures**

The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-9 feet in elevation.

## **Impact Significance After Mitigation**

Construction of open space buffers or noise barriers and provision of acoustic insulation would reduce noise levels. The use of "quiet" pavement may also reduce the impact and reduce the need for noise barriers. As described under Impact 3.6-A, future residents would continue to be exposed to noise levels exceeding 60 dBA Ldn due to freeway and railroad noise. This would be a significant impact. As discussed under Impact 3.6-A, Figure 10 of the Dixon General Plan allows new residential development within areas with a noise environment up to 70 dBA Ldn if feasible noise insulation features are included in design and construction. Thus, the City could determine that this impact is less than significant, once the mitigations recommended above are implemented. The recommended mitigations would be required whether or not the City deems the impact significant after mitigation, since the 70 dBA Ldn environment is allowable only if feasible noise insulation features are included in the project.

**Impact 3.6-J      The Orchard Estates - Garcia Property project would introduce residential land uses onto sites located in a noise environment that would be considered "conditionally acceptable" for those uses.**

Residential land uses are proposed on the Orchard Estates-Garcia parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial and collector roadways including Pitt School Road and South Lincoln Street. Additionally, the site would be subjected to noise generated by Interstate 80 and the railroad. Table 21 presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With buildout of the plan area and other new development, noise levels would range from about 62 to 69 dBA Ldn along major arterials and collectors within the project area. Exterior noise levels generated by Interstate 80 and the railroad would be about 60 to 65 dBA Ldn throughout the project site. Noise levels between 60 and 70 dBA Ldn are considered "conditionally acceptable" for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial and collector roadways.

**Table 21  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Arterial and Collector Roadways - Orchard Estates-Garcia**

Roadway	Noise Level in dBA Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
Pitt School Road	69	110	240
South Lincoln St.	62	--	95

***Mitigation Measures***

The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-9 feet in elevation.

***Impact Significance After Mitigation***

Construction of open space buffers or noise barriers and provision of acoustic insulation would reduce noise levels. The use of "quiet" pavement may also reduce the impact and reduce the need for noise barriers. As described under Impact 3.6-A, future residents would continue to be exposed to noise levels exceeding 60 dBA Ldn due to freeway and railroad noise. This would be a significant impact. As discussed under Impact 3.6-A, Figure 10 of the Dixon General Plan allows new residential development within areas with a noise environment up to 70 dBA Ldn if feasible noise insulation features are included in design and construction. Thus, the City could determine that this impact is less than significant, once the mitigations recommended above are implemented. The recommended mitigations would be required whether or not the City deems the impact significant after mitigation, since the 70 dBA Ldn environment is allowable only if feasible noise insulation features are included in the project.

**Impact 3.6-K      The Dixon Ridge project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential land uses are proposed on the Dixon Ridge parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial and collector roadways including West A Street, Evans Road, the proposed North Parkway alignment, and the proposed South Parkway. Table 22 presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With buildout of the plan area and other new development, noise levels would range from about 60 to 73 dBA Ldn along major arterials and collectors within the project area. Noise levels between 60 and 70 dBA Ldn are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels exceeding 70 dBA Ldn would be considered “normally unacceptable” for residential land

uses. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial and collector roadways.

**Mitigation Measures**

The same mitigations recommended for Impact 3.6-H are required. If sound barriers are required, they would need to be 6-13 feet in elevation.

**Table 22  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Arterial and Collector Roadways - Dixon Ridge**

Roadway	Noise Level in dBA (Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
West A Street	73	200	440
North Parkway	63	--	120
South Parkway	60	--	60
Evans Road	< 60	--	--

**Impact Significance After Mitigation**

Construction of open space buffers or noise barriers and provision of acoustic insulation would reduce noise levels. The use of "quiet" pavement may also reduce the impact and reduce the need for noise barriers. As described under Impact 3.6-A, future residents would continue to be exposed to noise levels exceeding 60 dBA Ldn due to freeway and railroad noise. This would be a significant impact. As discussed under Impact 3.6-A, Figure 10 of the Dixon General Plan allows new residential development within areas with a noise environment up to 70 dBA Ldn if feasible noise insulation features are included in design and construction. Thus, the City could determine that this impact is less than significant, once the mitigations recommended above are implemented. The recommended mitigations would be required whether or not the City deems the impact significant after mitigation, since the 70 dBA Ldn environment is allowable only if feasible noise insulation features are included in the project.

**Impact 3.6-L      The Clark Ranch Estates/Clark Property-Ryder Homes project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential land uses are proposed on the Clark Ranch Estates parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial and collector roadways including Evans Road and the proposed South Parkway. Table 23, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With buildout of the plan area and other new development, noise levels would be 60 dBA Ldn or less along major arterials and collectors within the project area. Noise levels of 60 dBA Ldn or less are considered “normally acceptable” for residential land uses. This is a less than significant impact for residential land uses proposed on the site. No mitigation is required for this site.

**Table 23  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Arterial and Collector Roadways - Clark Ranch**

Roadway	Noise Level in dBA (Ldn) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 Ldn Noise Contour (feet)	Distance from Roadway Centerline to 60 Ldn Noise Contour (feet)
South Parkway	60	--	60
Evans Road	< 60	--	--

#### 4. Cumulative Impacts

**Impact 3.6-M Traffic generated by Specific Plan development plus other new development would increase noise levels along roadways.**

Table 18 shows the predicted noise levels along study roadways in the year 2005 with partial buildout of the Specific Plan area plus other new development predicted by that date. Under this scenario, buildout of the plan area would increase expected 2005 noise levels from 1 to 3 dBA over the noise levels that would occur if no development occurred on the plan area. The overall noise increase from partial plan area buildout plus other new development would be 1 to 5 dBA, depending on the roadway segment. Cumulative development would have a potentially significant impact due to the potential increase in noise at residences along West A Street between Gateway Drive and First Street and on Pitt School Road between West A Street and South Parkway Drive.

A second scenario shows noise impacts from all new traffic generated by plan area buildout plus buildout of the City in the year 2025. Noise levels on major arterial and collector roadways leading to the Specific Plan area would be expected to increase by 2 to 7 dBA over existing noise levels. These increases would be considered substantial and would be considered a potentially significant impact. There would be potentially significant noise increases at residences on West A Street between Gateway Drive and First Street, Evans Road between West A Street and Pitt School Road, Pitt School Road between West H Street and South Parkway Drive, and potentially on Porter Street between Midway Road and West A Street.

#### **Mitigation Measures**

The same mitigation measures recommended for Impact 3.6-B will apply. It is possible that the use of quiet pavement could reduce year 2005 cumulative noise impacts to less than a 3 dBA increase. If use of this pavement does not adequately reduce noise, then sound barriers could be required due to the combination of plan area buildout and other



monitoring. If sound walls are required, they will be financed by Specific Plan area developers and other new development.

***Impact Significance After Mitigation***

The use of "quiet" pavement may reduce traffic noise to a less than significant level until some time after 2005. It is even possible that such methods may reduce traffic noise to a less than significant level until 2025. However, if this paving is not implemented or if the required pavement study shows that the cumulative noise levels would still exceed a 3 dBA increase on any study street, then noise barriers on the affected street(s) would be required. As described in Impact 3.6-B, noise barriers would not be possible in all affected locations. Until a design-level pavement noise study is conducted to show that the increased traffic-generated noise can be reduced below a 3 dBA increase, it is concluded that plan area buildout would have a significant impact along portions of West A Street, Evans Road, Pitt School Road, and, possibly, Porter Street.

## 3.7 AESTHETICS

### A. Setting

The Specific Plan area consists of a basically flat, mainly undeveloped section of ground along the southwest edge of the developed portion of the City of Dixon. Most of the Specific Plan area is used for growing crops (e.g., tomatoes, alfalfa, corn, oat hay, and vine seed). As such, views from most off-site vantage points are of open agricultural fields. Interspersing these fields are scattered groves of trees, usually surrounding one of the homesteads on the Specific Plan area. Also visible are some of the fourteen residences and associated outbuildings as well as three commercial establishments near the northwest corner of the Specific Plan area where West A Street intersects Interstate 80. The following section provides a more detailed inventory of aesthetic resources and existing views of the area from the principal public vantage points surrounding the Specific Plan area.

#### 1. View Inventory

##### a. From Interstate 80

Traveling east, the Specific Plan area is part of the flat agricultural development between Vacaville and Dixon. Clear views of the Specific Plan area are not possible until one approaches its southern end. From this vantage point one looks east and sees two cylindrical metal buildings and an associated farmstead just to the south of the Specific Plan area. The Specific Plan area is a flat area with relatively low-growing crops. One can see islands of trees scattered to the east. In the background is the mature landscaping surrounding existing development in Dixon.

As one drives north and travels onto the freeway off-ramp to West A Street, one can look east to southeast and see the Dixon Produce buildings and the restaurant immediately south of the produce stand in the foreground across Batavia Road. Between and around those buildings, one sees the flat fields of the Specific Plan area with interspersed trees and more distant orchards to the south of the Specific Plan area. Views of the Specific Plan area from Batavia Road (which runs north-south just to the east of Interstate 80) are similar to those described above.

Views from the off-ramp as one approaches West A Street are dominated by the new development on the north side of West A Street. One sees the new highway commercial development, including two service stations, two fast food outlets, and a car repair business on the Gateway Center and the Pheasant Run project.

##### b. From West A Street

Traveling east from the Interstate 80 off-ramp, one can look south onto the Specific Plan area and see a restaurant in the foreground bordered by a large unpaved parking area. Looking south to either side of this restaurant, one sees the open fields (currently planted with tomatoes) with scattered groves of trees. East of the restaurant are unimpeded views of the Specific Plan area fields for about 1,200 feet until one reaches the homestead on northeast corner of the proposed Evans Ranch project site. Adjacent to this homestead, one looks south and sees an older home surrounded by large trees with

an old water tower to the west of the home and an old, deteriorated barn to the south of the house. Looking to the north, one sees the new commercial development and then undeveloped land and a few older residences until one reaches Evans Road.

East of this homestead is another stretch of undeveloped land with unimpeded views of the Specific Plan area fields (with tomato fields currently in the foreground) to the south. About 1,000 feet east of this homestead is another homestead with a home, a metal shed, and a second home behind the metal shed on the south side of West A Street. On either side of this homestead, views to the south are of an open area with tomato fields west of the homestead and alfalfa fields to the east of the homestead. To the north are new homes with a wall, sidewalk, and landscaping trees in the foreground.

About 800 feet further east is a large homestead on the Azevedo property. This homestead is bordered by a tall hedge so that the hedge itself is all that is visible except as one passes the entrance to the homestead. East of this homestead are open views to the south with alfalfa fields in the foreground. About 350 feet east of the Azevedo homestead, one reaches the east edge of the Specific Plan area at Pitt School Road. To the north, starting at Evans Road, one sees new residential development with a wall, sidewalk, and landscaping trees in the foreground.

As one is traveling east along West A Street, the general view to the south is of open fields on the Specific Plan area with scattered groves of trees (mainly around residences), and distant orchards in the background. Looking east, one sees the wooded homesteads on the south side of the street (i.e., the three homesteads on the Specific Plan area) with the wooded, developed portion of Dixon in the background. North of the street is commercial development at the west end, some vacant land and older residences, and then new residential development.

Traveling west, one sees essentially the same views across the Specific Plan area except that one has background views of the Coastal Range mountains to the west.

**c. From Pitt School Road**

Traveling south, one looks west across the relatively open Specific Plan area with the Coastal Range mountains in the distant background. Looking east one sees residential development until just south of Hillview Drive. Past that street, views to the east are of an undeveloped portion of the Specific Plan area (currently planted in oat hay that was mowed in July 2002). As one nears the southern boundary of the Specific Plan area, there is a homestead on the west side of the road (on the Steil property). The home has an old wood water tower to the south and a wood barn to the west, and the homestead includes several mature trees. Across the street (i.e., to the east) of this homestead is another homestead that is outside the Specific Plan area.

About 700 feet south of this homestead is a large homestead and associated agricultural complex just to the south of the Specific Plan area. Traveling further south, one sees tomato fields to the west and almond orchards to the east until reaching Porter Street.

**d. From S. Lincoln Street**

Traveling south on S. Lincoln Street from West A Street, one travels through existing residential development until reaching the north edge of the Specific Plan area just south of Hillview Drive. Starting at this point and traveling south, one can look west across the

oat hayfields in the foreground with the fields and scattered groves of trees on the Specific Plan area in the midground, and the Coastal Range mountains in the distant background. There are three homesteads on the west side of this street, and one can see the homes, outbuildings, and large landscaping trees as one travels south and passes each homestead.

Looking east, one sees a fence around the Sotuela property and then two mobile homes, a tin barn and two residences. Further south is the almond orchard on the Sanders property. Proceeding south out of the Specific Plan area, there are almond orchards to the east and hayfields and almonds to the west.

**e. From Porter Street**

Views of the Specific Plan area from this road are quite limited. There is one location where one can just see the southeast corner of the Sanders property. The view is of an almond orchard, but the view is limited by existing residential development along the west side of Porter Street.

**f. From Other Vantage Points**

The Specific Plan area is visible from several other vantage points, including:

- From residences bordering the north and east sides of the Specific Plan area. Some of these residences have windows that allow views to and across the Specific Plan area.
- The end of Camellia Drive. This road dead-ends at the east side of the Sanders property. The view is currently of an almond orchard.
- From the ends of Gateway Drive and Evans Road. Traveling south on these streets as one approaches West A Street, one can look south across the Specific Plan area. The views to the south are the same as described previously for views from West A Street.

**g. Summary**

The Specific Plan area lacks significant aesthetic resources other than that it is undeveloped, agricultural open space. The several homesteads scattered across the Specific Plan area, especially the three along West A Street, provide some visual differentiation from the field crops to the south. While the different vantage points discussed above have somewhat different views of the Specific Plan area, the differences are not great - basically, views are across flat croplands with scattered groves of trees and distant orchards to the south, the coastal mountains to the west, existing urban development to the north, and the older, landscaped portion of Dixon to the east.

## **2. Pertinent City of Dixon Policies**

The Urban Development and Community Design Element of the Dixon General Plan contains the following policies related to aesthetics:

- Policy 18**      *The City shall ensure that entry points to the City are identified by well-maintained entrances indicating a civic pride and concern for civic beauty.*
- Policy 19**      *The City shall actively promote the beautification of Dixon by acquiring easement or development rights for open space, planting street trees and landscaping public rights-of-way.*
- Policy 20**      *The City shall require the undergrounding of utilities in all new developments when appropriate, and shall encourage the removal of overhead utility lines and poles throughout the city.*
- Policy 21**      *The City shall strictly regulate signs and billboards in order to minimize their impact on the visual environment.*
- Policy 22**      *The City shall ensure that all new development which may be built adjacent to Interstate 80 will either present an attractive appearance or not be visible from the freeway at all. To the greatest extent possible, visual separation between developed areas of Dixon and the freeway corridor will be maintained by vegetation, landscaping, berms and devices other than standard acoustical walls.*
- Policy 23**      *The city shall consider the establishment of a system of open space buffers to help to define the urban boundary of Dixon.*

The Element contains the following implementation programs to implement these policies:

- IP D**            *Continue to require street trees to be planted in newly developed areas, both to beautify Dixon and to enhance its rural character.*
- IP E**            *Continue to require design review of all new development prior to the issuance of a developmental permit. The review should determine whether the proposed development/remodeling would be in keeping with community character, and whether the proposed action satisfies the applicable development ordinances.*
- IP F**            *Strictly enforce Dixon's Sign Ordinance, and have non-conforming signs either brought into conformance with the ordinance or removed.*

The Dixon Zoning Ordinance includes *Screening and Landscaping Regulations* (Section 12.26.01 through Section 12.26.09). These Regulations provide explicit standards for screening and landscaping, including:

- Where commercial zones abut residential zones, 6-foot high screening must be provided.
- Where industrial zones abut residential zones, 8-foot high screening must be provided.
- Where professional office zones abut any other zone, 6-foot high screening must be provided no closer than 10 feet from the property line.

- Parking facilities located across the street from residential property and less than 50 feet from the street, or are located less than 5 feet from residential property, 6-foot high screening must be provided.
- Screening can be walls, berms, solid fences, open fences, and plantings of evergreens.

Landscaping requirements included in Section 12.26.07 include:

- For Professional Office Districts: 1) boundary landscaping is required for a minimum depth of 10 feet along all property lines abutting streets except for driveway openings; 2) in addition to other landscaping requirements, not less than 7 percent of the total building area shall be landscaped, with a minimum of 25 percent of such landscaping located in parking areas; and 3) at least 2 street trees are required for every 50 feet of street frontage.
- For Industrial Districts: 1) boundary landscaping is required for a minimum depth of 8 feet along all property lines abutting streets except for driveway openings; 2) in addition to other landscaping requirements, not less than 5 percent of parking areas shall be landscaped; 3) all portions of the building site not dedicated to active use shall be landscaped, and 4) at least 1 street tree is required for every 50 feet of street frontage.
- For Highway Commercial Districts: 1) at least 5 feet of landscaping is required between a street and a private, parallel vehicular access; 2) where there is no parallel vehicular access, at least a 10-foot wide landscaping buffer shall be landscaped along the street, and 3) at least 2 street trees are required for every 50 feet of street frontage.

The City Zoning Ordinance also provides regulations for signs. Specific regulations are included in Section 12.20.01 through 12.20.08. Sections 12.26.07 through 12.20.09 provide specific guidelines for new landscaping.

## **B. Potential Impacts and Mitigations**

### **1. Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a. Has a substantial adverse effect on a scenic vista. (*Assessed in all Impacts in this section.*)
- b. Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. (*Assessed in all Impacts in this section.*)
- c. Substantially degrades the existing visual character or quality of the site and its surroundings. (*Assessed in all Impacts in this section.*)

- d. Creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area. *(Assessed in all Impacts in this section.)*

## **2. Impacts – Proposed Southwest Dixon Specific Plan**

### **Impact 3.7-A Future development of the Specific Plan area would alter views from Interstate 80.**

Development of the Specific Plan area would expand the urban landscape of Dixon along Interstate 80 about 0.5 miles to the south of its current urban edge. The views of agricultural fields and older farm homesteads from the freeway would be replaced with views dominated by new commercial, industrial, and residential development.

#### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan includes numerous policies and implementation programs to guide the design of future development in the plan area relative to views from the freeway. These policies and programs are listed below.

- Policy 2.2.1 Community Character** - *Development in Southwest Dixon shall maintain a continuity with the "small town" feeling of the older parts of Dixon, through the use of human scaled buildings, pedestrian oriented ambiance, and generous use of landscaping.*
- Policy 2.2.2 Gateway Treatment** - *Provide special treatment along West A Street, particularly in the vicinity of the Interstate 80 interchange, in order to provide a positive community image at this entry point to the City.*
- Policy 2.2.3 Interstate 80 Corridor** - *New development adjacent to Interstate 80 shall have an attractive appearance or shall be screened from view. Maintain visual separation between developed areas of Southwest Dixon and the freeway corridor through the use of landscaping, berms, and other alternatives to standard acoustical walls.*
- Policy 2.2.4 Signs and Billboards** - *To enhance the visual environment of Southwest Dixon, strictly regulate signs and billboards.*
- Policy 2.2.5 Utilities** - *Require the undergrounding of utilities in all new developments in keeping with City standards. Require the removal of overhead utility lines and poles.*
- Policy 2.2.6 Community Design and Transportation** - *Promote new development concepts that are conducive to use of public transit, bicycles, and other alternative transportation modes. Emphasize pedestrian oriented development through the use of well designed walkways, paths, and open areas that foster interaction of people.*
- Policy 2.2.7 Existing Homes** - *New development shall be designed and landscaped to protect privacy and minimize visual intrusion for existing residents in the area.*

**Policy 2.2.8 Land Use Incompatibilities** - Provide separation where necessary between incompatible land uses, such as public streets and recreation corridors, landscape screening, berms, walls, setbacks, and/or height limits. Provide landscape screening for parking lots and other uses which detract from scenic qualities. Specific landscape setbacks on private and public right-of-ways are defined in the City Zoning Ordinance and Section 8 of this Plan.

**Policy 2.2.9 Sound Walls** - Select noise barriers with consideration of visual quality. Explore alternatives to standard sound walls, including landscaped earth berms and building setbacks. Where sound walls are required, use vines or other landscape treatment to soften their appearance. Provide frequent offsets and architectural treatment to provide visual interest.

**Policy 2.2.10 Light and Glare** - Control light and glare generated by new development through the use of light fixture location, orientation, and shielding.

**Policy 2.2.11 Residential Community Identity** - Provide an identity and destination place for each residential community throughout the Plan Area.

**IP 2.2a Design Review** - Continue to require design review of new development before the issuance of a development permit, in keeping with the Zoning Ordinance and the requirements of this Specific Plan. Use the design guidelines and standards [Appendix A of the Specific Plan] for guidance in design review, including recommendations for coordinated signage. [General Plan Policy 2E)

Special design review considerations include:

- (1) **Interstate 80 Corridor** - Include as part of design review, any development within 300 feet of Interstate 80 right-of-way. In general, structures and parking areas shall be screened from view. Signage shall be strictly controlled, although appropriate signage in keeping with the design guidelines shall be provided for orientation.
- (2) **West A Street Corridor** - Provide center median, landscape treatment, and other facilities according to Specific Plan standards in Chapter 6.
- (3) **Neighborhood Commercial** - See Chapter 5 of the Specific Plan for implementation programs.
- (4) **Employment Center** - See Chapter 5 of the Specific Plan for detailed implementation programs.
- (5) **Development Near Existing Residences** - New development shall be designed to protect privacy and minimize loss of visual quality for existing area residents. Provide special features including landscape screening and height limits as needed.
- (6) **Neighborhood Identity and Character** - New development shall incorporate attractive design features and nodes to establish neighborhood character and identity throughout residential communities. Examples of these could include art in public places,



*coordinated street tree plantings, extensive landscaping, separated sidewalks, paving alternatives, architectural detailing on buildings, and traffic calming techniques.*

**IP 2.2b**      **Gateway Treatment** - *Require special design treatment and coordinated signage at the West Dixon Gateway, as identified in the Southwest Dixon Specific Plan and Design Guidelines and Standards.*

**IP 2.2c**      **Sign Ordinance** - *Strictly enforce Dixon's Sign Ordinance in the Southwest Dixon Plan Area. Apply the Southwest Dixon Design Guidelines to achieve coordinated signage. [General Plan Policy 2F]*

**IP 2.2d**      **Light and Glare** - *Require proposed projects which generate significant light and glare to provide detailed control measures. Include elements such as landscape screening, setbacks, use of directional and shielded fixtures, and use of low-intensity lamps where appropriate. Preference shall be given to fixtures which direct most light downward to areas of use, rather than unshielded fixtures which lose light to the night sky.*

Implementation Program 5.2a of the Specific Plan requires preparation of design guidelines and standards prior to development in the Employment Center land use area. The guidelines and standards must address exterior lighting, landscape screening from the freeway, plantings to soften the visual effects of structures and to reduce glare, and a landscape management program.

The Specific Plan includes General Design Guidelines (Appendix A of the Specific Plan). These Guidelines provide more specific direction for new development in the Specific Plan area. The Guidelines include specific general design recommendations for building design, landscape treatments, signage, design guidelines for non-residential development, and design guidelines for residential development

#### **Future Views from I-80**

The following section summarizes the future views from Interstate 80. The discussion includes the design recommendations included in the Specific Plan text and Appendix A of the Specific Plan.

As one travels east, one would see the agricultural fields with interspersed farm homesteads to the south of the Specific Plan area. As one approaches the area, one would see residences along the southern edge of the area. The Specific Plan calls for landscape screening. The Design Guidelines call for at least a 20-foot wide buffer between the freeway and residences. This buffer would be planted with evergreen trees that would be coordinated and integrated with any future Caltrans landscaping along the freeway. The Specific Plan aim is to buffer views of new residences from the freeway with landscaping. However, it would take many years until such landscaping is sufficiently mature as to actually screen views of new residences. Until such time as the landscaping is mature, drivers would see the new residences along the west side of the Specific Plan area. At night, drivers on Interstate 80 would see street lights along Specific Plan area streets and residential lights at residences until such time as the landscaping is mature.

As one approaches the south end of the area and passes along its west side, one would see what would likely be large light industrial/office/highway commercial buildings in the foreground. The precise view from this vantage point cannot be described since no proposal has been submitted for the Employment Center adjacent to the freeway. The proposed Employment Center designation would allow uses consistent with the Light Industrial (ML) Zoning District, Professional and Administrative Office (PAO) Zoning District, and the Highway Commercial (CH) Zoning District. While allowable uses and building restrictions would be subsequently defined, it is likely that the Employment Center buildings would be relatively tall. The Dixon Zoning Ordinance allows relatively tall buildings in the ML, PAO, and CH zoning districts; maximum building elevations are 30 feet in the PAO District and 40 feet in the ML and CH Districts.

The Specific Plan's Design Guidelines recommend that these new buildings not be large massive structures and include design elements that provide variety and visual interest. Landscaping is also recommended along the west side of the buildings to eventually screen the buildings from views from Interstate 80. Signs are permitted, though it would be difficult to see the signs once the landscaping is mature. Until landscaping is mature, views of the new buildings would be possible. Because these buildings would be taller than the residences to the south, it would take longer for the proposed evergreen trees and other trees and shrubs to screen views of these new non-residential buildings. Because there are no development applications for this area, it is unknown whether parking lots would be proposed adjacent to the freeway. If parking lots were proposed, then views from the freeway could include views of parked cars until such time as the landscape screening was mature. At night, there would be views of security lights and other possible lights illuminating portions of the buildings and parking areas.

Further north as one approaches the West A Street off-ramp, there would be views of Highway Commercial development in the foreground. No development application has been submitted for the Highway Commercial area adjacent to the freeway. It is likely to include restaurants, motels, service stations, small grocery outlets, and other typical highway commercial development. The Specific Plan calls for design review of these future commercial buildings to ensure visual interest and variety. Landscaping would be required along the freeway frontage as described above. Until this landscaping is mature, travelers would see the new commercial buildings, parked cars (in parking lots), and signs. At night, the area would likely be well lit as many of these highway commercial outlets are open late or even all night.

In summary, travelers along Interstate 80 would see new residential development on the south end of the Specific Plan area, light industrial/office/commercial buildings in the center, and highway commercial outlets at the north end. Views of parking lots would be possible. Views of commercial signs would be possible. At night, one would see residential lighting at the south end, security lighting in the center, and bright lighting near the interchange with West A Street. The Specific Plan calls for all new development to undergo Design Review (Implementation Program 2.2a) and to provide variety and visual interest. However, the primary visual mitigation is the requirement for planting of large evergreen trees in a buffer adjacent to the west side of the Specific Plan area. The buffer is proposed to be 20-foot wide, but additional width "would be preferable."

It can take many years for evergreen trees to grow tall enough to actually screen views between the trees and over the tops of the trees. It could be 10-20 years before such landscaping successfully screened views of Specific Plan area development. Until such landscaping is mature, travelers on Interstate 80 would have views of new residential

and non-residential development. The future views of the residential development would not be considered significant given required Design Review and the eventual landscaping screen. While no development plans have been submitted for the non-residential area along Interstate 80, it is possible that views of light industrial and/or highway commercial development could be unattractive. This is particularly true since it could be many years until such development is screened by the proposed landscaping.

The Dixon General Plan calls for all new development along Interstate 80 to either be "attractive" or not be visible from the freeway. As the previously cited Policy 2 states, to the greatest extent possible, there should be a visual separation from developed areas of Dixon and the freeway corridor, and this separation will be maintained by vegetation, landscaping, berms, and devices other than standard acoustical walls. Given the importance of this view corridor, the potential impacts on views from the freeway are considered potentially significant.

### ***Mitigation Measures***

Because no development application has been submitted for the freeway frontage, it could be several years until an application is submitted and before development is constructed along this frontage. If the landscape screening recommended in the Specific Plan were planted immediately, the trees could be growing while development was being designed, approved, and constructed along this frontage. In addition, this freeway frontage landscaping would buffer views of proposed new commercial and residential development on the Evans Ranch property. As such, the following mitigations will be added as Implementation Programs under Goal 2.2 of the Specific Plan.

1. A landscaping plan for the Interstate 80 frontage shall be designed by a qualified landscape architect. This plan shall include provisions for the following:
  - a. The species of trees to be planted will be trees capable of growing and surviving in the Dixon climate.
  - b. The trees will be capable of growing to a height of at least 30-feet tall within the shortest time feasible, but no more than ten years.
  - c. Trees shall be planted close enough together to provide thorough screening. Alternatively, the trees that will eventually provide canopy screening can be interplanted with shrubs or small trees in the foreground that will provide dense screening from 6-12 feet in height.
  - d. The City should consider whether the landscaping should provide more than a "screen." Given the importance of this freeway frontage, the landscaping plan should include a variety of native and non-native shrubs west of the trees. These shrubs should include flowering species. The City may also wish to require plantings of native and non-native wildflowers west of the shrubs to provide additional color and visual interest.
  - e. The landscaping plan shall show how each of these landscape components would be placed within the landscaping buffer. If the City requires more than simply a line of screening trees, then the buffer may need to be widened in order to provide foreground flowers, midground

flowering shrubs and small trees, and background taller evergreen trees. The width of the landscaping buffer will be determined once a satisfactory landscaping plan is designed and adopted by the City. In some locations, it is expected that the buffer would need to be at least 50-feet wide.

- f. A complete fertilization, irrigation, and landscape maintenance program shall be included for all landscape components.
2. The landscaping plan for the Interstate 80 frontage shall be prepared and approved by the City prior to approval of the first subdivision map. The landscaping shall be installed prior to occupancy of the first residence or business on the Specific Plan area.
3. The Specific Plan shall identify which entity is responsible for the planting of the Interstate 80 frontage landscaping and its maintenance. The responsible entity will ensure that all trees and shrubs that die are replanted within the next growing season. Maintenance and replanting of dead or diseased trees and shrubs will be the responsibility of the responsible entity for at least 10 years or whatever duration determined desirable by the City of Dixon. Similarly, if wildflowers or other flowering herbaceous species are required for the foreground portion of the landscape buffer, the responsible entity will be responsible for replanting said species if they do not naturally reseed. The City will determine when the flowering plant population has declined to a point where it needs to be replanted or supplemented with additional seeding/plantings.
4. An overall design plan shall be prepared by the developer for the General Commercial development on the Evans Ranch property. Subsequent applications to develop other General Commercial, Highway Commercial, and Employment Center sites will be required to be consistent with the design motif of the commercial development on the Evans Ranch site unless the City determines that an alternative design motif is aesthetically pleasing and acceptable.
5. Night lighting of non-residential buildings will be limited to the minimum number needed. Other lighting requirements include:
  - a. Lighted commercial signs, other than the Gateway tower sign discussed in Impact 3.7-B, should not be visible from the freeway south of West A Street.
  - b. All lighting shall be shielded and directed downward.
  - c. Lighting elements will be recessed within fixtures to prevent glare.
  - d. High-angle, high-candela lighting distribution shall be prohibited.
  - e. Lighting fixtures will be selected so they can be further shielded after installation, if a problem is identified.
  - f. Because light trespass effects are subjective and site-specific, quantifiable criteria (such as controlling the amount of luminescence or restricting certain angles of lighting) usually cannot be identified. For this reason, project applicants shall consult a lighting design specialist to

determine light source locations, light intensities, and types of light sources for all non-residential development. A lighting plan for non-residential development, roadways, and public areas shall be developed and incorporated into final project plans.

### ***Impact Significance After Mitigation***

These mitigation measures in combination with the design requirements already included in the Specific Plan would reduce the visual impacts experienced by travelers on Interstate 80. The recommended mitigation measures expand on recommendations in the Specific Plan and requirements established in the Dixon Zoning Ordinance to ensure that the recommended landscape buffer is functional and effective in a relatively short period of time. While it still could be as long as ten years before views of the Specific Plan area are screened, the mitigation measures ensure that the screening would not take longer than ten years. The mitigations also ensure that the landscape buffer not only provides screening of new development, especially non-residential development, but that it actually provides visual interest and variety. The recommended restrictions on lighting would reduce visual impacts. The requirement for an overall design plan would ensure that all new non-residential development would be coordinated around a central design motif.

Implementation of the Specific Plan as amended by these mitigation measures would ensure that the freeway frontage is a well vegetated, pleasing southern entrance to the City. Future views, particularly of the freeway interchange, would not look like most other freeway interchanges in the area and the State. While there would be some impact to views for a few years until the landscaping is mature, the mitigations would reduce the long-term impact to a level that is less than significant, and the Specific Plan would be consistent with policies of the City General Plan.

### **Impact 3.7-B            Future development of the Specific Plan area would alter views from West A Street.**

As one travels east on West A Street from the Interstate 80 off-ramp, one would see Highway Commercial development in the foreground. The Specific Plan recommends construction of a tower sign (Gateway sign) near the West A Street interchange with Interstate 80. This tall sign would be visible from the freeway and West A Street. While it is recognized that future businesses along the freeway and West A Street would want a tall sign announcing the presence of the shopping area, as well as possible anchor tenants, such signs are rarely aesthetically pleasing. In addition, the City's Zoning Ordinance would not allow such a sign given the existence of existing signs to the north of West A Street.

East of Gateway Drive would be views of a shopping center. The foreground view would include three smaller commercial structures and a parking lot. The midground view would be of two larger commercial structures. These two larger commercial structures would likely block views of additional commercial development and residential development to the south.

Because West A Street is designated as a Parkway in the Specific Plan, a median would be constructed along the Specific Plan area frontage; the median would be landscaped with trees. The south side of the street would include landscaping trees planted every 25 feet. A sidewalk would also be constructed along the edge of the street. Thus,

future foreground views looking south would be of a sidewalk with large trees. Views of the shopping center and parked cars would be visible over the newly planted trees until they become mature. Once the trees are mature, there would remain views of commercial buildings and parked cars beneath or between the trees. The Specific Plan recommends that parking lots be located away from West A Street. Where parking lots are proposed near this street, they should have a generous landscaped buffer (Specific Plan, page A-14).

East of the shopping center would be views of single-family residential units beyond the sidewalk and street-side landscaping trees until one reaches Evans Road. The row of residences along the street would likely block any views of additional residential development to the south. East of Evans Road, the view to the south would be of a community park. There are no final development plans for this proposed park; however, City staff has indicated that future park development would likely include a swimming pool complex, community center, lighted ballfields, playground facilities, tennis courts, and picnic/barbecue facilities. Ballfields would be located toward the south end of the site. As such, views across the park site would likely be of turf, landscaping trees and shrubs, the Community Center building, the aquatic complex, picnic areas, play equipment, tennis courts. The ballfields could be visible, though they might be partially or completely screened by intervening buildings, other facilities, and landscaping. East of the park would be views of single-family residential units until one reaches the east end of the Specific Plan area.

At night, travelers on West A Street would see new sources of light to the south. The lights on residential areas and the park would be similar to night views of residential areas on the north side of the street. However, it is likely that the shopping center and Highway Commercial development at the west end of the street would be bright and quite visible. The lighting on the ballfields on the community park site would be visible during those portions of the year when night games are played.

As was discussed previously in the Noise Section (Section 3.6), traffic generated by the project and other development in Dixon would create significant noise impacts. This EIR recommends re-paving affected streets with "quiet" pavement to reduce the noise impacts to a less than significant level (i.e., less than a 3 decibel increase). However, it is possible that re-paving the streets would not reduce future noise to less than a 3 decibel increase or that such re-paving may be deemed otherwise infeasible. In that case, new sound barriers may be constructed along portions of West A Street and existing soundwalls would need to be increased in elevation. These soundwalls would have a potentially significant impact on residents adjacent to those walls. Travelers on West A Street would also see these new walls. The impact to travelers is not considered significant given the fact that there are existing soundwalls along a portion of this street plus required landscaping between the street and the soundwalls.

Given Specific Plan policies and programs that include street-side landscaping and residential design guidelines, the impacts of the residential development on views along this street are considered less than significant. Future views would be similar to views of new residential areas on the north side of the street. Views of the proposed park would provide views of relatively undeveloped open space. These will not be significant impacts.

The views of parking lots, commercial buildings, commercial lighting, and the tower sign near the west end of the street would have a potentially significant visual impact.

## **Mitigation Measures**

In addition to the Design Review and other design requirements already included in the Specific Plan and the Dixon Zoning Ordinance, the following mitigation measures shall be added as Implementation Programs under Goal 2.2 of the Specific Plan.

1. Prior to Specific Plan approval, the City should determine whether the tall tower sign is allowable per the Zoning Ordinance. If the sign is not permitted, then reference to said sign should be deleted from the Specific Plan. If this sign is allowed, an implementation program shall be added to the Specific Plan stating that the sign shall be designed by a qualified architect or sign designer. The design and the information to be placed on the sign shall be subject to Design Review.
2. Commercial signs along West A Street shall be kept to a minimum in number and size. No temporary signs shall be allowed (e.g., banners announcing special sales events). Lighting of signs shall be reviewed by the City to ensure that lights are not excessively bright in color or otherwise aesthetically displeasing.
3. A lighting plan and the other lighting mitigations recommended under Mitigation Measure No. 6 for Impact 3.7-A shall be required.
4. The landscaping along the south edge of West A Street will include shrubs and small trees planted between the larger trees proposed in the Specific Plan. The aim of this landscaping will be to provide a vegetative screen towards the commercial center and highway commercial uses. The landscaping buffer along the frontage of the commercial development shall be of sufficient width to allow screening of parked cars; this width may exceed the minimum widths set forth in Section 12.26.07 of the Dixon Zoning Ordinance. While the screening will not be total due to intervening streets and driveways, the resulting screening will soften the appearance of the new commercial development and parking lots. This additional landscaping will be included as a component in a landscaping plan which will be required for all new non-residential development fronting West A Street. The landscaping could also include low-growing flowering plants. All landscaping will be subject to a landscape maintenance plan.
5. An overall design plan shall be prepared by the developer for the General Commercial development on the Evans Ranch property. Subsequent applications to develop other General Commercial, Highway Commercial, and Employment Center development will be required to be consistent with the design motif of the commercial development on the Evans Ranch site unless the City determines that an alternative design motif is aesthetically pleasing and acceptable.
6. Alternate methods to reduce noise as recommended in the mitigation measures for Impact 3.6-C should be implemented. Soundwalls should be installed only if absolutely necessary to reduce noise impacts.
7. Prior to development of the Community Park, a lighting plan shall be prepared consistent with Implementation Program 7.6e of the Draft Specific Plan. As far as feasible, ballfield lighting shall be directed and/or shielded so as to not create glare at existing residences on the north side of West A Street and the east side of Pitt School Road south of West A Street. Developers of all residences adjacent to the community park that are to be constructed prior to full park development shall

notify in writing potential buyers that a park complete with lighted ballfields will be constructed on the park site.

### ***Impact Significance After Mitigation***

The Design Review requirements of the City plus the design guidelines included in the Specific Plan would reduce potential visual impacts. The mitigation measures recommended above would enhance the future visual variety and interest along West A Street. While it would not be possible to eliminate the views of new commercial development, the recommended mitigation measures would reduce the visual impact of such development. Views of lighted ballfields on the community park site will likely be visible from the upper stories of some residences on the north side of West A Street and the east side of Pitt School Road south of West A Street. However, by directing and shielding the light to minimize off-site glare, plus the distance of this field lighting from those homes, the mitigations should reduce this lighting impact to a less than significant level.

While these mitigation measures would reduce the visual impact, they would not eliminate the fact that Specific Plan area development would result in the loss of open space views. This loss of open space views was deemed a significant impact in the environmental assessment conducted for the Dixon General Plan and found to be a significant impact in the 1995 EIR prepared for the Specific Plan area. Consistent with these earlier findings, this current EIR finds that the loss of open space visual resources to be a significant impact.

If soundwalls are required, the construction of new soundwalls and expansion of existing soundwalls would be considered a significant impact.

### **Impact 3.7-C      Future development of the Specific Plan area would affect views from other vantage points adjacent to or on the Specific Plan area.**

Future Specific Plan area development would be visible from a number of other vantage points in addition to Interstate 80 and West A Street, as summarized below.

#### **From Pitt School Road**

Traveling south, one would see new residential development, with a sidewalk and street-side trees in the foreground, as one approaches West A Street. As one enters and travels through the Specific Plan area, one would see new residential development to the west and then to the west and east past Hillview Drive. Pitt School Road is classified as an Arterial in the Specific Plan. As such, it would include a landscaped median strip plus a bike lane, sidewalk, and landscaping trees on each side of the street. Near the south end of the Specific Plan area, there would be a view of a neighborhood park and a fire station on the east side of the street (located just north of I Street).

Future views along this street would be similar to existing views of the residential neighborhood on the east side of Pitt School Road south of West A Street, though the new development would have the added benefit of landscaping trees along the street edge.



As one approaches the area from the south, one would see the new residential development and the South Parkway along the south edge of the Specific Plan area. South Parkway would also have street trees planted along it.

New lighting will be visible to the west. The ballfield lights on the community park site could be visible depending on their final location and height and the residences constructed along the west side of Pitt School Road.

The developed edge of Dixon would move about 2,000 feet south along this corridor. While there would be a loss of open space views, the new residential development proposed by the Specific Plan would be consistent with adjacent residential development.

The new arterial connecting Pitt School Road with South First Street (i.e., the arterial outside the plan area) would be visible from 4-6 homes in the area through which this road would pass. Depending on the final route of this future arterial, it could reduce open space views from those homes. However, it is unlikely this impact would be significant given the small number of homes affected and the presence of almond and other trees around those homes. However, this impact would need to be further assessed in the subsequent CEQA design-level study required for this new road.

As discussed in Impact 3.6-M, noise impacts from plan area development and other new development in Dixon could require the construction of sound barriers along Pitt School Road between West H Street and South Parkway. It is possible these soundwalls would not be required if the street is re-paved with "quiet" asphalt. It is also likely that soundwalls would not be constructed in some locations as they would not be functional given the need to provide driveway and street access. If soundwalls were constructed, the impact to views would be a potentially significant impact.

#### **From S. Lincoln Street**

Traveling south on S. Lincoln Street, one would see new residential development adjacent to an existing residential neighborhood. The Specific Plan designates S. Lincoln Street as a Minor Collector which means it would include a sidewalk and landscaping trees along each side of the street.

Traveling north, one would have views of almond orchards, open space, and rural homesteads. As one approaches the Specific Plan area, one would see the new residential development and the new South Parkway (to the west of S. Lincoln Street) along the south edge of the Specific Plan area. South Parkway would have street trees planted along it.

The developed edge of Dixon would move about 1,200 feet south along this street corridor. While there would be a loss of open space views, the new residential development proposed by the Specific Plan would be consistent with adjacent residential development.

#### **From Porter Street**

Traveling north on Porter Street, one would be able to see a corner of the new residential development on the Sanders property. The new arterial connecting Pitt School Road and South First Street, as well as the railroad crossing, will be visible where that new road crosses Porter Road. This change in views is not considered significant. Future traffic

on Porter Street might require construction of soundwalls along portions of that street. If such walls were required, this would be a potentially significant impact.

### **From Adjacent Residences**

People currently living on the north side of West A Street and on lots facing the Specific Plan area east of Pitt School Road would be able to see new residential development. From some second-story vantage points, it may be possible to see the new commercial development at the west end of the Specific Plan area. The previous EIR prepared for the Specific Plan area identified the loss of open space views from existing residences as a significant impact, citing the Environmental Assessment for the *Dixon General Plan* which similarly noted that this would be a significant impact of designating the Specific Plan area for future urban development. Because the current Specific Plan would have the same impact, the impact is considered a potentially significant impact.

### **From Rural Homesteads to the South**

It would be possible to see new development from a small number of existing residences in unincorporated areas to the south of the Specific Plan area. Current views from those locations are of open space and rural homesteads with the developed edge of the City in the background. New development would move this developed edge of the City to the south. Similar to the impact on existing residences within the City, this is considered a potentially significant impact.

Residents of 4-6 homes south of the plan area and between Pitt School Road and the railroad tracks may have views of the new arterial that would connect Pitt School Road and South First Street. If that new arterial was constructed near any of those residences, it would adversely affect views from that residence.

### **From New Streets and Residences Within the Specific Plan Area**

Future residents living within most of the single-family residential units would have views of other single-family residences. Some residences would have views of the two parks proposed for the area. Streets within residential areas would include sidewalks but no developer-constructed landscaping (i.e., any trees or other landscaping along streets would be the responsibility of future landowners).

Residents of future single-family residences on portions of the Evans Ranch project would have views of apartment complexes, General Commercial buildings, or Employment Center buildings. Parking lots would adjoin six single-family residences as well as multi-family residences. The Specific Plan calls for landscaping within and around parking lots that abut property lines. Lighting would be shielded to prevent glare.

The multi-family units would be designed to use building articulation and massing to avoid bulky, barracks-like structures. Streets within multi-family areas would be provided with street trees.

Given required Design Review and other Specific Plan design guidelines, views of other residential areas would not have a significant visual impact on new residents. However, the Specific Plan does not include specific guidelines to shield views of new commercial and light industrial buildings from residential areas. It is possible that residences fronting

General Commercial and Employment Center buildings would see large bulky structures, signs, parking lots, and/or extensive night lighting. This is a potentially significant impact.

Residences fronting the community park site would have views of recreational facilities, including a Community Center, aquatic complex, lighted ballfields, tennis courts, playgrounds, and picnic areas. These views are not expected to be adverse except for possible night lighting of the ballfields (this impact was addressed in Mitigation Measure No. 7 for Impact 3.7-B).

Residents living near the proposed Southwest Water Facility would see a large metal water tank. The Specific Plan does not include the proposed dimensions of this tank, but it is estimated that a tank 15-feet high would need to be about 106-feet wide to hold 1,000,000 gallons. This tank and the associated well site and pump station would also be potentially visible to drivers on those portions of Evans Road and the South Parkway as it passes the well/tank site. This is a potentially significant impact.

### **Summary**

New development would replace views of open space with views of new residential development and, from a few vantage points, of new commercial development. This loss of open space views is considered a potentially significant impact. The impact of new General Commercial and Employment Center buildings on future residents living within the Specific Plan area is a potentially significant impact. The impact of the new water tank would have a potentially significant impact on views from nearby residences. The construction of soundwalls, if required, would be a potentially significant impact.

### **Mitigation Measures**

In addition to the Design Review and other design requirements already included in the Specific Plan, the following mitigation measures shall be added as Implementation Programs under Goal 2.2 of the Specific Plan.

1. A landscaping plan shall be required for all new General Commercial and Employment Center projects. The landscaping plan will include tree screening and other landscaping similar to that described for Mitigation Measure No. 1 for Impact 3.7-A between all non-residential buildings and adjacent residential areas.
2. Signs facing residential areas shall be prohibited.
3. Lighting facing residential areas shall be kept to a minimum and shielded so no glare extends to residential areas.
4. Alternate methods to reduce noise as recommended in the mitigation measures for Impact 3.6-B should be implemented. Soundwalls should be installed only if absolutely necessary to reduce noise impacts.
5. The Southwest Water Facility should be relocated immediately east or west of Batavia Road. If this facility is not relocated as recommended, then a design and landscaping plan shall be prepared and approved by the City. This plan shall include extensive landscaping to ensure that the tank and attendant facilities are screened to the extent possible from adjacent public streets and residences.

6. When constructing the new arterial connecting Pitt School Road and South First Street, provide landscaping, berms, or fencing to screen views of the new road from residences within 150 feet of that new road. The future CEQA study that will be conducted for this future project may require additional landscaping or design mitigation measures.

#### ***Impact Significance After Mitigation***

By requiring landscaping and limiting lighting and signs facing residential areas, future residents of those areas would not be subjected to views of parking lots or large, unscreened buildings in the foreground view. Relocation of the Southwest Water Facility or requiring screening of this facility would reduce its impact to a less than significant level. Mitigation No. 6 would reduce the visual impacts of the new off-site arterial. These mitigation measures would reduce all visual impacts to a level that is less than significant except for the general loss of open space views from surrounding streets and existing residences. Consistent with the earlier findings when the City adopted its General Plan and certified the 1995 EIR for the Specific Plan area, this loss of open space views is a significant impact.

If soundwalls are required, the construction of new soundwalls and expansion of existing soundwalls would be considered a significant impact. The City must weigh the visual impacts of these soundwalls against the reduction in noise impacts that would be realized by these walls.

#### **Impact 3.7-D            Future development of the Specific Plan area could be inconsistent with City General Plan policies and other City regulations.**

The Specific Plan calls for urban development of nearly 500 acres of agricultural land. Existing open space views would be transformed into views of residential and non-residential development. The Specific Plan is potentially inconsistent with Policies 18, 21, and 22 of the Urban Development and Community Design Element. However, the mitigation measures recommended for other potentially significant impacts in this section would ensure that Specific Plan development is consistent with the General Plan. The impact is less than significant given other mitigation measures recommended for aesthetic impacts.

### **3.    Project-Specific Impacts**

#### **Impact 3.7-E            Future development of the Evans Ranch project would alter views from public and private vantage points.**

The proposed Evans Ranch project would affect views from Interstate 80 and West A Street as described above for Impacts 3.7-A and 3.7-B and for future residents of the Specific Plan area as described under Impact 3.7-C. The project would have potentially significant impacts on those views.

### ***Mitigation Measures***

1. The mitigations required for Impacts 3.7-A, 3.7-B, and 3.7-C will apply to this project. For the recommended mitigation measures for Impact 3.7-B, the improvements to West A Street shall be completed prior to approval of project occupancy.
2. The landscaping plan must include sufficient landscaping between residential units and parking lots so that parked cars will not be visible from residential units.

### ***Impact Significance After Mitigation***

The recommended mitigation measures along with design guidelines included in the Specific Plan would reduce all visual impacts. Consistent with the earlier findings when the City adopted its General Plan and certified the 1995 EIR for the Specific Plan area, this loss of open space views is a significant impact. Construction or expansion of soundwalls would be a significant impact.

### **Impact 3.7-F            Future development of the Dixon Ridge project would alter views from public and private vantage points.**

The proposed Dixon Ridge project would affect views along West A Street as discussed under Impact 3.7-B. This is a potentially significant impact.

### ***Mitigation Measures***

The mitigations required for Impact 3.7-A and Mitigation Nos. 4 and 6 for Impact 3.7-B shall apply to this project. For the recommended mitigation measures for Impact 3.7-B, the improvements to West A Street shall be completed prior to approval of project occupancy.

### ***Impact Significance After Mitigation***

The recommended mitigation measures along with design guidelines included in the Specific Plan would reduce all visual impacts. Consistent with the earlier findings when the City adopted its General Plan and certified the 1995 EIR for the Specific Plan area, this loss of open space views is a significant impact. Construction or expansion of soundwalls would be a significant impact.

### **Impact 3.7-G            Future development of the Clark Ranch Estates, Orchard Estates-Sanders Property, and Orchard Estates-Garcia property projects would alter views from public and private vantage points.**

The construction of these three residential projects would have less than significant visual impacts given Design Review guidelines included in the Specific Plan and existing City design requirements except for the general loss of open space views from surrounding streets and residences. Consistent with the earlier findings when the City adopted its General Plan and certified the 1995 EIR for the Specific Plan area, this loss of

open space views is a significant impact. No additional mitigation is required for these three projects, other than the required landscaping recommended in Mitigation Measures No. 1 and No. 2 for Impact 3.7-A would apply. Construction or expansion of soundwalls would be a significant impact.

#### 4. Cumulative Impacts

**Impact 3.7-H Future development of the General Commercial development on the Evans Ranch and adjacent Highway Commercial development would combine with development on the Gateway Center and the Pheasant Run site to impact views along West A Street.**

The only other projects being assessed for cumulative impacts that are within the viewshed that includes the Specific Plan area are (1) the Pheasant Run development, which has already been approved and is under construction, and (2) additional development on the Gateway Center site north of West A Street, which is also already occurring. The construction of these developments would result in views of new highway commercial development along Interstate 80 and West A Street immediately to the east of Interstate 80. A review of the development that has been constructed shows that the views are typical of freeway interchange development, with views of gasoline stations and fast food restaurants along the north side of West A Street and a new motel and other highway commercial development to the north.

With development of the Specific Plan area, this commercial development would be extended to the south of West A Street to a point about midway between Gateway Drive and Evans Road. Drivers traveling along Interstate 80 would see highway commercial and industrial development lining this entire eastern section of the freeway.

Because the Pheasant Run and Gateway Center projects have already been approved, no changes can be made to their layout or design. The construction of these two projects plus future development of the Specific Plan area would have a potentially significant impact.

#### ***Mitigation Measures***

No additional mitigation measures are feasible.

#### ***Impact Significance After Mitigation***

The construction of all these projects would have a significant impact as regards loss of open space views as described in previous impacts. Construction or expansion of soundwalls would be a significant impact.

## **3.8 HAZARDS AND HAZARDOUS MATERIALS**

### **A. Setting**

#### **1. Fuel Tanks**

The 1995 EIR prepared for the Specific Plan area identified two locations where fuel tanks are or were on the Specific Plan area. One of these sites is the location of the Dixon Fruit Market on Batavia Road. Three underground tanks were removed at this site in 1990. Prior to removal, soil and groundwater testing were done, and the testing showed non-detectable levels of total petroleum hydrocarbons, gasoline, benzene, toluene, xylene, and ethylbenzene. As such, the Solano County Department of Environmental Health determined the tanks were not "regulated" (letter from Clifford K. Covey to Mr. Sadeghinia, dated 5/8/90). The tanks were removed in the presence of a representative of the Dixon Fire Department.

The other site is on the Azevedo property and contains three 500-gallon aboveground fuel tanks. These tanks are still in existence, although, according to the property owner, only one is still in use. No soil or groundwater testing has been done to determine if there has been any contamination by leakage or spilling.

#### **2. Barns**

Because agricultural chemicals have been used on the Specific Plan area in the past, it is possible that such materials were stored in barns or other buildings on the Specific Plan area. It is also possible that such stored materials spilled or leaked at these storage sites.

#### **3. Use of Agricultural Chemicals**

The Specific Plan area has been commercially farmed for many decades. The farming operations have included the use of agricultural chemicals. These chemicals are still used as part of existing agricultural operations on the Specific Plan area. A number of these chemicals may persist in the soil to produce potential health risks to future construction employees and residents of the Specific Plan area. An Environmental Site Assessment (ESA) has not been conducted for the entire Specific Plan area. However, an ESA (Wallace Kuhl and Associates, Inc., 2/28/02) and Human Health Risk Assessment (Montgomery Watson Harza, 5/10/02) have been conducted for the 52-acre Azevedo property.

Laboratory testing of the samples taken for the ESA indicated detectable concentrations of DDT, DDE (a degradation compound of DDT), Toxaphene, and Delta-BHC (Hexachlorocyclohexane). The concentrations of DDT, DDE, and Toxaphene were below the U.S. EPA Preliminary Remedial Goals (PRGs) for residential site usage. No PRG has been established for Delta-BHC.

The Human Health Risk Assessment calculated a theoretical upper-bound lifetime cancer risk from these chemicals of  $4 \times 10^{-6}$ . This level is less than the State's Proposition 65 "no

significant risk level" (NSRL) of  $1 \times 10^{-5}$ . Thus, the levels of contamination found would be considered protective of human health by the U.S. EPA. The ESA and Human Health Risk Assessment reports were reviewed by the Solano County Department of Environmental Management (letter from Misty C. Kaltreider to Chris Peterson, dated 6/3/02) and the City of Dixon (letter from Stephen Streeter to Dick Jimerson, dated 6/17/02). These reviews confirmed the conclusions of the two reports, and it was concluded that no remedial action would be required on this site prior to construction and residential use.

However, because Toxaphene is a manufactured insecticide containing over 670 chemicals, very resistant to natural breakdown (it can remain in the soil over 14 years), and a known carcinogen, the Solano County Department of Environmental Management determined that the notification requirements under Proposition 65 will be required for development and use of the site. The Department requested that precautions be taken and engineering controls be instituted during construction and occupation of the site to minimize dust and reduce potential human exposure. The City concurred with these recommendations.

#### **4. Pertinent City of Dixon Policies**

The Natural Environment Element of the City of Dixon General Plan contains the following policy relevant to potential hazards and hazardous materials in the Specific Plan area:

**Policy 23**      *The City shall use zoning and other land use regulations to control, and in some instances prohibit, development in hazardous areas. The extent of development limitation will be commensurate both with the degree of hazard involved and with the public costs which would be incurred if emergency or remedial public actions became necessary.*

The General Plan does not contain policies that specifically reference hazardous materials. The Dixon Zoning Ordinance (Section 12.24.13) includes standards for the use of hazardous materials. These standards allow the City to require an analysis of the safety and risk involved with the use of such materials. Building permits may not be issued for projects that place the public at risk.

## **B. Potential Impacts and Mitigations**

### **1. Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a.      Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Assessed under Impacts 3.8-A, F, and G.*)
- b.      Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (*Assessed under Impacts 3.8-A, F, and G.*)



- c. Emits hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- d. Is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. *(Assessed under Impacts 3.8-B and E)*
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, the project would result in a safety hazard for people residing or working in the project area. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- f. For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- g. Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- h. Exposes people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*

## 2. Impacts – Proposed Southwest Dixon Specific Plan

### **Impact 3.8-A Future commercial and light industrial businesses could use hazardous materials which could escape into the environment.**

The Specific Plan allows development of light industrial and commercial businesses on the west side of the Specific Plan area (west of Batavia Road and Gateway Drive, and one area east of Gateway Drive immediately south of West A Street). The types of businesses that may eventually be constructed are unknown at this time. As such, it is possible that some of these businesses could transport, store, and use materials that are hazardous to human health. Unless such materials are properly transported, stored, and used, there is the possibility of these materials spilling or otherwise escaping into the environment. Because these commercial and light industrial businesses would be located adjacent to residential uses, there is the possibility that humans could be exposed to escaped hazardous materials and become ill or die. This is a potentially significant impact.

Although the Dixon Zoning Ordinance contains the previously cited requirements that businesses using hazardous materials will be assessed and reviewed for their safety,

the City does not have an adopted ordinance that addresses the use, handling, storage, or transport of hazardous materials. The City sends proposals that may include use of such hazardous materials to the Solano County Department of Environmental Management for its review under the County's Hazardous Materials Ordinance.

The use, storage, and handling of hazardous materials in Solano County is overseen by the Solano County Department of Environmental Health. This Department is a CUPA (Certified Unified Program Agency) that oversees hazardous materials for the County and its cities. The Department requires that projects transporting, storing, handling, and/or using hazardous materials submit a Hazardous Materials Business Plan (HMBP) to the Department for review and approval. The Department provides the HMBP to the Dixon Fire Department which is the initial hazardous materials responder. If additional response is required, it can be provided by on-call firms and individuals available through the Department or other responders through mutual aid agreements (Geisert, personal communication, 6/18/02).

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan requires the following for new development in the area designated for Commercial Uses or the Employment Center:

**Policy 5.1.3** *Land Use Compatibility - Protect nearby residential uses from possible adverse effects through the design review process.*

**IP 5.1c** *Agribusiness – Review all proposed agribusiness uses for compatibility with surrounding commercial and residential uses.*

**Policy 5.2.3** *Land Use Compatibility - Ensure that there is compatibility between industrial and adjacent uses.*

**Policy 5.2.4** *Performance Standards - Require industrial development to meet performance standards for noise, odor, light, glare, traffic generation, air emissions, soil contamination, and surface and groundwater contamination in order to minimize impacts on the environment and on adjacent uses. Require the screening and control of unsightly or excessively noisy operations.*

**Policy 5.2.5** *Prohibited Uses - Do not allow uses which create noxious or nuisance conditions to locate within the Plan Area.*

**Policy 5.2.8** *Hazardous Materials - Strictly regulate production, storage and transport of hazardous materials*

Per Implementation Program 5.2a, prior to new development within the Employment Center area Design Guidelines and Standards would be prepared which would include appropriate restrictions on hazardous materials.

The Specific Plan recognizes the need to safely handle hazardous materials within the light industrial area. However, the Specific Plan does not address the potential use and storage of hazardous materials within the areas designated for commercial development, and these uses may include service stations, agribusiness, and other retail outlets that store, sell, and/or use hazardous materials. The impact remains potentially significant.

## **Mitigation Measures**

1. The following section shall be added to Implementation Program 5.2a:

### *Hazardous Materials*

*Each project proposal shall provide the Solano County Department of Environmental Health with a complete list of all chemicals and other potentially hazardous materials that will be used, stored, or sold on the project site.*

*If the Solano County Department of Environmental Health determines that the materials used, stored, or sold could pose a potential safety hazard, the applicant shall provide a Hazardous Materials Business Plan with the Solano County Department of Environmental Health, and the applicant shall implement the adopted plan. Such a plan will identify the plans, as applicable, for storage and use of all hazardous materials, describe the safety procedures to be employed by workers, and detail the proposed notification and emergency response actions in the event of an accidental release of chemicals from the facility. The plan shall contain similar information pertaining to the storage and use of gasoline, diesel fuel, or other fuels. Material storage areas shall include appropriate containment for hazardous materials used in the operation of each project.*

*Each project will comply with all pertinent State and Federal laws regarding hazardous materials transport, handling, and storage and worker safety. Each project shall prepare any additional information requested by the Solano County Department of Environmental Health and shall comply with any additional requirements established by the City and/or the Solano County Department of Environmental Health.*

2. The addition described above shall also be added as Implementation Program 5.1d to ensure that the same protections are provided for commercial business that may use hazardous materials.

### **Impact Significance After Mitigation**

Requiring new businesses to comply with all pertinent State, Federal, and County laws and requirements for transport, handling, storage, and use of hazardous materials would reduce the potential health hazard to humans to a level that is typically accepted for new industrial or commercial development. The impact would be reduced to a level that is less than significant, and the Specific Plan would be consistent with policies of the City General Plan.

### **Impact 3.8-B      The Specific Plan area contains areas of contamination that could pose a safety hazard for workers and residents.**

It is possible that fuel has spilled or leaked from the three fuel storage tanks on the Azevedo property. It is also possible that agricultural chemicals have spilled or leaked from storage sites on other Specific Plan area properties. If such leakage or spillage has

occurred, it could have contaminated the soil or groundwater. Future exposure of construction workers or residents to these contaminants could pose a health risk. Similarly, spillage or leakage could have affected water quality or the soil resources. These are potentially significant impacts.

The plan area has also been used for commercial agricultural production for many years. The use of pesticides, herbicides, and other agricultural chemicals leaves residues in the soil. If these residues are present in large enough quantities, they can pose a health risk to workers grading and preparing the site as well as future residents and workers.

As discussed in the Setting section, the Human Health Risk Assessment done for the Azevedo property was reviewed by the Solano County Department of Environmental Management. The Department recommended that engineering controls be developed and used during construction on that site and that Proposition 65 warnings be presented to workers and future residents about the presence of chemical residues in the site.

Similar Risk Assessments have not been conducted for other properties within the Specific Plan area. In addition, there is a potential for chemical contamination at old barns and storage areas on the Specific Plan area. The potential soil and groundwater contamination is considered a potentially significant impact.

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan does not address potential health hazards from past and current land uses.

### ***Mitigation Measures***

Add the following mitigation measures as a new policy and/or implementation programs to the Specific Plan.

1. A Phase I Environmental Site Assessment of the Specific Plan area or for each project shall be prepared pursuant to the requirements set forth in ASTM E 1527-97. If this Site Assessment determines there are potential soil or groundwater contamination, the areas of contamination shall be evaluated to determine the level of remediation needed to satisfy the requirements of the Solano County Department of Environmental Management and the recommendations shall be implemented.
2. Risk Assessments of each project site shall be conducted to determine the health risk from workers and residents being exposed to chemical residues in the soil. Even if those Risk Assessments determine that chemical residue levels are not a significant health risk and are below Proposition 65 no significant risk levels, the City may require that engineering controls, as recommended by the Solano County Department of Environmental Management, and warnings to workers and future residents be implemented.

### ***Impact Significance After Mitigation***

Requiring that each property be assessed for hazardous material contamination and remediation of contaminated areas would reduce the impact of exposure to hazardous materials to a less than significant level, and the Specific Plan would be consistent with

policies of the City General Plan. However, to be cautious, the City may wish to further require engineering controls and warnings as recommended by the Solano County Department of Environmental Management.

**Impact 3.8-C      The use of agricultural chemicals by neighboring agricultural operators could pose a health risk for residents and workers in the Specific Plan area.**

Neighboring agricultural operations to the south of the plan area and continuing agricultural operations within the plan area would likely continue to use pesticides, herbicides, and other agricultural chemicals to produce their crops. Data provided by Dustin Robinson, an agricultural operator on the plan area, indicate that the following chemicals are commonly used for crops grown on the plan area (data provided by Dan Nicolaus in Fax dated 8/8/02); the Category rating of the material is shown in the parentheses following the name:

- Corn - 24-D (Category 1), Dicamba (Category 2), Lanate (Category 1), Sevin (Category 3), and Roundup (Category 2 or 3);
- Alfalfa - Paraquat (Category 1), 24-D (Category 1), and Lanate (Category 1);
- Almonds - Omite (Category 1), and Vendex (Category 1);
- Tomatoes - Shadeout (Category 3), Dimethoate (Category 1 or 2), Lanate (Category 1), Warrior (Category 2), and sulfur (Category 3);
- Wheat - 24-D and Dicamba (Category 2);
- Beans - Sevin (Category 3);
- Vineseed - Lanate (Category 1), Sevin (Category 3), and Capture (Category 2).

Legally, agricultural operators cannot allow spray residue to drift beyond their property boundaries. If agricultural operators need to use chemicals to control pests or disease, Permit Condition G of the Solano County Department of Agriculture requires that only Category Three or Four chemicals be used in proximity to residential areas, shopping centers, recreation areas, schools, hospitals, and other unprotected areas. Category Three and Four materials have a very low toxicity levels. Where Category Three or Four materials will not control target pests or diseases, higher toxicity materials (Category One or Two) can be used. However, Permit Condition G requires a minimum distance of 100 feet from the operating spray nozzle and the nearest non-target area for air blast orchard sprayers, high boom ground rigs in open field use, ground rigs applying liquid or dust formulations of pesticides no more than 12 inches above the soil, and ground rigs applying liquid or gas below the soil. Aerial spray applications must maintain a 500 feet minimum distance between the spray nozzle and non-target areas. Aerial spraying would also be prohibited during adverse wind conditions and would be restricted to one direction. Ground rigs applying dry pesticide pellets no more than 12 inches above the soil or below the soil may operate within 5 feet of non-target areas.

The spray restrictions included in Permit Condition G are intended to reduce the potential for chemicals to drift off agricultural areas onto adjacent residential areas and other areas where the public is present. However, these restrictions do not mean that spray drift would not occur. For example, if the chemicals are applied when there are winds, the drift could be much farther than 100 feet for ground applications or 500 feet for aerial applications. If sprayed chemicals did periodically drift onto residences or other places

where people were present, this could pose a health risk. The potential spray drift of agricultural chemicals poses a potentially significant impact on human health.

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan includes the following implementation programs to address this impact.:

**IP 3.1a**      **Urban/Agricultural Interface** — *Proposed developments next to agricultural operations can face issues such as noise, odors and dust. For projects bordering agricultural use, the following as conditions should be implemented with project approval, as appropriate:*

- Buffers – Adequate Buffers shall be used as necessary between urban and agricultural uses to minimize potential conflicts with agricultural operations. Project applicants shall demonstrate to the City locations and proposed implementation mechanisms for on- and off-site buffers.

**IP 3.1b**      **Ground Application Spray Buffer** - *Proposed developments next to farming operations which use Category I or II restricted materials shall include provisions to provide an interim or permanent agricultural buffer with restricted public access and adequate posting. This buffer shall separate ground application spray areas on adjacent agricultural land from housing and public use areas on the proposed development's site. Options include:*

- (1)      *Buffer on Proposed Development Site. A 100-foot wide ground spray buffer, or equivalent zone approved by the City, shall be designated on the proposed development's property adjacent to agricultural areas. No general public access or residential use would be planned within this buffer; or*
- (2)      *Buffer on Adjacent Agricultural Land. A 100-foot wide ground spray restriction easement, or equivalent width approved by the City, shall be secured on agricultural land adjacent to proposed housing or public use areas. The applicant shall be responsible for negotiating this agreement and providing the completed easement agreement to the City for review and approval; or*
- (3)      *Combined or Equivalent Ground Spray Buffer. A combination ground spray buffer on the proposed development's site and restriction easement on the adjacent agricultural land shall be secured, with documents submitted to the City for review and approval. The City may determine that the aerial application spray restriction easement (see Implementation Program 3.1d) satisfies this requirement.*

**IP 3.1c**      **Aerial Application Spray Restriction Easement** - *One of the following options shall be selected to minimize agricultural/urban use conflicts.*

- (1 )      *Easement on Adjacent Agricultural Land* - *The applicant shall acquire an aerial application spray restriction easement with a width of 500 feet. This easement shall be secured for adjacent off-site agricultural lands before Final Map approval.*

- (2) Equivalent Controls - *The City shall determine that satisfactory long-term aerial spraying controls are placed on adjacent agricultural land, that these controls will not substantially affect the economic viability of agricultural uses in affected areas, and that an easement is not necessary. (Reference is made to the current Solano County Department of Agriculture Permit Condition "G" restricting use of toxic materials in proximity of residential tracts, shopping centers, schools, hospitals, recreation areas, and sensitive areas.)*

The Specific Plan recognizes the potential risk posed by agricultural spraying and requires some combination of buffers or easements to ensure there is adequate distance between spraying operations and locations where people would work and live. The Solano County Department of Environmental Management and the Solano County Department of Agriculture were contacted to determine whether the Specific Plan-recommended buffers and easements were sufficient to protect human health. Staff of the Department of Agriculture stated that the Department did not require buffers, and instead required compliance with the spray restrictions included in Permit Condition G. The Department noted that spray applicators are generally sensitive to the presence of residences or businesses in the target spray area, and they adjust their spraying protocol to avoid drift to those areas. The Department of Agriculture reviews spraying, and would likely place some limits on spraying near residential units (Seslowe, personal communication, 6/11/02).

Staff of the Department of Environmental Management stated that they do not oversee spraying or establish limits to spraying regimes and buffers. Spraying of chemicals is under the purview of the Agriculture Department. If the project were within the County's jurisdiction, then the County Planning Department would have responsibility for assessing the need for buffers or other mitigations (Geisert, personal communication, 6/18/02). Because the project is within the jurisdiction of the City of Dixon, Dixon policies regarding buffers would apply. The City has no adopted policies regarding spray buffers.

Technically, there should be no impact since the law requires that agricultural operators restrict their chemicals to their properties. The recommended buffers included in the Specific Plan would not effectively increase the spray restriction buffers already included in Permit Condition G. The Specific Plan includes the option of installing the buffers on the Specific Plan area. The other option is that the buffer would be placed on adjacent agricultural lands. However, a 100-foot ground spray or 500-foot aerial spray easement on adjacent properties is already required by Permit Condition G.

Buffers proposed for the plan area include an approximately 350-foot wide buffer that includes detention basins and a road. This buffer extends from west of Batavia Road onto the Clark property. Further to the east, the buffer consists of the approximately 75-foot right of way from South Parkway. This proposed road extends east to South Lincoln Street. East of South Lincoln Street, there is no proposed buffer.

The proposed buffers included in the Specific Plan are consistent with the mitigation measures recommended for this impact in the original EIR prepared for the Specific Plan area. The buffers proposed in that original EIR were not challenged as being insufficient in comments received on that Draft EIR. However, the Final EIR does discuss how the buffers are minimal and how the Solano County Agricultural Commissioner (Susan Cohen, who is still the Commissioner) recommended a spray buffer of 200 feet to 500 feet

depending on the type of crop raised, the type of pesticide application, and wind conditions (WPM Planning Team, 1995, p. 80).

Other jurisdictions frequently require buffers of 200-500 feet between agricultural uses and urban uses. For example, the EIR prepared for the large Cowell Ranch Project in Contra Costa County recommended a 300-foot buffer between agricultural uses and urban use (Wagstaff & Associates, 1996, page IV.b-23; EIR prepared for Contra Costa County). Conversations with Dave Bengsten, Mendocino County Agricultural Commissioner, indicate that he requests different width buffers depending on the type of crop and local weather conditions. For residential development near vineyards, he typically recommends at least a 200-foot wide buffer. Because vineyards are generally sprayed only with sulfur, the buffer need not be as wide as for pear orchards where organophosphates are used. In those case, he recommends wider buffers (Bengsten, personal communication, 7/26/02). Consistent with these recommendations, the Draft *Ukiah Valley Area Plan* prepared by Mendocino County requires a 200-foot setback for residential and other sensitive uses from agricultural properties (County of Mendocino, *Ukiah Valley Area Plan*, 2002, page 3-23).

The 100-foot ground spray buffer and, possibly, the 500-foot aerial spray buffer may be insufficient to preclude periodic exposure of Specific Plan area residents and workers to pesticides and other agricultural chemicals. Despite the fact that the Specific Plan is consistent with the recommended mitigation measures for this impact included in the earlier Final EIR prepared for the Specific Plan area, this current EIR concludes that there would be a potential risk of exposure to agricultural chemicals and that existing County and other agency spray restrictions and Specific Plan-recommended buffers would not eliminate that potential risk. The impact is a potentially significant impact.

### **Mitigation Measures**

Revise Implementation Program 3.1b of the Specific Plan to incorporate the following mitigation measures:

1. A ground spray application buffer of at least 200 feet will be provided between the point of spray application and the nearest residential property or park on the plan area. This buffer is required only if the adjacent agricultural operation uses Category One or Two materials. This buffer can be on the Specific Plan area and/or on adjacent agricultural properties. The following options are possible:
  - a. The buffer can be located entirely on the Specific Plan area.
  - b. The buffer can be entirely on the adjacent agricultural property. Developers of Specific Plan area properties will be required to provide evidence of an easement with the neighboring landowner that binds the owner that the point of spraying of Category One or Two materials will be at least 200 feet from the nearest non-target portion of the Specific Plan area. The easement must be in a form that is acceptable to the City.
  - c. The buffer can be partly on the Specific Plan area and partly on adjacent agricultural properties. Because Permit Condition G already requires a 100-foot spray restriction, the remaining 100 feet of buffer could be entirely or partly on the Specific Plan area.



2. If pedestrian paths and/or bike lanes are provided along South Parkway, then at least a 200-foot buffer will be provided between spray operations and the pedestrian path and/or bikelane or the pedestrian and bicycle facilities shall be signed to warn users of spray operations when Category One or Two materials will be sprayed within 200 feet of the path or bike facility. Signs shall be placed at each street intersecting South Parkway. Southwest Dixon Specific Plan policies shall be modified to permit sign posting on Specific Plan properties.

### ***Impact Significance After Mitigation***

Expanding the area where no spraying would occur would reduce the risk of human exposure to agricultural chemicals. However, it cannot be stated that even with these expanded buffers occasional exposure may not occur. It is not possible to calculate the potential exposure rates and periods given variations in winds, other climatic conditions, types of chemicals used, application procedures, and other factors. However, the buffers recommended above are considered sufficient to reduce this impact to a less than significant level.

**Impact 3.8-D          Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address protecting residents from hazardous materials.**

The Dixon General Plan states that new development will be avoided in hazardous areas. The extent of the avoidance or limitation on development will be commensurate with both the degree of hazard and the public costs of responding to or remediating the hazards. Impact 3.8-C identified potential health hazards involved with new development located too near adjacent agricultural operations. Given this hazard, it appears that development too near agricultural operations would be potentially inconsistent with Policy 23 of the Natural Environment Element of the Dixon General Plan. However, this potential inconsistency would be eliminated if the mitigation measure recommended for Impact 3.8-C is required.

## **3. Project-Specific Impacts**

**Impact 3.8-E          The five project sites could include areas of soil and groundwater contamination. Exposure to this contamination could pose a significant health risk.**

As described under Impact 3.8-B, the five project sites could contain contaminated soil and groundwater. The exposure of people to potential contaminants, if present, would be a potentially significant impact.

The mitigation measure required for Impact 3.8-B would apply to each future project. The project-specific impacts would be reduced to a less than significant level.

**Impact 3.8-F      The Evans Ranch project includes commercial development which could use, store, or handle hazardous materials.**

The Evans Ranch proposal includes commercial development. The mitigation required for Impact 3.8-A would apply to this project and would reduce the impact to a less than significant level.

**Impact 3.8-G      The five projects all abut agricultural properties where spray drift could adversely affect future residents and workers.**

The potentially significant impact of constructing residential development and other facilities where the public would be exposed to agricultural spray drift was discussed under Impact 3.8-C. Each of the five projects is located adjacent to agricultural operations. The mitigation measures recommended for Impact 3.8-C would apply to each project.

#### **4. Cumulative Impacts**

Hazardous material issues are mainly site-specific so the development of the Specific Plan area would not combine with other projects to make any new or increased impacts. The only potentially significant cumulative impact would be from increased transport of hazardous materials from all potential cumulative projects. However, transport of hazardous materials is regulated by existing State and Federal laws, so there would not be a significant cumulative impact even if hazardous materials were used on these different sites.

# 3.9 POPULATION AND HOUSING

## A. Setting

### 1. Citywide Population Trends

#### Existing Population

Table 24 shows US Census estimates of recent population trends in Dixon. The estimates indicate that Dixon had a population of 16,103 in 2000. The city's population grew by approximately 55 percent (5,702 people) during the 10-year period between 1990 and 2000. Dixon experienced a considerably higher rate of residential growth than other cities in Solano County during the 1990s. For example, US Census data indicate that Vacaville's population increased by 24 percent (from 71,479 to 88,625 people) between 1990 and 2000 (City of Dixon, *City of Dixon 2001-2006 Housing Element*, October 2002, Table II-1, page II-1).

#### Projected Population

Table 25 shows Association of Bay Area Governments (ABAG) projections of future population in Dixon and Solano County as a whole. As indicated in the table, ABAG projects that, for the 10-year period between 2000 and 2010, Dixon's population will increase by approximately 36 percent (5,820 people) to 22,000. The data suggest that the residential growth rate in Dixon will decrease slightly compared to the City's high growth rate during the 1990s. Dixon's projected growth rate is higher than the growth rate anticipated for Solano County as a whole (20 percent, or an increase of 80,358 people).

For the 25-year period between 2000 and 2025, Dixon's population is expected to increase by approximately 78 percent (12,620 people) to 28,800 (see Table 26). Total county population is projected to increase by approximately 45 percent (176,758 people) to 571,300 people.

### 2. Citywide Housing Trends

#### Existing Number of Households

As shown in Table 25, Dixon contained an estimated 5,073 households in 2000. The total number of households in Dixon increased by 50 percent (1,687 households) between 1990 and 2000. Since the number of households roughly equates to the number of housing units, the data indicate that Dixon experienced a housing growth rate of about 50 percent during the 1990s.

#### Projected Number of Households

As shown in Table 25, the ABAG projections indicate that the number of households in Dixon will increase by approximately 36 percent (1,848 households) during the 10-year period from 2000 to 2010. The increase over the 25-year period from 2000 to 2025 will

be approximately 80 percent (4,078 households). ABAG projects substantially lower percentage increases for Solano County as a whole: approximately 19 percent (25,077 new households) between 2000 and 2010, and 47 percent (60,927 new households) between 2000 and 2025.

The ABAG projections indicate that, as with population growth, the rate of household (housing) growth in Dixon will be slower during the 10-year period from 2000 to 2010, compared with the decade of the 1990s.

### Existing and Projected Household Size

ABAG (*Projections 2002*) estimates that the average Dixon household contained 3.16 people in 2000. The US Census indicates a similar average household size (3.17 people) (*City of Dixon 2001-2006 Housing Element, 2002, Table II-6, page II-10*). ABAG projects that the average household size in Dixon will increase slightly to 3.20 people in 2005, and then decrease slightly to 3.17 people in 2010 and 3.14 people in 2025.

**Table 24**  
**Recent Population and Household Trends in Dixon**

	1990	2000	Net Change, 1990-2000
Population	10,401	16,103	+5,702
Number of Households	3,386	5,073	+1,687

Source: City of Dixon, *City of Dixon 2001-2006 Housing Element*, October 2002, Table II-1, page II-1, and Table II-6, page II-10.

**Table 25**  
**Projected Population and Number of Households: Dixon and Solano County**

	2000	2010	2025	Net Change, 2000-2010	Net Change, 2000-2025
<b>Dixon<sup>1</sup></b>					
Population	16,180	22,000	28,800	+5,820	+12,620
Number of Households	5,102	6,950	9,180	+1,848	+4,078
<b>Solano County</b>					
Population	394,542	474,900	571,300	+80,358	+176,758
Number of Households	130,403	155,480	191,330	+25,077	+60,927

Source: Association of Bay Area Governments, *Projections 2002*, December 2001, pages 240 and 243.

<sup>1</sup> Data are for Dixon Sphere of Influence. ABAG estimates for 2000 differ slightly from US Census data.

### 3. Projected Housing Needs

#### ABAG's Housing Need Determinations

State law (Government Code Section 65584) requires that local councils of governments make housing need determinations for cities and counties in California. The purpose of the State law is to respond to population and household growth in California, and to ensure that decent affordable housing is available to all income groups. As the local council of governments for the nine-county San Francisco Bay region, ABAG periodically identifies housing needs for each city and county in the region. The housing need determinations are based on anticipated regional housing and job growth patterns.

For each city and county, ABAG identifies housing needs by income level, allowing each jurisdiction to make plans to provide its "fair share" of regional housing needs by income group. ABAG assigns housing needs to the following four income categories:

- **Very Low Income:** Households with incomes up to 50 percent of the county's area median income.
- **Low Income:** Households with incomes between 50 and 80 percent of the county's area median income.
- **Moderate Income:** Households with incomes between 80 and 120 percent of the county's area median income.
- **Above Moderate Income:** Households with incomes above 120 percent of the county's area median income.

These definitions correspond to the income categories identified by the State Department of Housing and Community Development.

#### Dixon's Housing Needs

The ABAG housing need determinations indicate that, for the period from January 1, 1999 to June 30, 2006, Dixon's fair share of regional housing need is 1,464 housing units, consisting of 1,330 units within the City limits and 134 units outside the City limits but within the City's Sphere of Influence. Housing need by income category is as follows:

- **Very Low Income:** 268 housing units.
- **Low Income:** 237 housing units.
- **Moderate Income:** 379 housing units.
- **Above Moderate Income:** 580 housing units.

The average yearly housing need is 195 housing units (Association of Bay Area Governments, *Regional Housing Needs, 1999-2006 Allocation*, March 15, 2001; available at [www.abag.ca.gov](http://www.abag.ca.gov)).

The *City of Dixon 2001-2006 Housing Element* (October 2002, page IV-3) indicates that 121 housing units have been built in Dixon since January 1, 1999. This total consists of 19 low-income units, 64 moderate-income units, and 38 above-moderate-income units. Dixon's remaining fair share of regional housing need is therefore 1,343 units, consisting of 268 very-low-income units, 218 low-income units, 315 moderate-income units, and 542 above-moderate-income units.

#### **4. Jobs/Housing Balance**

The term "jobs/housing balance" refers to the relationship between the number of available jobs and the number of resident workers in a community. Where there is a balance between the number of local jobs and the number of local resident workers, local residents may have a greater opportunity to work close to where they live. A jobs/housing balance (i.e., a jobs/housing or jobs/employed resident ratio of 1.00) tends to reduce a community's contribution to regional traffic congestion, noise, and air pollution.

A numerical balance between jobs and housing (or employed residents) does not necessarily mean that local residents will have the opportunity to work in their community, however. Other factors, such as the match between local residents' skills and the skills required for local jobs, also influence a community's actual jobs/housing balance.

##### **Existing Jobs/Housing Balance**

ABAG estimates that Dixon (including the City's Sphere of Influence) had 4,660 jobs and 5,102 households in 2000 (Association of Bay Area Governments, *Projections 2002*, December 2001, pages 243 and 245). Using households as a surrogate for housing units, these figures indicate a jobs/housing balance of 0.91 in Dixon; that is, roughly 0.91 job per housing unit. This ratio is generally comparable to that for Solano County as a whole (0.94 job per housing unit) and for neighboring Vacaville, including that City's Sphere of Influence, 0.90 job per housing unit).

Using estimates of employed residents rather than households may be a more accurate way to calculate jobs/housing balance, since most households contain more than one employed resident. ABAG estimates that Dixon (including the City's Sphere of Influence) had 6,872 employed residents in 2000. The resulting jobs/employed resident balance is 0.68, or roughly 0.68 job per employed resident. This ratio is comparable to that for the county as a whole (0.69 job per employed resident) and slightly higher than that for Vacaville (0.64 job per employed resident).

The numbers of jobs per household and employed resident in Dixon indicate that some employed Dixon residents commute to jobs in other cities.

##### **Projected Jobs/Housing Balance**

ABAG projects that the number of jobs, the number of households (housing units), and the number of employed residents in Solano County as a whole will rise by 2010. Dixon is projected to have 5,660 jobs and 6,950 households by 2010; these estimates translate to a jobs/housing balance (again, estimated based on households rather than housing units) of 0.81. By comparison, Vacaville's jobs/housing balance would be 0.89, while the ratio for Solano County as a whole would be 0.94.

Using estimates of employed residents rather than households, Dixon would have a jobs/housing balance of 0.56 in 2010. Vacaville's ratio would be 0.58, while the ratio for Solano County as a whole would be 0.63.

These ratios indicate that the jobs/housing balance in Dixon and elsewhere in the county will worsen slightly by 2010, and that more Dixon residents will commute to jobs in other cities.

## **5. Existing Specific Plan Area Conditions**

The Southwest Dixon Specific Plan area contains a total of 14 housing units, consisting of one house on the Evans Ranch site, one on the Clark property, two on the Weyand property, two on the Azevedo property, one on the Steil property, two on the Garcia property, one on the Sanders property, and two on the O'Neill property, one mobile home on the Sotuela property, and one mobile home on the Dupratt property. Based on ABAG's most recent estimate of average household size in Dixon (3.16 people per household), the 14 units could be expected to house about 44 residents.

Commercial uses in the plan area consist of a fruit stand and two restaurants in the western corner of the Specific Plan area, near I-80. These businesses provide a limited number of jobs.

## **6 Pertinent City of Dixon General Plan Provisions**

The Urban Development and Community Design Element of the Dixon General Plan contains the following policy relevant to population and housing in the Specific Plan area:

**Policy 1**        *...The provisions of Measure "B" currently define the upper limits of permissible growth, and while these have general support, voters in the future may act to refine or modify some of their aspects.*

In addition, the Residential Environment Element of the General Plan contains the following relevant policies:

**Policy 5**        *The City shall regulate new residential development so as to foster a variety of housing types, densities and costs (including low- and moderate-income units) to meet the current and future housing needs of all Dixon residents while preserving the character of the individual neighborhoods.*

**Policy 6**        *The City shall work toward the historical balanced mix of housing types and densities, in accordance with the 80 percent low density, single family/20 percent higher density, multiple family distribution defined in Measure "B" as the basis for annual limits for housing construction approvals.*

**Policy 7**        *The City shall allow the housing supply to expand at a maximum rate of three (3) percent per year, based upon the total number of units existing*

*in the city as of the last day of the preceding year, in accordance with Measure "B."*

- Policy 12**     *The City shall encourage Planned Unit Development within Dixon as a means of achieving more innovative and varied solutions to housing problems.*
- Policy 13**     *The City shall recognize the need for alternate styles and types of housing, and shall support the development of townhouses, split-lot duplexes, condominiums and apartments in suitable locations, subject to the appropriate review considerations.*
- Policy 15**     *The City shall assist in the development of adequate housing to meet the needs of low and moderate income households.*
- Policy 16**     *The City shall encourage the provision of moderately priced housing in all larger scale development, so as to avoid a concentration of such housing in any one area.*

In addition, the Economic Development Element of the General Plan contains the following relevant policy:

- Policy 4**     *The City shall actively encourage those new industrial uses which can demonstrate that they intend to provide some proportion of the jobs created for local residents to locate in the Dixon Planning Area.*

### **3. Measure B**

#### **General Provisions**

Measure B, adopted by Dixon voters in 1986, authorizes the Dixon City Council to limit annual housing unit growth in the City of Dixon to three percent or less of the total number of housing units existing on December 31 of the previous year. The purpose of the measure is to control residential development to achieve a balanced housing mix, and to ensure that services provided by the City and by other service agencies will be adequate in the foreseeable future. Measure B calls for an approximate mix of 80 percent single-family housing units (including attached duplex units) and 20 percent multi-family housing units.

The measure allows the City Council to make an exception for a larger number of units in any one year, provided that (a) the exceptions do not occur more than two years in a row, (b) the total number of units approved will not exceed the average of three percent per year over each consecutive five-year period, and (c) the exception is made only when the increase is necessary to prevent public service costs from rendering the development infeasible and to meet regional/community housing needs. The City Council may also give preference in the allocation process to projects that provide for construction of affordable housing, or that are needed to maintain the appropriate mix of single-family and multi-family units as mandated by Measure B (City of Dixon, Ordinance No. 02-003, Section 1.07(p)).

The ordinance implementing Measure B specifies that the housing unit allotments issued by the City are usable by the developer to whom they are issued only during the calendar



year in which they are issued. Allotments are considered "used" when building permits are issued. Allotments not used during that year remain available for reallocation during the next four calendar years. If they are not allocated and used after five years, the allotments are usable only for affordable housing. The ordinance specifies that 1998 is the first calendar year and 2002 is the fifth calendar year in the current five-year period (City of Dixon, Ordinance No. 02-003, Sections 1.01(g) and (cc) and 1.13).

The City Council may conditionally obligate the City to issue allotments to developers who enter into development agreements with the City, when the development agreement provides for this obligation. The development agreement may provide for issuance of allotments for up to 10 consecutive years. Allotments provided for in development agreements must be subject to the limits and exceptions provided for in Measure B (City of Dixon, Ordinance No. 02-003, Section 1.18).

### **Relationship to Regional Housing Needs**

The ordinance implementing Measure B states that "The City's fair share of the Housing Needs Determination of the San Francisco Bay Region, as adopted by the Association of Bay Area Governments ("ABAG"), for the 1999-2006 period is 1,464 units. The City should, given favorable economic conditions, be able to meet the allocated housing need assigned to it by ABAG during the 1999-2006 period notwithstanding the residential growth restrictions contained in Measure B" (City of Dixon, Ordinance No. 02-003, Section 1.01(x)).

### **Application to Southwest Dixon Area**

The implementing ordinance notes the planning process for the Southwest area, and indicates that "as part of this process, the City will strive to meet the Measure B target of twenty (20%) percent multi-family housing and that mechanisms are considered in the entitlement process that ensure the development of multi-family housing concurrently with the development of any single family housing" (City of Dixon, Ordinance No. 02-003, Section 1.01(k)).

The City's preliminary 2003 housing allocation schedule assigns 1,365 housing units to the Southwest area for the period from 2003 to 2013. The anticipated preliminary allocations by year would be as follows (Summary City Council Report, Agenda No. 10.2, October 22, 2002, "Proposed Measure B Schedule 1998-2013 Threshold Analysis"):

<u>Year</u>	<u>Number of Units</u>
2003	23
2004	177
2005	100
2006	0
2007	58
2008	220
2009	194
2010	121
2011	95
2012	73
2013	304

The City Council resolution estimating the 2003 housing allotment allocation pool notes that “existing, proposed, and potential development agreements in the Southpark (Valley Glen), Southwest, Pheasant Run No. 7, and Rivendale Project Areas have or will commit the great preponderance of Residential Development Allotments available during the year 2003” (Resolution No. 02-195, October 22, 2002).

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on population and housing conditions if it would:

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Assessed in Impact 3.9-A.*)
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. (*Assessed in Impact 3.9-B.*)
- c. Displace substantial number of people, necessitating the construction of replacement housing elsewhere. (*Assessed in Impact 3.9-B.*)
- d. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed in Impacts 3.9-C through 3.9- w.*)

### **2. Impacts – Proposed Southwest Dixon Specific Plan**

#### **Impact 3.9-A      The Specific Plan would induce a substantial increase in population in the plan area.**

As noted in the “Setting” section above, the Specific Plan area contains a total of 14 housing units, which could be expected to house about 44 residents. Housing development allowed by the Specific Plan would increase the residential population of the plan area. According to the Association of Bay Area Governments (ABAG) (Projections 2002, December 2001, page 242), the average number of persons-per-household in Dixon will gradually decrease from 3.20 in 2005 to 3.14 in 2025. Assuming an average density of 3.20 persons per housing unit, the 1,221 units allowed by the Specific Plan would house a population of approximately 3,907 people.

As discussed in the “Setting” section above, ABAG produces the official population projections for the San Francisco Bay region, including Solano County and Dixon. The projections for Dixon indicate that the City’s population will increase by 5,820 people by 2010, and by another 6,800 people by 2025. These projections are based on land use and policy data collected from the City of Dixon and include residential development in the Specific Plan area (Robert Pendoley, planning consultant [former consultant to the City of Dixon], personal communication, 1/16/03). Since the population increase induced by the Specific Plan would not exceed regional projections, the population increase would

represent a less than significant impact as regards conflicts with regional plans. No mitigation is required. The growth in population is not in and of itself an adverse impact on the environment. Specific environmental impacts associated with this population growth (e.g., impacts due to increases in traffic and noise) are addressed in other sections of this EIR.

**Impact 3.9-B          Development in accordance with the Specific Plan may displace existing housing units and residents in the plan area.**

Again, as noted in the Setting section above, the Specific Plan area contains 14 housing units that house an estimated 44 residents. The 14 rural residences consist of one house on the Evans Ranch site, one on the Clark property, two on the Weyand property, two on the Azevedo property, one on the Steil property, two on the Garcia property, one on the Sanders property, and two on the O'Neill property, one mobile home on the Sotuela property, and one mobile home on the Dupratt property.

Development of the Specific Plan area is likely to displace most of these housing units and residents. One exception is the house on the Clark property, which may be preserved on one 27,880-square-foot lot as part of the Tentative Subdivision Map currently proposed for that property. The house may need to be removed or relocated, however, to accommodate a new road alignment. (See Section 1.0, Introduction, for details.)

The 14 housing units and 44 residents are not considered a "substantial" number, in relation to Dixon's existing population. Loss of these housing units would not require construction of replacement housing elsewhere, since the units would be replaced on-site through housing development consistent with the Specific Plan. The housing and resident displacement resulting from the Specific Plan would therefore represent a less than significant impact. No mitigation is required.

**Impact 3.9-C          If residential development in the Specific Plan area fails to meet the affordability needs of a range of households and income levels, it might not comply with the Association of Bay Area Governments' regional housing need determinations and related Dixon General Plan policies.**

As described in the Setting section above, the Association of Bay Area Governments has determined that Dixon's fair share of regional housing need for the period from January 1, 1999 to June 30, 2006 is 1,464 housing units. This total consists of 268 very-low-income units, 237 low-income units, 379 moderate-income units, and 580 above-moderate-income units. Residential development in the Specific Plan area could assist the City in meeting these goals, but only if housing prices are affordable to households in the various income categories defined by the ABAG determinations.

Similarly, depending on the affordability of housing units in the plan area, residential development in accordance with the Specific Plan has the potential to further, or to

conflict with, the following policies of the Dixon General Plan Residential Environment Element:

- Policy 5**      *The City shall regulate new residential development so as to foster a variety of housing types, densities and costs (including low- and moderate-income units) to meet the current and future housing needs of all Dixon residents while preserving the character of the individual neighborhoods.*
- Policy 15**     *The City shall assist in the development of adequate housing to meet the needs of low and moderate income households.*
- Policy 16**     *The City shall encourage the provision of moderately priced housing in all larger scale development, so as to avoid a concentration of such housing in any one area.*

### **Specific Plan Provisions**

The Specific Plan contains the following relevant goal, policies, and implementation programs:

- Goal 4.2**      *To provide a range of housing types, densities, designs, and prices to meet housing needs in Southwest Dixon, including affordable housing for lower-income residents.*
- Policy 4.2.1**   *Housing Types - The City shall promote a variety of housing types, densities, and costs in Southwest Dixon, including low and moderate income units, to meet the need for affordable housing.*
- Policy 4.2.2**   *Residential Land Use - Create the opportunity for the development of affordable housing in all residential land use designations to meet the needs of low and moderate-income households.*
- Policy 4.2.3**   *Residential Land Inventory - Maintain an adequate supply of land in appropriate residential land use designations and zoning categories to accommodate projected household growth in Southwest Dixon, and to achieve satisfactory residential vacancy rates.*
- Policy 4.2.4**   *Housing Assistance - The City will assist developers in seeking state and Federal housing funds to develop affordable housing in Southwest Dixon.*
- Policy 4.2.5**   *Home Ownership - Promote homeownership in new housing constructed for low and moderate income households in Southwest Dixon.*
- Policy 4.2.6**   *Affordable Housing Distribution - Encourage the provision of housing for moderate income households in all residential development in Southwest Dixon, in order to avoid a concentration of such housing in any one area.*
- Policy 4.2.7**   *Non-Profit Housing - The City shall encourage and assist non-profit housing providers, both public and private, to reduce development costs in order to increase production of below-market-rate housing.*

**Policy 4.2.8 Coordination** - The City shall participate in and help to coordinate intergovernmental agency efforts that address housing needs.

**IP 4.2a Financing** - Assist the development community to secure funding using a variety of available finance mechanisms, such as mortgage revenue bonds or other mortgage-backed securities, to develop affordable housing in Southwest Dixon.

**IP 4.2b Funding Sources** - Monitor State and federal housing legislation and program development to identify and request funding resources available for housing projects.

**IP 4.2c Permit Processing** - Provide expedient permit processing to development applications that would materially contribute to meeting the City's need for affordable housing in Southwest Dixon.

**IP 4.2d Development Agreements** - Include provisions for affordable housing in development agreements for residential projects.

**IP 4.1e (sic) Density Bonus** - Where applicable, apply the density bonus for affordable housing units in Southwest Dixon, as defined by Zoning Ordinance.

These Specific Plan provisions would help the City in meeting regional housing need goals and complying with related Dixon General Plan policies. Generally, residential development in the Specific Plan area could have a beneficial impact on the local housing supply by broadening the type (and potentially the affordability) of available housing. The potential for the residential development to fall short of the affordability levels necessary to meet ABAG's housing need determinations would remain a potentially significant impact, however, subject to the mitigation measures listed below. In addition, if Specific Plan housing fails to meet the affordability needs of a range of households and income levels, the project could fail to provide strong housing support for employment-generating land uses, thereby hindering the achievement of a "jobs/housing balance" (see Impact 3.9-D below).

### **Mitigation Measures**

1. Require the applicant to submit (a) a Project Housing Strategy that specifies project housing affordability goals, and (b) an associated Housing Mix and Affordability Monitoring Program that evaluates progress in meeting affordability goals. Incorporate these documents into the affordable housing provisions of the applicable development agreements.

The Project Housing Strategy should identify (a) the City's remaining affordable housing needs, based on ABAG's housing needs determinations; and (b) fair share housing responsibilities and mechanisms that will be incorporated into future development plans for individual properties within the Specific Plan area.

The Housing Mix and Affordability Monitoring Program should consist of an annual housing report to the City to provide a basis for evaluating whether the Project Housing Strategy housing type and affordability goals are being met. The annual reports could coincide with the annual review of the Specific Plan provided for by Specific Plan Policy 8.3.2 and Implementation Program 8.3a. The results of these

annual reports should be considered in the review and approval of future individual project subdivision plans.

### ***Impact Significance after Mitigation***

This mitigation measure would reduce the potential impact from non-compliance with ABAG regional housing need determinations and related General Plan policies to a less than significant level.

### **Impact 3.9-D      Development in accordance with the Specific Plan has the potential to affect the citywide jobs/housing balance.**

As discussed in the Setting section above, Dixon currently has more households (5,102) and employed residents (6,872) than jobs (4,660). The Specific Plan area currently supports 14 housing units and a limited number of jobs supplied by commercial uses in the western part of the plan area. Development proposed by the Specific Plan would gradually replace most of these on-site land uses with 1,221 housing units and commercial and employment center uses providing an estimated 3,050 jobs. (See Section 1.0, Introduction, for details.) By providing a relatively large number of jobs (and potentially more job opportunities for local residents), the Specific Plan could help to slow the projected decrease in Dixon's jobs/housing balance (i.e., the ratio of the number of local jobs to the number of housing units or employed residents).

The Economic Development Element of the Dixon General Plan contains the following policy relevant to the City's jobs/housing balance:

***Policy 4      The City shall actively encourage those new industrial uses which can demonstrate that they intend to provide some proportion of the jobs created for local residents to locate in the Dixon Planning Area.***

### **Specific Plan Provisions**

The Specific Plan contains the following relevant goal and policy:

***Goal 5.2      To provide for industrial and other employment-generating uses in Southwest Dixon which create jobs and enhance the local economy.***

***Policy 5.2.1      Local Employment - Actively encourage new industrial and other uses in Southwest Dixon that could provide jobs for local residents, including residents of the Plan Area.***

These Specific Plan provisions would help the City to improve the local balance between jobs and housing. The Specific Plan would not conflict with Dixon General Plan policy regarding the jobs/housing balance, and would generally have a beneficial effect by designating commercial and employment center areas that would generate a relatively large number of jobs. The project's effect on the jobs/housing balance would therefore represent a less than significant impact.

**Impact 3.9-E**

**Residential development proposed by the Specific Plan has the potential to conflict with the City of Dixon's Measure B, as well as the City ordinance implementing this measure and the related Dixon General Plan policy specifying a mix of 80 percent single-family and 20 percent multi-family housing.**

Measure B, a ballot measure adopted by Dixon voters in 1986, seeks to achieve a balanced housing mix by regulating the amount and type of housing built in the City each year. The City's recently adopted ordinance implementing Measure B (adopted after the Specific Plan application was submitted to the City) requires that 20 percent of total housing units developed in the City be multi-family. The implementing ordinance notes the planning process for the Southwest Dixon area and states that "as part of this process, the City will strive to meet the Measure B target of twenty (20%) percent multi-family housing and that mechanisms are considered in the entitlement process that ensure the development of multi-family housing concurrently with the development of any single family housing" (City of Dixon, Ordinance No. 02-003, Section 1.01(k)). This provision effectively requires that 20 percent of the units on the Southwest Dixon site be multi-family.

The Residential Environment Element of the Dixon General Plan contains the following related policy:

***Policy 6      The City shall work toward the historical balanced mix of housing types and densities, in accordance with the 80 percent low density, single family/20 percent higher density, multiple family distribution defined in Measure "B" as the basis for annual limits for housing construction approvals.***

The 20-percent multi-family housing percentage translates to 244 of the 1,221 housing units proposed by the Specific Plan. The Specific Plan proposes 100 multi-family units, located in the Evans Ranch portion of the plan area. In addition, the currently proposed Evans Ranch project includes an application for a density bonus that would allow development of an additional 26 multi-family units (for a total of 126 multi-family units) on that site. (See Section 1.0, Introduction, of this EIR for details.) Thus, the Specific Plan would need to provide for an additional 118 multi-family units in order to comply with the Measure B implementation ordinance (244 multi-family units required minus 126 units currently proposed = 118 additional units needed). This conflict with Measure B and the related implementing ordinance and General Plan policy would represent a potentially significant impact.

Since the Specific Plan does not include a phasing plan, its compliance with Measure B's three-percent-annual-growth provision cannot be determined. Development in the Specific Plan area would be subject to the housing unit allotment process administered by the Dixon City Council, as well as other Measure B provisions. It is therefore reasonable to assume that the Specific Plan would comply with Measure B provisions other than the 20-percent multi-family/80-percent single-family provision.

### **Mitigation Measures**

1. Require the applicant to revise the Specific Plan so that 20 percent (244 units) of the proposed 1,221 total housing units are multi-family.
2. Require the applicant to submit a Project Housing Strategy and a Housing Mix and Affordability Monitoring Program, as specified in the mitigation measure for Impact 3.9-C above, to provide a mechanism for ensuring “development of multi-family housing concurrently with the development of any single-family housing,” as required by the Measure B implementing ordinance (City of Dixon, Ordinance No. 02-003, Section 1.01(k)).
3. Address compliance with Measure B growth limitations in future development agreements for individual projects within the Specific Plan area.

### **Impact Significance after Mitigation**

These mitigation measures would reduce the potential impact from conflict with Measure B and the related implementing ordinance and General Plan policy to a less than significant level.

Providing the additional multi-family units may result in environmental impacts that differ slightly from those described for the Specific Plan in this EIR. Since the total number of housing units would not exceed 1,221 (the number currently proposed by the Specific Plan), providing the additional multi-family units would not generate more traffic than the currently proposed Specific Plan; in fact, the higher residential density could create more opportunities for residents to walk, bicycle, or take public transportation to nearby commercial areas, thereby reducing the number of automobile trips compared with the currently proposed Specific Plan. If this were the case, traffic noise and air emissions might also be slightly lower than with development of the Specific Plan as currently proposed. Impacts on schools might also be slightly reduced, compared with impacts under the currently proposed Specific Plan, since multi-family units typically house fewer school-age children than single-family units do. Other impacts (e.g., effects on geologic and hydrologic conditions, vegetation and wildlife, aesthetics, hazardous materials conditions, population and housing, land use, other public services, energy, and cultural resources) would be very similar to those described in this EIR for the currently proposed Specific Plan.

Development of the additional multi-family units is evaluated in this EIR as a project alternative (see Section 4.4, Project Alternatives). Since environmental impacts may vary according to the location of the additional units, development of the additional multi-family units would also be subject to future, site-specific environmental analysis.

## **3. Project-Specific Impacts**

As explained in Section 1.0 (Introduction), five property owners in the Specific Plan area (Andrews Dixon LLC, Weyand, Garcia, Sanders, and Clark) have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. Table 26 lists the number and type of housing units proposed by each application, and the estimated number of residents for each. As the table indicates, the five projects would provide 819 housing units housing an estimated 2,621 residents. Of



the 819 units, approximately 15 percent (or 126 units) would be multi-family. All of the multi-family units would be located on the Evans Ranch site.

**Table 26  
Individual Projects: Number and Type of Housing Units  
and Estimated Resident Population**

<b>Project (Property Owner)</b>	<b>Number of Single-Family Units</b>	<b>Number of Multi-Family Units</b>	<b>Total Number of Units</b>	<b>Estimated Population<sup>1</sup></b>
Evans Ranch (Andrews Dixon LLC)	263	126	389	1,245
Orchard Estates-Sanders (Sanders)	89	0	89	285
Orchard Estates-Garcia (Garcia)	57	0	57	182
Dixon Ridge (Weyand)	230	0	230	736
Clark Ranch Estates/Clark Property-Ryder Homes (Clark)	54	0	54	173
<b>TOTAL</b>	<b>693</b>	<b>126</b>	<b>819</b>	<b>2,621</b>

Source: Nolte Associates, Inc.; Leonard Charles & Associates

<sup>1</sup> Based on an average household size of 3.20 people per housing unit, as estimated by the Association of Bay Area Governments (ABAG) for Dixon in 2005 (ABAG, *Projections 2002*, December 2001, page 242).

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area.

None of the five property owners has applied for housing unit allotments under Measure B. The development agreement for each project would address the project's compliance with the three-percent-per-year growth limitation.

The impacts identified under Impacts 3.9-A to 3.9-E above would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts would adequately address the impacts of each of the five proposed individual development applications. No additional impacts on population and housing have been identified for the five applications, and no additional mitigation measures are required.

#### **4. Cumulative Impacts**

Section 1.0 (Introduction) provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). Of these three projects, only the Pheasant Run #7 and Southpark projects contain a residential component.

The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, pages 4.8-4 through 4.8-5) indicated that development of housing on the Pheasant Run site could result in population and housing growth exceeding City projections, but that these increases could be served by City services and would be well within year 2010 projections. The EIR (page 4.8-4) further noted that "this [project]

forecast should remain within this [year 2010 population] estimate, even with the implementation of the Southwest Dixon Specific Plan project and the South Park project.” The EIR therefore concluded that the Pheasant Run project would not have any significant population and housing impacts.

The Southpark Draft Environmental Impact Report (Harland Bartholomew & Associates, July 6, 1994, pages 3.10-4 through 3.10-6) also concluded that population and housing impacts would be less than significant, based on the Southpark project’s compliance with the three-percent growth rate permitted by Measure B and its contribution to meeting regional housing needs identified by ABAG. The Subsequent Environmental Impact Report on the Southpark project did not address population and housing impacts.

Based on these findings, it is reasonable to conclude that the contribution of the Southwest Dixon Specific Plan to cumulative effects on population and housing conditions would represent a less than significant impact. No mitigation is required.

# 3.10 LAND USE

## A. Setting

### 1. Area Land Use Pattern

As described in Section 1.0 (Introduction), the 477± acre Southwest Dixon Specific Plan area is located in the southwestern part of the City of Dixon. The Specific Plan area is bounded by Interstate 80 (I-80) on the west and West A Street on the north. Pitt School Road forms the eastern boundary of most of the plan area, with approximately 55 acres of the plan area located east of this road. The eastern part of the plan area is generally bounded by Hillview Drive on the north and Spruce Street on the east. The southern boundary of the Specific Plan area corresponds with the southernmost Dixon city limits.

#### Existing Land Uses in Specific Plan Area

The Specific Plan area consists of nearly level terrain. The area currently supports agricultural, rural residential, and commercial land uses, as well as scattered trees. Most of the Specific Plan area is used for agriculture (e.g., tomatoes, alfalfa, corn, oat hay, and vine seed).

The plan area contains a total of 14 housing units, consisting of one house on the Evans Ranch site, one on the Clark property, two on the Weyand property, two on the Azevedo property, one on the Steil property, two on the Garcia property, one on the Sanders property, two on the O'Neill property, one mobile home on the Sotuela property, and one mobile home on the Dupratt property. See Figure 5 in Section 1.0 (Introduction) for property ownership map. Commercial uses consist of a fruit stand and two restaurants in the western corner of the Specific Plan area, near I-80.

The Solano Irrigation District's (SID's) Weyand Canal extends in a north-south direction through the western part of the plan area, occupying an estimated 2.64 acres. The canal enters the western portion of the plan area via a 54-inch pipe located at approximately the mid-point of the plan area's western border (adjacent to I-80). The canal travels directly south to the plan area's southern boundary, where it turns west on the adjacent southern property. The canal is a lined channel approximately six feet deep. The canal's 1,350-foot length through the plan area is contained within a 60-foot-wide property owned by SID by fee title. SID also owns and maintains various lateral pipes located throughout the plan area. These facilities provide irrigation water for agricultural uses in the vicinity.

#### Surrounding Land Uses

Land uses surrounding the Southwest Dixon Specific Plan area consist of the following:

- To the north (on the north side of West A Street): highway commercial development, including two service stations, two fast food outlets, and a car repair business near the I-80 interchange; and single-family housing east of Evans Road.

- To the east: single-family housing (in the vicinity of Hillview Drive, Mayfair Drive, and Camelia Drive).
- To the south: agriculture (e.g., tomatoes, almonds, hayfields) and scattered rural residences (mainly clustered along Pitt School Road near the Union Pacific Railroad tracks). This area is part of unincorporated Solano County.
- To the west (on the west side of I-80): agriculture and rural residences in unincorporated Solano County.

## **2. Agriculture**

The Specific Plan area contains prime agricultural soils. Eighty percent of the site contains Class I soils, and the remaining 20 percent contain Class II soils; both Class I and Class II soils are defined as "Prime Farmland" by the State Department of Conservation. The Specific Plan area has long been farmed for commercial crops. According to the Solano County Department of Agriculture, crops grown on the Specific Plan area and on adjacent agricultural properties include tomatoes, corn, beans, alfalfa, peppers, wheat, almonds, and vine seed (i.e., seed for watermelons, cucumbers, and other vine crops) (Seslowe, personal communication, 6/11/02). Crops are rotated during the seasons and over the years. In July 2002, crops grown on the site included tomatoes, corn, alfalfa, oat hay, and almonds.

Solano County is a major agricultural production county. In the year 2000, agricultural products valued at \$185,109,100 were sold by Solano County agricultural operators. In 2000, there were 403 full-time farms in the county with an average size of 455 acres. Agricultural products were grown on 332,568 acres out of the total 526,720 acres in the County. The Specific Plan area represents 0.1 percent of the land commercially farmed in the County in 2000.

## **3. Williamson Act Contracts**

As shown on Figure 5, six of the Specific Plan area parcels (four ownerships) are under Williamson Act contracts. The Williamson Act (i.e., the California Land Conservation Act of 1965; Government Code Section 51200 *et seq*)) established a voluntary tax incentive program for preserving agricultural and open space lands. A property owner enters into a ten-year contract with the County or City which places development restrictions on the property in exchange for reduced property taxes. The property tax is based on the agricultural income potential of the property rather than its full market value. Williamson Act contracts are automatically renewed each year unless they are canceled by a county or city or one party files a Notice of Nonrenewal. With the filing of a Notice of Nonrenewal, the contract will expire in ten years from the date of the filing. The Williamson Act also contains provisions for cancellation of a contract without having to wait for the ten-year withdrawal period. A city can approve cancellation of such a contract if it makes specified findings (Government Code Section 15282) and the landowner pays a cancellation fee (Government Code Section 15283). The State must be notified of a proposed cancellation in order to allow the State to review the findings proposed for the cancellation.

## **4. Pertinent City of Dixon Policies**

### **a. General Plan Land Use Designations**

The Dixon General Plan designates the Specific Plan area for the following land uses:

- Highway Commercial (HC)
- Community Commercial (CC)
- Professional/Administrative Offices (O)
- Employment Center (E)
- Residential Low Density (LD)  
(7,000- to 19,999-square-foot net site area per unit)
- Residential Medium Density-Low (MDL)  
(3,000- to 6,999-square-foot net site area per unit)
- Residential Medium Density-High (MDH)  
(2,000- to 2,999-square-foot net site area per unit)
- Parks (P)
- Elementary School (S)
- Functional (Buffers) (F)
- Agricultural (A)

General Plan land use designations for the five proposed individual development areas are as follows:

- *Evans Ranch*: Highway Commercial (HC), Community Commercial (CC), Residential Low Density (LD), Residential Medium Density-Low (MDL), Residential Medium Density-High (MDH), Parks (P), and Functional (Buffers) (F).
- *Orchard Estates-Sanders*: Residential Low Density (LD) and Parks (P).
- *Orchard Estates-Garcia*: Residential Low Density (LD).
- *Dixon Ridge*: Residential Medium Density-Low (MDL) and Parks (P).
- *Clark Ranch Estates*: Residential Low Density (LD) and Functional (Buffers) (F).

### **b. General Plan Land Use Policies**

The Urban Development and Community Design Element of the Dixon General Plan contains the following policies relevant to land use in the Specific Plan area:

- Policy 1**      *The City shall maintain the “small town character” of Dixon to some extent. However, it is recognized that Dixon is an attractive area to newcomers, and that a larger city could result in increased employment, shopping, cultural and recreational opportunities for Dixon residents by attracting firms and activities which require more market support than can be provided by the current population...*
- Policy 2**      *The City shall actively pursue a balanced community comprising industrial, commercial and residential development.*
- Policy 4**      *The City shall ensure that future residential growth takes place in or adjacent to areas where development has already taken place, and that future commercial and industrial growth takes place at strategic locations.*
- Policy 5**      *The City shall phase development in an orderly, contiguous manner in order to maintain a compact development pattern and to avoid premature investment for the extension of public facilities and services...*
- Policy 8**      *The City shall focus future growth initially in areas already designated as appropriate locations for such growth, in the interests of providing services in the most cost-effective manner.*

In addition, the Economic Development Element of the General Plan contains the following relevant policies:

- Policy 5**      *The City shall encourage the development of well-designed planned business and industrial areas which meet modern standards in terms of parcel size, landscaping and location as a way to attract new light industrial and business park development to the Dixon area.*
- Policy 6**      *The City shall ensure that industrial uses are compatible with adjacent uses, and that adjacent uses are compatible with industrial uses.*
- Policy 7**      *The City shall require industrial development to meet performance standards based on factors of noise, odor, light, glare, traffic generation and air emissions, soil contamination and surface and groundwater contamination in order to minimize its impacts on established or proposed residential areas and other adjacent uses. In addition, the City shall require the screening and control of unsightly or excessively noisy operations.*
- Policy 8**      *The City shall not allow industrial uses which create noxious or nuisance conditions to locate within the Dixon Planning Area.*
- Policy 14**     *The City shall encourage new commercial uses to group into clustered areas or centers.*
- Policy 15**     *The City shall ensure that proposed commercial uses are clustered at focal points along major arterials.*

**Policy 16**     ***The City shall protect commercial areas from potential intrusion from incompatible land uses.***

**Policy 17**     ***The City shall protect residential uses from the possible adverse effects associated with adjacent commercial centers by utilizing a rigorous design review procedure which emphasizes high standards of construction, design, buffering and screening.***

**Policy 21**     ***The City shall accommodate the expansion of office uses in Dixon.***

In addition, the Residential Environment Element of the General Plan contains the following policy relevant to residential land use in the plan area:

**Policy 3**     ***The City shall encourage new residential development that is compatible with the City's predominantly low density, small town character and scale.***

The Natural Environment Element of the General Plan contains the following additional policy relevant to residential land use:

**Policy 4**     ***The City shall ensure that open land, structures having non-sensitive uses and other means will be used to buffer residential areas from I-80, wherever possible...***

**c.     Pertinent City of Dixon Zoning Ordinance Provisions**

The following City of Dixon zoning classifications apply to the Specific Plan area:

- Highway Commercial-Planned Development (CH-PD)
- Neighborhood Commercial-Planned Development (CN-PD)
- Office Professional-Planned Development (CH-ML-PAO-PD)
- One Family Residential-Planned Development (R1-PD)
- Planned Multiple Residential-Planned Development (PMR-PD)
- Multiple Family-Planned Development (RM-PD)
- Multiple Family-Planned Development (RM2-PD)

The five proposed individual development areas are zoned as follows:

- *Evans Ranch*: Highway Commercial-Planned Development (CH-PD), Neighborhood Commercial-Planned Development (CN-PD), Multiple Family-Planned Development (RM-PD), Multiple Family-Planned Development (RM2-PD), Planned Multiple Residential-Planned Development (PMR-PD), and One Family Residential-Planned Development (R1-PD).
- *Orchard Estates-Sanders*: One Family Residential-Planned Development (R1-PD).

- *Orchard Estates-Garcia*: One Family Residential-Planned Development (R1-PD).
- *Dixon Ridge*: Planned Multiple Residential-Planned Development (PMR-PD) and One Family Residential-Planned Development (R1-PD)
- *Clark Ranch Estates*: One Family Residential-Planned Development (R1-PD).

As indicated above, the entire Specific Plan area is zoned for some form of Planned Development (PD). The City of Dixon Zoning Ordinance (section 12.15.01) states that “the purpose of the planned development district is to allow diversification in the relationship of various buildings, structures, and open spaces in order to be relieved from the rigid standards of conventional zoning. A planned development district shall comply with the regulations and provisions of the general plan and any applicable specific plan shall provide adequate standards to promote the public health, safety and general welfare without unduly inhibiting the advantages of modern building techniques and planning for residential, commercial or industrial purposes.” The Zoning Ordinance (section 12.15.14) further states that “all uses in a P-D district shall conform to the height, area, lot and yard, parking, loading, and other standards normally required for such uses, except where the total development will be improved by deviation from these standards...”

**d. Policies Related to Agriculture**

The Urban Development and Community Design Element of the City of Dixon General Plan contains the following policies relevant to agricultural uses in the Specific Plan area:

- Policy 10**     *The City shall encourage the maintenance of agricultural uses in all undeveloped areas designated for future urban use, especially in the areas designated for future industrial uses.*
- Policy 12**     *The City shall encourage agriculture and the preservation of open space between Dixon and Vacaville, and between Dixon and Davis, to maintain community integrity and urban form.*

In addition, the Natural Environment Element of the General Plan contains the following relevant policies:

- Policy 1**     *The City shall preserve agricultural lands and prevent their premature conversion to urban uses.*
- Policy 2**     *The City shall protect existing agriculturally-related operations from potential land use conflicts.*
- Policy 3**     *The City shall, to the greatest extent possible, preserve natural resources and wildlife habitat areas, reduce risk in hazardous areas and provide recreational opportunities by reserving the following areas for open space uses:*
  - **Natural Resources** – *The productive Class I and II soils which surround Dixon. As the currently urbanized area of Dixon is completely surrounded by these soils, it will be necessary to accept the conversion of some Class I and II soils to urban uses to enable future development.*



***Other factors, such as the viability and configuration of individual farming units, the extent of conflict with existing urban development, and constraints on spraying will be considered in selecting the direction of urban expansion...***

***Policy 5***      ***The City shall, in cooperation with the City of Vacaville, the City of Davis, the County of Solano and other affected agencies, define and maintain open space buffers between these three urban areas. The southern open space buffer area shall be located in the area bounded generally by I-80, Batavia Road and Midway Road, and the northern open space buffer area shall be located in the areas bounded generally by I-80, Tremont Road and Old Davis Road.***

***Policy 6***      ***The City shall support and participate in the establishment of open space buffer areas to assist in defining the urban boundary of Dixon.***

Consistent with these and other General Plan policies, the City is currently working with a local land trust and others to develop a master agricultural conservation program. This program would seek to permanently preserve agricultural lands and biotic habitat in the general Dixon area. Lands to be preserved under this program could include areas that would serve as buffers between Dixon and the cities of Vacaville and Davis. Developers of agricultural lands within the City would pay a fee that would be used for purchase of either land or a conservation easement in the to-be-identified conservation area. The developer fee would offset the impact on agricultural lands. In addition, if developers needed to purchase land or conservation easements to mitigate for loss of habitat for Swainson's hawk, burrowing owl, or other species, the fee (and the land or easement purchased with the fee) would be considered as mitigation for biotic habitat. The City has recently required payment of this developer fee for a project located within the Northeast Dixon Specific Plan area.

## **B. Potential Impacts and Mitigations**

### **1. Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a. Physically divides an established community. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*
- b. Conflicts with any applicable land use plan policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed under Impacts 3.10-C and 3-4-D as regards agriculture. Also addressed under Impact 3.10-E and 3.10-T.)*
- c. Conflict with any applicable habitat conservation plan or natural community conservation plan. *(The Initial Study determined that the project would have no significant impact vis-à-vis this criterion.)*

- d. Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (*Assessed under Impacts 3.10-A, F, and U.*)
- e. Conflicts with existing zoning for agricultural use or a Williamson Act contract. (*Assessed under Impacts 3-4-C and F.*)
- f. Involves other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses. (*Assessed under Impacts 3.4-B, F, and M*)
- g. Introduce new land uses that would conflict with established or proposed uses. (*Assessed under Impacts 3.10-F through 3.10-L, 3.10-N through 3.10-S, and Impact 3.10-V.*)

## 2. Impacts – Proposed Southwest Dixon Specific Plan

### Impact 3.10-A Development of the Specific Plan area would displace "Prime Farmland."

Approximately 475 acres of Prime Farmland would be developed with non-agricultural uses. This Prime Farmland would be removed from production, and the soils would be unavailable for future agricultural production. Per Significance Criterion 3.4d, this is a potentially significant impact.

#### Specific Plan Goals, Policies, and Implementation Programs

The Specific Plan contains the following goal, policies, and program

**Goal 3.1** *To protect agricultural lands in Southwest Dixon from premature development, and to minimize conflicts between agricultural and urban uses.*

**Policy 3.1.1 Agricultural Land Conversion** - *The City shall discourage the premature conversion of agricultural uses to urban uses in the Plan Area. Development should be phased to allow continuing agriculture operations.*

**Policy 3.1.2 Agricultural-Urban Conflicts** - *The City shall protect existing agriculturally related operations from potential land use conflicts by designating ample setbacks between urban and agricultural activities.*

These goal and policies do not address the impact of eventual displacement of agriculture and loss of Prime Farmlands in the Specific Plan area.

#### Mitigation Measures

Consistent with the agricultural conversion easement and agricultural conversion fee required of projects in Dixon, the following mitigation is recommended:

1. Each developer will acquire off-site land within the Dixon Planning Area or within a ten-mile radius of the City, or each developer will participate in the City's master agricultural conversion program. Each developer will pay the fee established for this program at the time of the City's approval of the tentative subdivision map.

### ***Impact Significance After Mitigation***

While the mitigation fee recommended above would allow the City to ensure that other agricultural lands in the area would be preserved for agriculture, this mitigation does not create additional prime farmland soils. There is no mitigation that would reduce the loss of these prime soils to a less than significant level. Because there is no mitigation for this loss of agricultural soils, approval of the proposed Specific Plan would have a significant impact on Prime Farmland and prime agricultural soils.

### **Impact 3.10-B      Development of the Specific Plan area could result in agricultural operators within and adjacent to the Specific Plan area being required to restrict their operations and/or to cease those operations.**

Development of the Specific Plan would result in urban development being located adjacent to existing agricultural operations along the southern border of the Specific Plan area and adjacent to farming operations within the Specific Plan area on those parcels where no development is currently planned. Because the production of row crops and almonds requires the use of heavy equipment, periodic field preparation, and the use of chemicals, such agricultural uses often conflict with adjacent residential and other urban uses.

As was discussed in more detail in the previous section on Hazards and Hazardous Materials, the spraying of herbicides, pesticides, and/or other agricultural chemicals can pose a potential health hazard for future Specific Plan area residents and workers. Dust generated by plowing/disking can be an air quality problem and potential health hazard. The noise generated by land preparation, spraying, and harvesting can create nuisance problems. All these problems can result in increased calls to the Solano County Department of Agriculture to stop or restrict these typical agricultural operations. Such agriculture/urban interface conflicts are common throughout California. Increasing restrictions on agricultural practices can reduce the ability of agricultural operators to grow crops and may be one factor in their seeking to cease agricultural operations and sell their land for additional urban development. For example, the County's Permit G does not allow ground spraying of Category 1 and 2 materials within 100 feet and aerial spraying within 500 feet of residences, shopping centers, recreation areas, and unprotected areas. This means that agricultural operators along the Specific Plan area's southern border and within the Specific Plan area would need to alter their spray operations.

While the proximity of urban development to agricultural operations may result in some necessary modifications of typical agricultural practices, it is not expected that the changes would be significant. The fact that such agricultural operations currently exist on the Specific Plan area in proximity to urban development to the north and east is indicative that commercial agriculture can co-exist with urban uses. The County Department of Agriculture states that they do not receive significant numbers of

complaints about agricultural operations adjacent to urban uses. In the few cases where such complaints are lodged, they have successfully worked with the agricultural operators to modify practices to eliminate the perceived problems (Jessen, personal communication, 7/17/02).

The agricultural operators that would be most affected would be the operators of the properties within the Specific Plan area where there is no current development application. This includes the Schroeder property on the west side, the Steil property in the southeast portion, and the Azevedo property in the northeast section of the Specific Plan area. However, the Azevedos have entered into an agreement to develop their property, and a tentative map will be submitted for this property once the Specific Plan is adopted. Thus, the former two properties would be affected. Not only would operators of these two properties need to modify their spraying and other operations, the Specific Plan calls for infrastructure and road improvements on these properties. Those improvements would also affect farming operations. However, because these properties are within the Specific Plan area and designated both in that Plan and the Dixon General Plan for urban development, the fact that agricultural operations on those properties may be hampered by new Specific Plan area development is considered short-term (i.e., until development of those properties occurs) and a nuisance, but not a significant impact. Despite possible spray restrictions and the need for better dust and noise control, there is no evidence that operators of these properties cannot continue to produce commercial crops from these properties.

The impact to agricultural operators to the south of the Specific Plan area cannot be predicted with certainty. The expansion of urban uses into agricultural areas is a well-known process throughout California (for example, see *California's Future - Maintaining Viable Agriculture at the Urban Edge*, Coppock and Kreith, 1997). Agricultural operators often find it increasingly difficult to conduct their normal, typical operations. Frequently, they reduce their agricultural investments in the property adjoining residential development, and they frequently seek to sell their property to a developer. These problems were not reported as significant in Solano County (Seslowe, personal communication, 6/11/02). In addition, it is recognized that such typical urban expansion is constrained by the fact that agricultural lands to the south of the Specific Plan area are not within Dixon's City Limits or Sphere of Influence. Thus, any future urban expansion would require the City to seek amendment of its Sphere of Influence and annexation of those lands into the City, and these actions would require approval of the Solano County Local Agency Formation Commission (LAFCo). It is premature to assume that the City would seek such expansion or that it would be approved by LAFCo. While such evidence of future expansion is lacking, there is sufficient State-wide evidence that such expansion typically occurs (unless a jurisdiction has established an Urban Growth Limit, which Dixon has not). It is also evident that residential uses that border commercial agricultural operations result in those agricultural operators being required to restrict what were formerly typical agricultural practices. This is a potentially significant impact of buildout of the Specific Plan area.

Buildout of the Specific Plan area does not require construction of a road connection between Pitt School Road and Highway 113. However, this connection would be needed to adequately accommodate cumulative buildout of the Southwest Dixon Specific Plan area and the approved Southpark Specific Plan area. This connector road will cross agricultural properties within the jurisdiction of the County. However, this road connection was a required condition of approval for the Southpark project and will be constructed prior to development of Phase V of that project.

## Specific Plan Goals, Policies, and Implementation Programs

The Specific Plan addresses impacts to agriculture in the following programs:

**Policy 3.1a** *Urban/Agricultural Interface* - Proposed developments next to agricultural operations can face issues such as noise, odors and dust. For projects bordering agricultural use, the following as conditions should be implemented with project approval, as appropriate:

- **Security Fencing and Signage** - Permanent security type fencing shall be installed and no trespass signage posted along the interface between the project site and adjacent agricultural land, to prevent trespassing and littering on the agricultural land side of the fence.
- **Right-to-Farm Notification** - New residential residents shall be notified that the County has adopted a Right-to-Farm Ordinance to protect farmers from nuisance suits as a result of normal farming practices. Notification shall be provided in all Department of Real Estate Reports and in sales purchase agreements between builder/developer home sellers and buyers.
- **Disclosure Statement** - All proposed residential properties within 500 feet of adjoining agricultural properties shall have a disclosure statement regarding nearby agricultural use. This disclosure statement shall disclose that possible inconveniences to the occupants could arise from nearby agricultural uses, and that occupants should be prepared to accept intermittent inconveniences as a normal and necessary occurrence because of their proximity to agricultural land. Applicants shall furnish for the City's review and approval a procedure to ensure that future occupants of all affected dwelling units would be notified of this disclosure statement.
- **Buffers** - Adequate buffers shall be used as necessary between urban and agricultural uses to minimize potential conflicts with agricultural operations. Project applicants shall demonstrate to the City locations and proposed implementation mechanisms for on- and off-site buffers.

## Conclusions

The Specific Plan requirements that future residents be notified of the Right to Farm Ordinance (the City uses the County's Right to Farm ordinance), the required Disclosure Statement, and the recommended buffers and security fencing should reduce potential complaints about neighboring operations.

Even with the policies and implementation programs of the Specific Plan, there is the potential that neighboring agricultural operators could be required to modify their operations. This could lead to interest in the owners of the affected properties in developing their lands. While such a chain of events is possible, it is considered a speculative impact since there is no evidence that neighboring agricultural operators would not be able to keep farming their property (just as the Specific Plan area is

currently being farmed despite being adjacent to residential and commercial development). It is also considered speculative the City would seek to revise its Sphere of Influence, LAFCo would approve this revision, and the City would annex those properties. As there is no application or indication that the City would seek revision of its Sphere of Influence or annexation of the area, future urban development of the area is considered speculative. Because the impact is speculative, the EIR is not required to pursue it further (per *CEQA Guidelines* Section 15145). The policies and implementation programs of the Specific Plan plus the recommended mitigation measures for Impact 3.8-C reduce the impact to agricultural operations to a level that is less than significant, and the Specific Plan would be consistent with policies of the City General Plan.

**Impact 3.10-C      Development of the Specific Plan area could be inconsistent with the Williamson Act.**

Six parcels owned by four different property owners are under Williamson Act contract. Development of these properties is prohibited until such time as the existing Williamson Act contracts are not renewed or canceled, consistent with State law. Development of those properties prior to cancellation of the contracts would be inconsistent with State law, and this would be a potentially significant impact.

The property owners of one of the Specific Plan properties under a Williamson Act contract (William and Elaine Clark, owners of the proposed Clark Ranch Estates site) have not begun the non-renewal process for their contract. The Azevedos have filed for non-renewal, but the effective date for non-renewal will not begin until 2003. Neither of the other two owners with Williamson Act contracts have initiated non-renewal of their contracts, and they have not applied for any development approvals on their property.

Some of the Specific Plan area infrastructure improvements that are needed to allow development of the five project applications are proposed on some of these Williamson Act properties. The City's legal review of the Williamson Act concluded that such public improvements could be permitted uses on properties under a Williamson Act contract if the City adopts a resolution that identifies the proposed public improvements as compatible with agricultural use. If the City adopts such a resolution and makes appropriate findings, these improvements would be consistent with State law.

Because new development on Williamson Act contract properties cannot legally occur (other than the public service improvements described above) until such times as those contracts are not renewal or canceled, future development of the Specific Plan area would be consistent with all State requirements for successful non-renewal or cancellation of these contracts. There would be no significant impact on Williamson Act contract properties. There is the obvious displacement of agricultural use on properties that are currently under a Williamson Act contract. This impact was discussed under Impact 3.10-A and found to be significant. The specific impact regarding consistency with the Williamson Act is less than significant, assuming proper non-renewal or cancellation and implementation of any mitigation measures required as part of those cancellations. No mitigation beyond those already legally required is necessary.

The proposed Southwest Water Facility would be located on a property under a Williamson Act contract. The City may determine that such a facility is inconsistent with improvements allowed on Williamson Act contract properties.

## **Mitigation Measures**

1. Relocate the Southwest Water Facility as recommended in Mitigation No. 5 for Impact 3.7-C.

### **Impact Significance After Mitigation**

The relocation of the water facility would ensure that there would not be a conflict between this project and allowed uses on Williamson Act contract properties. The impact would be reduced to a less than significant level.

### **Impact 3.10-D      Development of the Specific Plan area has the potential for being inconsistent with Dixon General Plan policies that address the preservation of agriculture and agricultural soils.**

The General Plan designates the Specific Plan area for urban development. As such, the City accepted the loss of prime agricultural soils and agriculture in the area when it adopted the existing land use designations. While development of the area could be considered inconsistent with the Urban Development and Community Design Element Policy 10 and Natural Environment Element Policy 3, neither policy prohibits agricultural conversion of undeveloped lands within the City. In addition, the City is considering adoption of a master agricultural conversion program that would preserve prime agricultural soils, biotic habitat, and open space in the general area around Dixon. Future developers of the Specific Plan area would contribute fees to fund this program. Given existing General Plan land use designations for the Specific Plan area, the proposed master agricultural conversion program, and the mitigation measures recommended for Impacts 3.10-A and 3.10-B, the impact is considered less than significant, and no additional mitigation is required.

### **Impact 3.10-E      Development of the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies and existing zoning provisions that address future land use patterns.**

As noted in Section 1.0 (Introduction), the proposed Specific Plan would require amendment of the Dixon General Plan to make adjustments in General Plan land use designations to achieve consistency between the Specific Plan and the General Plan. The adjustments would include changes in the configuration of designated Employment Center (E), Highway Commercial (HC), Community Commercial (CC), Residential Medium Density-Low (MDL), and Residential Low Density (LD) areas; designation of Functional (F) buffer areas; relocation of the designated Park (P) site from roughly the center of the plan area to a location on the south side of West A Street; and elimination of the designated elementary school site due to the Dixon Unified School District's desire to develop a school in another area. These minor adjustments, which are included in the Specific Plan application as a proposed General Plan amendment, would represent a less

than significant land use impact. Other potential environmental impacts of these changes (e.g., impacts on park and school services) are addressed in other sections of this EIR.

The proposed Specific Plan would not conflict with applicable existing zoning regulations, since the City of Dixon Zoning Ordinance specifies that, in Planned Development (PD) zones such as those that currently apply to the plan area, an applicable specific plan may establish the zoning standards.

**Impact 3.10-F      The Specific Plan would create the potential for conflicts between on-site residential uses and commercial and employment center uses.**

In the western part of the plan area, the proposed Specific Plan would allow low- and medium-density housing adjacent to community commercial and employment center uses. In some areas, major arterial streets (Batavia Road or Gateway Drive) would separate the residential uses from the commercial or employment center uses. Nevertheless, the proposed Specific Plan would create a potential for land use conflicts between the residential and commercial or employment center uses. Such conflicts might include noise disturbances, exterior light intrusion, lack of privacy, visual barriers, traffic and parking conflicts, and safety concerns for residents due to potential use of hazardous materials in the proposed employment center. (See also Sections 3.6, Noise, 3.7, Aesthetics, and 3.8, Hazards and Hazardous Materials for discussion of these potential conflicts.) Such land use conflicts could be considered inconsistent with Dixon General Plan Economic Development Element Policies 6, 16, and 17, which call for compatibility among industrial, commercial, and residential uses. The Specific Plan contains goals, policies, implementation programs, and design guidelines and standards that would assist in reducing this impact, however.

**Specific Plan Provisions**

The Specific Plan contains the following relevant goals, policies, and implementation programs:

**Goal 2.2      *Achieve Superior Community Design with Southwest Dixon serving as a gateway to the City.***

**Policy 2.2.8      *Land Use Incompatibilities - Provide separation where necessary between incompatible land uses, such as public streets and recreation corridors, landscape screening, berms, walls, setbacks, and/or height limits. Provide landscape screening for parking lots and other uses that detract from scenic qualities. Specific landscape setbacks on private and public right-of-ways are defined in the City Zoning Ordinance and Section 8 of the Specific Plan.***

**Policy 2.2.9      *Sound Walls - Select noise barriers with consideration of visual quality. Explore alternatives to standard sound walls, including landscaped earth berms and building setbacks. Where sound walls are required, use vines or other landscape treatment to soften their appearance. Provide frequent offsets and architectural treatment to provide visual interest.***



**Policy 2.2.10 Light and Glare** - Control light and glare generated by new development through the use of light fixture location, orientation, and shielding.

**IP 2.2.a Design Review** - Continue to require design review of new development before the issuance of a development permit, in keeping with the Zoning Ordinance and the requirements of this Specific Plan. Use the design guidelines [Appendix A of the Specific Plan] for guidance in design review...

**IP 2.2d Light and Glare** - Require proposed projects that generate significant light and glare to provide detailed control measures. Include elements such as landscape screening, setbacks, use of directional and shielded fixtures, and use of low-intensity lamps where appropriate. Preference shall be given to fixtures that direct most light downward to areas of use, rather than unshielded fixtures that lose light to the night sky.

**Goal 5.1 Provide adequate land and support for the development of commercial uses in Southwest Dixon, in order to serve local residents and freeway motorists.**

**Policy 5.1.3 Land Use Compatibility** - Protect nearby residential uses from possible adverse effects through the design review process.

**Policy 5.1.4 Landscape Treatment** - Ensure that landscaping on commercial projects meets City standards for water conservation, maintenance, and other factors.

**Policy 5.1.5 Highway Commercial Uses** - Auto-oriented commercial uses fronting on arterial and collector streets shall present high-quality design and shall be adequately screened from adjacent uses. Control access to minimize circulation conflicts.

**IP 5.1a Community Commercial Center Standards** - The following submittals shall be required for design review:

- Site plan, with designation of pedestrian corridors and links to adjacent residential areas. Parking shall be buffered from West A Street by landscape treatment.
- Master landscape plan, with attention to providing shade for parking lots and pedestrian pathways, use of landscaping for energy conservation, solar access, water-conserving features, and perimeter treatment to maintain visual quality along adjacent streets.
- Proposed detailed design standards to assure the project is well-designed for pedestrians.
- Signage plan, with emphasis on clear orientation.
- Service provisions, including screening of trash areas and mechanical equipment.

- *Noise and security plan, with standards and long-term provisions to control parking lot cleaning, after-hours loitering, noise from commercial operations, and graffiti.*
- *Compliance with other requirements of the Dixon Zoning Ordinance and other City ordinances, including the water efficient landscape ordinance.*

**Goal 5.2** *To provide for industrial and other employment-generating uses in Southwest Dixon that create jobs and enhance the local economy.*

**Policy 5.2.2** *Development Standards - Encourage the development of well-designed and planned business and industrial areas in Southwest Dixon.*

**Policy 5.2.3** *Land Use Compatibility - Ensure that there is compatibility between industrial and adjacent uses.*

**Policy 5.2.4** *Performance Standards - Require industrial development to meet performance standards for noise, odor, light, glare, traffic generation, air emissions, soil contamination, and surface and groundwater contamination in order to minimize impacts on the environment and on adjacent uses. Require the screening and control of unsightly or excessively noisy operations.*

**Policy 5.2.5** *Prohibited Uses - Do not allow uses that create noxious or nuisance conditions to locate within the Plan Area.*

**IP 5.2a** *Employment Center Design Guidelines and Standards - Prior to development in the Employment Center land use area, Design Guidelines and Standards shall be prepared as outlined below:*

Land Use

a. *Proposed land uses...*

Noise Management Plan - *This plan would be required in mixed-use areas where noise sources would be in close proximity to sensitive receptors. The objectives of the noise management plan would be to provide a high-quality acoustic environment for tenants and workers. The plan would be prepared by a qualified acoustic consultant.*

Public Safety and Other Standards

- Heat, glare, and humidity-producing operations: standards for conditions at property line*
- Vibration: prohibition on discernible vibration at property line*
- Fire, safety and explosion: requirements for safety devices and equipment*
- Restrictions on hazardous materials*

### Architectural Design Information

- a. *Architectural features, including visual considerations, energy conservation, and water conservation*
- b. *Exterior lighting*

### Landscape Plan

- a. *Special provisions for highly-visible areas adjacent to the freeway, with landscape screening as needed.*
- b. *Plantings to soften the visual effect of structures, and shall have strategically-located trees and shrubs to reduce glare impacts where needed...*

In addition, Appendix A (Design Guidelines and Standards for Southwest Dixon) of the Specific Plan contains guidelines and standards that address the following:

- **General Design Guidelines:** guidelines for building design (building articulation and massing, height, coordinated building treatment, materials); landscape treatment (including landscape screening and lighting); and signage.
- **Non-Residential Development Guidelines:** guidelines for the community commercial center, employment center, and highway commercial areas (including provisions for buffers where highway commercial use adjoins multi-family residential use).
- **Residential Design Guidelines:** including guidelines for privacy and building setbacks.

These Specific Plan provisions, combined with other provisions and mitigation measures discussed in other sections of this EIR, would help to reduce the potential for incompatibility between residential uses and commercial and employment center uses. The land use incompatibility would remain a potentially significant impact, however, subject to the mitigation measure listed below.

### **Mitigation Measures**

1. Modify the proposed Design Guidelines and Standards (Specific Plan Appendix A) to include the following guideline (which is already provided for highway commercial use – see Specific Plan Appendix A, page A-15):

*“Provide a satisfactory buffer where community commercial or employment center use adjoins multi-family residential use. A minimum planter width of five feet is needed, with plantings which will provide a 15-foot high evergreen screen within five years. To avoid glare problems affecting neighboring residential use, lighting on community commercial or employment center property shall be strictly controlled in keeping with the Zoning Ordinance. Organize use of the property so that trash collection areas and other noise-producing activities are located away from the common property boundary with residential use.”*

### **Impact Significance After Mitigation**

The recommended mitigation measures would reduce this potential land use conflict impact to a less than significant level.

#### **Impact 3.10-G      The Specific Plan would create the potential for conflicts between on-site residential uses and the community and neighborhood parks.**

Residential development would adjoin the south, east, and west sides of the proposed community park on the south side of West A Street in the northcentral part of the plan area. The community park may contain a community center, playing fields, and other uses that could create noise, traffic, and light nuisances for adjoining residents.

Residential development would adjoin the north, east, and west sides of the neighborhood park/fire station sites proposed for the east side of Pitt School Road in the southeast part of the plan area. The neighborhood park may contain play areas and other facilities that could create noise, traffic, and light impacts, although these impacts would probably be less intensive than those associated with the proposed community park.

The Specific Plan contains goals, policies, and implementation programs that would assist in reducing these impacts.

#### **Specific Plan Provisions**

The Specific Plan contains the following relevant goals, policies, and implementation programs:

- Goal 7.6**      *To establish and maintain a park system and recreation facilities that are suited to the needs of Southwest Dixon residents, visitors, and workers.*
- Policy 7.6.3**      *Park Location - Locate parks within walking distance of residential areas. Provide for convenient access to parks, particularly for children, elderly residents, and disabled residents.*
- Policy 7.6.4**      *Park Lighting and Noise - Shield or redirect exterior lighting and noise where recreation facilities are adjacent to residential or other sensitive uses.*
- Policy 7.6.5**      *Community Park - Provide direct access and adequate parking for the Southwest Dixon community park, so as not to disrupt residential areas.*
- IP 7.6e**      *Night Lighting - A master lighting plan shall be prepared for parks, other public facilities, and private recreation facilities where intensive night lighting is required. The Master Lighting Plan shall be required at the time of the first tentative map in the Plan Area and shall be approved by the City. The Master Lighting Plan shall be consistent with the City's Parks Master Plan and meet the following performance standards.*

- *Designer to have credentials and expertise in lighting design, and approved by City.*
- *Provisions to reduce glare on adjacent residents, including techniques such as automatic shutoff controls, glare shields, position and orientation of fixtures, and location of fixtures at a minimum height consistent with intended use.*
- *Selection of energy-conserving equipment, consistent with visual and functional considerations, and use of shields to minimize loss of light to the night sky.*
- *Lighting design consistent with security needs, with review by the Dixon Police Department.*

These measures, combined with mitigation measures recommended in Section 3.4, Traffic and Circulation, Section 3.6, Noise, and Section 3.7, Aesthetics would ensure that potential conflicts between the proposed parks and adjoining housing would remain a less than significant impact. No additional mitigation measures are required.

**Impact 3.10-H      The Specific Plan would create the potential for conflicts between new development and existing lower density, rural residential development within the Specific Plan area that would remain as the plan area develops.**

The Specific Plan area currently contains 14 housing units (12 rural residences and two mobile homes) scattered throughout the plan area. It is unknown whether any of the rural residences may remain as the plan area develops. On the Clark property, for example, a currently proposed Tentative Subdivision Map (see Section 3. Project-Specific Impacts below) would allow development of the property while preserving an existing house on one of the proposed lots.

Development of higher density housing and commercial areas could cause land use conflicts with these existing, lower density rural residential areas. Existing residents would probably notice more noise, light, and traffic as the Specific Plan area develops.

The Specific Plan contains provisions that would assist in reducing these impacts.

**Specific Plan Provisions**

The Specific Plan contains the following relevant policy and implementation program:

**Policy 2.2.7    *Existing Homes*** - *New development shall be designed and landscaped to protect privacy and minimize visual intrusion for existing residents in the area.*

**IP 2.2a        *Design Review*** - *Continue to require design review of new development before the issuance of a development permit, in keeping with the Zoning Ordinance and the requirements of this Specific Plan. Use the design guidelines and standards [Appendix A of the Specific Plan] for guidance in design review...*

*Special design review considerations include:...*

- (5) Development Near Existing Residences** - *New development shall be designed to protect privacy and minimize loss of visual quality for existing area residents. Provide special features including landscape screening and height limits as needed.*

In addition, Appendix A (Design Guidelines and Standards for Southwest Dixon) of the Specific Plan contains guidelines and standards that address residential and non-residential development.

These provisions, combined with mitigation measures recommended in Section 3.4, Traffic and Circulation, Section 3.6, Noise, and Section 3.7, Aesthetics would ensure that potential conflicts between existing rural residences and adjoining housing would remain a less than significant impact. No additional mitigation measures are required.

**Impact 3.10-I Proposed single-family and multi-family residential areas may differ in character and scale, creating the potential for building shadowing, view blockage, traffic, noise, and other land use-related effects.**

The Specific Plan proposes residential densities ranging from Low Density (LD) (7,000- to 19,999-square-foot lots) to Medium Density Low (MDL) (3,000- to 6,999-square-foot lots) to Medium Density High (MDH) (2,000- to 2,999-square-foot lots). In some parts of the plan area, MDL areas would immediately adjoin LD areas, and in one instance an MDH area would immediately adjoin an MDL area. In other instances, these areas would be separated by major roads. None of the lowest density (LD) areas would immediately adjoin the highest density (MDH) area.

The Specific Plan contains provisions that would assist in reducing these impacts.

**Specific Plan Provisions**

The Specific Plan contains the following relevant policies and implementation programs:

**Policy 2.2.8 Land Use Incompatibilities** - *Provide separation where necessary between incompatible land uses, such as public streets and recreation corridors, landscape screening, berms, walls, setbacks, and/or height limits. Provide landscape screening for parking lots and other uses that detract from scenic qualities. Specific landscape setbacks on private and public right-of-ways are defined in the City Zoning Ordinance and Section 8 of the Specific Plan.*

**Policy 2.2.10 Light and Glare** - *Control light and glare generated by new development through the use of light fixture location, orientation, and shielding.*

**IP 2.2.a Design Review** - *Continue to require design review of new development before the issuance of a development permit, in keeping with the Zoning Ordinance and the requirements of this Specific Plan. Use the design guidelines [Appendix A of the Specific Plan] for guidance in design review...*

**IP 2.2d**      **Light and Glare** - Require proposed projects that generate significant light and glare to provide detailed control measures. Include elements such as landscape screening, setbacks, use of directional and shielded fixtures, and use of low-intensity lamps where appropriate. Preference shall be given to fixtures that direct most light downward to areas of use, rather than unshielded fixtures that lose light to the night sky.

In addition, Appendix A (Design Guidelines and Standards for Southwest Dixon) of the Specific Plan contains guidelines and standards that address residential development, including views, privacy, garages and driveways, lot size, lot coverage, building setbacks, landscaping, and parking areas.

These provisions, combined with mitigation measures recommended in Section 3.4, Traffic and Circulation, and Section 3.6, Noise, would ensure that potential conflicts between proposed single-family and multi-family residential areas would remain a less than significant impact. No additional mitigation measures are required.

**Impact 3.10-J**      **In several locations (along West A Street, Pitt School Road, Evans Road, Gateway Drive, and North Parkway), proposed residential development would adjoin proposed major (arterial or collector) streets. The location of these residential areas next to these future busy roads has the potential to create visual, noise, and air quality problems for project residents.**

The northern portions of Gateway Drive and Evans Road and the entire length of Pitt School Road through the Specific Plan area are proposed to be arterial streets. The entire length of the proposed North Parkway would be a collector street. Medium Density Low (MDL) residential development would adjoin the south side of West A Street. Low Density (LD) development would adjoin the east side and MDL development would adjoin the west side of Pitt School Road. Medium Density High (MDH) and MDL development would adjoin the south (east) side of the arterial portion of Gateway Drive, and MDL development would adjoin the west side of the arterial portion of Evans Road. LD and MDL development would adjoin both sides of North Parkway, and MDH development would adjoin the north side of this street. (See Figures 3 and 4 in Section 1.0, Introduction, of this EIR.)

The Specific Plan provides policies and implementation programs that address pedestrian and bicycle circulation along streets in the Specific Plan area (see Section 3.4, Traffic and Circulation, of this EIR). However, the Specific Plan does not contain policies, implementation programs, or design guidelines that specifically address the relationship of proposed residential development to arterial and collector streets. The potential incompatibility between these residential areas and major streets represents a potentially significant impact.

### **Mitigation Measures**

1. Incorporate design criteria into the proposed Specific Plan and/or future design plans for areas where residential development would adjoin arterial or collector streets. These design criteria shall be modified to reflect the mitigation measures

recommended in Sections 3.4, Traffic and Circulation, 3.5, Air Quality, 3.6, Noise, and 3.7, Aesthetics of this EIR.

### ***Impact Significance After Mitigation***

The recommended mitigation measure would reduce this potential land use conflict impact to a less than significant level.

**Impact 3.10-K      The Specific Plan would create potential land use conflicts and safety hazards by allowing urban development adjoining the existing Weyand Canal and two proposed detention ponds (Batavia Pond and West Pond).**

As illustrated on Figure 6 in Section 1.0, Introduction, the Specific Plan would allow employment center development on either side of the existing Weyand Canal, which extends in a north-south direction through the western corner of the plan area and then west along the southern boundary of the plan area. The applicant proposes that the canal remain in its current location and configuration. (See further discussion in Section 3.12, Water, of this EIR.)

The Specific Plan designates a "functional buffer" along portions of the southern boundary of the plan area (see Figure 6 in Section 1.0, Introduction) to separate proposed low density residential and industrial employment center areas from two proposed detention ponds: Batavia Pond, to be located along the southern boundary of the Specific Plan area on the west side of Batavia Road; and West Pond, to be located near Batavia Pond on the east side of Batavia Road. The "functional buffer" designation would cover the entire detention pond area. (See further discussion in Section 3.2, Hydrology and Water Quality, of this EIR.) The Specific Plan would allow employment center and low density residential development on the north side of these ponds.

Unless adequate separation and fencing are provided or the Weyand Canal is placed underground, employment center development could create a safety hazard (by allowing people to walk and drive close to the canal) as well as problems for operation of the canal (e.g., runoff, trash deposited in the canal). Similar problems could result where employment center or low density residential development adjoins the proposed Batavia and West Ponds. These land use incompatibilities represent a potentially significant impact.

### ***Mitigation Measures***

1. As a condition of approval for development on the Schroeder property, require applicant compliance with SID requirements for undergrounding or fencing of the Weyand Canal. (See Section 3.12, Water, of this EIR.)
2. As a condition of approval for development on the Andrews-Dixon (Evans Ranch) property, require applicant compliance with safety measures (e.g., fencing, setbacks) adjacent to the proposed Batavia and West Ponds. (See Section 3.2, Hydrology and Water Quality, of this EIR. Also see Impacts 3.10-M through T.)



### **Impact Significance After Mitigation**

The recommended mitigation measures would reduce the potential land use conflict impact to a less than significant level.

**Impact 3.10-L Proposed development of the Specific Plan area would alter the existing agricultural/rural residential land use character of the south Dixon vicinity by introducing urban development, road modifications, project-related traffic and noise, and other changes.**

Development proposed by the Specific Plan would be more urban in character than existing agricultural and rural residential uses to the south. Differences in land use character would not be a major issue for land uses to the north, east, or west. Specific Plan development would be similar in character to existing land uses to the north (highway commercial development and single-family housing) and to the east (single-family housing). (See proposed Specific Plan land use map, Figure 6 in Section 1.0, Introduction.) Interstate 80 would separate urban development in the Specific Plan area from agriculture and rural residences to the west.

Proposed "Functional Buffers" along portions of the southern plan area boundary would provide some separation between Specific Plan-related urban development and adjoining rural areas to the south. (See Figure 6 in Section 1.0, Introduction.) Urban development in the Specific Plan area would still be visible from the agricultural areas and the scattered rural residences (mainly clustered along Pitt School Road near the Union Pacific Railroad tracks) south of the plan area, however. Development proposed by the Specific Plan would also increase traffic and traffic-related noise on the local roads that serve this area. This combination of effects would detract from the rural land use character of the south Dixon area. Mitigation measures recommended in this EIR would help to reduce these effects. These measures include mitigations recommended in this section to reduce agricultural impacts; measures recommended in Sections 3.4, Traffic and Circulation, 3.6, Noise, and 3.7, Aesthetics to reduce Specific Plan-related traffic, noise, and visual impacts; and measures recommended in Section 3.8, Hazards and Hazardous Materials for providing agricultural buffers.

Urban development in the southwest Dixon area has been anticipated, as reflected by the urban land use designations of the Dixon General Plan. The change in the rural character of the area would therefore be considered a less than significant land use impact of the Specific Plan. No mitigation is required.

### **3. Project-Specific Impacts**

**Impact 3.10-M Development of the five projects would result in loss of Prime Farmland and adversely affect neighboring agricultural operations.**

The five project sites are all Prime Farmland. As discussed above under Impact 3.10-A, the development of each of the five projects would have a significant impact on Prime Farmland.

As described under Impact 3.10-A, there are no feasible mitigation measures to reduce the impact to Prime Farmland to a less than significant level. The effect on neighboring agricultural operations is reduced by provisions of the Specific Plan. As discussed under Impact 3.10-B, there could be long-term effects on neighboring agricultural operations, but the impact is considered speculative and, thus, less than significant given the boundaries of the existing Dixon Sphere of Influence.

**Impact 3.10-N      The Evans Ranch project would create the potential for conflicts between on-site residential uses and commercial uses.**

The Evans Ranch project proposes Medium Density High (MDH) and Medium Density Low (MDL) residential development adjacent to Community Commercial development. (See Figure 6 in Section 1.0, Introduction.) In addition to the proposed Tentative Subdivision Map, the applicant has submitted development plans for the proposed Community Commercial and MDH residential areas on the east side of Gateway Drive. (See Figure 11 in Section 1.0, Introduction.) As shown on Figure 11, the MDL area would adjoin a parking lot in the Community Commercial area, and residential buildings along the northern boundary of the MDH area would adjoin commercial buildings and a driveway along the southern boundary of the Community Commercial area.

These building and parking lot relationships have the potential to cause conflicts between residential and commercial uses. For example, noise and light from traffic and deliveries in the commercial parking lots and rear building areas could disturb adjacent residents, and noise and light from the MDH parking lot could disturb residents of the adjoining MDL area. (See also Impact 3.6-G in the Noise section of this EIR.) Such land use conflicts could be considered inconsistent with Dixon General Plan Economic Development Element Policies 16 and 17, which call for compatibility between commercial and residential uses. These potential conflicts would represent a potentially significant impact.

***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.10-F and apply the relevant performance standards and design guidelines to the Evans Ranch project. Also carry out mitigation measures recommended for Impact 3.6-G in Section 3.6, Noise, of this EIR.

***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the potential land use conflict impact to a less than significant level.

**Impact 3.10-O      The Dixon Ridge and Orchard Estates-Sanders projects would create the potential for conflicts between residential uses and parks.**

The proposed community park would be located in the Dixon Ridge project, and the proposed neighborhood park would be located in the Orchard Estates-Sanders project. (See Figures 8 and 10 in Section 1.0, Introduction.) As explained in Impact 3.10-G, the facilities in these parks could generate noise, traffic, and light that could disturb adjacent residents. However, the Specific Plan provisions discussed under Impact 3.10-G, combined with mitigation measures recommended in Section 3.6, Noise, would ensure that potential conflicts between the proposed parks and adjoining housing would remain a less than significant impact. No mitigation measures are required.

**Impact 3.10-P      On the Clark site, proposed residential development would create the potential for conflicts with the existing rural residence on the site, which would be preserved.**

The proposed Tentative Subdivision Map for the Clark property would allow development of 54 proposed Low Density (LD) single-family residential lots in an approximately 16-acre area (with lot sizes ranging from 7,000 to 12,000 square feet or more) while preserving an existing house on an approximately 27,880-square-foot lot. (See Figure 15 in Section 1.0, Introduction.) The rural residential lot would adjoin the backyards of the surrounding residential lots. The Specific Plan provisions discussed under Impact 3.10-H (for design review, landscape screening, height limits, and so on) would ensure that potential conflicts between the existing rural residence and adjoining housing would remain a less than significant impact. No mitigation measures are required.

**Impact 3.10-Q      On the Evans Ranch and Dixon Ridge sites, proposed single-family and multi-family residential areas would differ in character and scale, creating the potential for building shadowing, view blockage, traffic, noise, and other land use-related effects.**

As shown on Figure 11 in Section 1.0, Introduction, the Medium Density Low (MDL) residential area on the Evans Ranch site would adjoin a parking lot in the Medium Density High (MDH) area. As shown on Figure 9 in Section 1.0, MDL development on the Dixon Ridge site would abut a Low Density (LD) residential area. The Specific Plan provisions discussed under Impact 3.10-I (for landscape screening of parking lots, light fixture requirements, design review, and so on) would ensure that potential conflicts between the existing rural residence and adjoining housing would remain a less than significant impact. No mitigation measures are required.

**Impact 3.10-R      On the Evans Ranch, Dixon Ridge, Orchard Estates-Garcia, and Orchard Estates-Sanders sites, proposed residential development would adjoin proposed major (arterial or collector) streets. The location of these residential areas next to these future busy roads has the potential to create visual, noise, and air quality problems for project residents.**

In the Evans Ranch project, Medium Density High (MDH) housing would adjoin Gateway Drive, a proposed arterial street, and North Parkway, a proposed collector street. Low Density (LD) housing would also adjoin the south side of Gateway Drive and North Parkway. Medium Density Low (MDL) housing would adjoin both sides of North Parkway, as well as the south side of West A Street, an arterial street. (See Figures 6 and 9 in Section 1.0, Introduction.)

In the Dixon Ridge project, MDL housing would adjoin the south side of West A Street and both sides of North Parkway.

In the Orchard Estates-Garcia and Orchard Estates-Sanders projects, LD housing would adjoin the east side of Pitt School Road, which is proposed as an arterial street.

In the case of all of the proposed MDL and LD lots, the backyards of the lots would adjoin these major streets. In the case of the MDH housing on the Evans Ranch site, the apartment buildings would be set back a minimum of 30 feet from the edge of Gateway Drive and 20 feet from the edge of North Parkway.

The relationship of these residential areas to busy roads has the potential to cause visual, noise, and air quality nuisances for project residents. These potential conflicts would represent a potentially significant impact.

#### ***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.10-J and apply the relevant design criteria to the Evans Ranch, Dixon Ridge, Orchard Estates-Garcia, and Orchard Estates-Sanders projects.

#### ***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the potential land use conflict impact to a less than significant level.

**Impact 3.10-S      On the Evans Ranch and Clark sites, low density housing would adjoin the proposed West Pond detention basin, creating the potential for land use conflicts and safety hazards.**

On the Evans Ranch site, the Low Density (LD) residential lots would be separated from the proposed West Pond detention basin by a 25-foot-wide parkway extending along the northern boundary of the detention basin site. (See Figure 10 in Section 1.0, Introduction.) On the Clark site, the parkway would separate the detention basin from LD residential lots to the north and east. (See Figure 15 in Section 1.0, Introduction.) The detention basin could represent a safety hazard, for example, for children playing near or in the basin.

### **Mitigation Measures**

1. As conditions of approval for the Evans Ranch and Clark Ranch Estates/Clark Property-Ryder Homes Tentative Subdivision Maps, require that the areas adjoining the detention basin be fenced, or that the applicants demonstrate to City satisfaction that the basin is designed so as not to represent a safety risk.

### **Impact Significance After Mitigation**

The recommended mitigation measure would reduce the potential land use conflict impact to a less than significant level.

**Impact 3.10-T      Development of the Clark site has the potential to be inconsistent with General Plan policies calling for phasing of development in an orderly, contiguous manner.**

Among the five proposed projects, the Clark project is the only proposed development that would not adjoin existing development north and/or east of the Specific Plan area. If the Clark site were to be developed before the Evans Ranch or Dixon Ridge sites, the development would not be contiguous with other urbanized areas. This pattern of development would be inconsistent with the following policies of the Dixon General Plan Urban Development and Community Design Element:

**Policy 4            *The City shall ensure that future residential growth takes place in or adjacent to areas where development has already taken place...***

**Policy 5            *The City shall phase development in an orderly, contiguous manner in order to maintain a compact development pattern and to avoid premature investment for the extension of public facilities and services...***

Inconsistency with these land use-related policies of the Dixon General Plan would represent a potentially significant impact.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. The Specific Plan does contain the following relevant policy, however:

**Policy 2.1.2      *Development Pattern - In keeping with the City's General Plan, phase Southwest Dixon development in an orderly, contiguous manner. Residential development shall be contiguous to existing built-up areas, with commercial and employment generating uses in strategic locations near the freeway.***

### **Mitigation Measures**

1. As a condition of approval of the Clark Ranch Estates/Clark Property-Ryder Homes Tentative Subdivision Map, specify that the City of Dixon will not issue building permits for residential lots on the site until building permits for lots

adjoining the Clark site on the Evans Ranch and Dixon Ridge sites have been issued.

#### ***Impact Significance After Mitigation***

The recommended mitigation measures would reduce the potential General Plan inconsistency impact to a less than significant level.

## **4. Cumulative Impacts**

### **Impact 3.10-U      Development of the cumulative projects would result in loss of Prime Farmland and adversely affect neighboring agricultural operations.**

The development of the other projects assessed for cumulative impacts plus the development of the Specific Plan area would result in a cumulative loss of Prime Farmland and have adverse affects on neighboring agricultural operators in the same fashion as described under Impacts 3.10-A and 3.10-B. The *2000 Agricultural Crop and Livestock Report* prepared for the County describes how farm acreage declined from 341,227 acres in 1999 to 332,568 in 2000, a 2.5 percent decrease. Removal of additional lands from commercial agricultural production would continue the decline of agricultural production in Solano County. While other projects may be required to also contribute to funding the master agricultural conversion program, this mitigation does not reduce the impact to prime agricultural soils and agriculture to a less than significant level. The impact is considered a significant cumulative impact.

### **Impact 3.10-V      Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative changes in the land use character of the south Dixon area.**

Section 1.0, Introduction provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The Pheasant Run #7 and Southpark projects are located in the south Dixon area. The Pheasant Run #7 site is located immediately north of the Southwest Dixon Specific Plan area, and the Southpark site is located east of the Specific Plan area. Previously-prepared EIRs on the Pheasant Run and Southpark projects did not identify cumulative land use impacts for those projects. The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.2-7) noted that the Southwest Dixon Specific Plan "new growth area" was in the planning stages, and indicated that "the Specific Plan land uses have not been influenced by the proposed [Pheasant Run #7] project."

Since development of the Southwest Dixon Specific Plan area and the nearby Pheasant Run #7 and Southpark projects would generally be consistent with the Dixon General

Plan, the Specific Plan's contribution to the cumulative change in land use character in the area would represent a less than significant impact. No mitigation is required.

# 3.11 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

## A. Setting

The City of Dixon Fire Department provides fire protection and emergency medical services to the proposed Specific Plan area.

### 1. Staffing

The Dixon Fire Department has a force of 18 paid firefighters, approximately 30 volunteer firefighters, one administrative assistant, one code compliance technician, and one part-time clerk. The Department uses a staffing ratio of one firefighter per 1,000 population; however this is subject to revision based on actual or mandated needs. The Fire Department responds to all types of emergencies, including fire, auto accidents, rescues, hazardous material releases, and medical emergencies. Some firefighters trained as paramedics provide Advanced Life Support services as part of a countywide program. Table 27 lists the number of Fire Department responses by type of call each year for the period 1997-2001 (E-mail communication from Ric Dorris, Dixon Fire Chief, 5/23/02).

**Table 27**  
**City of Dixon Fire Department Responses by Type of Call, 1997-2001**

Type of Call	Year				
	1997	1998	1999	2000	2001
Fire	206	161	213	207	360
Emergency Medical	646	682	655	686	897
Other	511	497	733	728	738
<b>TOTAL</b>	<b>1,363</b>	<b>1,340</b>	<b>1,601</b>	<b>1,621</b>	<b>1,995</b>

Source: City of Dixon Fire Department, May 2002.

### 2. Existing Fire Stations

The main fire station is located on Ford Way east of North First Street, in approximately the center of the City. This fire station, which currently serves the plan area, contains bays for seven fire engines and houses seven pieces of equipment.

### 3. Response Times

The Fire Department's goal is to arrive on-scene at emergency calls within five minutes from time of notification. This response time goal, consistent with recognized standards, requires a travel time of three to four minutes from the station. In addition, to meet the requirement to provide paramedic services, the Fire Department is required to have a paramedic arrive at a medical emergency in under six minutes. Current response time to the nearest street to the Specific Plan area (West A Street) is six minutes. An additional one to three minutes would be required to travel into the project area, for a total response



time of seven to nine minutes. This total response time would not meet the Fire Department's response time goal (or recognized standards (E-mail communication from Ric Dorris, 5/23/02).

#### **4. Fire Station Expansion Plans**

The Fire Department's current plans for fire station expansion consist of adding a new station in the Southwest Dixon Specific Plan area. The addition of a new station in the Specific Plan area will require the hiring of six new firefighters, who will also be trained as paramedics. In addition, a fire engine will need to be purchased (E-mail communication from Ric Dorris, 5/23/02).

#### **5. Financial Considerations**

The Fire Department's annual operating budget currently consists of \$41,538 per firefighter (including volunteers), or \$110,769 per professional firefighter. Additional professional firefighters are expected to add \$70,000 per firefighter, or \$420,000 per year per new fire station, to the Department's budget (E-mail communication from Ric Dorris, 5/23/02).

In accordance with Assembly Bill (AB) 1600, the City of Dixon collects impact fees from new development to fund the expansion of fire protection facilities. The impact fees, which are updated at least every year, are currently set at \$282.87 per single-family housing unit, \$372.20 per multi-family housing unit, and \$0.60 per square foot of commercial development. Impact fees are levied at the time that an applicant applies for building permit approval ("City of Dixon, Summary Fee Schedule, Effective 06/22/2002"; and personal communication with Kim Johnson, Planning Commission Clerk, City of Dixon, and Paul Siegel, Building Official, City of Dixon, 6/23/02).

#### **6. Pertinent City of Dixon General Plan Policies**

The Public Services and Facilities Element of the Dixon General Plan contains the following policies generally relevant to public service provision in the Specific Plan area:

**Policy 1**        *The City shall create a system of public service provision which will:*

- *Support and encourage a contiguous pattern of land use, and discourage premature development;*
- *Maintain or improve current service standards; and*
- *Minimize potential environmental, fiscal and social impacts.*

**Policy 2**        *New developments shall pay its fair share of the costs of all required public facilities and services by means of adequate mitigation fees. An equitable basis for allocating costs between new development and existing areas will be defined where capital improvements raise the quality of existing service or remedies for an existing problem in service provision. However, premature upgrading and replacement of all types of*

*facilities and equipment caused by new growth will be the responsibility of new development.*

**Policy 3**     *The City shall ensure that public facilities are planned to promote economic development consistent with the overall General Plan and its specific economic development policies.*

**Policy 4**     *The City shall encourage and control growth to the extent that local service networks can support it.*

**Policy 5**     *The City shall establish an equitable means of financing facility expansions/capital improvements, and link decisions regarding such expansions and improvements to the policies of the General Plan.*

The Public Services and Facilities Element also contains the following policies specifically relevant to fire protection and emergency medical services:

**Policy 28**     *The City shall ensure that new development incorporates street layouts which provide adequate emergency access, distinct street names and visible address markings.*

**Policy 29**     *The City shall ensure that development within the Dixon Planning Area does not exceed the capability of the Dixon Fire Department to provide an adequate level of fire protection.*

**Policy 30**     *The City shall ensure that the water system will provide flow adequate for fire suppression for the types of structures and uses anticipated prior to approving new development. New commercial and industrial structures will be limited to locations where water supply is adequate for fire suppression. Where water supply in existing subdivided areas do not meet current standards for fire flow, improvement measures will be pursued.*

**Policy 31**     *The City shall strive to maintain the following fire protection standards:*

- *Engine response time consistent with ISO criteria;*
- *A firefighter staffing level consistent with the type of fire department and ISO standards for communities similar to Dixon in relationship to actual needs;*
- *A requirement for built-in protection of commercial building in excess of 4,000 square feet;*
- *The spacing of fire stations consistent with recommended ISO standards, with each station on an adequate site, with the appropriate firefighting equipment; and*
- *Water storage and distribution systems capable of providing 4,000 gallons per minute of sustained flow for at least two hours.*

**Policy 32**     *The City shall require proponents of new development projects to contribute to the maintenance of an adequate level of public safety within the community, generally through the payment of the appropriate impact fees.*

In addition, the Urban Development and Community Design Element contains the following policies generally relevant to public service provision:

**Policy 5**     *The City shall phase development in an orderly, contiguous manner in order to maintain a compact development pattern and to avoid premature investment for the extension of public facilities and services. New urban development shall occur only in areas where municipal services are available and where adequate service capacity exists. In areas where proposed development would require major new facility expansion to ensure the provision of municipal services, adequate service capacity should be in place prior to the approval of the proposed development.*

**Policy 6**     *The City shall manage growth to the extent that local service networks can support it.*

**Policy 7**     *The City shall ensure that new development will pay all of the incremental public and facility costs which it generates.*

In addition, the Residential Environment Element contains the following policies generally relevant to public service provision:

**Policy 10**    *The City shall assess the impact of proposed new housing upon local public services, utilities and schools, and shall not approve proposed development which will overburden the capacities of, or budgets for, public services and utilities, unless the cost of infrastructure improvements is fully paid by those who benefit from their expansion.*

**Policy 11**    *The City shall link the approval of new residential development to its ability to "pay its own way," in terms of infrastructure and service improvements directly related to the proposed residential development.*

## **B.       Potential Impacts and Mitigation Measures**

### **1.       Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on fire protection and emergency medical services if it would:

- a.     Generate demand for fire protection services that would result in the need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Assessed in Impacts 3.11-A, 3.11-B, 3.11-C, 3.11-E, and 3.11-F below.*)

- b. Generate demand for fire protection services that would exceed the ability of the fire department to provide service without substantially decreasing its ability to serve the existing population. *(Assessed in Impacts 3.11-A, 3.11-B, 3.11-E, and 3.11-F below.)*
- c. Require more water for fire control than would be available. *(Assessed in Impact 3.11-C below.)*
- d. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- e. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed in Impact 3.11-D below.)*
- f. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*

## 2. Impacts – Proposed Southwest Dixon Specific Plan

**Impact 3.11-A New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for fire response. The proposed Specific Plan would provide for a 0.47-acre fire station site within the plan area.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would increase the number of fire and medical emergency calls requiring a response from the Dixon Fire Department. New construction in the area would create a significant impact due to extended response times and additional calls for service that would be beyond the Fire Department's current capabilities. The increased volume of calls and activity would require construction of a new fire station, along with purchase of new equipment and hiring of additional firefighters. A minimum of six additional firefighters/paramedics would need to be added and an additional fire engine purchased (E-mail communication from Ric Dorris, 5/23/02). The increased demand for fire protection services would represent a potentially significant impact.

The Specific Plan would provide for a 0.47-acre (approximately 20,473-square-foot) fire station site in the southeast corner of the plan area, on the east side of Pitt School Road immediately north of the proposed neighborhood park site (see Figures 6 and 9 in Section 1.0, Introduction). The fire station site would meet the Department's requirement for fire station site size, which is typically approximately 15,000 to 20,000 square feet (E-mail communication from Ric Dorris, 5/23/02). The proposed Specific Plan contains the following goal, policies, and implementation programs that address demand for fire protection services in the plan area:

**Goal 7.7** To provide satisfactory...fire protection to the Southwest Dixon Plan Area.

**Policy 7.7.1** **Fire Protection** - Ensure that new development does not exceed the capability of the Dixon Fire Department to provide an adequate level of fire protection.

**Policy 7.7.3** **Street Layout and Signage** - Ensure that new development in Southwest Dixon incorporates street layouts that provide adequate emergency access, distinct street names, and visible address markings.

**Policy 7.7.5** **Financing** - Require development proponents to contribute to the maintenance of an adequate level of public safety within the community, generally through the payment of appropriate impact fees.

**IP 7.7a** **Fire Station Site and Facility** - Prior to Specific Plan approval, the Fire Chief shall certify the suitability of the fire station site proposed in the Plan Area. A tentative site is indicated within the Specific Plan on Pitt School Road.

**IP 7.7b** **Fire Station Funding** - Building permits shall not be issued in the Southwest Dixon Plan Area until a new fire station is in operation in the Plan Area, or unless adequate and timely funding for such a station is assured in the Financing Plan or alternative funding options have been identified. The Fire Chief shall certify that the Southwest Dixon Plan can be served adequately from existing stations on an interim basis. Suitable funding may include, but is not limited to, any reasonable combination of the following elements:

- Payment of AB 1600 impact fees;
- Donation of vacant or improved land as a fire station sit constructed to Fire Department specification e;
- Donation of a newly constructed fire station;
- Advances of City funds to cover a temporary shortfall between construction and the collection of fees.

**IP 7.7d** **Fire Protection Standards** - Before project approval, verify that City fire protection standards are met...

- Engine response time consistent with City standards (5 minutes or less).
- Built-in protection for commercial buildings in excess of 4,000 square feet.

**IP 7.7e** **Ongoing Service Costs** - Monitor the level of service provided to Southwest Dixon. If General Fund revenues are not adequate to provide the level of...police and fire protection desired by the community, consider funding options such as benefit assessment districts, and impact fees.

**IP 8.2e** **Fire Station Financing** - An AB 1600 impact fee calculated to mitigate the cost of a new fire station shall be collected upon approval of each new development project in the Plan Area.

### ***Mitigation Measures***

In addition to the Specific Plan provisions noted above, the following mitigation measures are necessary:

1. Ensure that the new on-site fire station is constructed, staffed with a minimum of six firefighters/paramedics, and equipped with one fire engine by the time that 30 percent of the plan area is developed.
2. Require alarm systems and sprinklers in commercial buildings as required by the local fire code.

### ***Impact Significance after Mitigation***

The above-noted measures would ensure that the necessary fire protection services would be available as the Specific Plan area is developed. The impact would be reduced to a less than significant level.

### **Impact 3.11-B      New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for emergency medical aid.**

The additional population would result in more medical emergencies and traffic accidents requiring emergency medical response. The increased demand for emergency medical services due to medical emergencies and traffic accidents would represent a potentially significant impact.

### ***Mitigation Measures***

The Specific Plan provisions and other mitigation measures providing for a new fire station and staffing, as discussed under Impact 3.11-A, would be adequate to mitigate this impact. No additional mitigation measures are necessary.

### ***Impact Significance After Mitigation***

The above-noted measures would provide for additional Fire Department facilities and staffing in the Specific Plan area, ensuring that the necessary emergency medical services would be available as the plan area is developed. The impact would be reduced to a less than significant level.

### **Impact 3.11-C      Development in the Specific Plan area may increase the demand for water to suppress fires.**

To ensure that the Fire Department can suppress fires that ignite in the plan area, adequate water storage and pressure must be available. The possible increase in demand for emergency water represents a potentially significant impact.

The proposed Specific Plan contains the following policy and related implementation program regarding emergency water supply in the plan area:

**Policy 7.7.4 Water Supply – Fire Suppression** - For new development in Southwest Dixon, ensure that the water system will provide adequate flow for fire suppression for the proposed types of structures and uses.

**IP 7.7d Fire Protection Standards** - Before project approval, verify that City fire protection standards are met.

- Water storage and distribution systems capable of providing 4,000 gallons per minute of sustained flow for at least two hours.
- Engine response time consistent with City standards (5 minutes or less).
- Built-in protection for commercial buildings in excess of 4,000 square feet.

Implementation of these measures, combined with measures recommended in Section 3.12, Water, of this EIR, would ensure that adequate fire suppression water is available in the plan area. The impact would be reduced to a less than significant level, and no additional mitigation is required.

**Impact 3.11-D Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies that address Dixon Fire Department service capabilities and adequate water flow for fire suppression.**

Development in the Specific Plan area has the potential to be inconsistent with the following policies from the Public Services and Facilities Element of the Dixon General Plan:

**Policy 29** *The City shall ensure that development within the Dixon Planning Area does not exceed the capability of the Dixon Fire Department to provide an adequate level of fire protection.*

As explained under Impacts 3.11-A and 3.11-B, new residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for fire and emergency medical services that could exceed the capabilities of the Dixon Fire Department.

**Policy 30** *The City shall ensure that the water system will provide flow adequate for fire suppression for the types of structures and uses anticipated prior to approving new development. New commercial and industrial structures will be limited to locations where water supply is adequate for fire suppression...*

As explained under Impact 3.11-C, development in the Specific Plan area may increase the demand for water to suppress fires. Without mitigation, emergency water supply may not be adequate to serve new development.

These potential inconsistencies would represent a potentially significant impact.

### **Mitigation Measures**

Mitigation measures recommended for Impacts 3.11-A and 3.11-C would resolve the potential inconsistencies with Dixon General Plan policies.

### **Impact Significance after Mitigation**

The above-noted measures would reduce the impact to a less than significant level.

## **3. Project-Specific Impacts**

**Impact 3.11-E      Development of the five projects would increase calls for fire and emergency medical aid and demands for emergency water.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. The proposed Tentative Subdivision Map for the Sanders property includes the 0.47-acre fire station site designated by the proposed Specific Plan.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. The impacts identified under Impacts 3.11-A to 3.11-D would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts would adequately address the impacts of each of the five proposed individual development applications. Based on the Specific Plan, the new fire station would have to be operating or have assured funding before building permits are issued. Adequate water storage for fire suppression is required for each project. An additional mitigation measure recommended for Impact 3.11-A would ensure that the new on-site fire station is constructed, staffed with a minimum of six firefighters/paramedics, and equipped with one fire engine by the time that 30 percent of the plan area is developed. No additional impacts on fire protection or emergency medical services have been identified for the five applications, and no additional mitigation measures are required.

## **4. Cumulative Impacts**

**Impact 3.11-F      Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for fire protection services, emergency medical services, and emergency water.**

Section 1.0, Introduction, provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific



Plan projects). The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.11-8) indicated that, until the new fire station in the Southwest Dixon Specific Plan area is built, development on the Pheasant Run #7 site (located immediately north of the Specific Plan area) would subject project residents to potentially significant delays in response times, based on distance from the current fire station, and that emergency water availability was also a concern. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, page 4.6-7) also concluded that fire protection service impacts would be potentially significant, since response times to the Southpark site (located east of the Southwest Dixon Specific Plan area) may not be adequate until after the new fire station is built. The Northeast Quadrant Specific Plan Draft Environmental Impact Report (Wade Associates, August 1994, pages 4-121 to 4-122) also identified a potentially significant fire protection service impact, indicating that the Dixon Fire Department did not have adequate facilities, equipment, or staffing to serve the project, which would be located in the northeastern part of the City.

Unless cumulative fire protection and emergency medical service needs are met as they develop, the contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative demands on fire protection services, emergency medical services, and emergency water would represent a potentially significant cumulative impact.

### ***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.11-A and 3.11-C.

### ***Impact Significance after Mitigation***

Mitigation measures recommended for Impacts 3.11-A and 3.11-C above would reduce the cumulative fire protection and emergency medical service impacts to a less than significant level.

# 3.12 WATER

## A. Setting

Two water companies, Dixon-Solano Municipal Water Service (DSMWS) and the California Water Service Company (Cal Water), provide domestic water service in the City of Dixon. The Solano Irrigation District (SID) provides irrigation water for farmland in the vicinity.

### 1. Existing Domestic Water Purveyors

The DSMWS is operated through a Joint Exercise of Powers Agreement between the Solano Irrigation District and the City of Dixon. The DSMWS serves the Dixon Industrial Park, the Watson Ranch subdivision, the Pheasant Run subdivision, portions of the West A Street Assessment District, and other areas. The DSMWS will provide water to most of the plan area. All water in the DSMWS service area is groundwater from naturally occurring aquifers. Three wells pump this water from below the ground surface into the distribution system, which includes six booster pumps and two water storage tanks. The wells have a total capacity of 3,990 gallons per minute and provide a pressure range of 57 to 61 pounds per square inch. This system provided approximately 587 million gallons of water in 2001.

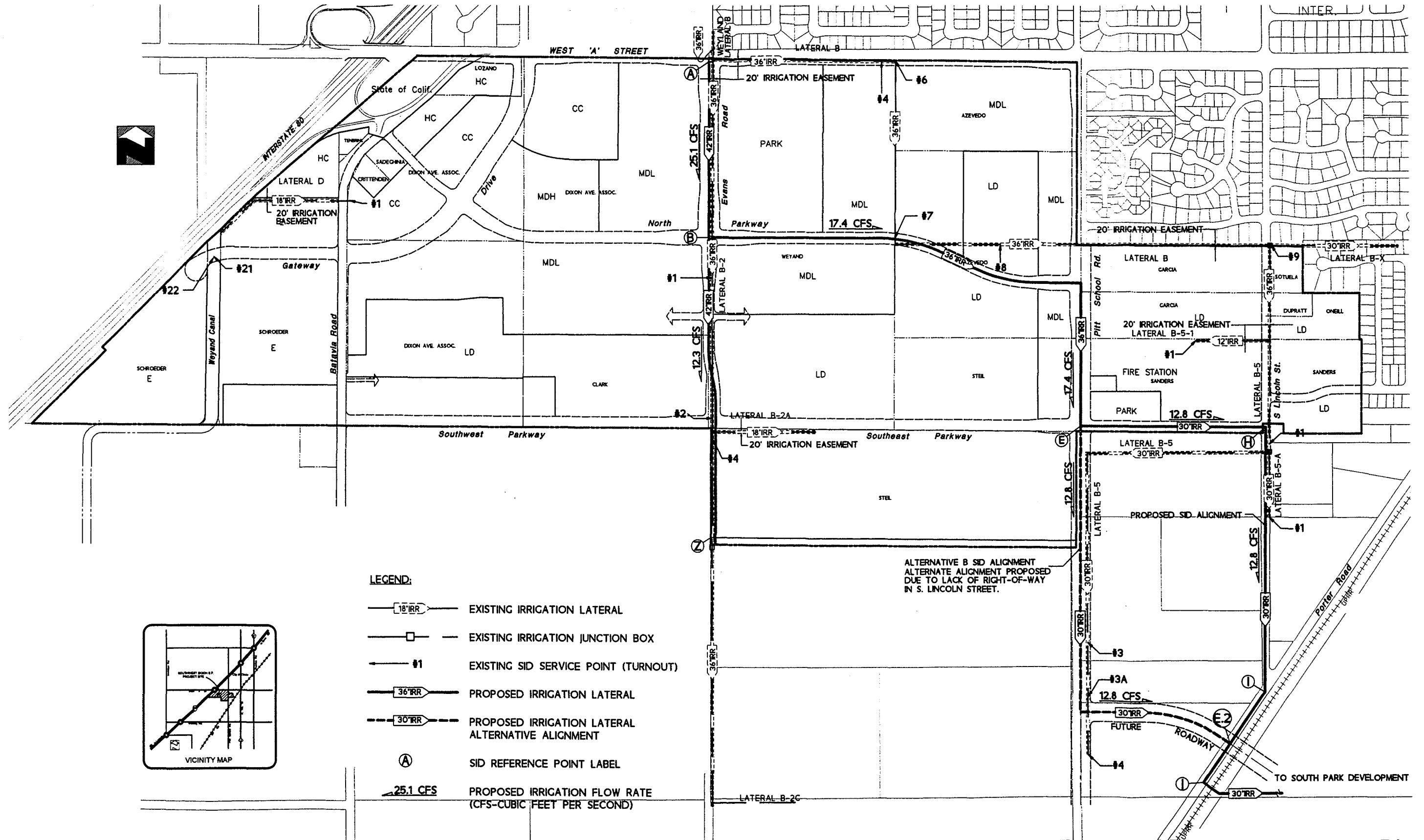
Cal Water, a privately-owned company, serves the core area of Dixon. Future water service by this company is limited to current service boundaries. Cal Water operates eight wells and one elevated water tank in the Dixon area. These wells have the capacity to produce approximately 5,760 gallons of water per minute at a pressure ranging from 40 to 50 pounds per square inch. This production capacity can provide approximately 492 million gallons of water each year (Dixon General Plan, page 59).

For more discussion of the local groundwater supply, see Section 3.2, Hydrology and Water Quality, of this EIR.

### 2. Existing Water Service in Plan Area

The Southwest Dixon Specific Plan area currently does not have domestic water service. Private wells serve existing rural residences and commercial areas in the plan area. The plan area is within the service area of the Solano Irrigation District (SID), which provides farmland irrigation from its Weyand Canal and a series of underground pipes. The irrigation system transports untreated water for agricultural irrigation in the plan area and in agricultural areas to the south and east. As illustrated in Figure 25, SID facilities in the plan area consist of the following (*Draft Solano Irrigation District (SID) Irrigation Master Plan for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, pages 3-4).

- *Weyand Canal.* The Weyand Canal extends in a north-south direction through the Schroeder property in the western part of the plan area. The canal enters the western part of the plan area via a 54-inch pipe located at approximately the mid-point of the plan area's border with I-80. It travels directly south to the plan area's southern boundary, where it turns west on the adjacent southern property.



- LEGEND:**
- EXISTING IRRIGATION LATERAL
  - EXISTING IRRIGATION JUNCTION BOX
  - EXISTING SID SERVICE POINT (TURNOUT)
  - PROPOSED IRRIGATION LATERAL
  - PROPOSED IRRIGATION LATERAL ALTERNATIVE ALIGNMENT
  - SID REFERENCE POINT LABEL
  - PROPOSED IRRIGATION FLOW RATE (CFS-CUBIC FEET PER SECOND)

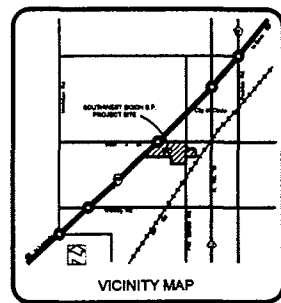
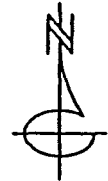


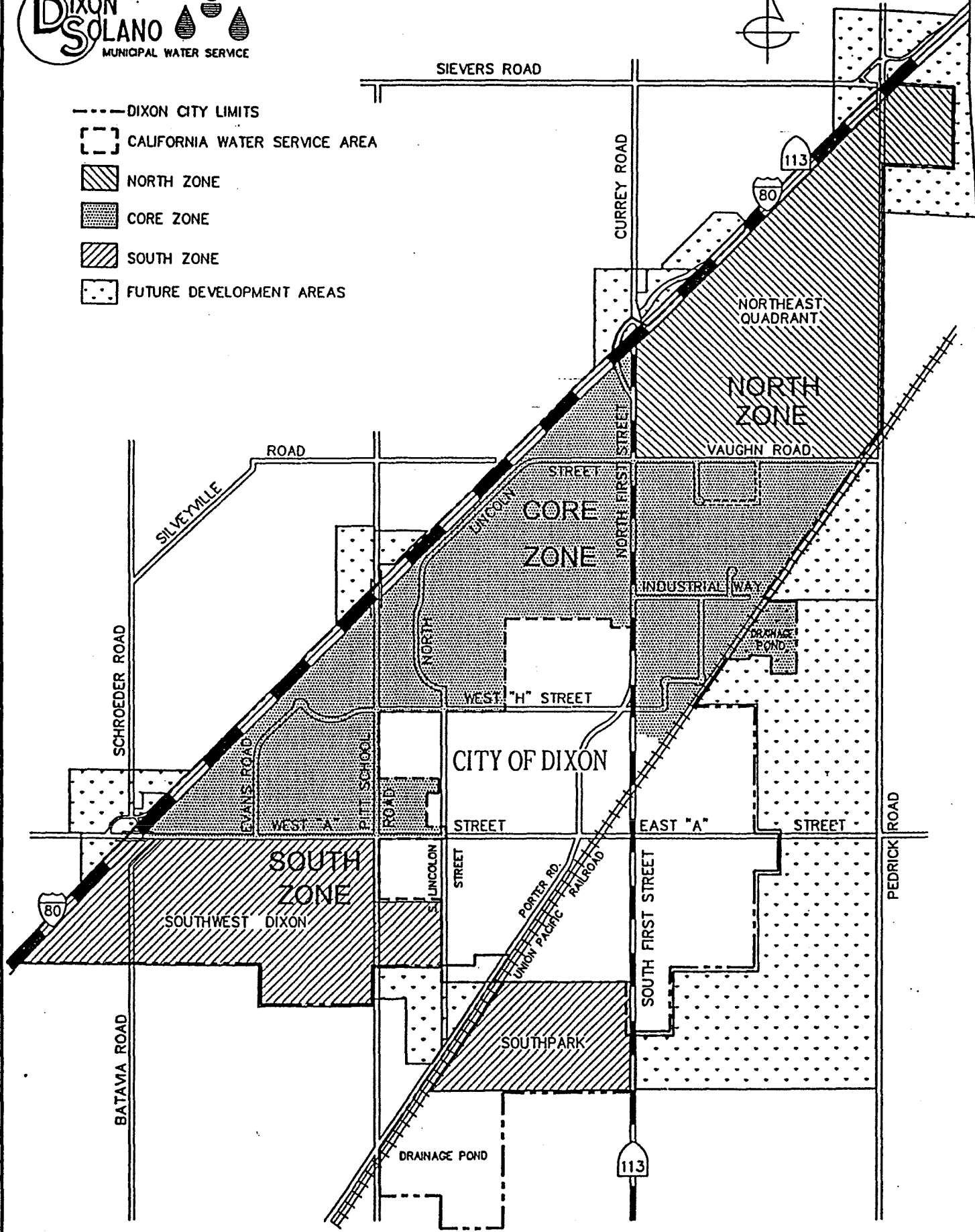
Figure 25: SID ■ Master Plan



DSMWS 2000 Water Master Plan  
**Figure 26: SERVICE AREA MAP**



- DIXON CITY LIMITS
- CALIFORNIA WATER SERVICE AREA
- ▨ NORTH ZONE
- ▩ CORE ZONE
- ▧ SOUTH ZONE
- ◻ FUTURE DEVELOPMENT AREAS



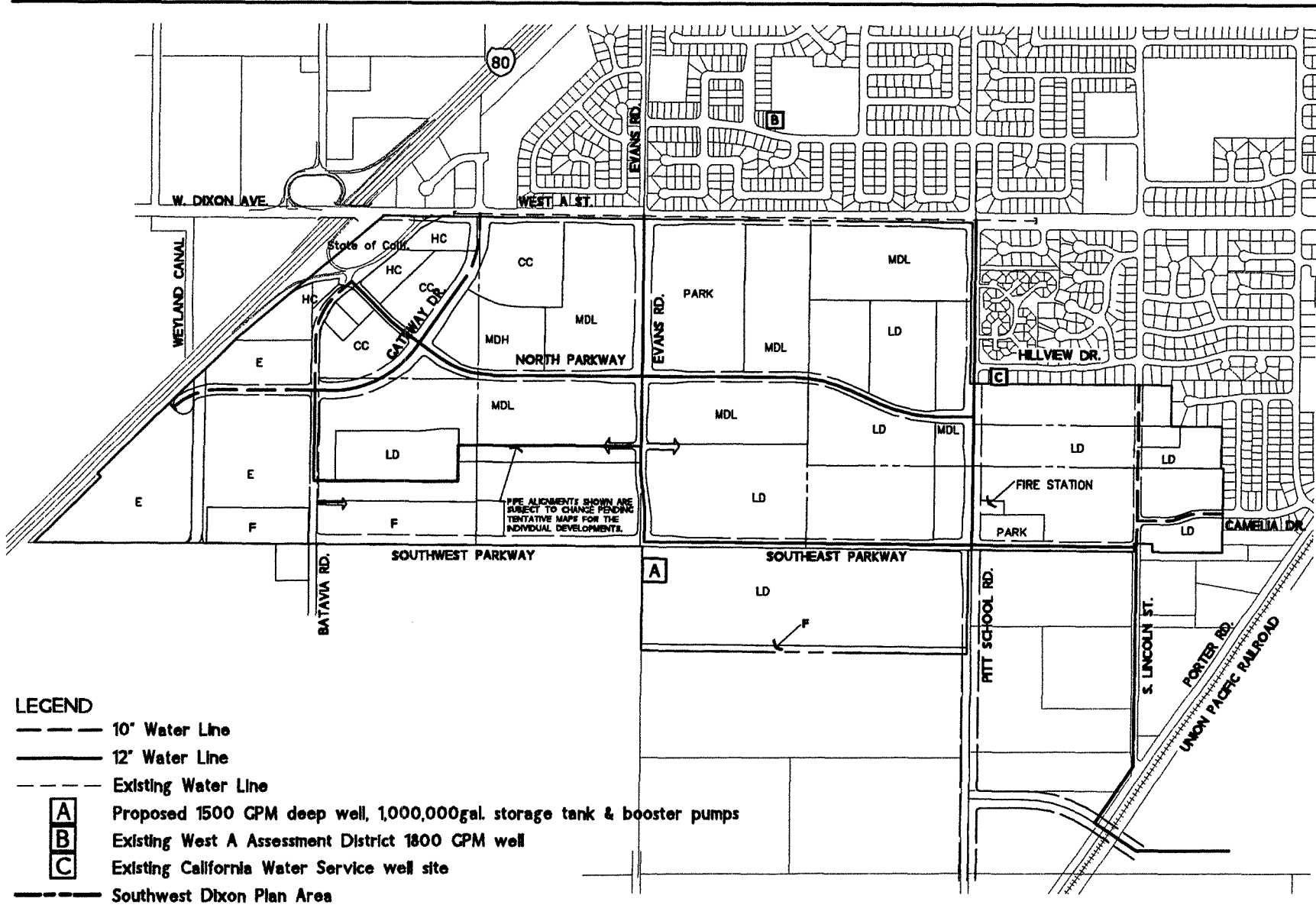


Figure 27: PROPOSED PRELIMINARY WATER DISTRIBUTION SYSTEM



The canal is a gunite-lined channel that is approximately six feet deep. Its approximately 1,350-foot length through the plan area is contained within a 60-foot-wide property owned by the SID in fee title.

- *Weyand Lateral B-2.* Lateral B-2 begins at the junction structure with Lateral B (see below) at the West A Street/Evans Road intersection. The lateral runs due south along the eastern edge of Evans Road and continues onto the lands south of the plan area.

The lateral is constructed of 36-inch monolithic concrete pipe and has a capacity of approximately 12.3 cubic feet per second (cfs).

- *Weyand Lateral B.* Lateral B enters the center of the plan area at the same location as Lateral B-2. An above-ground junction structure is located at the West A Street/Evans Road intersection. Lateral B leaves this structure and runs east along West A Street to a point about 1,340 feet east of the intersection, where it turns and runs south along the common property line between the Weyand property and the Azevedo property. The lateral turns again approximately 1,300 feet south of West A Street and runs east again across the Azevedo property and across Pitt School Road. The lateral continues along the rear of existing residential lots just north of the Garcia property to an above-ground junction structure in South Lincoln Street.

The lateral has a capacity of 25.1 cfs where it enters the plan area. The capacity is reduced to 17.4 cfs where the lateral turns east at the junction structure with Lateral B-2 at the West A Street/Evans Road intersection. The lateral is constructed of 36-inch monolithic concrete pipe.

- *Weyand Lateral B-5.* Lateral B-5 begins at the junction structure on South Lincoln Street at the end of Lateral B. The lateral runs south along the east side of South Lincoln Street and leaves the plan area at the southern boundary.

The lateral has a capacity of 5.5 cfs where it enters the plan area. The lateral is constructed of 30-inch monolithic concrete pipe.

- *Weyand Lateral B-5-1.* Lateral B-5-1 serves the Sanders property. It is connected to Lateral B-5 at the northeast corner of the Sanders property on South Lincoln Street. Lateral B-5-1 has a capacity of 2.0 cfs.
- *Weyand Lateral B-2-A.* Lateral B-2-A serves the Steil property. It is connected to Lateral B-2 at the northwest corner of the property, on Evans Road. Lateral B-2-A has a capacity of 2.5 cfs.
- *Weyand Lateral D.* Lateral D serves the I-80 Dixon Avenue Associates (Andrews) property from a connection located at the northern end of the Weyand Canal.

### **3. Domestic Water Service Area Boundaries in Plan Area**

As shown in Figure 26, both the DSMWS and Cal Water have service area boundaries within the Southwest Dixon Specific Plan area. Most of the Specific Plan area is located within the service area of the DSMWS. The area located on the north side of West A Street north of the plan area is also within the DSMWS service area boundary. The portion of the plan area east of South Lincoln Street is within the service area of Cal Water. Properties adjoining the plan area to the east are also served by Cal Water.

### **4. Pertinent City of Dixon General Plan Policies**

The Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to public service provision in the Specific Plan area; these policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to water service:

**Policy 9**        *The City shall ensure that the significant increases in water demand generated by new development will be met in a timely, cost-effective and environmentally sound manner. Achieving this policy will require a variety of improvements, including:*

- *Installing new water mains; and*
- *Increasing storage and treatment capacity.*

**Policy 10**       *The City shall coordinate development activity with the water purveyors to ensure that adequate domestic, commercial/industrial and fire flow requirements are met.*

**Policy 11**       *The City shall ensure that water improvements and service will continue to be financed with impact fees and service charges.*

**Policy 12**       *The City shall ensure that development does not exceed the capacity of the local water supply systems.*

**Policy 13**       *The City shall encourage development which incorporates water conservation features in structures and landscaping.*

**Policy 14**       *The City shall link growth to the current and projected water supply.*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

## 5. Pertinent DSMWS Master Plan Provisions

The Dixon-Solano Municipal Water Service (DSMWS) *Master Plan for the Water Supply and Delivery System Through Buildout* (January 2000) evaluates water demand based on the 1993 Dixon General Plan and describes existing and proposed water facilities and capacities. The Water Master Plan (pages 51-52 and 54) indicates that development of the Southwest Dixon Specific Plan area would require construction of a new 1,500-gallon-per-minute (gpm) well, a one-million-gallon water storage tank, and a 2,000-gpm booster station. The Master Plan states that the booster station would include chlorination equipment, a hydropneumatic tank, an emergency generator, and electrical, metering, and control equipment. The plan further indicates that "the location of the facility depends upon site acquisition and a well test hole yielding water with an acceptable quality analysis." A connection to the Valley Glen well may also be needed when the eastern part of the Specific Plan area is developed.

The DSMWS has also adopted rules, regulations, and standard specifications and details that would apply to water facilities serving new development in the Specific Plan area (letter from James S. Daniels, Director of Engineering, Solano Irrigation District, DSMWS Engineer, to Stephen Streeter, Dixon Community Development Director, re. "Southwest Dixon Specific Plan Update and Tentative Maps, Response to Notice of Preparation of a Draft Environmental Impact Report," 12/13/01).

## 6. Pertinent Solano Irrigation District Policies and Requirements

The Solano Irrigation District (SID) maintains the following pertinent requirements for any development in the plan area that would affect SID facilities (Draft Solano Irrigation District (SID) Irrigation Master Plan for the Southwest Dixon Specific Plan Area, Nolte Associates, Inc., August 2002, pages 2-3).

- *Weyand Canal.* The existing portion of the Weyand Canal extending through the plan area is an open canal, which SID would consider an "attractive nuisance" in a developed area. SID would therefore require that all portions of the canal extending through a developed area be replaced with "a pipeline of equal capacity that introduces no head loss in the system." To receive a variance from this SID policy, a developer would be required to submit a formal Letter Request for approval by the SID Board of Directors.
- *Laterals.* The existing laterals through much of the plan area are made of monolithic concrete cast-in-place pipe. The pipes are not constructed to handle the weight of traffic on any roads constructed above the pipes. SID therefore would require that any laterals in developed areas be reconstructed using rubber gasketed-reinforced concrete pipe.

SID would also require that, if services are to be abandoned along a lateral, the capacity of the lateral be sufficient to ensure that the rate of flow leaving the area is the same as that entering the area. In other words, if 50 cubic feet per second (CFS) entered a lateral at the northern edge of the plan area, then SID would require that the lateral be adequately sized to convey the 50 cfs to the southern edge of the plan area. To meet this requirement, the lateral may need to be upsized, depending on the capacity of the pipe.



- *Unused or Abandoned Easements.* SID requires that project developers buy back any unused or abandoned SID easements. If a facility, such as a canal or lateral, is not replaced, then the developer must buy the portion of the unused existing easement at a cost of 50 percent of the value of the land. If a pipeline is being relocated, SID will typically accept the new easements in place of the abandoned easements at no charge for the abandonment. In the event that the Weyand Canal (located on land owned by SID in fee title) were replaced with a pipeline, SID would typically "quitclaim" the property to the owners at no charge once a new pipeline easement was recorded. In all cases involving abandonment or realignment of facilities, the project proponents would be required to enter into a standard SID Agreement for the Protection, Relocation or Reconstruction of District Facilities with the SID that would specify any required reimbursements.
- *Detachment from SID Service Area.* If a property detaches from the SID service area for connection to a domestic water purveyor, SID requires that detachment fees be paid. This requirement would not apply to properties served by the Dixon-Solano Municipal Water Service (DSMWS), since SID is a partner in the DSMWS.

## 7. Pertinent State Requirements

Two recently adopted State laws, Senate Bill (SB) 610 and SB 221, are relevant to the analysis of water supply for development in the Specific Plan area.

### SB 610

SB 610 applies when a city or county proposes to approve a "project" that meets any of several criteria. Examples include a proposed residential development of more than 500 dwelling units, a proposed shopping center having more than 500,000 square feet of floor space, and a proposed commercial building having more than 250,000 square feet of floor space.

The bill requires the city to ask public water agencies to indicate whether their "total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses."

The water agency's assessment must be included in the project's CEQA document, and the city can evaluate the assessment in that same document. Ultimately, the city must find whether water supplies are adequate.

### SB 221

SB 221 applies to a "subdivision," generally defined as "a proposed residential development of more than 500 dwelling units."

The bill requires local agencies to condition tentative map approval for any "subdivision" on written verification from the proposed water agency that sufficient water will be available during normal, single dry, and multiple dry years within a 20-year projection to

meet the projected demand associated with the proposed uses, in addition to existing and planned future uses, including, but not limited to agricultural and industrial uses. SB 221 also provides that development agreements that include such a subdivision must require that the subdivision map comply with these requirements.

Unlike SB 610, SB 221 does not require that this analysis be included in the CEQA document for the project.

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on water service if it:

- a. Would require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (*Assessed in Impacts 3.12-A through 3.12-E.*)
- b. Could not be served by the local water district(s) due to insufficient potable water supply. (*Assessed in Impacts 3.12-A, D, and E.*)
- c. Would require new or expanded water entitlements. (*Assessed in Impacts 3.12-A, D, and E.*)
- d. Would conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed under "Consistency with Applicable Plans and Policies".*)

### **2. Impacts – Proposed Southwest Dixon Specific Plan**

**Impact 3.12-A      New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for water service.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would increase the demand for water service. The proposed Specific Plan land uses are expected to generate an average daily water demand of approximately 700 gallons per minute (*Draft Water Master Plan Report for the Southwest Dixon Specific Plan Area, Nolte Associates, Inc., August 2002, page 2*). The increased demand for water service would represent a potentially significant impact.

As shown in Figure 27, the Specific Plan provides for installation of a domestic water system that would be owned and operated by the Dixon-Solano Municipal Water Service (DSMWS). The DSMWS would provide water to the majority of the Specific Plan area via a system of water lines to be installed underneath proposed streets. The California Water Service Company would serve the portion of the plan area east of South Lincoln

Street. The Specific Plan area water system would be connected to systems proposed for construction southeast of the plan area, consistent with a January 2000 DSMWS master plan (*Draft Southwest Dixon Specific Plan*, Nolte Associates, Inc., March 2003, page 7-4).

The Specific Plan includes a draft Water Master Plan for the Specific Plan area (on file at the City of Dixon Community Development Department). The Water Master Plan proposes installation of (a) a "backbone" 12-inch water main delivery system, and (b) a 0.81-acre facility (known as the "Southwest Water Facility") consisting of a 1,500 gallon-per-minute (gpm) groundwater well, a one-million-gallon welded steel storage tank, and a 2,000-gpm booster pump station (*Draft Southwest Dixon Specific Plan*, Nolte Associates, Inc., March 2003, page 7-4; and *Draft Water Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2). (The complete *Draft Water Master Plan Report* is on file at the City of Dixon Community Development and Public Works Departments.) The Southwest Water Facility is tentatively planned to be located in the southcentral part of the plan area, at the southern terminus of Evans Road. DSMWS staff has stated that the water facility site should be 1.0 acre in size.

In addition, the proposed Specific Plan contains the following goal, policies, and implementation programs that address demand for water service in the plan area (*Draft Southwest Dixon Specific Plan*, pages 7-4 to 7-7):

**Goal 7.2** *To provide adequate water serve (sic) to serve development in Southwest Dixon in a timely, cost-effective and environmentally sound manner.*

**Policy 7.2.1** *Water Supply - Ensure that adequate water supply can be provided for Southwest Dixon, concurrent with service area expansion and population growth.*

**Policy 7.2.2** *Water Storage and Distribution - Develop new water storage facilities and major distribution lines as necessary to meet new development in Southwest Dixon.*

**Policy 7.2.3** *Private Wells - Although the City does not currently restrict private wells, a restriction on private wells may be implemented in the future.*

**Policy 7.2.4** *Coordination - The City shall consult with water purveyors to assure that adequate service is provided to Plan area residents and businesses.*

**Policy 7.2.5** *Water Conservation - Water conservation features shall be incorporated into structures and landscaping.*

**Policy 7.2.6** *Financing - Finance water improvements and service with impact fees and service charges, developer funding as conditions of project approval, and Development Agreement and/or development-related bond financing.*

**IP 7.2a** *Water System Master Plan - Project proponents shall prepare a Water System Master Plan An accordance with Standard Specifications, for approval, in conjunction with the Southwest Dixon Specific Plan. The project proponents and successors-in-interest shall implement this Master Plan, as needed, to serve demand of individual developments. The preparation of this Master Plan shall be by a civil engineer and shall evaluate the appropriate*

design (size) and location of adequate water system facilities in accordance with City policy and DSMWS standards. Final water system designs recommended by such Master Plan shall be implemented as part of the design of individual developments.

- IP 7.2b** **Water Conservation** - The City shall require that project developments promote water conservation to the maximum extent possible to minimize project demand on groundwater and as a means to delay the need for new water sources. Residential and commercial developments within the plan area shall comply with State and/or City of Dixon requirements for installation of water conserving fixtures and drought tolerant landscape.
- IP 7.2c** **Coordination** - Work closely with the Dixon-Solano Municipal Water Service to provide orderly extension of water service and to ensure that the safe yield of the groundwater aquifer is not jeopardized.
- IP 7.2d** **Timing of Improvements** - The DSMWS Governing Board has recommended that the capacity of the Core Zone not be used to serve early development in the Southwest area except for use as fire protection. As part of the JWC's recommendation, the Southwest facility must be in service, including connection to the existing DSMWS system, before any above-ground structures are constructed. This would provide a backup supply and additional fire protection capacity. DSMWS has indicated that, as an alternative, connection to the high capacity well constructed in the Southpark development may provide capacity for some first phase development. This connection would need to include connection to the existing DSMWS system on West A Street.

The Southwest Dixon Specific Plan would meet the SB 610 and SB 221 definitions of "project." Therefore, Appendix D of this EIR includes the assessment of the Southwest Dixon Specific Plan project prepared by the Dixon-Solano Municipal Water Service (DSMWS) in accordance with SB 610. The assessment indicates that the groundwater basins used by DSMWS can provide enough water to serve the proposed Southwest Dixon development as well as other development anticipated in the DSMWS service area in the next 20 years or more. The City of Dixon's findings for certification of this EIR, as well as for development agreements and other approvals carrying out the Specific Plan, must address water availability in accordance with SB 610 and SB 221.

Development in the Specific Plan area also has the potential to affect water supply by changing groundwater levels, interfering with groundwater recharge, and causing subsidence. This potential effect is addressed in Impact 3.2-E in Section 3.2, Hydrology and Water Quality, of this EIR.

### **Mitigation Measures**

1. Before the first Final Subdivision Map approval for the Specific Plan area, the Specific Plan Water Master Plan shall be completed and submitted to the DSMWS and the City of Dixon for review and approval.
2. The City and DSMWS shall update the DSMWS Water Master Plan and fee schedule, as needed, to include the development of a well to serve project development. The location and phasing of the well and related facilities shall be

described in greater detail in the Specific Plan Public Facilities Financing Plan and Capital Improvements Plan. Individual projects proposed within the plan area shall pay for the construction of the new well. Facilities required prior to buildout shall be advanced by the developer and be subject to later reimbursement or credit.

3. Before approval of the first Final Subdivision Map, the project applicant shall provide confirmation that adequate fire flow exists throughout the development to meet the current DSMWS standards for fire flow and meets the approval of the City Engineer, DSMWS Engineering Staff, and Fire Chief. (See also Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.)
4. In its findings for future development agreements and other approvals carrying out the Specific Plan, the City of Dixon shall address water availability in accordance with SB 610 and SB 221.
5. The applicant shall comply with mitigation measures identified for impacts on groundwater supply (Impact 3.2-E) in Section 3.2, Hydrology and Water Quality, of this EIR.

In addition, the City of Dixon shall ensure compliance with the following measures specified by the DSMWS for water service within the DSMWS boundary (letter from James S. Daniels, Director of Engineering, Solano Irrigation District, DSMWS Engineer, to Stephen Streeter, Community Development Director, City of Dixon, re. "Southwest Dixon Specific Plan Update and Tentative Maps, Response to Notice of Preparation of a Draft Environmental Impact Report," December 13, 2001):

6. An additional well, tank booster, and pump station ("Southwest Water Facility") are required to meet the demands of the new development. This was established in the 2000 Water Master Plan prepared by the DSMWS. The facility shall be designed by the DSMWS, and plans and specifications shall be provided by the DSMWS. Construction may be contracted by the DSMWS, or the developer with inspection by the DSMWS. The facility shall be built at the developer's expense. Credit of the cost of construction against the developer's connection fees is a matter to be arranged between the developer and the City of Dixon.
7. Sizing of the main water pipelines throughout the development area shall be determined by the DSMWS Engineer using computer modeling, which shall be done at the developer's expense.
8. Plans and specifications for the water system construction shall be submitted to the DSMWS for review and approval. The DSMWS plan review fees apply and shall be due upon submittal of the maps or plans for review.
9. The water distribution system shall be installed at the developer's expense. All construction shall conform to the DSMWS rules, regulations, and standards. All water system construction shall be inspected by the DSMWS at the developer's expense, the cost of which is not included in the DSMWS connection fees. The Southwest Water Facility site shall be one acre in size unless DSMWS approves a smaller size.

10. The developer shall pay connection fees and meter installation fees adopted by the DSMWS for each service from the system, unless otherwise agreed between the developer and the City of Dixon.
11. The portions of the Orchard Estates subdivisions east of South Lincoln Street are to be served by Cal Water per the Settlement Agreement and Mutual General Release among the Solano Irrigation District, City of Dixon, and California Water Service Company, dated July 8, 1992 (the Settlement Agreement). Any revision of the boundary would require an amendment to the Settlement Agreement and shall be coordinated between the DSMWS and Cal Water.

### ***Impact Significance After Mitigation***

The above-noted measures would ensure that the necessary water service would be available as the Specific Plan area is developed. The impact would be reduced to a less than significant level.

### **Impact 3.12-B      Development in accordance with the Specific Plan would include relocation or abandonment of various Solano Irrigation District (SID) irrigation facilities located in the plan area.**

The Specific Plan includes a draft Solano Irrigation District (SID) Irrigation Master Plan (on file at the City of Dixon Community Development Department). The SID Irrigation Master Plan specifies the following proposed changes to the SID system in the plan area (*Draft Solano Irrigation District (SID) Irrigation Master Plan for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, pages 5-7).

- *Weyand Canal.* The Master Plan indicates that the existing canal would eventually be replaced with a 54-inch underground pipe in accordance with SID policy. (Under the Southwest Dixon Specific Plan as currently proposed, however, the Weyand Canal would remain in its current location and configuration. The proposed Specific Plan effectively leaves the future treatment of the canal as an open question to be resolved when development in the canal area is proposed.)
- *Weyand Laterals B and B-2.* These laterals are proposed to be combined into one 42-inch pipe from the intersection of Evans Road and West A Street to the intersection of Evans Road and North Parkway.

The existing Lateral B is proposed to be abandoned from the current alignment along West A Street and Pitt School Road, and relocated onto North Parkway between Evans Road and Pitt School Road.

The existing section of Lateral B-2 from the intersection of Evans Road and North Parkway along Evans Road to the plan area's southern boundary would be replaced.

A new pipeline would be extended from the new Weyand Lateral B pipeline at Evans Road and the North Parkway to the southern boundary of the Steil property.

- *Weyand Lateral B-2-A.* This lateral can be eliminated with development of the Steil property. Until then, service must be maintained from Weyand Lateral B-2.
- *Weyand Lateral B-5.* This segment of the system may be abandoned with development of the proposed Southpark project to the southeast. SID proposes to relocate the lateral through the plan area from the intersection of Pitt School Road and North Parkway to the plan area's southern boundary. Alternatively, the lateral would need to be reconstructed with the reconstruction of South Lincoln Street using a 30-inch pipeline.
- *Weyand Lateral B-5-1.* This lateral can be eliminated with the development of the Sanders property. Until then, the service must be maintained from Weyand Lateral B-5 North.
- *Weyand Lateral B-X.* This lateral, located outside the Specific Plan area, can be abandoned if water service is waived from turnouts 1 and 2. The parcels in this area will probably be detached from SID since they are in the City limits and will be served by Cal Water when and if they develop. Until service is waived, service through Lateral B-X would be maintained from Lateral B-5, north of the new lateral connection at South Parkway and South Lincoln Street.
- *Weyand Lateral D.* This lateral can be eliminated with development of the I-80 Dixon Avenue Associates (Andrews) property. If piping of the Weyand Canal precedes the development, a turnout of this lateral must be provided in the new pipeline.

The SID Irrigation Master Plan indicates that affected SID facilities no longer necessary for service by SID would be removed from service by SID and become the property of the developer. Removal and disposal of these facilities would be the responsibility of the developer and at the developer's expense. Affected SID facilities that are still necessary for service by SID would be relocated, reconstructed, and/or protected at the developer's expense.

Figure 25 illustrates proposed SID facilities in the plan area. The complete *Draft Solano Irrigation District (SID) Irrigation Master Plan Report* is on file at the City of Dixon Community Development Department.

In addition, the proposed Specific Plan contains the following goals, policies, and implementation programs that address impacts on SID facilities:

**Goal 7.3A**     *Translate irrigation flows currently entering the Plan Area at the up stream end of the systems, through the Plan Area undiminished, to the point in the existing system where they currently exit the Plan Area.*

**Goal 7.3B**     *Reconstruct irrigation pipelines through the Plan Area to provide adequate alignment, depth and strength and of pipe.*

**Policy 7.3.1 System Integrity:** *The City and the Solano Irrigation District shall insure the continued integrity of irrigation service through the Plan Area, to areas downstream of the Plan Area.*

**Policy 7.3.2 System Capacity:** *The replacement system will provide sufficient capacity to convey flows that currently enter the Plan Area, through the Plan Area, undiminished.*

**Policy 7.3.3 Interim Service:** *Insure that existing agricultural lands within the Plan Area have adequate access to irrigation service until such time as they develop.*

**IP 7.3a Irrigation System Master Plan** - *Project proponents shall prepare a comprehensive Irrigation Master Plan, defining facilities necessary to relocate or reconstruct existing facilities in the Plan Area. The Master Plan will provide for continued service through the Plan Area, with sufficient capacity to convey current flow rates entering the Plan Area, through the Plan Area. The Master Plan will demonstrate the ability to provide continued service to existing properties within the Plan Area until those properties develop.*

**IP 7.3b Capital Improvement Plan, Financing Plan** - *Project proponents shall prepare a Capital Improvement Plan that identifies the system requirements and estimated construction costs. A project financing plan will be developed, demonstrating viable financing mechanisms which equitably spread the costs for the system to Plan Area land owners.*

Potential effects on SID facilities would represent a potentially significant impact.

### **Mitigation Measures**

1. Before the first Final Subdivision Map approval and/or issuance of an occupancy permit for the Specific Plan area, the Specific Plan SID Irrigation Master Plan shall be completed and submitted to the SID and the City of Dixon for review and approval.
2. The applicant shall be responsible for the costs of replacement of the existing Weyand Canal with an underground pipe. Alternatively, if the Weyand Canal is to be retained, the applicant shall apply for and receive approval of a variance from the SID policy requiring replacement of open canals with underground pipes in developed areas. To receive a variance from this SID policy, the developer would be required to submit a formal Letter Request for approval by the SID Board of Directors.
3. Laterals in developed areas shall be reconstructed using rubber gasketed-reinforced concrete pipe. In addition, if agricultural irrigation service to a development area is waived or the land is detached from the SID, the capacity of the lateral through that area shall be sufficient to ensure that the rate of flow leaving the area is the same as that entering the area.
4. The applicant shall be required to buy back any unused or abandoned SID easements that are not replaced with new rights-of-way. In all cases involving abandonment or realignment of facilities, the applicant shall enter into a standard



SID Agreement for the Protection, Relocation or Reconstruction of District Facilities with the SID that specifies any required reimbursements.

5. The applicant shall pay detachment fees for any properties detached from the SID service area.

### ***Impact Significance After Mitigation***

The above-noted measures would ensure that impacts on SID facilities would be reduced to a less than significant level.

### **Impact 3.12-C Water facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects, for example by interfering with existing utilities and other facilities.**

The potential for Specific Plan-related water facilities to interfere with existing utilities and other facilities would represent a potentially significant impact. In addition, according to City staff South Lincoln Street between the plan area and Porter Street is too narrow to support the several pipelines that will be constructed within its right of way, and, as described in the previous Traffic section, the road is too narrow for adequate traffic safety (Tribbett, personal communication). This is a potentially significant impact. Other impacts (e.g., effects on vegetation and wildlife, aesthetic impacts) of development in the Specific Plan area, including construction of water facilities, are evaluated in other sections of this EIR.

### ***Mitigation Measures***

1. The project applicant shall identify any existing underground utilities prior to construction and avoid these utilities if possible. If avoiding interference with the utility is not feasible, the project applicant shall coordinate with the utility in question to alleviate the interference.
2. South Lincoln Street between the plan area and Porter Street shall be widened to meet City standards for roadway and shoulder width.

### ***Impact Significance After Mitigation***

The above-noted measure, combined with the provisions of the Specific Plan and other mitigation measures recommended in this EIR, would ensure that environmental impacts from construction of Specific Plan-related water facilities would be reduced to a less than significant level.

## **Consistency with Applicable Plans and Policies**

The proposed Southwest Dixon Specific Plan would not create any inconsistencies with the Dixon General Plan policies noted in the Setting section above. Developers within the Specific Plan area would be expected to pay required fees and provide water facilities in accordance with City and Dixon-Solano Municipal Water Service standards, as described in the mitigation measures recommended above. (In lieu of required water fees, City

regulations would offer developers credits toward building permit fees if the developers construct the required water facilities.) The proposed Southwest Water Facility would provide necessary water facilities identified in the Dixon-Solano Municipal Water Service *Master Plan for the Water Supply and Delivery System Through Buildout* (see Setting section above). Mitigation measures described for Impact 3.12-B above would ensure consistency with pertinent Solano Irrigation District policies and requirements. The proposed Specific Plan would therefore have no impact on consistency with plans and policies applicable to water services.

### **3. Project-Specific Impacts**

#### **Impact 3.12-D Development of the five projects would increase demand for water service and require alteration in SID facilities.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area.

The impacts identified under Impacts 3.12-A through 3.12-C above would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts would adequately address the impacts of each of the five proposed individual development applications. No additional impacts on water services have been identified for the five applications, and no additional mitigation measures are required.

### **4. Cumulative Impacts**

#### **Impact 3.12-E Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on water facilities.**

Section 1.0, Introduction, provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The northern part (about 50 percent) of the 210-acre Southpark project site is served by the California Water Service Company. The remainder of the Southpark site, and the two remaining cumulative projects, are served by the Dixon-Solano Municipal Water Service.

The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, pages 4.12-3 through 4.12-4 and 4.12-7) concluded that the Pheasant Run project would have a less than significant impact on water service. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, pages 4.5-7 through 4.5-9) concluded

that no mitigation was necessary for project impacts on water service, and that cumulative impacts on infrastructure could be mitigated to a less than significant level through implementation of the City of Dixon Capital Improvement Program and collection of Assembly Bill (AB) 1600 fees. The Northeast Quadrant Specific Plan Draft Environmental Impact Report (Wade Associates, August 1994, pages 4-110 to 4-114) concluded that project and cumulative impacts on water services would be less than significant.

The contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative effects on water services would represent a potentially significant cumulative impact.

***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.12-A to 3.12-D.

***Impact Significance After Mitigation***

Mitigation measures recommended for Impacts 3.12-A to 3.12-D above would reduce the project's contribution to cumulative water service impacts to a less than significant level.

# 3.13 WASTEWATER COLLECTION, TREATMENT AND DISPOSAL

## A. Setting

### 1. Existing Wastewater Services in Dixon

The City of Dixon provides wastewater services and treatment for development within the City limits. Wastewater generated in Dixon is collected by sewer lines varying in size from 6 to 15 inches in diameter. Once collected, sewage is transported by a 27-inch outfall line to Dixon's wastewater treatment plant located approximately 2.5 miles south of the City at the intersection of Casey and Pedrick Roads. The outfall line travels south along State Route 113 to Midway Road, then east for about one-quarter mile, south for one-half mile, and east for one-quarter mile to the treatment plant. The outfall line is currently operating near capacity during peak periods (EIP Associates and Raney Planning & Management, 2000, page 4.5-2). A new sewer trunk system is under construction. A lift station located on Pitt School Road north of West A Street, known as the Pitt School Road lift station, operates as an interim facility until a future gravity sewer line is constructed (LSA, 2000, page 4.12-1).

Dixon's wastewater treatment plant currently has the capacity to treat 1.4 million gallons per day (mgd) of sewage, assuming a 100-year rainfall season. Current average dry weather flow (ADWF) into the treatment plant is approximately 1.3 mgd. The treatment plant operates under Waste Discharge Requirements developed and enforced by the Regional Water Quality Control Board (RWQCB), Central Valley Region. These requirements state that the treatment plant is allowed to discharge no more than 1.2 mgd of effluent to land disposal. The requirements also prohibit discharges to surface waters, and specify certain operating criteria and monitoring requirements (EIP Associates and Raney Planning & Management, 2000, page 4.5-2).

### 2. Planned Wastewater System Improvements

The 1993 Dixon General Plan indicated that, based on State Water Quality Control Board requirements, the City's wastewater collection system did not have adequate capacity to meet current needs (Dixon General Plan, page 59). In September 1997, the RWQCB issued a Cease and Desist Order that required assessment of groundwater degradation, quantification of dry weather wastewater flows, and completion of a wastewater treatment plant expansion (EIP Associates and Raney Planning & Management, 2000, page 4.5-2). The City of Dixon has initiated the following projects to correct problems with its wastewater system.

#### ***South Dixon Sewer Trunk Line Project***

The South Dixon sewer trunk line will serve projected growth in Dixon, including development in the Southwest Dixon area, the Southpark (Valley Glen) area, and the Northeast Quadrant Specific Plan area. The trunk line extends generally south from the vicinity of the Hall Park Lift Station to the treatment plant. With construction of this trunk

line, along with an east-west connector extending from the West A Street/Pitt School Road intersection to the trunk line, the Pitt School Road lift station will no longer be necessary (LSA, 2000, page 4.12-2).

### ***Wastewater Treatment Plant Expansion***

The City has submitted an application to the RWQCB to amend the applicable Waste Discharge Requirements, possibly through 2003-2007, to allow treatment of up to 1.67 ADWF mgd at the City's wastewater treatment plant. The additional sewage would be treated using the existing pond configuration, with the addition of aeration equipment. The additional capacity would be provided by converting 120 acres of irrigation area to storage/percolation and evaporation basins. With this expansion, including the aeration equipment and conversion of irrigation area, the treatment plant could handle wastewater flows through approximately 2007. The City has also submitted an analysis of groundwater impacts to the RWQCB and is continuing to work to resolve issues related to the September 1997 Cease and Desist Order (EIP Associates and Raney Planning & Management, 2000, page 4.5-3).

## **3. Existing Wastewater Service in Plan Area**

No wastewater collection facilities currently serve the Southwest Dixon Specific Plan area. Existing residences and commercial businesses in the area use septic tanks and leach fields for the small amount of wastewater generated. An eight-inch sewer line is located in West A Street along the northern boundary of the plan area (LSA Associates, 2000, page 4.12-1).

## **4. Wastewater Fee Requirements**

The City of Dixon levies fees on new development to support wastewater collection, treatment, and disposal services. For residential development, these fees are currently set at \$6,700.00 per single-family house and \$4,690.00 per multi-family housing unit. For commercial development, the City levies a range of fees based on water meter size and "sewer user strength classifications" (City of Dixon Summary Fee Schedule, effective 6/22/02).

## **5. Pertinent City of Dixon General Plan Policies**

The Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to public service provision in the Specific Plan area; these policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to wastewater collection, treatment, and disposal:

***Policy 6***      ***The City shall ensure that the significant increases in sewage treatment and disposal capacity requirements generated by new development will be provided in a timely, cost-effective and environmentally sound manner. Achieving this policy will require a variety of improvements, including:***

- ***Installing major new conveyances;***

- *Expansion of existing sewage treatment capacity; and*
- *Expansion of existing effluent disposal facilities.*

**Policy 7**     *The City shall ensure that development does not exceed the capacity of the local wastewater treatment facilities.*

**Policy 8**     *The City shall direct development to those areas which can be efficiently served either by existing wastewater treatment facilities or by one or more satellite plants (to serve areas that the existing wastewater treatment plant cannot readily serve).*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on wastewater collection, treatment, or disposal services if it would:

- a. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts. (*Assessed in Impacts 3.13-A, B, C, and D.*)
- b. Exceed wastewater treatment requirements of the Regional Water Quality Control Board. (*Assessed in Impacts 3.13-A, B, D, and E.*)
- c. Generate additional wastewater that would exceed the existing or planned capacity of the sewage treatment and disposal system. (*Assessed in Impacts 3.13-A, B, D, and E.*)
- d. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed under "Consistency with Dixon General Plan Policies" below.*)

### **2. Impacts – Proposed Southwest Dixon Specific Plan**

The City has reviewed the proposed Specific Plan for consistency with City requirements and facility capacities. The following analyses are based on recommendations developed by City staff (Ponticello, personal communication).

## **Demand for Wastewater Service**

### **Impact 3.13-A      New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for wastewater collection, treatment, and disposal service.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would increase the demand for wastewater collection, treatment, and disposal service. The proposed Specific Plan land uses are expected to generate approximately 1.78 million gallons per day of sewage (peak wet-weather flow) (*Draft Sanitary Sewer Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 6). The increased demand for wastewater service would represent a potentially significant impact.

The City of Dixon would provide for sewage collection and treatment for development within the Specific Plan area. The Specific Plan includes a draft Sanitary Sewer Master Plan for the Specific Plan area (on file at the City of Dixon Community Development Department).

As shown in Figure 28, the Sanitary Sewer Master Plan proposes installation of a "backbone" sewage collection system within the plan area, as well as a system to convey off-site sewage flows to provide relief to the Pitt School Road lift station. The backbone system would collect sewage flows generated within the plan area and convey them to an east-west connector in Pitt School Road; the system will link up with the connector at the intersection of Pitt School Road and South Parkway. The east-west connector is expected to extend from the West A Street/Pitt School Road intersection south along Pitt School Road, then east to South Lincoln Street, south along South Lincoln to Porter Road, south along Porter Road to a future road intersection at the southern border of the Southpark project, and then east to a recently constructed 27-inch connector at South First Street. The connector would be constructed within street rights-of-way (*Draft Sanitary Sewer Master Plan Report for the Southwest Dixon Specific Plan Area*, Nolte Associates, Inc., August 2002, page 2).

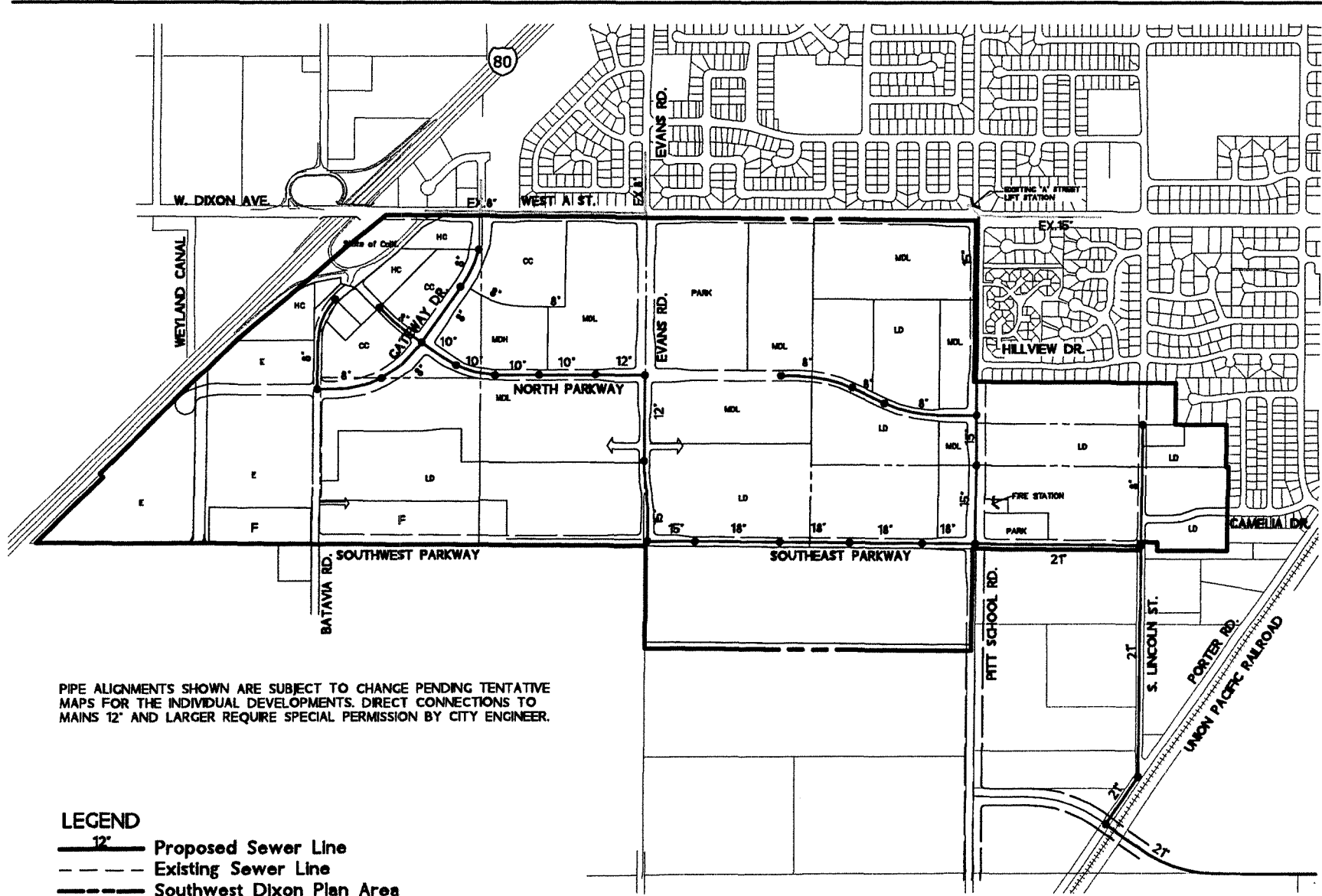
In addition, the proposed Specific Plan contains the following goal, policies, and implementation programs that address demand for sewer service in the plan area (*Draft Southwest Dixon Specific Plan*, pages 7-10 to 7-11):

**Goal 7.4**      *To provide an adequate sewage collection and disposal system to meet the needs of development in Southwest Dixon.*

**Policy 7.4.1**      *Facility Expansion - The City shall ensure that the sewage treatment and disposal facilities required by development in the southwest area will be provided in a timely, cost-effective, and environmentally sound manner.*

**Policy 7.4.2**      *Capacity - The City shall ensure that development in Southwest Dixon does not exceed the capacity of wastewater facilities.*

**Policy 7.4.3**      *Fees - Assess development fees that are sufficient to pay for capacity improvements, in keeping with the City's public facility plans.*



PIPE ALIGNMENTS SHOWN ARE SUBJECT TO CHANGE PENDING TENTATIVE MAPS FOR THE INDIVIDUAL DEVELOPMENTS. DIRECT CONNECTIONS TO MAINS 12" AND LARGER REQUIRE SPECIAL PERMISSION BY CITY ENGINEER.

- LEGEND**
- 12" Proposed Sewer Line
  - Existing Sewer Line
  - Southwest Dixon Plan Area



Figure 28: PROPOSED PRELIMINARY SANITARY SEWER COLLECTION SYSTEM



**IP 7.4a**      **Wastewater System Master Plan** - Project proponents have prepared a Draft Wastewater System Master Plan for the Southwest Dixon Plan Area, in accordance with Public Works Department Standard Specifications, for City approval in conjunction with the Southwest Dixon Specific Plan. The City, project proponents and successors-in-interest shall implement such Master Plan when needed to serve the needs of individual developments. The Draft Master Plan has been prepared by a civil engineer and evaluates the appropriate design (size) and location of adequate wastewater system facilities in accordance with City policy and standards. Final wastewater system designs recommended by the Final Master Plan shall be implemented as part of the design of individual developments.

**IP 7.4b**      **Wastewater Treatment and Trunk Line Facilities** - The City shall develop new wastewater treatment and trunk line capacity as necessary to serve new development within the Plan Area, in accordance with General Plan and Specific Plan requirements.

### **Mitigation Measures**

1. Before the first Final Subdivision Map approval for the Specific Plan area, the Specific Plan Sanitary Sewer Master Plan shall be completed and submitted to the City of Dixon for review and approval.
2. Before approval of each Final Subdivision Map in the Specific Plan area, the applicant shall demonstrate that wastewater treatment plant capacity is adequate to serve the flows generated by new development covered by the Subdivision Map.
3. Before approval of each Final Subdivision Map, the City of Dixon shall ensure that adequate sewer capacity is available in the conveyance system and at the wastewater treatment plant.
4. Before approval of any Final Subdivision Map in which wastewater generated from development would exceed treatment or conveyance capacity, the City shall identify the program for plant capacity expansion and the project applicant shall agree to pay their fair share, in accordance with the AB 1600 fee program, of the wastewater treatment and collection facilities improvements identified by the City of Dixon. (AB 1600 fees are updated annually, and applicants will be responsible for the fees in effect at the time of payment.)
5. Widen South Lincoln Street as described in Mitigation No. 1 for Impact 3.2-C.

### **Impact Significance After Mitigation**

The above-noted measures would ensure that the necessary wastewater collection, treatment, and disposal service would be available as the Specific Plan area is developed. The impact would be reduced to a less than significant level.

**Impact 3.13-B Groundwater could infiltrate the sewage collection system proposed for the Specific Plan area, causing flows into the conveyance line or the City's wastewater treatment plant to exceed capacity.**

The City of Dixon has experienced a high rate of groundwater infiltration into its sewer trunk mains. The possibility of groundwater infiltration into the sewage collection system proposed for the Specific Plan area would represent a potentially significant impact.

***Mitigation Measures***

1. The Specific Plan shall require that the sewer collection system be designed to reduce the potential for groundwater infiltration. The design shall comply with criteria established by the City, when such criteria are adopted. If such criteria have not been adopted before the first Tentative Subdivision Map approval for the plan area, each individual project shall identify specific design features that will be incorporated into wastewater line design and installation to minimize groundwater infiltration into the conveyance line and the wastewater treatment plant to ensure that these facilities are not adversely affected.
2. Off-site infrastructure connections to the wastewater treatment plant shall be constructed at the start of project construction.

***Impact Significance After Mitigation***

The above-noted measures would ensure that the impact due to potential groundwater infiltration into the sewage collection system would be reduced to a less than significant.

**Impact 3.13-C Sewer facilities constructed to serve development in the Specific Plan area have the potential to cause environmental effects, for example by interfering with existing utilities and other facilities.**

The potential for Specific Plan-related sewer facilities to interfere with existing utilities and other facilities would represent a potentially significant impact. As sewer collectors would be constructed within road rights-of-way, no impact to environmental resources is expected. As described under Impact 3.2-C, City staff has determined that South Lincoln Street has inadequate width to accommodate this sewer connector plus other planned improvements beneath this street. This is a potentially significant impact.

***Mitigation Measures***

1. The project applicant shall identify any existing underground utilities prior to construction and avoid these utilities if possible. If avoiding interference with the utility is not feasible, the project applicant shall coordinate with the utility in question to alleviate the interference.
2. Widen South Lincoln Street as described in Mitigation No. 1 for Impact 3.2-C.

### ***Impact Significance After Mitigation***

The above-noted measures, combined with the provisions of the Specific Plan and other mitigation measures recommended in this EIR, would ensure that environmental impacts from construction of Specific Plan-related sewer facilities would be reduced to a less than significant level.

### **Consistency with Dixon General Plan Policies**

The proposed Southwest Dixon Specific Plan would not create any inconsistencies with the Dixon General Plan policies noted in the Setting section. Developers within the Specific Plan area would be expected to pay required fees and provide sewage facilities in accordance with City standards, as described in the mitigation measures recommended above. The proposed Specific Plan would therefore have no impact on consistency with Dixon General Plan policies applicable to wastewater services.

### **3. Project-Specific Impacts**

**Impact 3.13-D      Development of the five projects would increase demand for wastewater collection, treatment, and disposal service and create the potential for groundwater infiltration into the sewage collection system.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area.

The impacts identified under Impacts 3.13-A through 3.13-C above would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts would adequately address the impacts of each of the five proposed individual development applications. No additional impacts on wastewater services have been identified for the five applications, and no additional mitigation measures are required.

### **4. Cumulative Impacts**

**Impact 3.13-E      Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands on wastewater facilities.**

Section 1.0, Introduction, provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific

Plan projects). Each of these projects would contribute to cumulative demands on citywide wastewater services and facilities.

The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.12-7) concluded that project impacts on the wastewater system could be reduced to a less than significant level. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, pages 4.5-7 and 4.5-9) concluded that project and cumulative impacts on sewer facilities could be mitigated to a less than significant level through implementation of the City of Dixon Capital Improvement Program and collection of Assembly Bill (AB) 1600 fees, which would fund wastewater treatment and collection facilities improvements identified by the City of Dixon. The Northeast Quadrant Specific Plan Draft Environmental Impact Report (Wade Associates, August 1994, pages 4-115 through 4-119) also indicated that project impacts on wastewater facilities would be potentially significant, but that the impact could be mitigated to a less than significant level through applicant payment of fees and construction of sewer lift stations, mains, and other facilities. The document indicated that the impact of wastewater generated by cumulative development on the City's wastewater treatment plant would be less than significant, provided that the development of each project is contingent upon providing evidence or acquiring adequate capacity at the plant.

The contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative effects on wastewater collection, treatment, and disposal services would represent a potentially significant cumulative impact.

### ***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.13-A to 3.13-C.

### ***Impact Significance After Mitigation***

Mitigation measures recommended for Impacts 3.13-A to 3.13-C plus mitigations required for the other three projects would reduce the cumulative wastewater service impacts to a less than significant level.

# 3.14 POLICE SERVICES

## A. Setting

The City of Dixon Police Department provides police services to the proposed Specific Plan area.

### 1. Staffing

The Dixon Police Department has a force of 24 sworn officers (16 patrol officers, five sergeants, two lieutenants, and one chief) organized in three beats, and four non-sworn personnel. A Police Services Strategic Plan will be conducted to determine appropriate staffing levels.

### 2. Facilities

The Police Department occupies the ground floor of a new station on South Jackson Street at A Street. Once the upper floor is improved, the station will have the capacity to accommodate a total force of approximately 60 sworn and unsworn personnel.

### 3. Calls for Service

During the one-year period from January 2002 to January 2003, the Department handled approximately 14,500 calls for service and 2,900 traffic enforcement stops.

### 4. Response Times

The Department can typically respond to calls within the City limits within two-and-a-half to four minutes. Response times to the Specific Plan area are currently approximately three to six minutes. The Department's response time goals are under two minutes for emergency calls and five minutes or less for non-emergency calls.

### 5. Financial Considerations

The Police Department's total budget for Fiscal Year 2002-2003 is \$2.4 million. The Department's annual operating budget per patrol officer (including sergeants) is \$117,000 for Fiscal Year 2002-2003. The estimated budgetary cost increase per additional officer is \$117,000 per year (Fax communications from Lou Kalish, Interim Chief of Police, Dixon Police Department, May 15, 2002 and May 30, 2002).

The City of Dixon collects impact fees from new development to fund provision of new/expanded facilities and equipment to serve new development. The impact fees, which are updated at least annually, are currently set at \$446.77 per single-family housing unit, \$470.28 per multi-family housing unit, and \$0.15 per square foot of commercial development. Impact fees are levied at the time that an applicant applies for building permit approval ("City of Dixon, Summary Fee Schedule, Effective June 22, 2002";

and personal communication with Kim Johnson, Planning Commission Clerk, City of Dixon, and Paul Siegel, Building Official, City of Dixon, June 3, 2002).

## **6. Pertinent City of Dixon Policies**

The Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to public service provision in the Specific Plan area; these policies are listed in Section 3.1, Fire Protection and Emergency Medical Services, of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to police services:

- Policy 25**     *The City shall strive to maintain police protection standards to assure the citizens of Dixon a high level of police protection, based on a reasonable and realistic allocation of available City funds.*
- Policy 26**     *The City shall ensure that development within the Dixon Planning Area does not exceed the capability of the Dixon Police Department to provide an adequate level of police protection.*
- Policy 27**     *The City shall strive to maintain a police staffing level consistent with city needs.*
- Policy 28**     *The City shall ensure that new development incorporates street layouts which provide adequate emergency access, distinct street names and visible address markings.*
- Policy 32**     *The City shall require proponents of new development projects to contribute to the maintenance of an adequate level of public safety within the community, generally through the payment of the appropriate impact fees.*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on police services if it would:

- a.     Generate demand for police services that would result in the need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Assessed in all impacts in this section.*)

- b. Generate demand for police services that would exceed the ability of the police department to provide service without substantially decreasing its ability to serve the existing population. *(Assessed in all impacts in this section.)*
- c. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. *(The Initial Study determined that the project would have no impact vis-à-vis this criterion.)*
- d. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed in Impact 3.14-B.)*

## 2. Impacts – Proposed Southwest Dixon Specific Plan

### **Impact 3.14-A New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for police response.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would increase the number of emergency calls requiring a response from the Dixon Police Department. An increased volume of calls and activity would require hiring of additional patrol officers and purchase of new equipment. Based on the 2002/2003 budget, any additional staffing would impact the budget at a rate of approximately \$117,000 per officer. A police staffing plan will be addressed in 2003/2004 regarding future staffing needs. The increased demand for police services would represent a potentially significant impact.

The proposed Specific Plan contains the following goal, policies, and implementation programs that address demand for police services in the plan area:

**Goal 7.7** *To provide satisfactory police... protection to the Southwest Dixon Plan Area.*

**Policy 7.7.2** *Police Protection - Maintain a high level of police protection in Southwest Dixon, based on a reasonable and realistic allocation of available City funds. Ensure that development within the Southwest Dixon Plan Area does not exceed the capability of the Dixon Police Department to provide an adequate level of police protection.*

**Policy 7.7.3** *Street Layout and Signage - Ensure that new development in Southwest Dixon incorporates street layouts that provide adequate emergency access, distinct street names, and visible address markings.*

**Policy 7.7.5** *Financing - Require development proponents to contribute to the maintenance of an adequate level of public safety within the community, generally through the payment of appropriate impact fees.*

**IP 7.7c** *Security - The Police Chief shall review proposed development plans to evaluate security, including the following considerations.*

- *Provision for emergency access and surveillance. Building entries shall be visible from patrol routes where possible.*
- *Visible address numbers.*
- *Distinct street names.*
- *Security programs and loss prevention programs.*

**IP 7.7e** *Ongoing Service Costs - Monitor the level of service provided to Southwest Dixon. If General Fund revenues are not adequate to provide the level of police...and fire protection desired by the community, consider funding options such as benefit assessment districts, and impact fees.*

**Mitigation Measures**

To carry out the Specific Plan provisions noted above, the following more specific mitigation measures are necessary:

1. Before approval of any Final Subdivision Map in the Specific Plan area, require a written indication from the Police Department that Department services will be adequate to serve the proposed development. Increase Department staffing and/or budget as necessary. The Department shall monitor its ability to serve development in the Specific Plan area on an ongoing basis through analysis of (a) the number of calls for service and crimes associated with development in the plan area, (b) the ratio of number of officers to residential population (with the goal of providing 1.5 officers per 1,000 population), and (c) the adequacy of required impact fees and General Fund revenues to provide the necessary level of service. The City shall consider other funding options, such as special taxes, benefit assessment districts, and utility user taxes, as necessary to provide the necessary level of police service. This measure would assist in carrying out Specific Plan Policies 7.7.2 and 7.7.5, and Implementation Program 7.7e.
2. Before approval of any Tentative Subdivision Map in the Specific Plan area, require applicant compliance with Police Department requirements for street layout and emergency access. This measure would assist in carrying out Specific Plan Policy 7.7.3. The Police Department would work in conjunction with the Public Works Department and Fire Department.
3. Before approval of any Final Subdivision Map in the Specific Plan area, require applicant compliance with Police Department requirements for (a) emergency access and surveillance (e.g., visible building entries), (b) distinct street names, and (c) visible address numbers. This measure would assist in carrying out Specific Plan Policies 7.7.3 and Implementation Program 7.7c. The Police Department would work in conjunction with the City Clerk and Fire Department.

**Impact Significance After Mitigation**

The above-noted measures would ensure that the necessary police services would be available as the Specific Plan area is developed. The impact would be reduced to a less than significant level.



**Impact 3.14-B      Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan policies that address Dixon Police Department service capabilities.**

Development in the Specific Plan area has the potential to be inconsistent with the following policies from the Public Services and Facilities Element of the Dixon General Plan:

**Policy 25      *The City shall strive to maintain police protection standards to assure the citizens of Dixon a high level of police protection, based on a reasonable and realistic allocation of available City funds.***

**Policy 26      *The City shall ensure that development within the Dixon Planning Area does not exceed the capability of the Dixon Police Department to provide an adequate level of police protection.***

**Policy 27      *The City shall strive to maintain a police staffing level consistent with city needs.***

As explained under Impact 3.14-A, new residences, commercial and employment center businesses, and other Specific Plan area land uses would generate calls for police services that could exceed the capabilities of the Dixon Police Department.

These potential inconsistencies would represent a potentially significant impact.

***Mitigation Measures***

Mitigation measures recommended for Impact 3.14-A would resolve the potential inconsistencies with Dixon General Plan policies.

***Impact Significance After Mitigation***

The above-noted measures would reduce the impact to a less than significant level.

**3.      Project-Specific Impacts**

**Impact 3.14-C      Development of the five projects would increase calls for police services.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. The impacts identified under Impacts 3.14-A and 3.14-B above would apply to each of the five individual development applications. The Specific Plan provisions and mitigation measures discussed under those impacts

would adequately address the impacts of each of the five proposed individual development applications (Lou Kalish, Interim Chief of Police, Dixon Police Department; telephone communication, August 19, 2002). No additional impacts on police services, beyond those identified for the Specific Plan, have been identified for the five applications, and no additional mitigation measures are required.

#### **4. Cumulative Impacts**

**Impact 3.14-D Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for police services.**

Section 1.0 (Introduction) provides details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.11-6) concluded that development impact fees would adequately address the project impact on police services, and that the impact was therefore less than significant. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, pages 4.6-6 to 4.6-7) concluded that the Southpark project would require hiring of additional police officers, representing a potentially significant impact on police services, but that the impact would be mitigated through payment of required impact fees in accordance with Assembly Bill (AB) 1600. The Northeast Quadrant Specific Plan Draft Environmental Impact Report (Wade Associates, August 1994, pages 4-123 to 4-124) also identified a potentially significant police service impact, indicating that the Dixon Police Department would require four additional police officers to serve the project, which would be located in the northeastern part of the City; recommended mitigation measures to reduce the impact to a less than significant level consisted of payment of impact fees and/or increase in general fund allocations, and applicant provision of on-site private security staff.

Unless cumulative police service needs are met as they develop, the contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative demands on police services would represent a potentially significant cumulative impact.

##### ***Mitigation Measures***

1. Carry out mitigation measures recommended for Impact 3.14-A.

##### ***Impact Significance After Mitigation***

Mitigation measures recommended for Impacts 3.14-A to 3.14-C plus mitigation measures required for the other three projects would reduce the cumulative police service impacts to a less than significant level.

# 3.15 SOLID WASTE SERVICES

## A. Setting

The City of Dixon contracts with a private company, Dixon Sanitary Service, for solid waste collection and disposal.

### 1. Existing Services

In residential areas, Dixon Sanitary Service provides 96-gallon gray Toters for curbside refuse pick-up, as well as 96-gallon green Toters for curbside yard waste pick-up (E-mail communication from Bruce Gondry, Vice President and Group Manager, Norcal Waste Systems, Inc., May 30, 2002). Dixon Sanitary Service generally provides one collection per week in residential areas, with more frequent collection in some commercial and industrial areas.

While there is currently no curbside collection of recyclable items, Dixon Sanitary operates a buy-back facility (located at 302 North First Street in Dixon) where the public may dispose of recyclables. Dixon Sanitary also operates a facility in Vacaville (located at 855 Davis Street) that accepts residential hazardous wastes such as paint, household cleaning products, pesticides, and used oil (LSA, 2000, page 4.11-4).

### 2. Amount of Solid Waste Generated

According to California Integrated Waste Management Board data for 1998, residential areas in the City of Dixon generated 2.7 pounds of disposed material per person per day (including yard waste and recycled materials). Commercial areas generated 8.9 pounds of disposed material per day per employee (or 9.7 pounds per \$100 in taxable sales) (California Integrated Waste Management Board, "California Waste Stream Profiles," "Jurisdiction Profile for City of Dixon," available at [www.ciwmb.ca.gov](http://www.ciwmb.ca.gov)).

### 3. Landfill Capacity

Solid waste collected in the Dixon area is transported to the B&J Landfill, located 13 miles south of Dixon at 6426 Hay Road off Highway 113. The 256-acre landfill has a permitted capacity to receive 20 million cubic yards of waste. As of 2000, the landfill had an estimated life of 73 years (E-mail communication from Bruce Gondry, Vice President and Group Manager, Norcal Waste Systems, Inc., 5/30/02).

### 4. Requirements for Commercial Development

Developers of commercial projects in Dixon are required to pay fees based on the volume of solid waste that the projects would produce. In addition, commercial projects must provide space for on-site, enclosed trash or recycling areas, as well as for pick-up of recyclables (LSA, 2000, page 4.11-5). Dixon Sanitary Service routinely reviews proposed commercial development site plans and makes recommendations regarding space to be provided for trash and recycling areas (E-mail communication from Bruce

Gondry, 5/30/02; and personal communication with Janet Koster, Senior Management Analyst, City of Dixon Public Works Department, 6/4/02).

## 5. Pertinent City of Dixon Policies

The Public Services and Facilities Element, Urban Development and Community Design Element, and Residential Environment Element of the Dixon General Plan contain policies regarding public service provision that are generally relevant to solid waste services in the Specific Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

In addition, the City of Dixon has adopted a Source Reduction and Recycling Element and a Household Hazardous Waste Element in accordance with State law. These documents emphasize the need for recycling of waste materials, and establish "diversion rate" goals (i.e., goals for the amount of recyclables that will be removed from the waste stream and recycled). The City is meeting these diversion rate goals (personal communication with Janet Koster, 6/4/02).

## B. Potential Impacts and Mitigation Measures

### 1. Criteria Used For Determining Impact Significance

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on solid waste services if it would:

- a. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs. (*Assessed in all impacts in this section.*)
- b. Not comply with Federal, State, and local statutes and regulations related to solid waste. (*Assessed under Subsection 2, "Impacts – Proposed Southwest Dixon Specific Plan," "Consistency with Federal, State, and Local Regulations, Plans, and Policies," and in Impact 3.15-B.*)
- c. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed under Subsection "2. Impacts – Proposed Southwest Dixon Specific Plan," "Consistency with Federal, State, and Local Regulations, Plans, and Policies," and in Impact 3.15-B.*)

### 2. Impacts – Proposed Southwest Dixon Specific Plan

**Impact 3.15-A**      **New residences, commercial and employment center businesses, and other Specific Plan area land uses would increase demand for solid waste collection and disposal services.**

Development of 1,221 housing units, 963,760 square feet of commercial and employment center building space, parks, and other uses in accordance with the proposed Specific Plan would generate additional solid waste requiring collection by Dixon Sanitary Service and disposal at the B&J Landfill.

Assuming an average density of 3.20 persons per housing unit (the average household size projected by the Association of Bay Area Governments for Dixon in 2005 – see Section 3.9, Population and Housing, for details), the 1,221 units allowed by the Specific Plan would house a population of approximately 3,907 people. Based on the California Integrated Waste Management Board (CIWMB) estimate of 2.7 pounds of solid waste per resident per day, the 3,907 residents of the plan area would generate approximately 10,550 pounds of solid waste per day. Based on the CIWMB estimate of 8.9 pounds of solid waste per employee per day, the estimated 3,050 employees in the plan area would generate approximately 27,145 pounds of solid waste per day. The plan area would therefore generate a total of approximately 37,695 pounds of solid waste per day at buildout, which is anticipated within 20 years. The B&J Landfill is expected to have adequate capacity to accept this solid waste over the 73-year lifetime of the landfill (E-mail communication from Bruce Gondry, 5/30/02).

The proposed Specific Plan contains the following goal, policies, and implementation programs that address solid waste services in the plan area (Draft Southwest Dixon Specific Plan, pages 7-27 through 7-28):

**Goal 7.9** *To provide satisfactory solid waste collection services in Southwest Dixon, and to reduce solid waste generation.*

**Policy 7.9.1** *Private Recycling Facilities - Promote the incorporation of recycling facilities in new development in Southwest Dixon.*

**IP 7.9a** *Park Facilities - As part (of) Park Maintenance and Development Plans in Southwest Dixon, City shall consider recycling and recycling bins.*

**IP 7.9b** *Coordination - Work with other agencies and private developers to include recycling facilities in new public and private projects in Southwest Dixon.*

By promoting recycling, these Specific Plan provisions would help to reduce demands on the B&J Landfill.

Building construction in the Specific Plan area would also generate a certain amount of waste. City of Dixon Public Works Department staff informally encourage building contractors to recycle construction materials. Design review conditions would require developers to carry out a program to recycle building construction materials and debris to the extent feasible to avoid transport of these materials to the landfill. The program would be subject to review and approval by the City of Dixon. In addition, B&J Landfill recycles as much construction as economically feasible. City of Dixon and Dixon Sanitary Service staff do not anticipate any problems with landfill capacity as a result of construction waste (E-mail communication from Bruce Gondry, 5/30/02; and personal communication with Janet Koster, 6/4/02).

The effect on landfill capacity from solid waste generated by development in the Specific Plan area would therefore represent a less than significant impact. No mitigation measures are required.

## **Consistency with Federal, State, and Local Regulations, Plans, and Policies**

The proposed Southwest Dixon Specific Plan would not create any inconsistencies with the Dixon General Plan policies noted in the Setting section above. The proposed Specific Plan also would not create any inconsistencies with the State-mandated Source Reduction and Recycling Element and Household Hazardous Waste Element adopted by the City of Dixon. Developers of commercial projects would be expected to pay required fees; comply with City requirements for on-site, enclosed trash or recycling areas, as well as for pick-up of recyclables; and meet all applicable requirements for storage and handling of hazardous materials and wastes. (See Section 3.8 for discussion of hazardous materials impacts.) No other Federal, State, or local statutes or regulations regarding solid waste are known to apply to the plan area. The proposed Specific Plan would therefore have no impact on consistency with Federal, State, or local statutes or regulations regarding solid waste.

### **3. Project-Specific Impacts**

#### **Impact 3.15-B Development of the five projects would increase demand for solid waste collection and disposal services.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. The impact identified under Impact 3.15-A above would apply to each of the five individual development applications; each of the five developments would contribute incrementally to solid waste generation in the plan area. The Specific Plan provisions discussed under that impact would adequately address the impacts of each of the five proposed individual development applications. Like the proposed Specific Plan, the five individual applications would not create any inconsistencies with Federal, State, or local statutes or regulations regarding solid waste. B&J Landfill is expected to have adequate capacity to accept solid waste generated by these projects. Therefore, no additional impacts on solid waste services have been identified for the five applications, and no additional mitigation measures are required.

### **4. Cumulative Impacts**

#### **Impact 3.15-C Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area, would contribute to cumulative demands for solid waste services and specifically for capacity at the B&J Landfill. B&J Landfill is expected to have adequate capacity to accept solid waste generated by cumulative development, however.**

Please see Section 1.0, Introduction, for details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.11-7) concluded that the project-related increase in solid waste would not exceed the capacity or substantially shorten the life of the B&J Landfill. The Southpark Draft Environmental Impact Report (Harland Bartholomew & Associates, Inc., July 1994, page 3.11-9) concluded that the Southpark project would have a less than significant impact on solid waste disposal, since the B&J Landfill guaranteed the City of Dixon full capacity to serve anticipated growth through 1999; the Subsequent EIR prepared for the Southpark project (Southpark Planned Development Draft Subsequent Environmental Impact Report, EIP Associates and Raney Planning and Management, August 2000) did not alter this conclusion. The Northeast Quadrant Specific Plan Draft Environmental Impact Report (Wade Associates, August 1994, pages 4-119 to 4-120) concluded that cumulative impacts on the B&J Landfill would be less than significant because the growth has been anticipated and "it is unlikely that cumulative solid waste generation would exceed service capacity of the landfill if development of each cumulative project was to provide and encourage recycling as well as obtain a will serve letter prior to approval of each project" (E-mail communication from Bruce Gondry, Vice President and Group Manager, Norcal Waste Systems, Inc., May 30, 2002; and personal communication with Janet Koster, Senior Management Analyst, City of Dixon Public Works Department, June 4, 2002).

The contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative demands on solid waste services would therefore represent a less than significant cumulative impact. No mitigation measures are required.

# 3.16 PARKS AND RECREATION

## A. Setting

### 1. Existing Facilities

The City of Dixon owns and maintains most parks and recreational facilities within the Dixon City limits. As shown in Table 28, the City of Dixon owns and maintains six parks that serve the local area. The parks encompass a total of approximately 86 acres.

**Table 28**  
**City of Dixon Parks and Recreational Facilities**

Park	Total Acres	Developed Acres	Major Facilities
Hall Park	52.30 <sup>a</sup>	32.90 <sup>b</sup>	Tennis Courts Ball Fields Senior/Multi-Use Center Swimming Pool Open Play Area Children's Play Equipment Areas (2) Picnic Areas Amphitheater Multi-Purpose/Soccer Field Restrooms (2)
Northwest Park	22.53	22.53	Soccer Fields Picnic Areas Open Play Area Children's Play Equipment Area Restrooms (2)
Patwin Park	4.93	4.93	Children's Play Equipment Area Picnic Areas Basketball Half Court Open Play Area
Conejo Park	3.61	3.61	Children's Play Equipment Area Picnic Areas Trellis Gazebo Open Play Area
Women's Improvement Club Park	0.65	0.65	Picnic Area
Linear Park	1.75 <sup>c</sup>	1.75	Par Course Open Play Area Lighted Pathway
<b>TOTAL</b>	<b>85.77</b>	<b>66.37</b>	

Source: *Dixon 1993 General Plan* (page 60.)

- a Does not include minimum area of 5.5 acres for burrowing owl habitat.
- b Park is being developed in three phases, beginning in May 2002.
- c Does not include 3.4-acre linear path area.



In addition to the City of Dixon facilities listed in Table 28, Westside Park (a one-acre portion of the Silveyville School site) is located within the Dixon City limits. This park, owned and maintained by the Dixon Unified School District, contains picnic grounds and grassy play areas (*Dixon 1993 General Plan*, page 61).

There are no existing parks or recreational facilities in the proposed Southwest Dixon Specific Plan area.

## 2. Parkland Dedication and Fee Requirements

In accordance with Resolution 00-052, the City of Dixon imposes parkland dedication/acquisition and development fees on all new residential developments (*Dixon 1993 General Plan*; page 61).

The City's Subdivision Ordinance establishes standards and formulas for dedication of parkland and payment of fees in lieu of land dedication. These requirements carry out the provisions of the Quimby Act, the State law that allows cities to require dedication of land for park or recreational purposes. The standards are set to produce five acres of parkland per 1,000 population (Subdivision Ordinance Section 10.16.03). Table 29 lists currently required park acreages per dwelling unit. Landscaped corridors and other features for pedestrians and bicyclists cannot be used to satisfy the parkland dedication requirement.

**Table 29**  
**Park Acreage Required by City of Dixon Subdivision Ordinance**

<b>Dwelling Unit Type</b>	<b>Required Park Acreage per Dwelling Unit</b>
One-Family Dwelling Unit	0.0151
Two-Family Dwelling Structure	0.0120
Three- to Ten-Family Dwelling Structure	0.0169
11+-Family Dwelling Structure	0.0129
Mobile Home/Other Dwelling	0.0160

Source: City of Dixon Subdivision Ordinance, Section 10.16.03.

The City may require payment of a fee in lieu of land dedication at the City Council's discretion, or for project sites where the Dixon General Plan does not designate a park or recreational facility. The Subdivision Ordinance (Section 10.15.04) specifies that the in-lieu fee must be equal to the value of the land that would otherwise be required for dedication. The fee is used for parks and recreational facilities that would serve the residents of the area being subdivided.

The City also levies fees on residential development to support parks and recreational facilities in accordance with Assembly Bill (AB) 1600. These fees are currently set at \$6,967.61 per single-family house and \$6,096.66 per multi-family housing unit (City of Dixon Summary Fee Schedule, effective 6/22/02). (AB 1600 fees are updated annually, and applicants are responsible for the fees in effect at the time of payment.)

### 3. Pertinent City of Dixon General Plan Policies

The Dixon General Plan land use map designates a community park site within the proposed Southwest Dixon Specific Plan area, generally in the center of the plan area along Evans Road.

In addition, the Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to public service provision in the Specific Plan area; these policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to parks and recreational facilities:

- Policy 17**     *The City shall provide parks and recreational facilities of varying sizes and functions to the citizens of Dixon. The City shall continue to provide a range of recreational programs serving the diverse age and interest groups of the community.*
- Policy 18**     *The City shall provide for high-quality neighborhood and community parks to meet the recreational, open space, leisure and play needs and desire[s] of existing and future residents.*
- Policy 19**     *The City shall ensure that parks and recreational facilities are distributed conveniently throughout the City, in order to facilitate pedestrian access for children, elderly residents and handicapped residents.*
- Policy 20**     *The City shall ensure an equitable distribution of parks and recreational facilities throughout the City.*
- Policy 21**     *The City shall ensure that at full development, each neighborhood area has local recreational facilities to provide a range of residential densities generally proportional to the overall city-wide distribution.*
- Policy 22**     *The City shall provide for community facilities (i.e. activity centers, arts/cultural facilities, etc.).*
- Policy 23**     *The City shall maintain a ratio of at least 5 acres of park land for each 1,000 Dixon residents, at least 1.2 acres of neighborhood park land and at least 3.8 acres of community park land.*
- Policy 24**     *The City shall require proponents of new development projects to contribute to the acquisition and development of adequate parks and recreational facilities within the community, either through the dedication of park land and through the payment of fees in lieu of such dedications. When project proponents are also required to dedicate land for educational facilities, the fact that some dedicated land may eventually be utilized on a dual basis for community recreational facilities and as school grounds should in no way reduce the total amount of land which must be dedicated exclusively for park or recreational use or reduce the site area requirements for a school site.*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific

Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

#### **4. Pertinent Dixon Parks Master Plan Provisions**

The City of Dixon Parks Master Plan (March 1, 2000) provides a policy "bridge" between the City's General Plan and its Capital Improvements Program (CIP). The Master Plan evaluates park needs and sets policies to guide preparation of the CIP, which in turn provides the detailed budget and schedule for constructing specific parks and improvements.

The Parks Master Plan (page 5) notes that the Southwest Dixon and Southpark areas are the only two areas remaining for residential development under the urban development policies of the 1993 General Plan. The Master Plan specifies the following for the Southwest Dixon area:

- The Southwest Dixon area should contain at least 3.0 acres of neighborhood park land and 15.4 acres of community park land, plus at least 4.6 acres of neighborhood park facilities in the community park (Parks Master Plan, pages 7, 10, 12, and 19).
- The land for these facilities will be secured as a condition of development in the Southwest Dixon area (Parks Master Plan, page 7).
- The 20-acre Southwest Community Park will include areas and facilities designed to meet the surrounding neighborhood's recreation needs. Major community-wide amenities will be the principal features of this park. Planned facilities include a community center (1.75 acres), a community swimming pool (1.75 acres), multi-purpose fields (4.00 acres), landscaped passive use areas (7.25 acres), and tennis courts (0.65 acre). The community park will also provide neighborhood park services for nearby residents (Parks Master Plan, pages 10, 13, and 15).
- The three-acre Southwest Neighborhood Park is planned to serve the southwest area as well as existing neighborhoods in the south central area of the City that are currently more than one-half mile from any park facility (Parks Master Plan, page 10).
- If judged appropriate at the time that development applications are first proposed for the Southwest Dixon area, concept plans for the parks should be prepared (Parks Master Plan, page 23).

The Parks Master Plan (pages 16 and 18) also offers details about planned facilities at the community center and community pool in the Southwest Community Park.

## **B. Potential Impacts and Mitigation Measures**

### **1. Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on parks and recreational facilities if it would:

- a. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Assessed in all impacts in this section.*)
- b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (*Assessed in all impacts in this section.*)
- c. Increase the need for new parks or alterations to existing parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. (*Assessed in all impacts in this section.*)
- d. Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed in Impact 3.16-B.*)

### **2. Impacts – Proposed Southwest Dixon Specific Plan**

The impacts of proposed park development on environmental resources are addressed, as warranted, in other sections of the EIR.

**Impact 3.16-A New residences, commercial and employment center businesses, and other Specific Plan area land uses would generate demand for parks and recreational facilities. The proposed Specific Plan would provide for a 20-acre community park and a 2.47-acre neighborhood park. Certain Specific Plan provisions would need to be revised, however, to achieve consistency with Subdivision Ordinance requirements as well as Dixon General Plan and Parks Master Plan policies (see also Impact 3.16-B).**

The 1,221 units allowed by the Specific Plan would house a population of approximately 3,907 people. (See Section 1.0, Introduction, and Section 3.9, Population and Housing, for details regarding population estimates.) These residents would generate a greater demand for parks and recreational facilities than would employees of businesses in the plan area. Based on the City's standard of five acres of parkland for every 1,000 residents (see General Plan Policy 23 and Subdivision Ordinance provisions listed above), the residential population of the plan area would generate a need for 19.5 acres

of parkland, consisting of 4.7 acres of neighborhood parkland and 14.8 acres of community parkland. (See further discussion under Impact 3.16-B.)

Figure 29 illustrates the open space plan of the proposed Specific Plan. As shown in the figure, the Specific Plan would provide for the following parks and recreational facilities:

- A 20-acre community park located in the northcentral part of the plan area at the southeast quadrant of the West A Street/Evans Road intersection (see Figure 3 in Section 1.0, Introduction);
- A 2.47-acre neighborhood park located in the southeast corner of the plan area, on the east side of Pitt School Road (see Figure 6 in Section 1.0, Introduction);

The proposed Specific Plan would also provide for landscaped corridors, bike lanes, and pedestrian walkways. (See Section 3.4, Traffic and Circulation, for details.) In addition, the proposed Specific Plan (page 7-17) indicates that "private recreation facilities can supplement public parks. Potential residential projects in Southwest Dixon could incorporate private swimming pools, tennis courts, fitness clubs, and other recreation uses. Employment-generating uses also may include private recreation facilities for the use of employees." These proposed facilities would not meet the City of Dixon's definition of parkland, however.

The proposed Specific Plan contains the following goal, policies, and implementation programs that address parks and recreational facilities in the plan area (Draft Southwest Dixon Specific Plan, pages 2-11 and 7-17 through 7-19):

**Goal 7.6** *To establish and maintain a park system and recreation facilities that are suited to the needs of Southwest Dixon residents, visitors, and workers.*

**Policy 2.3.1** *Open Space Uses - Plan parks in Southwest Dixon as part of Dixon's open space system, with neighborhood and community parks linked by pedestrian and bikeways.*

**Policy 7.6.1** *Park Planning - Promote the provision of public and private open space within urbanized parts of Southwest Dixon, in order to provide visual contrast with the built environment and to provide for the recreational needs of residents and employees.*

**Policy 7.6.2** *Open Space System - Plan parks in Southwest Dixon as part of Dixon's open space system, with neighborhood and community parks linked by greenways.*

**Policy 7.6.3** *Park Location - Locate parks within walking distance of residential areas. Provide convenient access to parks, particularly for children, elderly residents, and disabled residents.*

**Policy 7.6.4** *Park Lighting and Noise - Shield or restrict exterior lighting and noise where recreation facilities are adjacent to residential or other sensitive uses.*

**Policy 7.6.5** *Community Park - Provide direct access and adequate parking for the Southwest Dixon community park, so as not to disrupt residential areas.*

**Policy 7.6.6** *Facilities and Programs - Provide parks and recreational facilities of varying sizes and functions, with a range of recreation programs to serve the diverse age and interest groups in Southwest Dixon. Provide for activity centers and*

other community facilities appropriate for Southwest Dixon. Parks shall be designed to provide recreation for all citizens, including those with disabilities.

**Policy 7.6.7 Private Recreation Facilities** - Require recreation areas in multifamily residential projects where there is no immediate access to public recreation facilities. Encourage the inclusion of private recreational facilities, open spaces, and linear landscape corridors An single-family residential projects.

Encourage the development of private recreation facilities in commercial and employment center projects.

**Policy 7.6.8 Multi-Family Residential Recreation Facilities** - As a condition of development approval, require the provision of private recreation facilities in multifamily residential projects where there is no immediate access to public recreation areas or amenities.

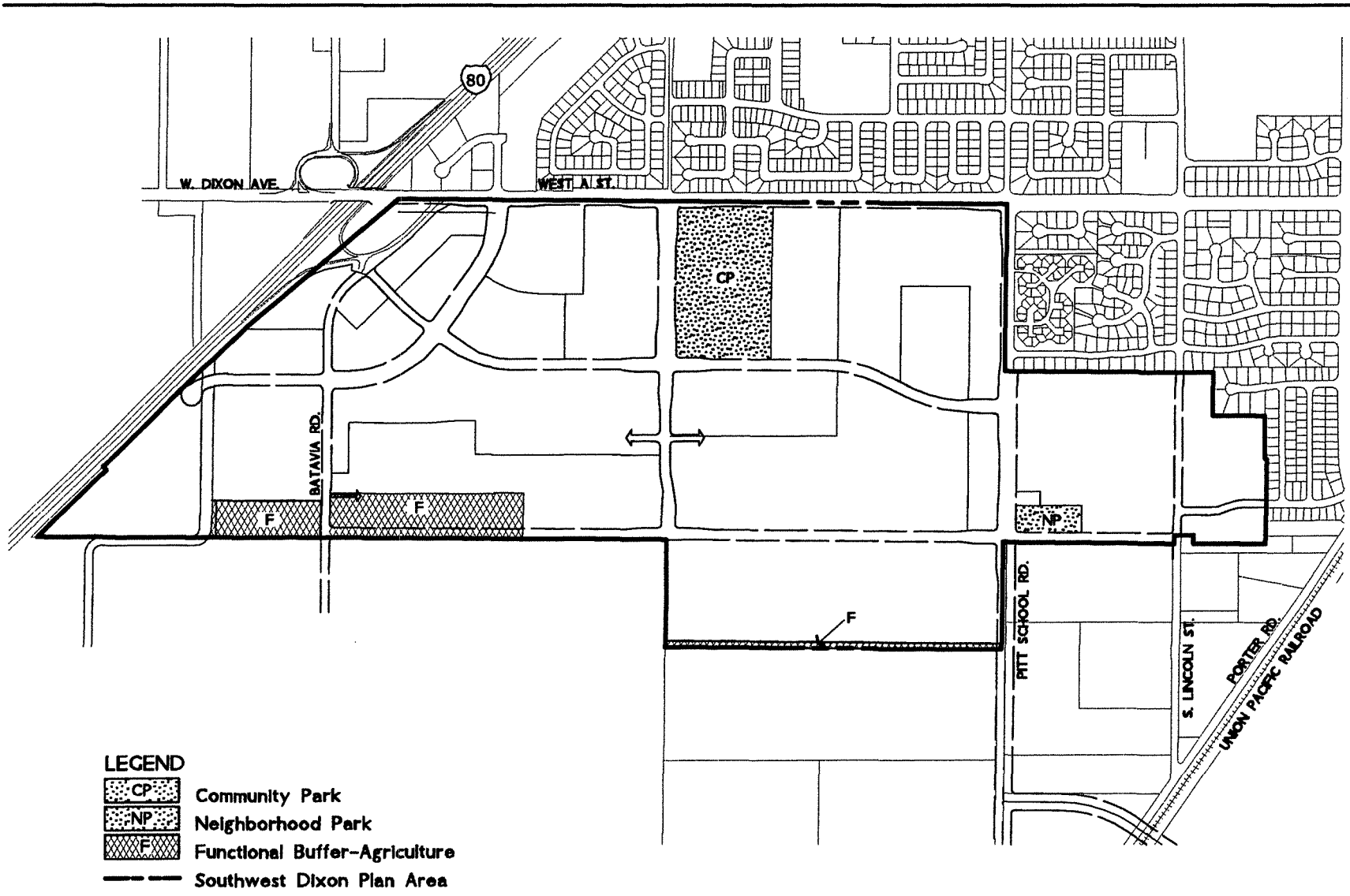
**Policy 7.6.9 Neighborhood Park Facilities** - Provide the following facilities, or equivalent facilities determined by the City Park and Recreation Commission.

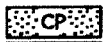


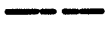
- Picnic areas
- Tot lot and adjacent seating
- Playground equipment
- Open lawn area, away from streets, with level terrain suitable for informal sports
- Bicycle/pedestrian path near perimeter
- Bike racks
- Natural area, with native plants.
- Safety lighting
- Other facilities as determined by the Park and Recreation Commission

**IP 7.6a Development Fees and Dedications** - Require developers of new residential subdivisions in Southwest Dixon to dedicate land and to pay fees for the development of parkland, or to pay a comprehensive fee in lieu of dedication for the acquisition and development of recreation facilities to serve the new population.

Park requirements shall be based on a ratio of at least 5 acres of parkland for each 1,000 residents. Based on this standard, and baseline densities, a minimum of 18.3 acres of parkland would be required for residential buildout of the Plan Area. The Specific Plan proposes a total of 22.46 acres of parkland (20 acres net for a community park and 2.46 acres net for a neighborhood park).

**IP 7.6b Park Sites** - Require park site dedication in the locations shown on the Southwest Dixon Specific Plan Map. Park location and configuration may be adjusted slightly when specific development projects are proposed where there would be overall community design benefits.



- LEGEND**
-  CP Community Park
  -  NP Neighborhood Park
  -  F Functional Buffer-Agriculture
  -  Southwest Dixon Plan Area



SOURCE: NOLTE ASSOC., INC.

Figure 29: OPEN SPACE PLAN

**IP 7.6c** **Park Maintenance** - Verify with each development application that satisfactory long-term maintenance arrangements have been provided for all park and recreation facilities. Provide general fund monies for community park maintenance. Consider the use of landscaping and lighting maintenance districts as a means of funding other park maintenance.

**IP 7.6d** **Regulations** - New park and recreation facilities shall conform to City requirements and to all applicable State and Federal law, including provisions for people with disabilities.

**IP 7.6e** **Night Lighting** - A master lighting plan shall be prepared for parks, other public facilities, and private recreation facilities where intensive night lighting is required. The Master Lighting Plan shall be required at the time of the first tentative map in the Plan Area and shall be approved by the City. The Master Lighting Plan shall be consistent with the City's Parks Master Plan and meet the following performance standards.

Designer to have credentials and expertise in lighting design, and approved by the City.

•Provisions to reduce glare on adjacent residents, including techniques such as automatic evening shutoff controls, glare shields, position and orientation of fixtures, and location of fixtures at a minimum height consistent with intended use.

Selection of energy-conserving equipment, consistent with visual and functional considerations, and use of shields to minimize loss of light to the night sky.

- Lighting design consistent with security needs, with review by the Dixon Police Department.

**IP 7.6f** **Community Park Facilities** - At the time of park dedication, the City Park and Recreation Commission shall review the proposed park plan and ensure consistency with the City's Parks Master Plan.

These Specific Plan provisions would assist in mitigating the impact on parks and recreational facilities. Certain provisions would need to be revised, however, to achieve consistency with Subdivision Ordinance requirements as well as Dixon General Plan and Parks Master Plan policies (see also Impact 3.16-B). The increased demand for parks and recreational facilities resulting from the Specific Plan would therefore represent a potentially significant impact.

### **Mitigation Measures**

1. Revise Specific Plan Implementation Program 7.6a to state as follows: "Require developers of new residential subdivisions in Southwest Dixon to dedicate land and to pay fees for the development of parkland, or to pay a comprehensive fee in lieu of dedication for the acquisition and development of recreation facilities to serve the new population, in accordance with Dixon General Plan, Parks Master Plan, Subdivision Ordinance, and Assembly Bill (AB) 1600 fee requirements."
2. Further revise Specific Plan Implementation Program 7.6a to delete the following two sentences, which are not necessary and may create confusion in



determining applicable parkland dedication requirements: "Based on this standard, and baseline densities, a minimum of 18.3 acres of parkland would be required for residential buildout of the Plan Area. The Specific Plan proposes a total of 22.47 acres of parkland, including neighborhood and community parks."

3. Carry out mitigation measures identified for Impact 3.16-B

### ***Impact Significance After Mitigation***

The above-noted measures, combined with the provisions of the Specific Plan, would ensure that the necessary parks and recreational facilities would be available as the Specific Plan area is developed. Other sections of this EIR address environmental impacts of development in the plan area, including development of the proposed community park and neighborhood park sites, and recommend mitigation measures as necessary. The Specific Plan's impact on parks and recreational facilities would be reduced to a less than significant level.

**Impact 3.16-B**      **Park development in the Specific Plan area has the potential to be inconsistent with (1) Dixon General Plan provisions that address the location of the community park site in the plan area, and (2) Parks Master Plan provisions for the acreage of neighborhood parkland provided.**

#### *Location of General Plan-Designated Community Park Site*

As noted earlier, the Dixon General Plan land use map designates a community park site within the proposed Southwest Dixon Specific Plan area, generally in the center of the plan area along Evans Road. The Specific Plan provides for a 20-acre community park in a slightly different location, in the northcentral part of the plan area at the southeast quadrant of the West A Street/Evans Road intersection (see Figure 6 in Section 1.0, Introduction). The Specific Plan application includes a request for amendment of the Dixon General Plan to make adjustments in General Plan land use designations to achieve consistency between the Specific Plan and the General Plan. The General Plan amendment would include adjustment of the community park location.

City of Dixon staff has indicated that the proposed location of the community park is acceptable (Fax communication from Stephen Streeter, Community Development Director, City of Dixon, 6/21/02). The inconsistency with the existing Dixon General Plan land use designation would be eliminated through the General Plan amendment included in the Specific Plan application. The Specific Plan's inconsistency with the existing community park designation would therefore represent a less than significant impact.

#### *Neighborhood Park Acreage*

Dixon General Plan Public Services and Facilities Element Policy 23 states as follows: "The City shall maintain a ratio of at least 5 acres of park land for each 1,000 Dixon residents, at least 1.2 acres of neighborhood park land and at least 3.8 acres of community park land." Based on this standard, the approximately 3,907 residents of the plan area (estimate based on Association of Bay Area Governments household size

projections – see Section 3.9, Population and Housing, for details) would generate a need for at least 19.5 acres of parkland, consisting of 4.7 acres of neighborhood parkland and 14.8 acres of community parkland. The City's Parks Master Plan, which implements the General Plan, indicates that the Southwest Dixon area should contain 23 acres of parkland, consisting of a three-acre neighborhood park and a 20-acre community park (which would contain 15.4 acres of community park land plus at least 4.6 acres of neighborhood park facilities). The Parks Master Plan parkland requirement is based on the General Plan policy for five acres of parkland per 1,000 residents, but is higher because it also reflects service radius requirements; for example, to provide a neighborhood park within one-half mile (the required service radius for neighborhood parks), a 3.0-acre neighborhood park is needed in the Southwest Dixon area. The Parks Master Plan requirements are therefore the most applicable to the proposed Specific Plan (E-mail communication from Stephen Streeter, Community Development Director, City of Dixon, 7/26/02).

The 2.47-acre neighborhood park proposed by the Specific Plan would not meet the requirement for a three-acre neighborhood park specified by the Parks Master Plan. The proposed 20-acre community park would meet the General Plan and Parks Master Plan requirements, provided that it contains at least 4.6 acres of neighborhood park facilities as required by the Parks Master Plan.

The potential inconsistency with Parks Master Plan requirements for neighborhood park acreage would represent a potentially significant impact.

#### ***Mitigation Measures***

1. Revise the Specific Plan land use map to increase the size of the neighborhood park site to three acres, and make corresponding revisions to the Specific Plan text.

#### ***Impact Significance After Mitigation***

The mitigation measure would reduce the impact to a less than significant level.

### **3. Project-Specific Impacts**

**Impact 3.16-C      Development of the five projects would increase demand for parks and recreational facilities. The proposed 2.47-acre neighborhood park in the Orchard Estates-Sanders project would be inconsistent with the Parks Master Plan, which calls for a three-acre neighborhood park in the Southwest Dixon area.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. The proposed Dixon Ridge project would include the 20-acre community park site, and the proposed Orchard Estates-Sanders project would include the 2.47-acre neighborhood park site.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. City staff anticipates that the City would develop the park sites in phases as funds from development fees become available (Fax communication from Stephen Streeter, Community Development Director, City of Dixon, 6/21/02).

The residential portions of the five projects would be subject to parkland dedication/acquisition and development fee requirements levied by the City of Dixon in accordance with the City's Subdivision Ordinance and Assembly Bill (AB) 1600. These requirements, along with the Specific Plan provisions and mitigation measures discussed under Impacts 3.16-A and 3.16-B, would assist in reducing the impacts of each of the five proposed individual development applications.

### ***Mitigation Measures***

1. Require each project to comply with the parkland dedication/acquisition and development fee requirements levied by the City of Dixon in accordance with the City's Subdivision Ordinance and Assembly Bill (AB) 1600.
2. Revise the Orchard Estates-Sanders tentative subdivision map to increase the size of the neighborhood park to three acres, in accordance with the Dixon Parks Master Plan.
3. Require each project to comply with applicable Specific Plan provisions and mitigation measures identified for Impacts 3.16-A and 3.16-B.

### ***Impact Significance After Mitigation***

The above-noted measures would reduce the impact to a less than significant level.

## **4. Cumulative Impacts**

**Impact 3.16-D Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area that have a residential component, would contribute to cumulative demands on parks and recreational facilities.**

Please see Section 1.0, Introduction, for details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The Southwest Dixon Specific Plan project, combined with the other two projects with a residential component, the Pheasant Run #7 and Southpark projects, would contribute to cumulative demands on parks and recreational facilities. The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, page 4.11-6) concluded that the City's requirements for park dedication, payment of in-lieu fees, and payment of development impact fees would adequately address the project impact on parks and recreational facilities, and that the impact was therefore less than significant. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management,

August 2000, page 4.6-9) concluded that the Southpark project's provision for 5.5 acres of parkland would not meet the City's standard requirement of five acres of parkland per 1,000 persons, but that the remaining requirement could be met through payment of the appropriate parkland fee and Assembly Bill (AB) 1600 development impact fee, thereby reducing the potentially significant impact on parks and recreational facilities to a less than significant level.

Unless cumulative needs for parks and recreational facilities are met as they develop, the contribution of the Southwest Dixon Specific Plan and the five individual development applications to cumulative demands on parks and recreational facilities would represent a potentially significant cumulative impact.

### ***Mitigation Measures***

1. Carry out mitigation measures recommended for Impacts 3.16-A through 3.16-C.

### ***Impact Significance After Mitigation***

Mitigation measures recommended for Impacts 3.16-A through 3.16-C plus mitigations required for the other three projects would reduce the cumulative impacts on parks and recreational facilities to a less than significant level.

# 3.17 SCHOOLS

## A. Setting

The Dixon Unified School District serves Dixon and the rural northern part of Solano County.

### 1. Existing Schools

As shown in Table 30, the District operates seven schools at the kindergarten through twelfth grade (K-12) levels. All of the schools are located within the City of Dixon. The Southwest Dixon Specific Plan area is served by Tremont Elementary School, C.A. Jacobs Middle School, and Dixon High School (Fax communication from Ed Eusebio, Director of Facilities, Dixon Unified School District, 6/20/02).

**Table 30**  
**Location and Capacity of Schools Operated by Dixon Unified School District**

School	Location	Grades	Existing Capacity (No. of Students)	Existing Enrollment (No. of Students) (2001-02)
Silveyville Primary School	355 North Almond Street	K-3	700	433
Anderson Elementary School	415 East C Street	4-6	540	362
Tremont Elementary School	455 Pheasant Run Drive	K-6	876	610
Gretchen Higgins Elementary School	1525 Pembroke Way	K-6	720	699
C.A. Jacobs Middle School	200 North Lincoln	7-8	675	644
Dixon High School	455 East A Street	9-12	918	1,128
Maine Prairie Continuation High School	305 East C Street	9-12	81	78
<b>TOTAL</b>			<b>4,510</b>	<b>3,954</b>

Source: *Dixon Unified School District Ten Year Facilities Master Plan*, prepared by Shilts Consultants, Inc., May 2000, page 8; and Ed Eusebio, Director of Facilities, Dixon Unified School District (personal communication, June 27, 2002 and December 18, 2002; and fax communication, June 20, 2002).

### 2. Student Enrollment and Capacity

As shown in Table 30, total student enrollment in grades K-12 is currently about 3,954 students. Total capacity of existing Dixon Unified School District schools is 4,510 students. The District's schools therefore have a remaining capacity for 556 new students, although, as indicated in Table 30, the high school is operating over-capacity. The school is accommodating the additional students by using portable classrooms.

The District plans to accommodate anticipated increases in enrollment through the following projects funded by a bond approved on the November 2002 ballot: (1) construction of a new high school, (2) conversion of the existing C.A. Jacobs Middle School to an elementary school, and (3) conversion of the existing Dixon High School to a middle school. These projects are expected to be completed by the 2007-2008 school year (Fax communication from Ed Eusebio, 6/20/02; and personal communication, 12/18/02). The District's Ten Year Facilities Master Plan analyzed these projects as a "preferred alternative" and concluded that, by 2010, the District would have the capacity to accommodate a total of 5,311 students, consisting of 2,974 grade K-6 students, 756 grade 7-8 students, and 1,581 grade 9-12 students. Total enrollment by 2010 is projected to be 4,901 students, consisting of 2,798 grade K-6 students, 740 grade 7-8 students, and 1,363 grade 9-12 students (*Dixon Unified School District Ten Year Master Facilities Plan*, prepared by Shilts Consultants, Inc., May 2000, pages 19 through 22).

### 3. Standards for New Schools

In developing new facilities, the District intends to limit student capacities to 650 at elementary schools, 1,000 at C.A. Jacobs Middle School, and 1,600 at Dixon High School (EIP Associates and Raney Planning & Management, 2000, page 4.6-2).

In addition, for elementary (kindergarten through 5<sup>th</sup> grade) schools, the District's standards are that (1) a minimum 12-acre site be provided for each school, and (2) an elementary school serve each residential neighborhood (Fax communication from Ed Eusebio, 6/20/02).

### 4. Student Generation from New Development

Table 31 lists the student generation factors used by the District in estimating the number of students anticipated from new residential development in Dixon.

**Table 31**  
**Student Generation from New Residential Development**

Grade Level	Students Per Housing Unit	
	Single-Family Housing Unit	Multi-Family Housing Unit
Kindergarten-6 <sup>th</sup> grade	0.37 student/unit	0.25 student/unit
Grades 7-8	0.16 student/unit	0.04 student/unit
Grades 9-12	0.20 student/unit	0.08 student/unit
<b>TOTAL</b>	<b>0.73 student/unit</b>	<b>0.37 student/unit</b>

Source: *Dixon Unified School District Ten Year Facilities Master Plan*, prepared by Shilts Consultants, Inc., May 2000, page 15.

### 5. School Financing Methods

In accordance with State law, the Dixon Unified School District levies one-time school impact mitigation fees of \$3.60 per square foot of new residential construction and \$0.34 per square foot of new commercial/industrial construction (Fax communication from Ed Eusebio, 6/20/02).

Methods currently used to finance school expansion also include an established Mello-Roos Community Facilities District that covers the western and northern parts of the City. This district collects an annual special tax of \$0.2575 per square foot of residential building area from land owners to fund school facilities (EIP Associates and Raney Planning & Management, 2000, page 4.6-3). The Mello-Roos District, which will collect fees until 2008, does not include the Southwest Dixon Specific Plan area (Fax communication from Ed Eusebio, 6/20/02).

To raise sufficient funds in advance of development to allow purchase of school sites when needed, the District is considering issuing certificates of participation in anticipation of developer fees. (Draft Southwest Dixon Specific Plan, page 7-23.) These certificates, issued to banks and in turn sold to investors, would enable the District to borrow money for purchase of school sites (Ed Eusebio, personal communication, 6/27/02).

## **6. Pertinent City of Dixon Policies**

The Dixon General Plan land use map designates a school site within the proposed Southwest Dixon Specific Plan area, generally in the center of the plan area along Evans Road.

In addition, the Public Services and Facilities Element of the Dixon General Plan contains policies generally relevant to public service provision in the Specific Plan area; these policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR. The Public Services and Facilities Element also contains the following policies specifically relevant to school services:

- Policy 33**     *The City shall require proponents of new development projects to contribute to the acquisition of sufficient land to enable the construction of those educational facilities which would be necessary to accommodate students from such projects, either through the dedication of land or through the payment of in-lieu fees. When project proponents are also required to dedicate land for parks or recreational facilities, such dedications shall in no way be used to reduce the total amount of land which must be dedicated exclusively for educational facilities, even in instances where such lands are immediately adjacent to the proposed educational facilities.*
- Policy 34**     *Prior to considering or approving any development project, the City shall require a developer to obtain a certification from the Dixon Unified School District that all major requirements imposed by the District, regarding the assurance of adequate school facilities for future residents, have been met.*
- Policy 35**     *The City shall cooperate with the Dixon Unified School District to promote the provision of adequate school facilities, and to define equitable and supportable funding mechanisms where this does not conflict with other financing requirements.*
- Policy 36**     *The City shall ensure that residential growth does not exceed the capabilities or capacities of the Dixon Unified School District to provide adequate educational facilities.*

**Policy 37**     *The City shall provide a mechanism for promoting a partnership between the Dixon Unified School District and the City for achieving adequate educational facilities.*

The Urban Development and Community Design Element and the Residential Environment Element also contain policies generally relevant to public service provision in the Specific Plan area. These policies are listed in Section 3.11, Fire Protection and Emergency Medical Services, of this EIR.

## **B.            Potential Impacts and Mitigation Measures**

### **1.        Criteria Used For Determining Impact Significance**

Based on the *CEQA Guidelines*, the project would have a significant impact on school services if it would:

- a.        Provide for or increase the need for additional schools, or alterations to existing schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. *(Assessed in all impacts in this section.)*
- b.        Conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *(Assessed in Impact 3.17-B.)*

### **2.        Impacts – Proposed Southwest Dixon Specific Plan**

**Impact 3.17-A        The 1,221 new residences proposed for the Specific Plan area would be expected to house an estimated 855 students who would need to be accommodated in Dixon Unified School District schools.**

As shown in Table 32, based on Dixon Unified School District student generation factors, the 1,221 housing units proposed by the Specific Plan would generate an estimated total of 855 students, consisting of 440 elementary school (kindergarten through sixth-grade) students, 183 middle school (seventh- and eighth-grade) students, and 232 high school (ninth- through twelfth-grade) students. Depending on the timing of development in the Specific Plan area, Dixon Unified School District schools may not have adequate capacity to accept these additional students. As noted in the "Setting" section, Dixon High School is already operating over-capacity.

above, a bond that was approved on the November 2002 ballot will enable the District to build a new high school. With construction of the new high school, the District would convert the existing C.A. Jacobs Middle School to an elementary school, and convert the existing Dixon High School to a middle school. These changes would increase the District's enrollment capacity, allowing the District to serve new development, including development in the Southwest Dixon Specific Plan area (Ed Eusebio, personal communication, 6/27/02).



**Table 32  
Number of Students Generated by  
Southwest Dixon Specific Plan Residential Development**

<b>Housing Unit Type</b>	<b>Number of Units</b>	<b>Student Generation Factor</b>	<b>Number of Students</b>
Low Density	590 units	Grades K-6: 0.37 student/unit Grades 7-8: 0.16 student/unit Grades 9-12: 0.20 student/unit <b>Total: 0.73 student/unit</b>	Gr. K-6: 218 students Gr. 7-8: 94 students Gr. 9-12: 118 students <b>Total: 430 students</b>
Medium Density-Low	531 units	Grades K-6: 0.37 student/unit Grades 7-8: 0.16 student/unit Grades 9-12: 0.20 student/unit <b>Total: 0.73 student/unit</b>	Gr. K-6: 197 students Gr. 7-8: 85 students Gr. 9-12: 106 students <b>Total: 388 students</b>
Medium Density-High	100 units	Grades K-6: 0.25 student/unit Grades 7-8: 0.04 student/unit Grades 9-12: 0.08 student/unit <b>Total: 0.37 student/unit</b>	Gr. K-6: 25 students Gr. 7-8: 4 students Gr. 9-12: 8 students <b>Total: 37 students</b>
<b>TOTAL</b>	<b>1,221 units</b>		Gr. K-6: 440 students Gr. 7-8: 183 students Gr. 9-12: 232 students <b>Total: 855 students</b>

Source: Leonard Charles and Associates; *Dixon Unified School District Ten Year Facilities Master Plan*, prepared by Shiels Consultants, Inc., May 2000, page 15.

The proposed Specific Plan contains the following goal, policies, and implementation programs that address school services for proposed development within the plan area (Draft Southwest Dixon Specific Plan, pages 7-23 to 7-24 and page 8-5):

**Goal 7.8** *To provide the educational needs of Southwest Dixon students, with an elementary school located in the City of Dixon.*

**Policy 7.8.1** *School Site - The City shall require residential project applicants in Southwest Dixon to contribute to school facilities through the payment of in-lieu fees.*

**Policy 7.8.2** *School Facilities - Before new residential development projects are approved in Southwest Dixon, the City shall verify with the School District that adequate arrangements have been completed for financing of necessary school facilities.*

**Policy 7.834** *Growth Management - The City shall ensure that residential growth does not exceed the capabilities or capacities of the Dixon Unified School District to provide adequate educational facilities.*

**Policy 7.845** *School Access - Ensure safe designated routes to school.*

**IP 7.8a** *Elementary School Site - Prior to any final map approval within the Southwest Dixon Specific Plan Area, the City shall consult with the Dixon Unified School District, and shall verify that a suitable site for an elementary school (K-3, K-5 or K-6) has been designated in the City of Dixon. Project proponents shall contribute to the acquisition of school facilities through the*

payment of level 2 or level 3 fees as defined in the Dixon Unified School District School Facility Needs Analysis.

**IP 7.8b** **School Funding** - Building permits shall not be issued within the Plan Area until the Superintendent of Schools certifies that an adequate funding mechanism exists for the creation of sufficient school capacity at all grade levels to serve the development and that the population of the development can be served adequately from existing schools. The funding mechanism will be the payment of school impact fees supporting the School District as defined in the Dixon Unified School District Facility Needs Analysis.

**IP 8.2d** **School Funding** - The school funding mechanism will be the payment of school impact fees supporting the School District as defined in the Dixon Unified School District Facility Needs Analysis.

These Specific Plan policies and implementation programs would ensure that adequate school capacity would be available as the Specific Plan area is developed. Specifically, IP 7.8a and IP 7.8b require confirmation of adequate school capacity before final subdivision maps and building permits for development in the area are approved.

Since development could not proceed unless adequate school capacity is available, the effect on school capacity from students generated by development in the Specific Plan area would represent a less than significant impact. No mitigation measures are required.

**Impact 3.17-B** **Development in the Specific Plan area has the potential to be inconsistent with Dixon General Plan provisions that call for (1) provision of a school site in the plan area (General Plan land use map), and (2) certification from the Dixon Unified School District that all major requirements imposed by the District have been met (Public Services and Facilities Element Policy 34).**

#### *General Plan-Designated School Site*

As noted earlier, the Dixon General Plan land use map designates a school site within the proposed Southwest Dixon Specific Plan area, generally in the center of the plan area along Evans Road. The Specific Plan would eliminate this designated school site, and instead designate the site for Medium Density Low residential use (see Figure 6 in Section 1.0, Introduction). The Specific Plan (page 7-25) states that "...the School District has decided not to locate a school within the Plan Area, and the land plan has been revised accordingly. The elimination of the school site results in 10 acres of additional land receiving residential land use designation." The Specific Plan application includes a request for amendment of the Dixon General Plan to make minor adjustments in General Plan land use designations to achieve consistency between the Specific Plan and the General Plan. The General Plan amendment would include redesignation of the school site for Medium Density Low residential use.

The Dixon Unified School District does not expect to need an elementary school site within the Specific Plan area since the school bond that appeared on the November 2002 ballot passed. Since the District does not currently expect to need an elementary school site in the Specific Plan area, the inconsistency with the existing Dixon General Plan land use designation would represent a less than significant impact. The inconsistency would

be eliminated through the General Plan amendment included in the Specific Plan application. If, in the future, the District finds that it needs an elementary school site in the plan area, the General Plan and Specific Plan land use maps would need to be amended to include a school site.

Since the inconsistency with the General Plan land use designation would represent a less than significant impact, no mitigation measures are required.

#### *Dixon Unified School District Certification*

Dixon General Plan Public Services and Facilities Element Policy 34 states as follows: "Prior to considering or approving any development project, the City shall require a developer to obtain a certification from the Dixon Unified School District that all major requirements imposed by the District, regarding the assurance of adequate school facilities for future residents, have been met."

To date, none of the property owners in the Southwest Dixon Specific Plan area have applied for or obtained this certification from the District (Ed Eusebio, personal communication, 12/19/02). However, policies and implementation programs in the proposed Specific Plan require confirmation of adequate school capacity before final subdivision maps and building permits for development in the area are approved. These policies and implementation programs would avoid inconsistency with the General Plan policy. The potential inconsistency would therefore represent a less than significant impact. No mitigation measures are required.

### **3. Project-Specific Impacts**

**Impact 3.17-C Residential development proposed by the five projects would produce students who would need to be accommodated in Dixon Unified School District schools. The District's schools are currently operating over-capacity, and do not have room for additional students.**

As explained in Section 1.0, Introduction, five property owners in the Specific Plan area (Andrews Dixon LLC, Weyand, Garcia, Sanders, and Clark) have submitted individual development applications for their properties concurrently with submittal of the proposed Specific Plan. These individual projects would produce 693 single-family housing units and 126 multi-family housing units. Students generated by these housing units have been included in the student generation total provided for the Specific Plan (see Impact 3.17-A), with the exception of students from the 26 multi-family housing units currently proposed through a density bonus on the Evans Ranch (Andrews Dixon LLC) site. These 26 additional units would produce a total of about 10 students, based on the student generation factors listed in Table 31.

The proposed Specific Plan does not include a phasing plan for development of the plan area. This EIR therefore does not make assumptions about the timing of individual developments within the Specific Plan area. The impact identified under Impact 3.17-A would generally apply to each of the five individual development applications; each of the five developments would contribute incrementally to demand for school services. The Specific Plan provisions discussed under that impact would adequately address the

impacts of each of the five proposed individual development applications. Proposed Specific Plan policies and implementation programs would require confirmation of adequate school capacity before final subdivision maps and building permits for the five developments are approved. The five individual projects would therefore have a less than significant impact on school services, and no additional mitigation measures are required.

#### **4. Cumulative Impacts**

**Impact 3.17-D Development in accordance with the Specific Plan, combined with development of other anticipated projects in the Dixon planning area that have a residential component, would contribute to cumulative demands for school services.**

Please see Section 1.0, Introduction, for details on the other anticipated projects in the Dixon planning area (i.e., the Pheasant Run #7, Southpark, and Northeast Quadrant Specific Plan projects). The Southwest Dixon Specific Plan project, combined with the other two projects with a residential component, the Pheasant Run #7 and Southpark projects, would contribute to cumulative demands on schools. The Pheasant Run #7 Draft Environmental Impact Report (LSA Associates, Inc., December 2000, pages 4.11-8 to 4.11-10) concluded that State-mandated school impact fees would not completely mitigate the impact of the Pheasant Run #7 project on Dixon Unified School District facilities. The Southpark Planned Development Draft Subsequent Environmental Impact Report (EIP Associates and Raney Planning and Management, August 2000, pages 4.6-8 to 4.6-9) concluded that the Southpark project's impact on schools could be mitigated to a less than significant level through payment of "Level 2" school impact fees. (State law (Senate Bill 50) provides that school districts may levy Level 2 fees (i.e., fees higher than the basic "Level 1" fees allowed by State law) if (1) at least 30 percent of the district's K-6 enrollment is on a multi-tract, year-round schedule; and (2) over 20 percent of the district's teaching stations are in relocatable (portable) classrooms. The residential school impact fee currently levied by the Dixon Unified School District – \$3.60 per square foot of new residential construction – is a Level 2 fee.)

The proposed Southwest Dixon Specific Plan and the five individual development applications would contribute to cumulative demands on schools. However, proposed Specific Plan policies and implementation measures would require payment of applicable school impact fees, would require confirmation of school capacity before the Specific Plan area is developed, and would allow for consideration of a new elementary school site in the plan area, if necessary. These mitigations and those required for the other three projects reduce the cumulative impact to a less than significant level. No mitigation measures are required.

# 3.18 ENERGY

## A. Setting

### 1. Energy Sources

Electricity and natural gas are provided to existing residences and businesses within the Specific Plan area by PG&E. The main PG&E transmission lines to the Specific Plan area are from the Dixon substation at West A Street and Porter Road. The area is also served by the Vaca-Dixon substation at Interstate 80 and Meridian Road.

### 2. Pertinent City of Dixon Policies

The Natural Resources Element of the Dixon General Plan contains the following policies related to energy conservation.

**Policy 20** *The City shall encourage the development of structures which incorporate features that will reduce energy consumption. Examples of energy conservation design include the use of solar heating systems, the use of external shading devices and an increase in the amount of insulation. Both passive and active solar heating systems will be encouraged, and new homes should be designed for the best possible solar access.*

**Policy 22** *The City shall encourage recycling, reclamation and conservation programs (including water conservation), along with other programs aimed at conserving natural resources.*

The Dixon Zoning Ordinance Section 12.27.02 encourages energy-conserving transportation practices for new residential and commercial developments. Parking areas shall be landscaped so their surfaces are at least 30 percent shaded in midsummer. Single-family residences shall be designed and oriented on the lot to enhance their energy conservation features, including both passive and active solar systems. Blockage of sunlight is prohibited.

## B. Potential Impacts and Mitigations

### 1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Generates demand for energy services that results in the need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. *(Assessed in all impacts in this section.)*

- b. Generates demand for energy services that exceeds the ability of the service provider to provide without substantially decreasing its ability to serve the existing population. (*Assessed in all impacts in this section.*)

## **2. Impacts – Proposed Southwest Dixon Specific Plan**

### **Impact 3.18-A Construction and future use of new development within the Specific Plan area would use large amounts of energy.**

Site preparation and construction of buildings, roads, and other improvements would all require the use of gasoline, diesel fuel, other fuels, and electricity. Construction activities would be similar to the construction required for any projects. It is not expected that energy sources would be wasted during the construction phase. There are ample supplies of fuels. Electricity would be provided by PG&E.

Future residential use of the proposed Specific Plan area residential units would consume electricity and natural gas. The average household uses 500 kilowatt hours (kwh) of electricity per month. Therefore, the proposed residential development within the Specific Plan area would produce a monthly demand for about 610,500 kwh. New commercial and light industrial development would generate additional demand (the amount is unknown as it depends on what type of commercial and light industrial development is eventually proposed).

PG&E is prepared to serve development in the Specific Plan area. PG&E has been aware that the City identified the Specific Plan area as a future growth area and this information was given to PG&E's Gas and Electric Planning Department. PG&E has already installed a new circuit on Porter Road in anticipation of future Specific Plan area development (Redmond, personal communication, 7/24/02).

PG&E has adequate supplies and infrastructure to be able to serve the Specific Plan area. However, given recent shortages of natural gas and electricity in the State, any wasteful or excessive use of gas and electricity would be considered a potentially significant impact.

### **Specific Plan Goals, Policies, and Implementation Programs**

The Specific Plan includes the following policies and implementation programs related to energy conservation:

**Policy 4.3.1** *Energy Conservation Applications - Promote energy conservation and the use of solar energy and other alternative energy applications in Southwest Dixon.*

**Policy 4.3.2** *Solar Orientation - Require subdivision design to emphasize the provision of solar-oriented lots, which enable housing units to be designed for energy efficiency.*

**Policy 4.3.3 Shading and Wall Treatment** - Promote the widespread use of shade trees and light-colored building and paving surfaces, in order to reduce summer heat buildup and energy use.

**IP 4.3a Lot Orientation** - Review residential development applications for conformance with City policies requiring lot orientation for energy conservation. Require plan revisions if needed to provide subdivisions with a preponderance of lots with proper solar orientation.

**IP 4.3b Energy Conservation** - Enforce State energy conservation requirements through implementation of the California Uniform Building Code and issuance of building permits.

**IP 4.3c Design Review** - Require the use of energy efficient design features in all residential structures and amenities. Features such as street tree planting programs, adherence to parking lot shading requirements, use of light colored building materials and hardscape, etc. will be emphasized.

The policies and programs in the Specific Plan provide a policy framework for reducing energy use, and the policies and programs are consistent with the Dixon General Plan and Zoning Ordinance requirements for energy conservation. The impact at a Specific Plan level is less than significant, and the Specific Plan would be consistent with policies of the City General Plan. See the following impact discussions for additional recommendations regarding methods of implementing these policy and program statements.

### 3. Project-Specific Impacts

#### **Impact 3.18-B Construction and future use of new development within the five projects would use large amounts of energy.**

As discussed above, construction and future use of new projects would use energy. The Specific Plan policies and implementation programs provide a general framework for ensuring that energy is not used in a wasteful fashion and for promoting energy conservation. It is further recognized that the City would require energy conservation design and construction when the projects undergo Design Review. Finally, it is recognized that new facilities would need to comply with the State's Title 24 Building Standards Program. The Specific Plan policies and implementation programs along with City and State energy conservation requirements would reduce the impact to a level that is less than significant. However, the City could encourage or require project applicants to meet the U.S. Green Building Council's LEED (Leadership in Energy and Engineering Design) guidelines to the degree feasible (as described in the November 2002 Green Building Rating System, Version 2.1, revised on January 16, 2003). Buildings can be certified as meeting LEED standards by including a certain number of the following recommendations (though there are also other standards that do not concern energy conservation). Guidelines relative to energy conservation include:

- Encourage bicycle use by including bicycle storage and changing rooms in new non-residential development.

- Provide alternative fuel vehicles for 3% of non-residential building occupants, or provide an alternative fuel refueling station for 3% of the total parking capacity at a site.
- Provide preferred parking for van and car pool vehicles.
- Provide tree shade (within 5 years) and/or use light colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the commercial/industrial site's non-roof impervious surfaces (including parking lots, walkways, plazas, etc.). Alternatively, place a minimum of 50% of parking spaces underground or covered by structural parking. Alternatively, use an open-grid pavement system (less than 50% impervious) for a minimum of 50% of the parking area.
- Use highly reflective and high emissivity roofing (emissivity at least 0.9 when tested with ASTM 408) for a minimum of 75% of the roof surfaces, or install a vegetated roof for at least 50% of the roof area. A combination of high albedo and vegetated roof can be used, providing they collectively cover 75% of the roof area.
- Provide lower lighting levels than are typically recommended by the Illuminating Engineering Society of North America.
- Provide 50% of electric power by contract with green power producers using at least 2-year renewable energy contracts.
- Provide 5-20% of energy through on-site renewable energy production systems.
- Optimize energy performance by reducing energy consumption below State-required levels for new buildings.
- Use recycled materials, including 5-10% of post-consumer recycled content, or 10-20% post-consumer recycled content plus 1/2 post-industrial recycled content.
- In construction, include 10% of reuse materials (i.e., salvaged or recycled materials).
- Divert 75% of waste from landfills.

Further information on these and other LEED recommendations can be found on their website at [www.usgbc.org](http://www.usgbc.org).

While these recommendations are not needed to mitigate the impact, the City could reduce future energy consumption if project applicants implemented one or more of these recommendations. Such actions would also have the long-term effect of reducing energy costs for future residents and businesses. Unless such actions were required by the City, their inclusion would be voluntary on the part of future developers or future residents and business owners.

There have been recent examples of residential subdivisions that included active and passive solar heating and cooling technology. Some to many buyers of new homes desire installation of such devices, given recent exorbitant energy costs. It is entirely possible that the developer of these five projects would find buyers willing to absorb the additional cost of such installations.



## 4. Cumulative Impacts

**Impact 3.18-C Construction and future use of new development plus other cumulative projects would use large amounts of energy.**

The construction and use of other projects assessed for cumulative impacts in this EIR would require the expenditure of large amounts of energy. If such energy were used in a wasteful fashion, this would be a potentially significant impact. However, the policies and implementation programs of the Specific Plan and the mitigations suggested for Impact 3.18-B would reduce the Specific Plan area impacts to a less than significant level. This EIR cannot recommend mitigation measures for other projects; it is assumed the City would review those other projects to ensure they are consistent with energy conservation policies and standards in the Dixon General Plan and Zoning Ordinance. As such, the cumulative impact would be less than significant, and no additional mitigation would be required.

# 3.19 CULTURAL RESOURCES

## A. Setting

### 1. Existing Resources

The 1995 EIR prepared for the Specific Plan area determined that there was no potential for significant cultural resources within the Specific Plan area. However, the Initial Study prepared by the City for this current EIR states that some of the residences within the Specific Plan area are over 50 years old, and, thus, potential historical resources.

Field surveys indicated that there are ten residences and various other buildings (i.e., barns and water towers) on the Specific Plan area that appear over 50 years old.

- There are an older home, water tower, and barn near West A Street in the northwest corner of the Evans Ranch property.
- There are two older homes adjacent to West A Street on the Weyand property.
- There is an older home adjacent to West A Street on the Azevedo property.
- There are an older home, water tower, and barn on the west side of Pitt School Road on the Steil property.
- There are two older homes and a water tower on the west side of S. Lincoln Street on the Orchard Estates - Garcia property.
- There are an older home and barn on the west side of S. Lincoln Street on the Orchard Estates - Sanders property.
- There are two older homes on the east side of S. Lincoln Street on the O'Neill property.
- There is a small, old, abandoned barn on the south side of the Clark Ranch Estates property.
- There is an older restaurant on the south side of West A Street on the Lezano property.

### 2. Dixon General Plan

The Urban Development and Community Design Element contains the following policies and implementation program related to historical resources:

**Policy 13**      *The City shall promote the preservation of historic buildings and other landmarks that give residents a tie with the past.*

**Policy 15**      *The City shall consider the establishment of procedures and criteria to coordinate and encourage historic preservation efforts in Dixon.*

**Policy 16**      *The City shall encourage the use of Federal, state and local funds for the restoration of historic structures.*

**IP C.**            *Develop an historic preservation program which will establish general criteria for historical preservation in Dixon, procedures which will assist neighborhood groups in establishing historic areas, promoting historic preservation and coordinate and guide historic preservation efforts in Dixon.*

## **B.            Potential Impacts and Mitigations**

### **1.            Criteria Used to Determine Impact Significance**

A project will typically have a significant impact if it meets any of the following criteria:

- a.            Causes a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5. (*Assessed under Impact 3.19-A, C, and D.*)
- b.            Causes a substantial adverse change in the significance of a unique archaeological resource pursuant to *CEQA Guidelines* Section 15064.5. (*Assessed under Impact 3.19-B, C, and D.*)
- c.            Directly or indirectly destroys a unique paleontological resource or site. (*The Initial Study found there would be no impact vis-à-vis this criterion.*)
- d.            Disturbs any human remains, including those interred outside of formal cemeteries. (*Assessed under Impact 3.19-B.*)

### **2.            Impacts – Proposed Southwest Dixon Specific Plan**

**Impact 3.19-A            Development of the Specific Plan area could demolish historical resources.**

Future development of the Specific Plan areas would involve demolition of some or all of the older residences, outbuildings, and commercial structures. While none of the residences or other buildings appear to have significant historical value, they are over 50 years old. As such, they are potentially historical resources as defined in Section 15064.5 of the *CEQA Guidelines*. A Historic Evaluation Report would need to be prepared for each structure to determine whether the residences and other buildings actually meet any of the criteria for being a historical resource and/or may be eligible for listing in the California Register of Historical Resources. Those criteria include:

- The structure is associated with events that have made a significant contribution to the broad patterns of California's history.
- The structure is associated with the lives of persons important in our past.

- The structure embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- The structure has yielded, or may be likely to yield, information important in prehistory or history.

Site surveys did not indicate that the structures on the Specific Plan area were particularly distinctive (i.e., there were many similar structures in the area south, east, and west of the Specific Plan area). The structures are typical farm residences and outbuildings and would not seem to fit the criterion of making a significant contribution to California's history. None of the structures appeared to be designed or constructed by well-known architects or designers. As far as is known, none of the structures were associated with persons of historic importance. Finally, it appears unlikely that the structures would yield important historic information about California's history. As such, it is likely that the structures would not be classified as historical resources. However, these conclusions need to be verified by a historic resource evaluation. It is possible that some of the structures on the Specific Plan area could meet one or more of these criteria. Demolition of these structures would be a potentially significant impact.

### **Mitigation Measures**

The following should be added to the Specific Plan as implementation measures.

1. Prior to approval of tentative subdivision maps for any property containing a structure over 50 years old on the Specific Plan area, a qualified architectural historian will conduct a preliminary assessment of each structure to determine whether its structural integrity is intact (i.e., that it has not been modified, thereby destroying its historic integrity). If the structural integrity remains, then the architectural historian will prepare a Historic Evaluation Report on each of those structures. This Evaluation will include a discussion of the construction of the building, an architectural description, an architectural evaluation, drawings of the building and its important features, and photographs to document the structure. Once this Historic Evaluation Report is completed and accepted by the City, the structures can either be demolished, restored, rehabilitated, reconstructed, or moved. If the structure is restored, reconstructed, or rehabilitated, the work shall comply with the Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or the *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.
2. Where feasible, future developers should strive to preserve any building identified as a historical resource.
3. Where feasible, historical resources that cannot be preserved *in situ* should be moved to the proposed park, functional buffer areas, and/or Specific Plan area entryways.

### ***Impact Significance After Mitigation***

Preparing a Historic Evaluation Report would ensure that any historical resource is fully documented prior to demolition. This mitigation measure would reduce the impact to a level that is less than significant. Preserving, rehabilitating, restoring, reconstructing, and/or relocating the historical resources would further reduce the impact to historical resources.

### **Impact 3.19-B      Development of the Specific Plan area could damage archaeological resources.**

The Initial Study states that there are no known archaeological resources within the Specific Plan area. However, there is always the possibility that such resources could be discovered during project grading and other site preparation activities. If such resources are present, it is possible they could be destroyed or damaged prior to assessing their cultural importance. Though unlikely, it is also possible that human remains could be unearthed during site preparation. If archaeological resources or human remains are damaged or destroyed, this would be a potentially significant impact.

### ***Mitigation Measures***

Add the following mitigation measures as policies or implementation programs to Chapter 3 of the Specific Plan.

1. In the event that archaeological artifacts are encountered during project construction, work in the area shall halt until a qualified archaeologist evaluates the nature and significance of the find.
2. If archaeological artifacts are encountered, a qualified archaeologist shall monitor subsequent excavations and spoils in the vicinity of the find for additional archaeological resources.
3. If the archaeologist determines the discoveries are of importance, the resources shall be properly recovered and curated. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact locations and depths, and include other pertinent information. The lead agency shall submit the report to the appropriate Information Center and the California State Historic Preservation Officer.
4. In the event that human remains are encountered, the State shall contact the Solano County Coroner in accordance with Section 7050.5 of the State Health and Safety Code.

### ***Impact Significance After Mitigation***

These standard mitigation measures ensure that any currently unknown cultural resources would be protected consistent with State law. The impact would be reduced to a level that is less than significant.

### **3. Project-Specific Impacts**

#### **Impact 3.19-C Development of the five proposed projects could demolish historical resources.**

Four of the five projects include residences and other outbuildings over 50 years old. The Clark Ranch Estates project includes an old, small barn. As described under Impact 3.19-A, these structures could be historical resources. If they are historical resources, their demolition would be a potentially significant impact.

#### ***Mitigation Measures***

The mitigation measure recommended for Impact 3.19-A will apply to each project.

#### ***Impact Significance After Mitigation***

Preparing a Historic Evaluation Report would ensure that any historical resource is fully documented prior to demolition. This mitigation measure would reduce the impact to a level that is less than significant. Preserving, rehabilitating, restoring, reconstructing, and/or relocating the historical resources would further reduce the impact to historical resources.

#### **Impact 3.19-D Development of the five proposed projects could damage archaeological resources.**

As explained above under Impact 3.19-B, there is no evidence of archaeological resources on the Specific Plan area. However, to ensure that undiscovered resources are not damaged by future construction of the five projects, the same mitigations required for Impact 3.19-B will apply. These mitigation measures would reduce the potential impact to a level that is less than significant.

### **4. Cumulative Impacts**

Cultural resources are site specific. Thus, development of other sites would not combine with Specific Plan area development to produce any additional impacts.

**4.0 TOPICAL ISSUES AND  
IMPACT SUMMARIES**

## 4.1 GROWTH-INDUCING IMPACTS

CEQA mandates that an EIR assess potential growth-inducing impacts of a project. The *CEQA Guidelines* describe the required assessment in the following way:

*Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (CEQA Guidelines, Section 15126.2(d)).*

Growth-inducing impacts usually arise when a project would provide new infrastructure or public services that can be used to serve other projects. The analysis should be balanced with the general rule that EIRs should evaluate foreseeable, but not speculative, impacts. Note that the assessment of growth-inducing impacts is not the same assessment that is required for cumulative impacts (which are assessed in each section of Chapter 3 of this EIR). Growth-inducing impacts refer to impacts that might arise from the project if it were approved while cumulative impacts are the impacts resulting from the project plus other projects that have been specifically approved or proposed.

Approval of the Specific Plan and future development of the Specific Plan area would have direct and indirect growth-inducing impacts. Direct impacts include a variety of infrastructure improvements that would make it easier to develop agricultural lands to the south of the Specific Plan area. These infrastructure improvements and other factors could lead to future requests to revise the City's Sphere of Influence and extend it to the south and to annex those lands to the City. Upon revision of the Sphere of Influence and annexation, developers or landowners could seek to develop these agricultural lands. The factors that could induce such development include:

- The construction of new streets on the Specific Plan area would provide street connections to undeveloped land in the County to the south of the Specific Plan area.
- The proposed new arterial between Pitt School Road and South First Street would extend through undeveloped lands within the County's jurisdiction.
- The extension of water and wastewater lines and storm drain improvements through the Specific Plan area could provide sufficient capacity for future development to the south. Extension of water, sewer, and storm drain lines through unincorporated lands between Pitt School Road and the railroad tracks could enhance the development potential of those lands
- As discussed in Impact 3.10-B, the construction of residences and businesses adjacent to agricultural operations could lead to restrictions on those operations. Agricultural operators could be less inclined to invest in their operations near the



Specific Plan area. Landowners of adjacent lands might see the adjacent development as an incentive to seek increased development rights for their properties. If and when other portions of the City build out, the City may investigate the most likely areas for expansion. It is possible that the area south of the Specific Plan area would be identified as a potential growth area given its proximity to existing urban development (i.e., once the Specific Plan area is developed), existing road connections, and other infrastructure improvements on the Specific Plan area.

- As discussed in Impact 3.10-B, this possible future growth is considered speculative from a project-specific perspective. However, it is a possible growth-inducing impact (where some forecasting is allowed).

Development of the Specific Plan area would have the following indirect impacts:

- Buildout of the Specific Plan businesses would add about 3,050 new employees. Many of these employees would seek homes in Dixon. This would increase the demand for new housing which may result in vacant areas within the City being developed sooner than otherwise would be the case and/or annexing additional lands to meet this housing need.
- The addition of 1,221 new residential units would increase the demand for goods and services which would indirectly increase the number of businesses and employees required to fill those needs. These new employees would also increase the need for housing within the City.

Approval of the Specific Plan would potentially induce growth within the City and potentially induce expansion of the City. However, growth within the City is constrained by the Measure B limits which allow an annual maximum 3 percent increase in the City's housing stock. Projections done by the City's Community Development Department indicate that between 1998 and the end of 2014, a maximum of 3,127 new units would be allowed per the requirements of Measure B. Assuming a year 2001 total of 5,225 units in the City and including the number of actual units built since 1998, a total of 2,878 new units could be constructed from 2002 through 2014. This allotment could be filled in large part by the major developments assessed for cumulative impacts in this EIR (i.e., 1,221 units for Southwest Dixon, 837 for Southpark, 108 for Pheasant Run, and about 40 for other smaller projects; this totals about 2,212 approved and/or proposed new units).

If approval of the Specific Plan induced additional growth as suggested above, it would lead to the demand for additional housing. There is some room under the Measure B limits for additional development beyond those projects already approved and/or proposed. As there is little vacant land within the City designated for residential development that is not included in one of the projects assessed in this EIR, it is possible that the proposed Specific Plan, particularly in combination with the projects assessed for cumulative impacts, would result in a demand for future housing that exceeds the land inventory of the City. This could lead to further annexations.

This potentially induced growth could have the following effects:

- Additional prime agricultural soils would be converted with a corresponding loss of commercial agriculture.

- There would be more paved and impervious surface creating more runoff. Additional storm drain improvements would be required.
- There would be more traffic potentially congesting local roadways and intersections.
- There would be more demand for police and fire protection, schools, recreational facilities, and other governmental services and infrastructure.
- Views of the area would change as more undeveloped land would be developed with urban uses.
- Additional traffic would increase noise levels along some streets.
- Additional traffic would result in more emission of air pollutants.

To summarize, approval of the Specific Plan could directly result in expansion of the City to the south and indirectly increase the City's population and housing demand which could also lead to expansions of the City. Consistent with the Dixon General Plan, it is assumed that the City would not approve additional annexations or development unless it had adequate infrastructure capacity to serve that development. It is also recognized that the Dixon General Plan slates lands to the east of the City, and not to the south, for future development. However, this fact does not eliminate the possibility of landowners seeking additional future expansion to the south. The growth-induced expansion of the City could lead to loss of prime agricultural soils, loss of open space views, loss of habitat used by special status species of wildlife, and increased air pollution. Thus, approval of the Specific Plan could have significant growth-inducing impacts.

## 4.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The *CEQA Guidelines* require that an EIR discuss irreversible environmental changes that would occur if the project were approved (Section 15126.2[c]). Development of the Specific Plan area would irrevocably commit an undeveloped portion of the City to residential, commercial, industrial, and office use. The commitment of financial resources, energy, raw materials, and labor would be associated with this conversion of land use.

The use of nonrenewable resources during the construction and use phases of future projects would be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely. Primary impacts and secondary impacts generally commit future generations to similar uses.

The following list summarizes those resources that would be irretrievably committed to the development of the Specific Plan area (these resources were assessed in detail in the preceding sections of Chapter 3, Environmental Impact Analysis):

- Loss of prime agricultural soils.
- Loss of wildlife habitat.
- Loss of open space character.
- Commitment of energy and materials for construction.
- Increased demand for energy and public services.
- Increased demand for carrying capacity of streets and intersections.
- Increased demand for water resources, sewage treatment, and other utilities.
- Increased air pollution.
- Increased noise.

These commitments must be weighed against the provision of increased housing, jobs, and tax revenues that would occur if the Specific Plan is adopted.

## 4.3 PROJECT ALTERNATIVES

CEQA requires that the EIR assess alternatives to the project if the project will have significant environmental impacts, even if these impacts can be mitigated to a level that is less than significant. As noted in Chapter 3.0 of this EIR, the project will have a number of significant impacts. This EIR therefore assesses alternatives to the project.

The *CEQA Guidelines* offer a number of requirements and recommendations regarding the alternatives analysis. The more pertinent issues are summarized as follows:

1. A range of reasonable alternatives must be assessed. The range must be sufficient to permit a reasonable choice of alternatives so far as environmental aspects are concerned. The EIR need not assess multiple variations of alternatives. The range of alternatives to be assessed is governed by the rule of reason.

2. Alternatives must be ones that could feasibly attain most of the basic objectives of the proposed project. While alternatives can impede the attainment of the objectives, they should not substantially impede those objectives. Alternatives that fundamentally change the nature of the project do not meet the basic objectives of the project.
3. The alternatives must be feasible. Feasibility takes into account factors such as site suitability, economic viability, availability of infrastructure, consistency with the General Plan, other plans and regulatory limitations, jurisdictional boundaries, and ability to acquire, control, or gain access to alternative sites.
4. The analysis of the alternative must determine whether the alternative reduces the significant impacts identified for the project. If the alternative would generate additional significant impacts, those must be identified and discussed.
5. One of the alternatives to be assessed must be the "no project" alternative. (See discussion below under that heading.)
6. The EIR must assess the identified alternatives and determine which among the alternatives (including the project as proposed) is the environmentally superior alternative. If the no project alternative is identified as the environmentally superior alternative, then another of the alternatives must be identified as the environmentally superior alternative among the remaining alternatives.

Given these mandates, this EIR assesses the following alternatives:

1. No project
  - a. No development (existing conditions)
  - b. Future development in accordance with existing Dixon General Plan
2. Reduced residential density
3. Land use changes (reduced residential/increased community commercial and employment center)
4. Increased residential density (Measure B)

The alternative of developing an alternate site is also assessed following the discussion of the four feasible project alternatives.

### **Alternative 1 – No Project**

CEQA requires that an EIR address the "no project" alternative. Formerly, the analysis of this alternative assumed no development of the site. Subsequent changes to CEQA require this analysis to discuss existing conditions as well as what can reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

## **Alternative 1a – No Development (Existing Conditions)**

### ***Description***

Existing conditions in the proposed Southwest Dixon Specific Plan area have been inventoried in the previous discussions of each impact. To summarize, the plan area consists of nearly level terrain, and currently supports agricultural, rural residential, and commercial land uses, as well as scattered trees. Most of the Specific Plan area is used for agriculture (e.g., tomatoes, alfalfa, corn, oat hay, and vine seed). The plan area contains a total of 14 housing units, consisting of one house on the Evans Ranch site, one on the Clark property, two on the Weyand property, two on the Azevedo property, one on the Steil property, two on the Garcia property, one on the Sanders property, two on the O'Neill property, one mobile home on the Sotuela property, and one mobile home on the Dupratt property. Commercial uses consist of a fruit stand and two restaurants in the western corner of the Specific Plan area, near I-80. The plan area offers potential habitat for two sensitive wildlife species, Swainson's hawk and burrowing owl.

The plan area is surrounded by highway commercial development and single-family housing to the north, single-family housing to the east, and agriculture and scattered rural residences in unincorporated Solano County to the south and west.

### ***Environmental Impacts***

If the proposed Southwest Dixon Specific Plan were not approved and the plan area not developed, the area would remain primarily in agricultural use. The 14 rural residences and the commercial uses in the western corner of the plan area would also remain. Changes in geologic and hydrologic conditions would not occur, and wildlife habitat in the plan area would remain. Traffic would not increase, and corresponding increases in noise and air emissions would not occur. The aesthetic, land use, and population and housing changes described in this EIR would not occur, and the hazardous materials conditions described for the project would be avoided. Demand for public services and facilities (water, wastewater collection, police, fire protection, solid waste, schools, parks and recreation) and for energy resources would not increase; conversely, the opportunity to develop new facilities, such as community and neighborhood parks and a fire station, would not be available. Changes in cultural resource conditions would not occur.

This alternative would not meet the project objectives identified in the Specific Plan, which call for phased residential, commercial, and employment center development in the plan area. (See Section 1.0, Introduction, of this EIR.) This alternative also would not carry out Dixon General Plan land use designations and policies, which also call for mixed use development of the area.

## **Alternative 1b – Development in Accordance with Existing Dixon General Plan**

### ***Description***

Without the proposed Specific Plan, potential future land uses in the plan area would be required to be consistent with the Dixon General Plan. The General Plan provides for a

mixture of highway and community commercial, office, employment center, low- and medium-density residential, park, school, buffer, and agricultural uses in the plan area. Development in accordance with the General Plan would result in a development pattern very similar to that proposed by the Southwest Dixon Specific Plan. Minor differences would consist of the following:

- The configuration of designated Employment Center (E), Highway Commercial (HC), Community Commercial (CC), Residential Medium Density-Low (MDL), and Residential Low Density (LD) areas would differ slightly under the existing General Plan, compared to the proposed Specific Plan. Most significantly, no MDL housing would be located in the southwest quadrant of the West A Street/Evans Road intersection.
- No Functional (F) buffer areas would be designated under the existing General Plan.
- Under the existing General Plan, the designated community park (P) site would be located along Evans Road south of West A Street in the center of the plan area, rather than in the southeast quadrant of the West A Street/Evans Road intersection as proposed by the Specific Plan.
- An elementary school would be developed in the plan area under the existing General Plan.

### ***Environmental Impacts***

The environmental impacts of the existing General Plan alternative would generally be the same as or very similar to those of the proposed Specific Plan, with the following exceptions:

- The potential for conflict between on-site commercial uses and MDL housing would be slightly reduced, since the on-site MDL housing along West A Street would be separated from the on-site commercial area by Evans Road, an arterial street.
- The potential for conflicts between urban uses in the plan area and agricultural operations south of the plan area would increase, due to the lack of functional buffer areas designated along the southern boundary of the plan area.
- The designation of an elementary school site in the plan area is unnecessary since the District does not expect to need an elementary school site within the Specific Plan area given passage of the recent school bond.

This alternative would meet the project objectives identified in the Specific Plan. (See Section 1.0, Introduction, of this EIR.)

## **Alternative 2 – Reduced Residential Density**

### ***Description***

Under this alternative, the Specific Plan would be modified to reduce the number of housing units by 50 percent, or by 611 units. The number of housing units and residential densities would be reduced throughout the Specific Plan area, as shown in Table 33.

Alternative 2 would allow a total of 610 housing units to be built on the approximately 307 acres designated by the Specific Plan for residential use. All of the units would be developed at single-family densities, ranging from Very Low Density Residential (approximately 0.65 unit per acre) to Medium Density-Low Residential (approximately 5.5 units per acre). Assuming an average density of 3.20 persons per housing unit, the 610 units allowed under this alternative would house a population of approximately 1,952 people, or 1,955 fewer people than the 3,907 residents anticipated under the Specific Plan. No multi-family housing would be built in the plan area under Alternative 2.

As shown on Figure 30, the location and configuration of the residential areas under this alternative would resemble the proposed Specific Plan layout, with the highest density housing located closest to major streets (West A Street, Evans Road, Pitt School Road) and on-site commercial areas. The area designated for Medium Density-High Residential development under the Specific Plan would be developed with Medium Density-Low Residential units under Alternative 2; this area would adjoin the proposed community commercial sites. Areas designated by the Specific Plan for Medium Density-Low Residential development (along West A Street, Evans Road, and Pitt School Road) would contain Low Density Residential units under Alternative 2. Areas designated Low Density Residential under the Specific Plan (located in the southern and eastern parts of the plan area) would be developed with Very Low Density Residential units under Alternative 2.

The remaining, non-residential portions of the plan area would be developed with commercial, employment center, park, and other land uses as proposed by the Specific Plan.

### ***Environmental Impacts***

The environmental impacts of Alternative 2 would be similar to, but in some cases less than, those of the proposed Specific Plan.

Since the total number of housing units would be 611 units less than the 1,221 proposed by the Specific Plan, this alternative would generate less traffic than the proposed Specific Plan. Based on trip generation rates used in the City of Dixon traffic model (9.5 trips per day per single-family unit and 6.5 trips per day per multi-family unit), the 610 housing units allowed by Alternative 2 would generate approximately 5,795 trips per day, or about 5,500 fewer trips per day than the 1,221 housing units allowed by the Specific Plan. Traffic noise and air emissions would also be slightly lower than with development of the Specific Plan as currently proposed, and fewer residents would be exposed to high noise levels (e.g., from traffic on Interstate 80 and arterial streets). However, the reduced residential density may offer fewer opportunities for public transit service and other alternative transportation, such as walking and biking to commercial services. The lack of alternative transportation options could slightly offset the decrease in automobile trips and associated noise and air emissions expected under this alternative.

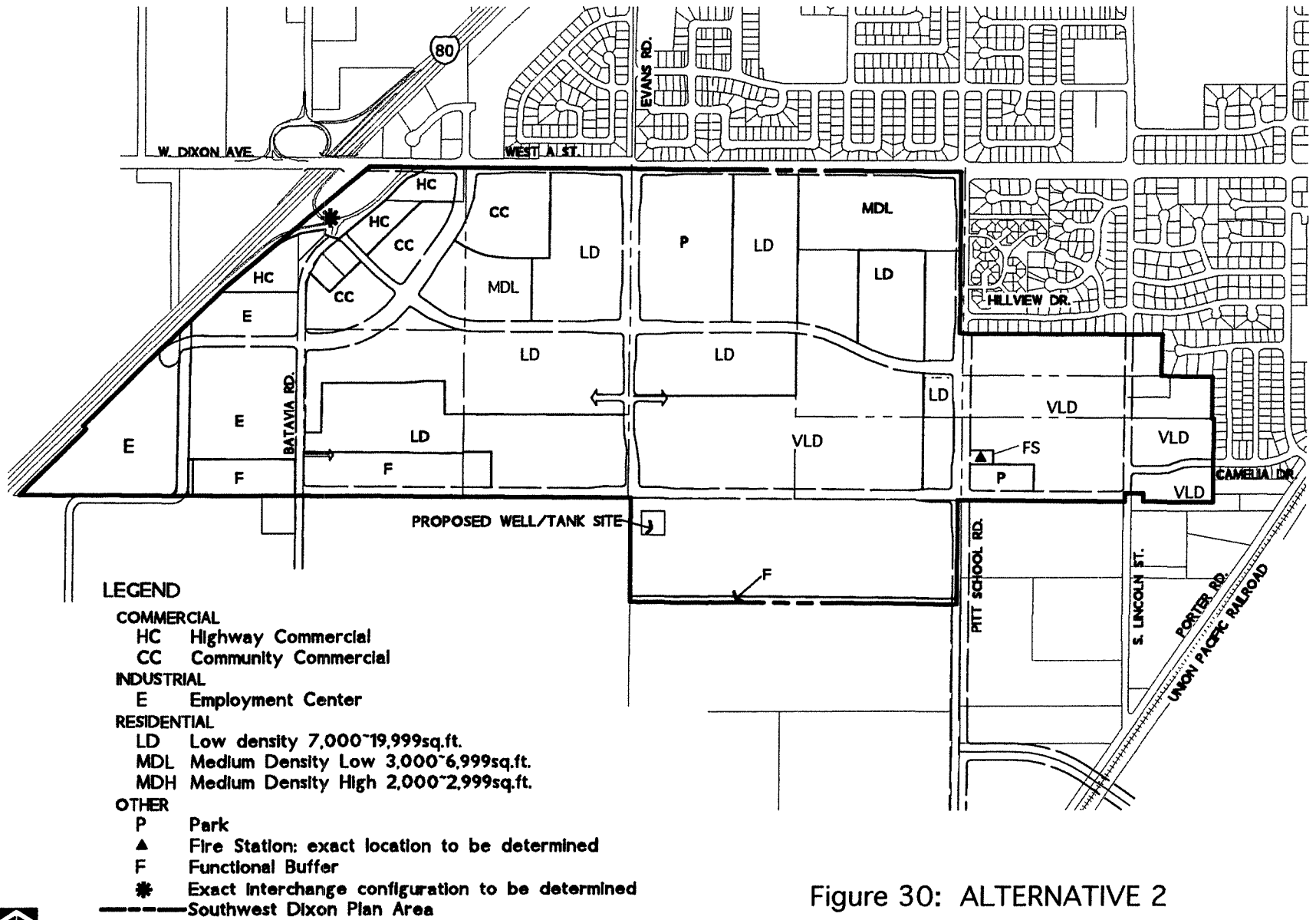


Figure 30: ALTERNATIVE 2  
 REDUCED RESIDENTIAL DENSITY





**Table 33  
Housing Unit and Residential Density Comparison: Proposed Specific Plan and Alternative 2**

Proposed Specific Plan				Alternative 2			
Land Use Designation	Area (gross acres)	Number of Housing Units	Baseline Density <sup>1</sup>	Land Use Designation	Area (gross acres)	Number of Housing Units	Baseline Density <sup>1</sup> (approx.)
Medium Density-High Residential	9.70	100	11.0 units per acre	Medium Density-High Residential	—	—	—
Medium Density-Low Residential	112.04	531	5.5 units per acre	Medium Density-Low Residential	9.70	50	5.5 units per acre
Low Density Residential	185.53	590	3.25 units per acre	Low Density Residential	112.04	265	2.75 units per acre
Low Density Residential	—	—	—	Very Low Density Residential	185.53	295	0.65 unit per acre
<b>Total</b>	<b>307.27</b>	<b>1,221</b>			<b>307.27</b>	<b>610</b>	

Source: Nolte Associates, Inc.; Leonard Charles and Associates

<sup>1</sup> "Baseline density" is defined as maximum normal gross density, excluding arterial and major collector streets.

Demand for public services (fire protection, water, wastewater, police services, solid waste, parks, and schools) and energy would also be reduced under Alternative 2, compared with the proposed Specific Plan, due to the smaller number of housing units and residents in the plan area.

Certain land use impacts of this alternative would be slightly greater than anticipated for the proposed Specific Plan. A General Plan amendment would be necessary to revise the Dixon General Plan's residential land use designations for the Southwest Dixon area under Alternative 2. In addition, development of low density housing next to proposed commercial areas and arterial streets could result in additional land use conflicts.

On the other hand, certain land use impacts, such as conflicts between residential and park uses and between new housing and adjoining rural residential areas, could be reduced under Alternative 2, since the plan area would contain fewer housing units (and residents). There would be no conflicts between single-family and multi-family units under this alternative, since no multi-family housing would be built.

By eliminating multi-family housing, Alternative 2 would be inconsistent with Measure B and its implementing ordinance, which require that 20 percent of housing developed in Dixon be multi-family. The lack of multi-family housing under this alternative would also create greater difficulties in complying with the Association of Bay Area Governments' regional housing need determinations and related Dixon General Plan policies for affordable housing. Compared with the proposed Specific Plan, Alternative 2 would have a more beneficial effect on Dixon's numerical jobs/housing balance by allowing fewer housing units in a city that already has more housing and employed residents than jobs. In practice, however, the lack of multi-family housing under this alternative could have a negative effect on the City's actual jobs/housing balance (i.e., the match between local housing prices and salary levels of local workers) by limiting the range of housing types available in Dixon.

Other impacts of this alternative (e.g., effects on geologic and hydrologic conditions, vegetation and wildlife, aesthetics, hazardous materials conditions, and cultural resources) would be similar to those of the proposed Specific Plan.

Alternative 2 would be consistent with all Specific Plan project objectives (see Section 1.0, Introduction, of this EIR) except for the following:

- *"Implement and establish a development that is consistent with the City's General Plan..."* As noted above, Alternative 2 would require a General Plan amendment to revise the Dixon General Plan's residential land use designations for the Southwest Dixon area.
- *"Establish a plan that will provide well-integrated land uses compatible with the surrounding area."* As noted above, development of single-family neighborhoods adjoining commercial areas and arterial streets would create the potential for at least the perception of land use conflicts.
- *"Provide a variety of residential unit types..."* By excluding multi-family housing, this alternative would not provide a variety of housing types.

## **Alternative 3 – Land Use Changes (Reduced Residential/Increased Community Commercial and Employment Center)**

### ***Description***

Under Alternative 3, the Specific Plan would be modified to increase the amount of Community Commercial and Employment Center development and reduce the amount of housing development allowed in the plan area.

As shown on Figure 31, Community Commercial uses would be developed in the entire area north of North Parkway between Gateway Drive and Evans Road, replacing Medium Density High and Medium Density Low residential areas proposed by the Specific Plan in this area. Employment Center uses would be developed in the area south of North Parkway and Gateway Drive between Batavia Road and Evans Road, replacing Medium Density Low and Low Density residential areas proposed by the Specific Plan in this area. The remainder of the plan area would be developed as proposed by the Specific Plan.

Table 34 compares the land use summary of Alternative 3 with that of the proposed Specific Plan. As the table shows, Alternative 3 would differ from the Specific Plan by allowing development of:

- Approximately 50.85 acres (650,000 square feet of building area) of Community Commercial uses, or 30 more acres (383,200 more square feet of building area) than would be allowed under the Specific Plan.
- Approximately 106.83 acres (1.3 million square feet of building area) of Employment Center uses, or 65 more acres (788,170 more square feet of building area) than would be allowed under the Specific Plan.
- Approximately 56.74 acres of Medium Density Low residential development (271 housing units), or 55.3 fewer acres (260 fewer units) than would be allowed under the Specific Plan.
- Approximately 155.53 acres of Low Density residential development (496 units), or 30 fewer acres (94 fewer units) than would be allowed under the Specific Plan.
- No Medium Density High residential development, as compared with 9.7 acres (100 housing units) that would be allowed under the Specific Plan.

Assuming an average density of 3.2 persons per housing unit, the 767 units allowed under this alternative would house a population of approximately 2,454 people, or 1,453 fewer people than the 3,907 residents anticipated under the Specific Plan.

Commercial and employment center development under Alternative 3 would house a total of approximately 7,056 employees, or about 4,000 more than the 3,050 employees anticipated under the Specific Plan. The total of 7,056 employees would consist of 1,856 commercial employees (856 more than anticipated under the Specific Plan) and 5,200 employment center employees (3,150 more than anticipated under the Specific Plan). These estimates are based on standard employee yield rates of 450 square feet of com-

**Table 34  
Land Use Summary Comparison: Proposed Specific Plan and Alternative 3**

Land Use Designation	Proposed Specific Plan			Alternative 3		
	Area (gross acres)	Number of Housing Units	Building Area (square feet)	Area (gross acres)	Number of Housing Units	Building Area (square feet)
<b>RESIDENTIAL</b>						
Medium Density-High Residential (MDH)	9.70	100	—	—	—	—
Medium Density-Low Residential (MDL)	112.04	531	—	56.74	271	—
Low Density Residential (LD)	185.53	590	—	155.53	496	—
<b>Subtotal</b>	<b>307.27</b>	<b>1,221</b>		<b>212.27</b>	<b>767</b>	
<b>COMMERCIAL</b>						
Community Commercial (CC)	20.85	—	266,800	50.85	—	650,000
Highway Commercial (HC)	11.30	—	185,130	11.30	—	185,130
<b>Subtotal</b>	<b>32.15</b>		<b>451,930</b>	<b>62.15</b>		<b>835,130</b>
<b>INDUSTRIAL</b>						
Employment Center (E)	41.83	—	511,830	106.83	—	1,300,000
<b>Subtotal</b>	<b>41.83</b>		<b>511,830</b>	<b>106.83</b>		<b>1,300,000</b>
<b>OTHER</b>						
Community and Neighborhood Parks (P)	22.47	—	—	22.47	—	—
Fire Station (FS)	0.47	—	—	0.47	—	—
Functional Buffer (F)	9.19	—	—	9.19	—	—
Streets (Arterials and Collectors)	51.13	—	—	51.13	—	—
Detention Basin (DB)	9.44	—	—	9.44	—	—
Canal	2.64	—	—	2.64	—	—
Southwest Water Facility	0.81	—	—	0.81	—	—
<b>Subtotal</b>	<b>96.15</b>			<b>96.15</b>		
<b>TOTAL</b>	<b>477.40</b>	<b>1,221</b>	<b>963,760</b>	<b>477.40</b>	<b>767</b>	<b>2,135,130</b>

Source: Nolte Associates, Inc.; Leonard Charles and Associate

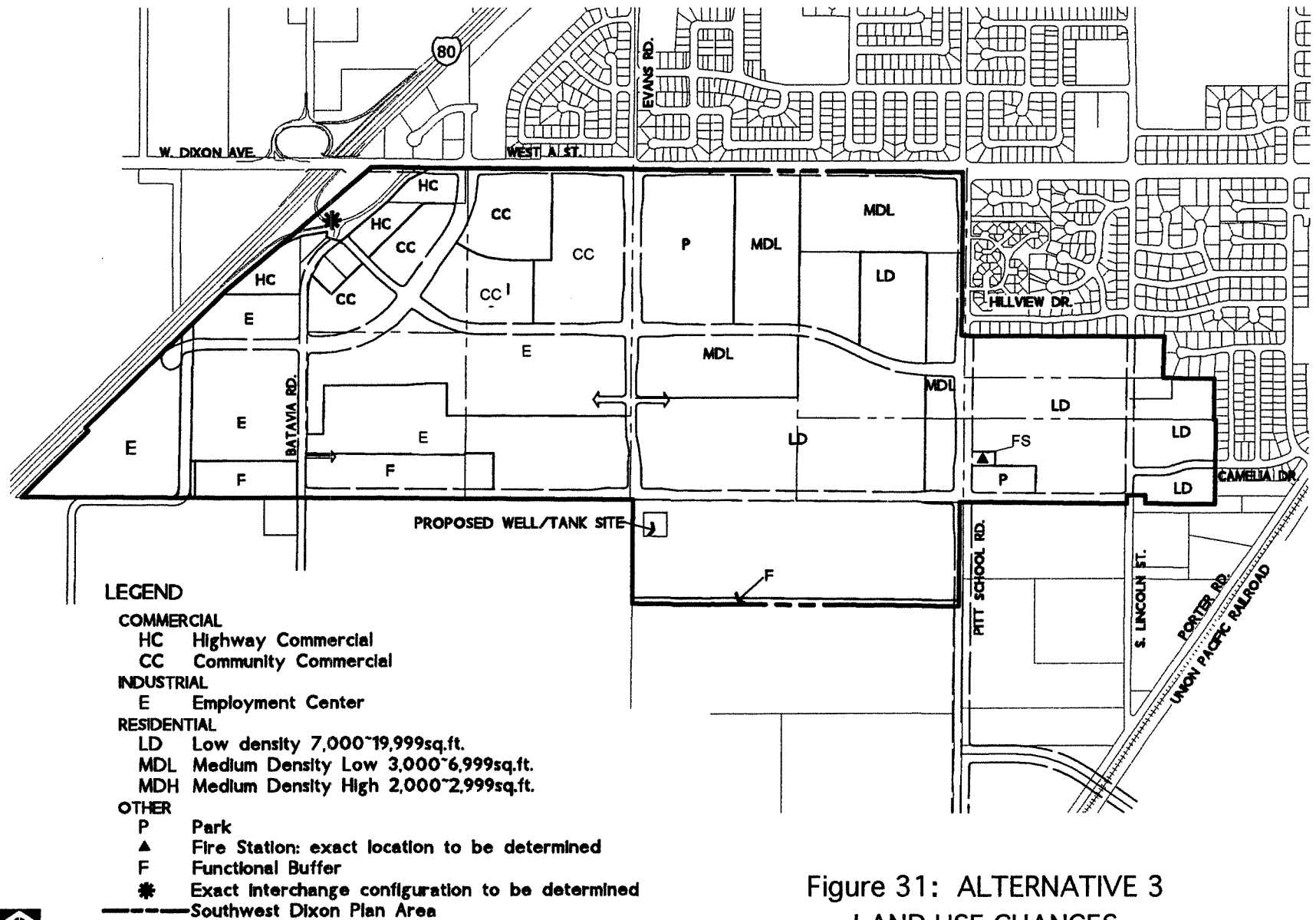


Figure 31: ALTERNATIVE 3  
 LAND USE CHANGES



mercial building space per employee and 250 square feet of industrial (office/business park) building space per employee.

### ***Environmental Impacts***

Compared with the proposed Specific Plan, Alternative 3 would reduce certain environmental impacts but increase others.

Alternative 3 would generate more traffic because of the larger amount of commercial and employment center development under this alternative. Traffic noise and air emissions would also be greater than with development of the Specific Plan as currently proposed.

Alternative 3 would reduce noise impacts by not allowing housing in the western part of the plan area (i.e., west of Evans Road), where traffic on Interstate 80 and arterial streets (e.g., West A Street) creates relatively high noise levels. As described in Section 3.6, Noise, of this EIR, the combination of noise generated by Interstate 80 and arterial roads in this area would yield exterior noise levels that would exceed the "normally acceptable" noise and land use compatibility category established by the Dixon General Plan for residential uses. The commercial and employment center uses proposed for the area west of Evans Road under Alternative 3 would be less sensitive to these high noise levels.

Demand for water and sewer services would be slightly greater under Alternative 3 than under the Specific Plan, since this alternative provides for more commercial and employment center development and less housing development compared with the Specific Plan. Commercial, office, and business park uses typically use more water and generate more wastewater than residential neighborhoods do. Similarly, demand for energy resources would likely be slightly greater under this alternative, compared with the Specific Plan. Demand for schools and parks would be slightly reduced under Alternative 3, due to the reduction in housing units compared with the Specific Plan. Demand for other public services (fire protection, police, and solid waste services) would likely be similar to that of the Specific Plan.

Certain land use impacts of this alternative would differ from those anticipated for the proposed Specific Plan. A General Plan amendment would be necessary to revise the Dixon General Plan's land use designations for the Southwest Dixon area under Alternative 3. Unlike the Specific Plan, however, this alternative would not create conflicts between single-family and multi-family units, since no multi-family housing would be built. Other land use impacts of Alternative 3 would be similar to those described for the proposed Specific Plan.

By not including multi-family housing, Alternative 3 would be inconsistent with Measure B and its implementing ordinance, which require that 20 percent of housing developed in Dixon be multi-family. The lack of multi-family housing under this alternative would also create greater difficulties in complying with the Association of Bay Area Governments' regional housing need determinations and related Dixon General Plan policies for affordable housing.

Compared with the proposed Specific Plan, Alternative 3 would have a more beneficial effect on Dixon's numerical jobs/housing balance by allowing more jobs and fewer housing units in a city that already has more housing and employed residents than jobs.

In practice, however, the lack of multi-family housing under this alternative could have a negative effect on the City's actual jobs/housing balance (i.e., the match between local housing prices and salary levels of local workers) by limiting the range of housing types available in Dixon.

Other impacts of this alternative (e.g., effects on geologic and hydrologic conditions, vegetation and wildlife, aesthetics, hazardous materials conditions, and cultural resources) would be similar to those of the proposed Specific Plan.

Alternative 3 would be consistent with all Specific Plan project objectives (see Section 1.0, Introduction, of this EIR) except for the following:

- *"Implement and establish a development that is consistent with the City's General Plan..."* As noted above, Alternative 3 would require a General Plan amendment to revise the Dixon General Plan's land use designations for the Southwest Dixon area.
- *"Provide a variety of residential unit types..."* By excluding multi-family housing, this alternative would not provide a variety of housing types.

## **Alternative 4 – Increased Residential Density (Measure B)**

### ***Description***

Under this alternative, the Specific Plan would be modified to provide an additional 144 multi-family housing units, increasing the overall residential density in the plan area. The total number of housing units in the plan area would 1,365, or 144 more than the 1,221-unit total specified by the proposed Specific Plan. Assuming an average density of 3.20 persons per housing unit, the 1,365 units would house a population of approximately 4,368 people, or 461 more people than the 3,907 residents anticipated under the Specific Plan.

The purpose of this alternative would be to modify the Specific Plan so that it completely complies with the requirements of Measure B, the ballot measure adopted by Dixon voters in 1986 that seeks to achieve a balanced housing mix by regulating the amount and type of housing built in the City each year. The City's recently adopted ordinance implementing Measure B (adopted after the Specific Plan application was submitted to the City) requires that 20 percent of total housing units developed in the City be multi-family. This percentage translates to 244 of the 1,221 housing units proposed by the Specific Plan. The Specific Plan proposes 100 multi-family units, located in the Evans Ranch portion of the plan area. The remaining 144 multi-family units would be incorporated into the Specific Plan under this alternative.

The additional 144 units could either be developed entirely on the Evans Ranch site or, due to the parcel sizes, included on the Steil and Azevedo sites. The 144 units would include the 26 multi-family units currently proposed by the Evans Ranch individual development application as a density bonus on that site. The remainder of the plan area would be developed in accordance with the proposed Specific Plan.

## ***Environmental Impacts***

The environmental impacts of this alternative would be similar to, but in some cases slightly greater than, those of the proposed Specific Plan.

Since the total number of housing units would be 144 units higher than the 1,221 proposed by the Specific Plan, this alternative would generate more traffic than the proposed Specific Plan. Based on the trip generation rate used in the City of Dixon traffic model (6.5 trips per day per multi-family unit), the 144 additional multi-family units would generate approximately 936 additional trips per day. Traffic noise and air emissions might also be slightly higher than with development of the Specific Plan as currently proposed. Higher residential density could create more opportunities for residents to walk, bicycle, or take public transportation to nearby commercial areas, however. These opportunities might help offset the increase in automobile trips and associated noise and air emissions.

Demand for public services (fire protection, water, wastewater, police services, solid waste, parks, and schools) and energy would be slightly greater than under the proposed Specific Plan, due to the larger number of housing units and residents in the plan area.

Other impacts of this alternative (e.g., effects on geologic and hydrologic conditions, vegetation and wildlife, aesthetics, hazardous materials conditions, land use, and cultural resources) would be similar to those of the proposed Specific Plan.

The alternative would have the beneficial effects of making the Specific Plan consistent with Measure B requirements and potentially helping the City of Dixon to comply with Association of Bay Area Governments' regional housing need determinations and related Dixon General Plan policies regarding affordable housing.

The project objectives identified in the Specific Plan would be achieved under this alternative. (See Section 1.0, Introduction, of this EIR).

Development of the additional 144 units would be subject to future, site-specific environmental analysis.

## **Alternative Sites**

The *CEQA Guidelines* recommend an assessment of an alternative location for a project if an alternative site would avoid or reduce any significant impacts of the project as proposed. In the case of the Southwest Dixon Specific Plan, however, no feasible alternative location is available in the Dixon planning area.

The only undeveloped site that is similar in size to the 477-acre Southwest Dixon plan area is the Northeast Quadrant area, a 643-acre site located in the northeast quadrant of the North First Street/Vaughn Road intersection, adjacent to Dixon's northernmost City limits. The City of Dixon has already approved a specific plan enabling development of highway commercial, community commercial, office, and light industrial uses in this area. Development of Northeast Quadrant area with the mix of land uses proposed by the Southwest Dixon Specific Plan would require amendment of the Dixon General Plan and Northeast Quadrant Specific Plan.



Development of the Southwest Dixon Specific Plan-proposed land uses in an alternative location would not achieve the project objectives, which call for phased residential, commercial, and employment center development in the Southwest Dixon area. (See Section 1.0, Introduction, of this EIR.) Development in an alternative location would also mean that Dixon General Plan land use designations and policies that call for mixed use development of the Southwest Dixon area would not be implemented.

## **Comparison of Alternatives**

Alternative 1a is a description of baseline conditions. Alternative 1b (Development in Accordance with the Existing Dixon General Plan) would have more or less the same impacts as the proposed Specific Plan.

Alternative 2 (Reduced Residential Density) would reduce a number of environmental impacts since it would reduce the number of people living in the plan area by 50 percent. This alternative would make it more difficult for the City to meet its regional housing need plus it would be inconsistent with the City's Measure B. This alternative is also inconsistent with the Dixon General Plan and inconsistent with three project objectives.

Alternative 3 (Land Use Changes [Reduced Residential/Increased Community Commercial and Employment Center]) would reduce certain noise, land use, and public service impacts. Other public service impacts as well as traffic, air quality, and traffic noise impacts and energy use would be increased. The alternative would make it more difficult for the City to meet its regional housing need and would be inconsistent with the Dixon General Plan, Measure B, and two project objectives.

Alternative 4 (Increased Residential Density [Measure B]) would increase traffic, noise, air quality, and public service impacts; however, it would not result in any new significant impacts. The alternative could enhance the City's ability to meet its regional housing need and would be consistent with Measure B as well as all project objectives.

In terms of impacts to the physical environment, Alternative 2 would have the fewest impacts and would be considered the "environmentally superior" alternative. Alternative 3 would reduce certain impacts but increase others, compared with the proposed Specific Plan. Alternative 4 would have slightly greater impacts than the proposed Specific Plan but would be consistent with Measure B and meet all project objectives.

**5.0 APPENDIX**

**APPENDIX A**

**CEQA DOCUMENTATION**

## NOTICE OF PREPARATION

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From: City of Dixon  
600 East A Street  
Dixon, CA 95620

### Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Dixon \_\_\_\_\_ will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (  is  is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Stephen Streeter, Community Development Director at the address shown above. We will need the name for a contact person in your agency.

Project Title: Southwest Dixon Specific Plan Update and Tentative Maps

Project Applicant, if any: Southwest Area Landowners Group

Date April 5, 2002

Signature 

Title Community Development Director

Telephone (707) 678-7000

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Notice of Completion & Environmental Document Transmittal

SCH # \_\_\_\_\_

Mail to: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: Southwest Dixon Specific Plan Update and Tentative Maps

Lead Agency: City of Dixon Contact Person: Stephen Streeter

Street Address: 600 East A Street Phone: (707) 678-7000

City: Dixon Zip: 95620 County: Solano

Project Location:

County: Solano City/Nearest Community: Dixon Cross Streets: I-80, West A Street, Pitt School Road

Assessor's Parcel No. 114-011-010, -020, -030, -040; 114-011-040-040 Zip Code: 95620 Total Acres: 477

114-012-040, 114-040-020, and 114-154-060 Section: 21 and 22 Twp. 7N Range: 1E Base: Dixon

Within 2 Miles: State Hwy #: I-80, SR 113 Waterways:

Airports: Railways: Southern Pacific Schools:

Document Type:

- CEQA: [X] NOP [ ] Supplement/Subsequent EIR NEPA: [ ] NOI Other: [ ] Joint Document [ ] Early Cons (Prior SCH No.) [ ] EA [ ] Final Document [ ] Neg Dec [ ] Other [ ] Draft EIS [ ] Other [ ] Draft EIR [ ] FONSI

Local Action Type:

- [ ] General Plan Update [X] Specific Plan [X] Rezone [ ] Annexation [X] General Plan Amendment [ ] Master Plan [ ] Prezone [ ] Redevelopment [ ] General Plan Element [ ] Planned Unit Development [X] Use Permit [ ] Coastal Permit [ ] Community Plan [ ] Site Plan [X] Land Division (Subdivision, etc.) [ ] Other

Development Type:

- [X] Residential: Units 1221 Acres Employees Water Facilities: Type MGD [ ] Office: Sq.ft. Acres Employees Transportation: Type [X] Commercial: Sq.ft. Acres 32 Employees Mining: Mineral [X] Industrial: Sq.ft. Acres 42 Employees Power: Type Watts [ ] Educational Waste Treatment: Type [ ] Recreational Hazardous Waste: Type [ ] Other:

Funding (approx.): Federal \$ State \$ Total \$

Project Issues Discussed in Document:

- [X] Aesthetic/Visual [X] Flood Plain/Flooding [X] Schools/Universities [X] Water Quality [X] Agricultural Land [X] Forest Land/Fire Hazard [ ] Septic Systems [X] Water Supply/Groundwater [X] Air Quality [X] Geologic/Seismic [X] Sewer Capacity [ ] Wetland/Riparian [X] Archeological/Historical [X] Minerals [X] Soil Erosion/Compaction/Grading [X] Wildlife [ ] Coastal Zone [X] Noise [X] Solid Waste [X] Growth Inducing [X] Drainage/Absorption [ ] Population/Housing Balance [X] Toxic/Hazardous [X] Landuse [ ] Economic/Jobs [X] Public Services/Facilities [X] Traffic/Circulation [ ] Cumulative Effects [ ] Fiscal [X] Recreation/Parks [X] Vegetation [ ] Other

Present Land Use/Zoning/General Plan Designation:

Existing General Plan designations throughout the project site include Highway Commercial, Neighborhood Commercial, Industrial (Employment Center), Functional (Buffers), Residential (Low Density, Medium Density-Low, and Medium Density-High), Parks, and School Buildings/Play Areas. Existing Zoning designations in the plan area include HC-PD: Highway Commercial - Planned Development; CN-PD: Neighborhood Commercial - Planned Development; CH-ML-PAO-PD: Office Professional; R1-PD: One Family Residential - Planned Development; PMR-PD: Planned Multiple Family District; RM-PD: Multiple Family District - Planned Development; and RM2-PD: Two Family Residential - Planned Development.

Project Description:

The project consists of revisions to the 1995 Specific Plan for a 477 acre area in the southwest portion of the City of Dixon. Requested changes to that plan include reconfiguration of land uses and circulation; changes to the Storm Drainage Master Report; amendments to the Development Regulations; and a General Plan Amendment and Rezone reflecting the land use changes. In addition, applications for five subdivision maps, a multi-family residential development, and a commercial development within the Specific Plan area have been submitted to the City. These proposed development projects will also be evaluated in the project EIR.

Signature of Lead Agency Representative: [Signature] Date: 4/5/02

### Reviewing Agencies

- |   |  |
|---|--|
| <input type="checkbox"/> Resources Agency                         | <input checked="" type="checkbox"/> Caltrans District <u>4</u> |
| <input type="checkbox"/> Boating/Waterways                        | <input type="checkbox"/> Dept. of Transportation Planning      |
| <input checked="" type="checkbox"/> Conservation                  | <input type="checkbox"/> Aeronautics                           |
| <input checked="" type="checkbox"/> Fish and Game Region 2 office | <input type="checkbox"/> California Highway Patrol             |
| <input type="checkbox"/> Forestry                                 | <input type="checkbox"/> Housing and Community Development     |
| <input type="checkbox"/> Colorado River Board                     | <input type="checkbox"/> Statewide Health Planning             |
| <input type="checkbox"/> Dept. Water Resources                    | <input type="checkbox"/> Health                                |
| <input type="checkbox"/> Reclamation                              | <input type="checkbox"/> Food and Agriculture                  |
| <input type="checkbox"/> Parks and Recreation                     | <input type="checkbox"/> Public Utilities Commission           |
| <input type="checkbox"/> Office of Historic Preservation          | <input type="checkbox"/> Public Works                          |
| <input type="checkbox"/> Native American Heritage Commission      | <input type="checkbox"/> Corrections                           |
| <input type="checkbox"/> S. F. Bay Cons. & Dev't Commission       | <input type="checkbox"/> General Services                      |
| <input type="checkbox"/> Coastal Commission                       | <input type="checkbox"/> OLA                                   |
| <input type="checkbox"/> Energy Commission                        | <input type="checkbox"/> Santa Monica Mountains                |
| <input type="checkbox"/> State Lands Commission                   | <input type="checkbox"/> TRPA                                  |
| <input type="checkbox"/> Air Resource Board                       | <input type="checkbox"/> OPR - OLGA                            |
| <input type="checkbox"/> Solid Waste Management Board             | <input type="checkbox"/> OPR - Coastal                         |
| <input type="checkbox"/> SWRCB: Sacramento                        | <input type="checkbox"/> Bureau of Land Management             |
| <input type="checkbox"/> RWQCB: Region # _____                    | <input type="checkbox"/> Forest Service                        |
| <input type="checkbox"/> Water Rights                             | <input type="checkbox"/> Other _____                           |
| <input type="checkbox"/> Water Quality                            | <input type="checkbox"/> Other _____                           |

### For SCH Use Only

Date Received at SCH _____	Catalog Number _____
Date Review Starts _____	Applicant _____
Date to Agencies _____	Consultant _____
Date to SCH _____	Contact _____ Phone _____
Clearance Date _____	Address _____

Notes:

City of Dixon  
Revised Initial Study  
April 5, 2002

This Initial Study was originally circulated with the Southwest Dixon Specific Plan Update Notice of Preparation in November 2001. The project at that time included four proposals for development projects within the Southwest Dixon Specific Plan area. A fifth development proposal – Clark Ranch Estates - has been added to the proposed project. Additions to this Initial Study regarding the Clark Ranch Estates project are marked with bold text and indicated by a vertical line in the page margin.

PROJECT TITLE: Southwest Dixon Specific Plan Update and Tentative Maps

LEAD AGENCY: City of Dixon  
600 East A Street  
Dixon, CA 95620

CONTACT PERSON: Stephen Streeter, Community Development Director  
(707) 678-7000

PROJECT LOCATION: The project area is located in the southwestern portion of the city. The Southwest Dixon Specific Plan area is bound by I-80 on the west and West A Street on the north. Pitt School Road forms the eastern boundary for most of the plan area, with approximately 55 acres of the plan area east of this road. The eastern portion of the plan area is bound by Hillview Drive on the north and Spruce Street on the east. The southern boundary of the Specific Plan area is coterminous with the southern boundary of the City of Dixon City Limits. The project location is indicated in Figure 1: Vicinity Map.

Five development projects are also proposed within the Specific Plan boundaries. The proposed Evans Ranch project site is bound by Batavia Road on the west, West A Street on the north, Evans Road on the east, and the proposed alignment for South Parkway on the south. The proposed Orchard Estates – Garcia Property Tentative Map project site is bound by Pitt School Road on the west, Hillview Drive on the north, Spruce Street on the east, and the proposed Orchard Estates – Sanders Property on the south. The proposed Orchard Estates – Sanders Property Tentative Map project site is bound by Pitt School Road on the west, the proposed Orchard Estates – Garcia Property on the north, Spruce Street on the east, and the proposed alignment for South Parkway on the south. The proposed Dixon Ridge Tentative Map is bound by West A Street on the north, Evans Road on the west, the proposed alignment for South Parkway on the south, and undeveloped land (APNs 114-012-010, -020, and -030) on the east. The proposed Clark Ranch Estates/Clark Property – Ryder Homes project site is located east of Batavia Road, south of the proposed alignment for North Parkway, immediately west of Evans Road, and immediately north of the proposed alignment for South Parkway.

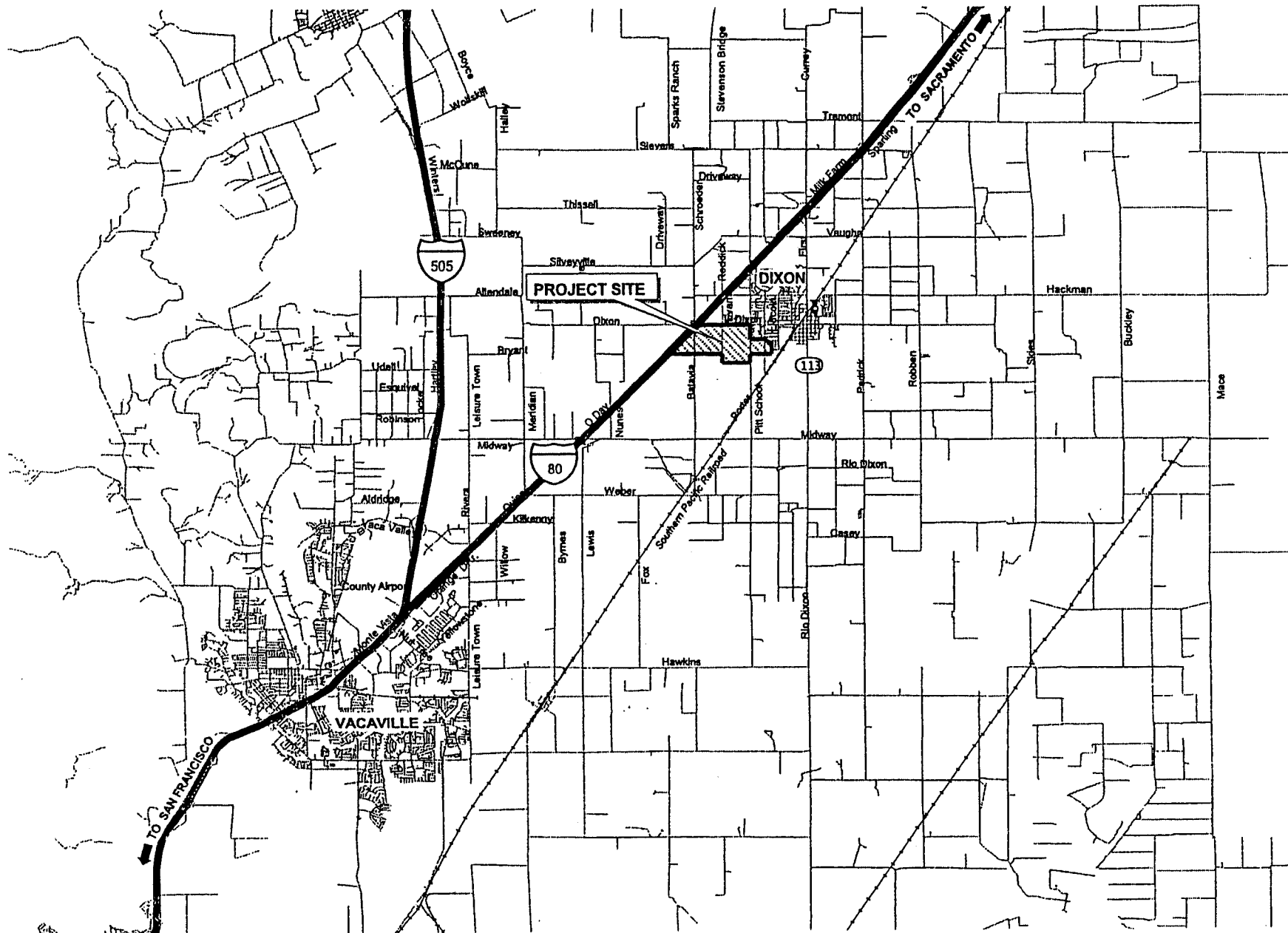


Figure 1: VICINITY MAP

SOURCE: U.S. Census Tiger 1995 Data



APPLICANT: Southwest Area Landowners Group  
c/o Bridgette Williams  
Nolte Associates, Inc  
1750 Creekside Oaks Drive, Suite 200  
Sacramento, CA 95833-3648

GENERAL PLAN: Existing General Plan designations throughout the Specific Plan area include Commercial (Highway Commercial, General Commercial, and Office Professional), Industrial (Employment Center), Residential (Low Density, Medium Density Low, and Medium Density High), Park, Elementary School, Functional Buffer, and Agriculture & Open Space.

The existing General Plan designations for the proposed Evans Ranch project are Highway Commercial, General Commercial, Low Density, Medium Density Low, Medium Density High, Park, and Functional Buffer.

The existing General Plan designation for the proposed Orchard Estates – Garcia Property Tentative Map is Low Density. The existing General Plan designations for the proposed Orchard Estates – Sanders Property Tentative Map are Low Density and Park.

The existing General Plan designations for the proposed Dixon Ridge Tentative Map are Medium Density Low and Park.

ZONING: Existing zoning designations throughout the Specific Plan area include CH-PD (Highway Commercial- Planned Development), CN-PD (Neighborhood Commercial- Planned Development), CH-ML-PAO-PD (Office Professional), R1-PD (One Family Residential District- Planned Development), PMR-PD (Planned Multiple Family District), RM-PD (Multiple Family District- Planned Development), and RM2-PD (Two Family Residential-Planned Development).

The existing zoning designations for the proposed Evans Ranch project area are CH-PD, CN-PD, RM-PD, RM2-PD, PMR-PD, and R1-PD. The existing zoning designation for both the proposed Orchard Estates – Garcia Property and the Orchard Estates – Sanders Property Tentative Maps is R1-PD. The Dixon Ridge Tentative Map parcel is currently zoned PMR-PD and R1-PD. The existing zoning of the Clark Ranch Estates project is R1-PD.

ENVIRONMENTAL SETTING: The 477± acre Specific Plan area currently supports agricultural and rural residential land uses. Foraging habitat for the Swainson’s hawk, which is listed by the State of California as a threatened species, is provided by several of the agricultural crops grown on the project site. The site also supports scattered trees. Four properties within the plan area are under Williamson Act contracts. The plan area supports nearly level terrain. The land north and east of the project area currently supports single family residential and commercial land uses. Lands to

the south and west of the project site support agricultural and rural residential land uses. These areas to the south and west are not located within the City.

PROJECT DESCRIPTION:

**Background:**

In the early 1990s, the Solano County Local Agency Formation Commission (LAFCo) approved the annexation of the Southwest Dixon area (477± acres) into the City of Dixon, and amended the City's Sphere of Influence (SOI) to be consistent with the new City limits. The Southwest Dixon Specific Plan, Land Use Map, and Zoning District Map were proposed to provide detailed goals, policies, and implementation programs to guide the development of this area. The Specific Plan, and accompanying land use and zoning maps, were considered by the City Council in November 1995. The City certified an EIR and adopted a Statement of Overriding Considerations for the Specific Plan area.

The Specific Plan provided for a community park, fire station, and school site in the center of the plan area, with residential, commercial and employment center uses balanced throughout the remainder of the site. The City of Dixon General Plan Map was amended to maintain consistency between the Specific Plan and the City's General Plan.

**Proposed Specific Plan Revisions:**

The Southwest Area Landowners group has filed an application with the City of Dixon, requesting the City to consider amendments to the Specific Plan prepared in 1995. The revisions to the Specific Plan to be evaluated involve the reconfiguration of existing land uses, circulation and zoning designations; changes to the existing Storm Drainage Master Plan; administrative clean-up in the Southwest Dixon Specific Plan text; and amendments to the Development Regulations. The specific revisions requested by the Southwest Area Landowners group are described below:

**Land Use Reconfigurations/General Plan Amendments**

The Southwest Dixon Specific Plan Update project consists of an application for approval of revisions to the Specific Plan for the 477±-acre area. The proposed revisions to the Specific Plan would relocate the community park and fire station, and would eliminate the elementary school site. In addition, the proposed Specific Plan would create a neighborhood park and expand the residential land use areas, thus increasing the number of dwelling units proposed. Detailed explanations of the proposed changes are listed below.

- The 1995 Specific Plan locates the community park in the center of the plan area. The proposed revisions would locate the community park along Evans Road, a north-south collector roadway, and south of West A Street, an east-west arterial roadway. This location would be more accessible to both the Specific Plan area as well as existing neighborhoods in the vicinity.
- The new neighborhood park would be located at the northeast corner of the intersection of Pitt School Road and the proposed South Parkway, serving the southern and eastern portions of the Specific Plan area.
- Upon review of the 1995 Specific Plan, the City Fire District preferred that the fire station be relocated further south to improve emergency response time in that area. The

proposed Specific Plan would locate the fire station east of Pitt School Road and north of the proposed neighborhood park.

- The proposed project would eliminate the elementary school site within the plan area as the Dixon Unified School District has expressed a desire to develop a school in another area. The School District has identified alternative sites for an elementary school outside of the plan area to accommodate future population growth.

The General Plan land use designations in the Specific Plan area are proposed to be modified to reflect the above land use reconfigurations. The road alignment revisions result in a slight increase in Specific Plan area acreage, overall residential land use acreage, and acreage devoted to streets, buffers and detention basins. The revisions result in a decrease overall commercial, industrial, school, fire station, and park land use acreage. The reduction in commercial and industrial acreage leads to a reduction in building square footage for these land uses. These differences are shown in *Table 1-1: Land Use Summary* from the Draft Specific Plan. Please refer to the attached *Figure 1: Proposed Land Use Plan*.

#### Specific Plan Revisions

The proposed project also includes revisions to text within the 1995 Specific Plan. These revisions are proposed primarily to update the Specific Plan language, graphics, and matrixes. Some key sections proposed to be updated are:

1. An updated background section;
2. The process undertaken to date;
3. Relevant Ordinances and regulatory updates approved and/or pending;
4. Revised mitigation measures;
5. Clarification of agriculture buffers and open space features;
6. A new Storm Drainage Facility section to better define infrastructure and service needs for the area; and
7. Further refinement for residential lot sizes and setbacks in various zones in the Development Regulations section.

Modifications to the goals and policies in the 1995 Specific Plan are not proposed. The Development Regulations and Design Guidelines in the Specific Plan are proposed to be adopted by ordinance.

#### Rezoning

The proposed project includes an application for rezoning throughout the Specific Plan area to reflect proposed changes in the land use and circulation plans, as shown in *Figure 8-1: Proposed Zoning* from the Draft Specific Plan. This reconfiguration of land use and zoning designations would result in an increase in proposed dwelling units within the Specific Plan area, as shown in *Table 1-1: Land Use Summary* from the Draft Specific Plan.

#### Circulation and Bikeway Master Plan

The proposed changes in land use and roadway transportation standards recently adopted by the city of Dixon require changes to the roadway circulation master plan for the Specific

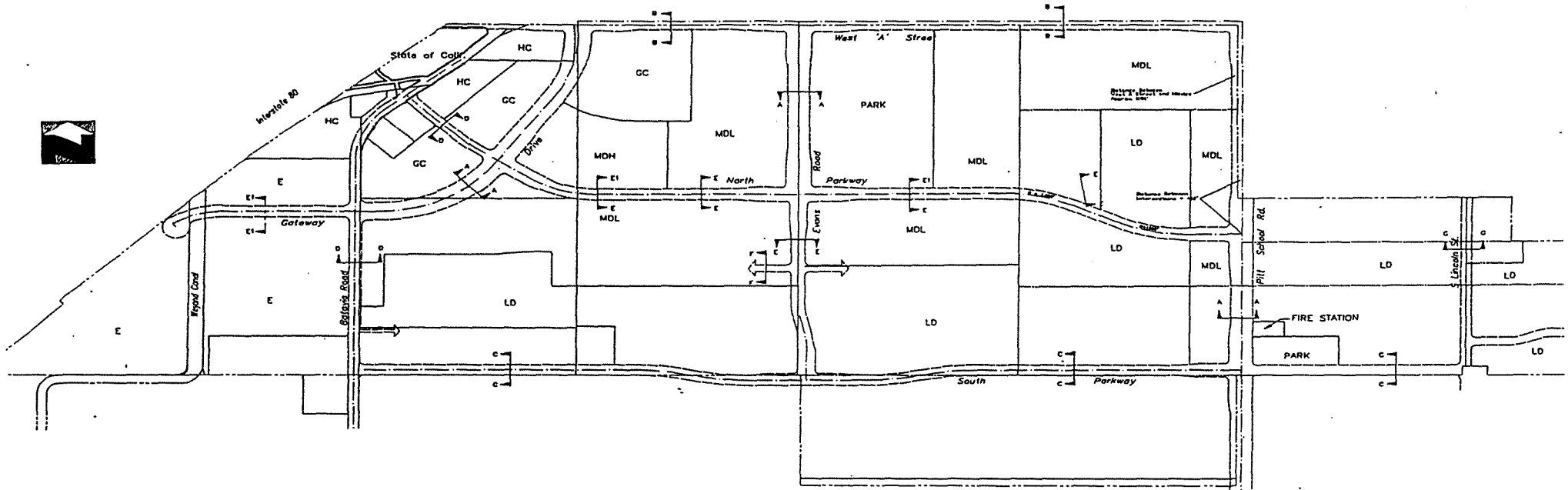
Max FAR (GP)	Bldg SF <sup>1</sup>	Symbol	Land Use	Baseline Density	Dwelling Units (Original)	Dwelling Units <sup>2</sup> (Revised)	Area Gross Acres (Original)	Area Gross Acres (Revised <sup>3</sup> )	Difference in Acreage
<b>COMMERCIAL</b>									
0.80	266800	GC	General Commercial	—		—	24.50	20.85	-3.65
0.80	185130	HC	Highway Commercial	—		—	17.00	11.30	-5.70
<b>RESIDENTIAL</b>									
		MDH	Med. Density – High	11.0 du/ac	99	100	9.00	9.70	0.70
		MDL	Med. Density – Low	5.5 du/ac	550	531	100.00	112.04	12.04
		LD	Low Density	3.25 du/ac	572	590	176.00	185.53	9.53
<b>INDUSTRIAL</b>									
1.60	511830	E	Employment Center				47.00	41.88	-5.17
<b>OTHER</b>									
		S	School				10.00	0.00	-10.00
		FS	Fire Station				1.00	0.47	-0.53
		F	Functional Buffer				9.00	9.19	0.19
		P	Parks						
			Community and Neighborhood Parks				23.00	22.47	-0.53
			Linear Parks				5.40	0.00	-5.40
			Streets (Arterials and Collectors)				47.10	51.13	4.03
		DB	Detention Basin					9.44	9.44
			Canal					2.64	2.64
			Southwest Facility					0.81	0.81
	963760	<b>TOTAL</b>			<b>1221</b>	<b>1221</b>	<b>469.00</b>	<b>477.45</b>	<b>8.4</b>

1: Assumes actual FAR of 0.25 (FAR = Floor Area Ratio) (SF = Square Footage)

2: Derived from baseline density time acreage

3: Increased total acreage derived from new low density acreage and modified circulation pattern

Table 1-1: LAND USE SUMMARY



**LEGEND**

**COMMERCIAL**

- HC Highway Commercial
- GC General Commercial

**INDUSTRIAL**

- E Employment Center

**RESIDENTIAL**

- LD Low Density  
7,000 to 19,999 sq. ft.
- MDL Medium Density - Low  
3,000 to 6,999 sq. ft.
- MDH Medium Density - High  
2,000 to 2,999 sq. ft.

**OTHER**

- P Park
- FS Fire Station
- F Functional (Buffer)

Figure 2: PROPOSED LAND USE PLAN

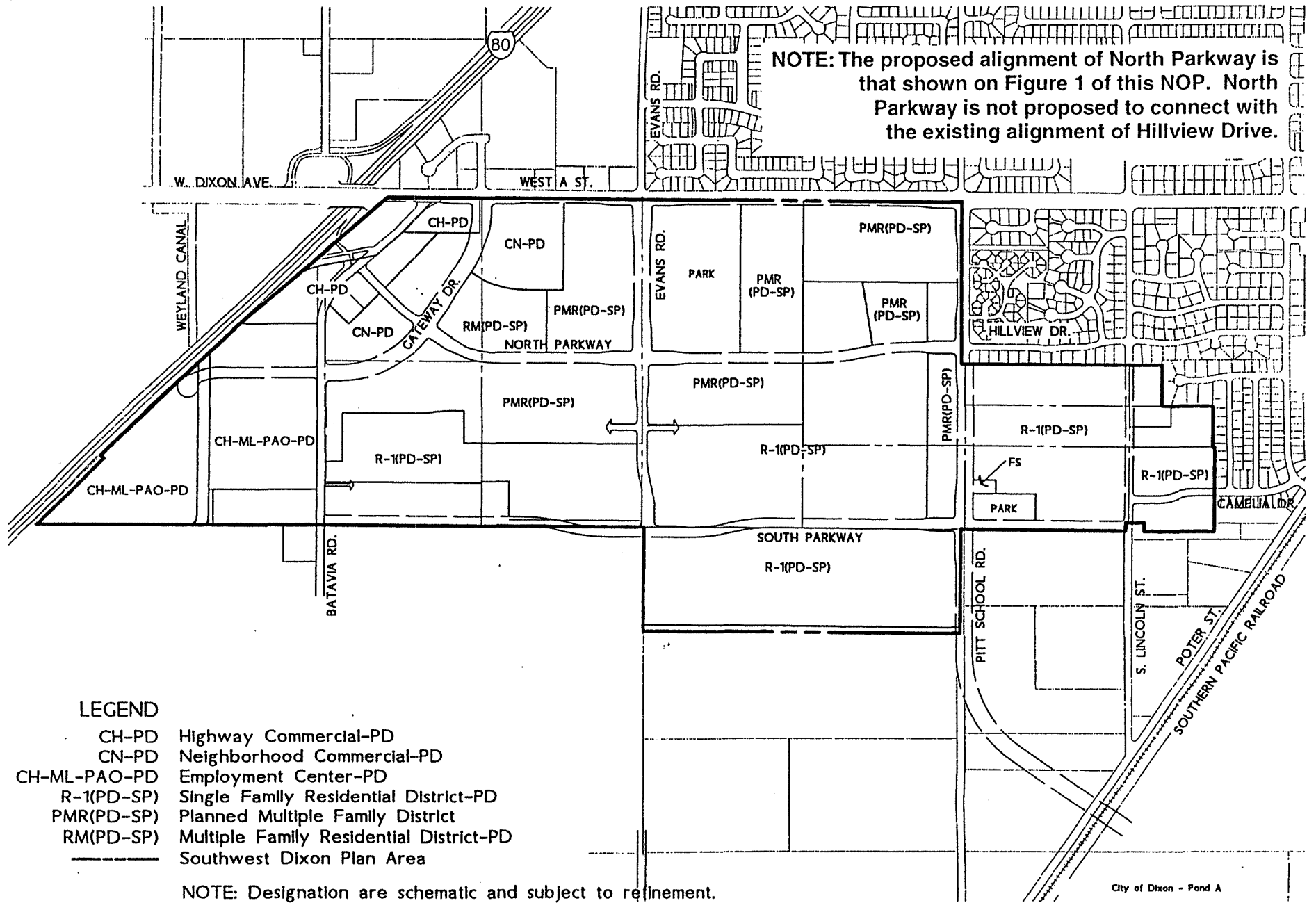


Figure 8-1: PROPOSED ZONING



SOURCE: NOLTE ASSOC., INC.

Plan area. Changes in land use also require modification to the Bikeway Master Plan, which is dependent upon the roadway circulation plan due to the integration of bikeways into the Parkway status collector roadways.

The proposed roadway circulation plan maintains the arterial roadways of West A Street and Pitt School Road, as planned in the 1995 Specific Plan. The proposed revisions would reconfigure North and South Parkways to traverse the plan area from east to west, and would extend Evans Road to form a north-south collector in the middle of the plan area.

#### Storm Drainage Master Plan

Based on recommendations in a drainage study developed for the entire City, the proposed project would modify the drainage patterns in the western portion of the Specific Plan area. This would be accomplished via development of a detention basin system serving the plan area west of Evans Road and properties to the north of the Specific Plan area. The new detention basin would discharge to McCune Creek at I-80, just south of the plan area. The eastern portion of the plan area would continue to drain to detention Basin A, as stipulated in the 1995 Specific Plan. The proposed project also includes construction of a new storm drainage pipe to Basin A to provide increased capacity. These components of the proposed project would be approved through adoption of a new Storm Drainage Master Plan, which reflects these changes and adds more detailed analysis of the proposed system.

#### Supplementary Infrastructure Plans

In addition to the Storm Drainage Master Plan, the revised Specific Plan application includes the following infrastructure planning studies: Solano Irrigation District Irrigation Master Plan Report dated May 4, 2001, Sanitary Sewer Master Plan Report dated May 4, 2001, Water Master Plan Report dated May 4, 2001 and a Preliminary Capital Improvement Plan dated May 31, 2001.

#### Proposed Development Projects:

In addition to the proposed revisions to the Southwest Dixon Specific Plan, applications for five development projects within the Specific Plan area have been submitted under separate project applications on individual properties. The proposed projects under consideration include Evans Ranch, Orchard Estates-Sanders Property, Orchard Estates-Garcia Property, Dixon Ridge, and Clark Ranch Estates. Approval of all five projects would permit the development of 23.5± acres of commercial land uses, ~~205~~ 221.75± acres of residential land uses, 22.5± acres of parks and open space, and ~~25.5~~ 28.75± acres of public facilities, including a fire station. Each proposed development project is described below.

##### **Evans Ranch**

The proposed Evans Ranch development project is located in the western portion of the Southwest Dixon Specific Plan Area. This site is bound by Batavia Road on the west, West A Street on the north, and Evans Road on the east. The proposed alignment for South Parkway provides the southern boundary of this site. The Evans Ranch project comprises Assessor's Parcels 114-011-010, - 030, and -040, and represents approximately 121± acres of the Specific Plan area. This acreage currently supports one single-family residence, active agricultural production, and open space.

The proposed Evans Ranch project consists of applications for approval of a Tentative Map, a multi-family development, and commercial development. The single-family residential

Tentative Map covers 63.2 acres and proposes 263 single-family homes; the multi-family development proposes 126 multi-family units on 9.7 acres; and the commercial development includes three general commercial lots totaling 20.9 acres and one 2.6 acre highway commercial lot. The following discussion provides greater detail of these development proposals.

#### Tentative Subdivision Map

The proposed single-family lots would consist of 203 units on 49.5 acres and 60 units on 13.7 acres, in the Medium Density Low (MDL) and Low Density (LD) land use designated areas, respectively. The MDL lots will range in size between 15,362 square feet and 6,663 square feet with a net density of 4.1 units per acre. Twenty-five lots within this district would have 10,000 square feet or more. The Tentative Map also proposes three landscape lots within the MDL district. These lots would consist of 1,930 square feet each.

The LD lots, which are located in the southwestern portion of the proposed Tentative Map, will range in size from 14,167 square feet to 7,018 square feet with a net density of 2.73 units per acre. A meandering 25' linear parkway is proposed to be located at the southernmost portion of the LD land use district, adjacent to the rear property line of 17 of the proposed LD lots. The LD district also includes a 5,314 square foot public access/drainage utility lot providing access to the proposed linear parkway from the proposed "C" Street.

The Tentative Map also creates one 9.7 acre multi-family lot and four commercial lots. The four proposed commercial lots are 2.6 acres, 5.0 acres, 5.9 acres and 10 acres in size. The combined lots total 20.9 acres of General Commercial land uses, and 2.6 acres of Highway Commercial land uses.

#### Multi-Family Planned Unit Development

The proposed Evans Ranch multi-family residential project is a Planned Unit Development with application for a Density Bonus to develop 126 units on 9.7 acres. The proposed multi-family development would be located at the northeast corner of the proposed intersection of North Parkway and Gateway Drive. The proposed density corresponds to 13 units per acre. The eastern boundary of the multi-family development would be adjacent to five of the MDL single-family lots proposed in the Evans Ranch Tentative Map. Access to the multi-family development would be provided via Gateway Drive, North Parkway and from the proposed commercial development to the north.

#### Evans Ranch Commercial Development

The proposed Evans Ranch 10 acre retail commercial project on Lot B is located north of the proposed multi-family development, adjacent to West A Street and Gateway Drive. The proposed development on this lot includes five commercial buildings, consisting of 104,200 square feet. 506 parking spaces are proposed for this development. General Commercial Lot B is adjacent to ten of the MDL single-family lots proposed in the Evans Ranch Tentative Map. A pedestrian pathway is proposed to connect General Commercial Lot B to "M" Court of the MDL district. Two vehicular access driveways to



this commercial development are proposed along Gateway Drive, with one vehicular access proposed along West A Street.

#### Development Agreement

The Evans Ranch application also includes a development agreement between the City of Dixon and the project applicant.

#### **Orchard Estates-Sanders Property Tentative Map**

The proposed Orchard Estates-Sanders Property Tentative Map project site is located in the eastern-most portion of the Southwest Dixon Specific Plan Area. This site is bound by Pitt School Road on the west and the existing residential development along Spruce Street to the east. The southern boundary is coterminous with the City of Dixon City Limits. The northern boundary of this proposed Tentative Map is the proposed Orchard Estates-Garcia project also included in this environmental analysis. The Orchard Estates-Sanders Property Tentative Map comprises Assessor's Parcels 114-011-040-040 and 114-154-060, representing approximately 30.33 acres of the Specific Plan area. This acreage currently supports agriculture and open space.

The proposed Orchard Estates-Sanders Property project consists of an application for approval of a Tentative Map. The proposed subdivision would divide the existing two Assessor's Parcels into 89 single-family residential lots in the LD land use district, 1 park lot and 1 fire station lot. The proposed single-family residential lots would be a minimum of 7,000 square feet. The neighborhood park would consist of 2.46 acres, and the fire station would consist of 0.47 acres.

#### Development Agreement

The Orchard Estates-Sanders application also includes a development agreement between the City of Dixon and the project applicant.

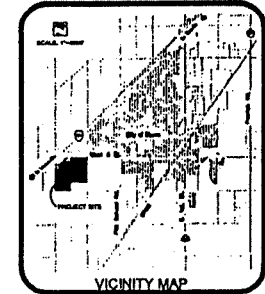
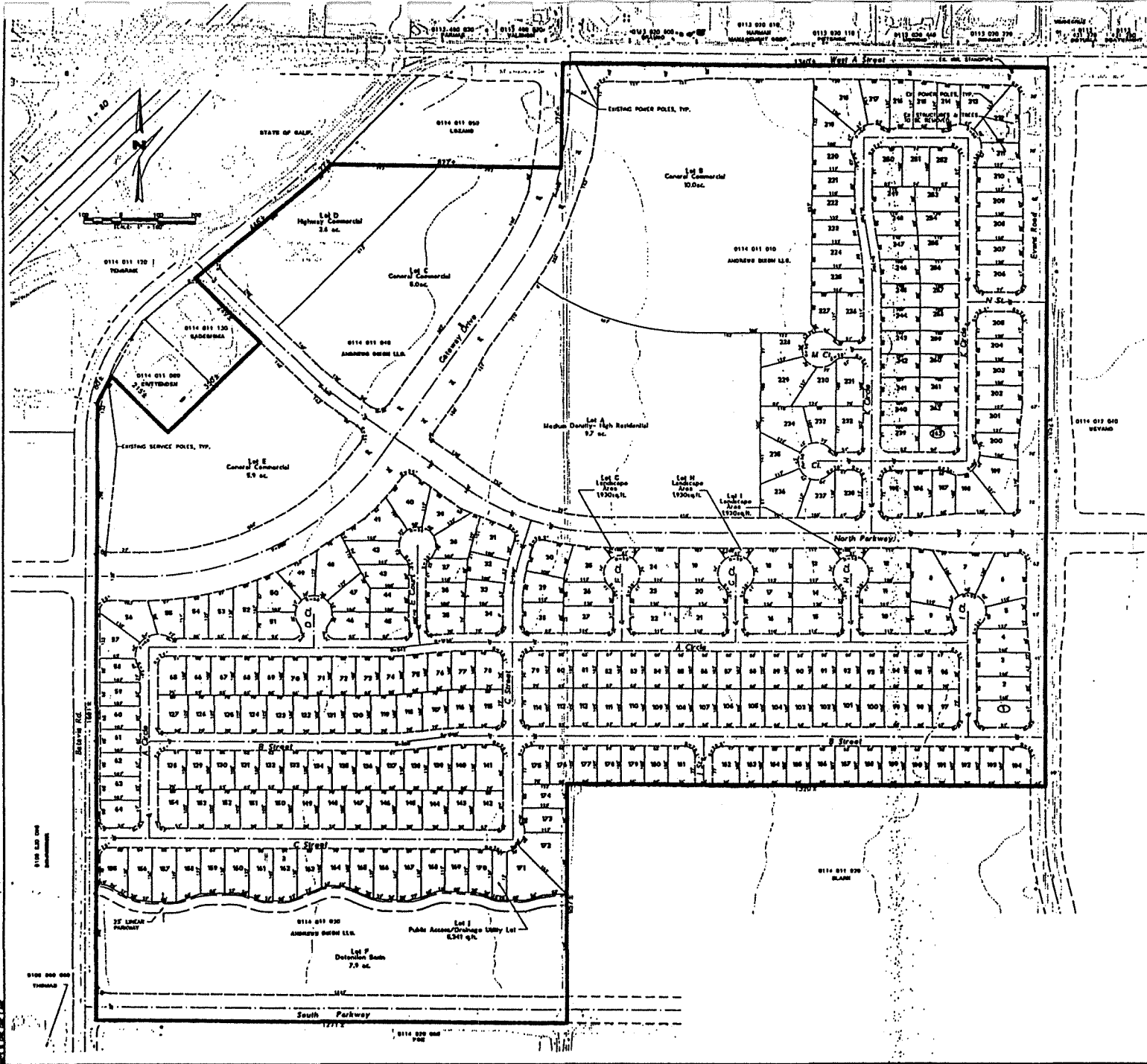
#### **Orchard Estates-Garcia Property Tentative Map**

The proposed Orchard Estates-Garcia Property Tentative Map project site is also located in the eastern-most portion of the Southwest Dixon Specific Plan Area, north of the Orchard Estates-Sanders Property Tentative Map area. The Garcia Property site is bound by Pitt School Road on the west, South Lincoln Street on the east, and the existing residential development along Hillview Drive to the north. The site is bound on the south by the Orchard Estates-Sanders Property Tentative Map. The Orchard Estates-Garcia Property Tentative Map consists of Assessor's Parcel 114-040-020, which represents 20 acres of the Specific Plan area. This acreage currently supports agriculture and open space.

The proposed Orchard Estates-Garcia Property project consists of an application for approval of a Tentative Map that would subdivide the existing single parcel into 57 single family residential lots at a density of 3.5 dwelling units per acre.

#### Development Agreement

The Orchard Estates-Garcia application also includes a development agreement between the City of Dixon and the project applicant.



**GENERAL NOTES:**

- APPLICANT**  
Andrews Dues, LLC  
1075 Embury Street  
Folsom, CA 95633  
Ph: (916) 436-0100
- SUBDIVIDER / OWNER**  
1-30 Dues Ave., Ames  
433 Albert Blvd., Berkeley  
Berkeley, CA 94710
- PLANNER / ENGINEER**  
North Associates, Inc.  
1750 Crocker-Hale Drive, Suite 300  
Sacramento, California 95833  
Ph: (916) 641-1500  
Attn: Lee D. Dues
- ASSESSOR PARCEL NUMBERS**  
114-011-010, 030 and 040
- ACREAGE**  
1714 Acres
- EXISTING LAND USE**  
One Single Family Residential Home  
Agriculture & Open Space
- PROPOSED LAND USE**  
343 Single Family Residential Units

LAND USE	UNITS	SQ. FT. PER UNIT	TOTAL SQ. FT.
Single Family Residential	343	1,100	377,100

- EXISTING ZONING**  
C1-PD, PUD-PD, DU-PD and R22-PD
- PROPOSED ZONING**  
C1-PD, PUD-PD, DU-PD and R22-PD
- DOMESTIC WATER SUPPLY**  
Dues Salinas Municipal Water Service (DMWS)
- SANITARY SEWER SERVICE**  
City of Dues
- STORM DRAINAGE**  
City of Dues
- SOLID WASTE DISPOSAL**  
Dues Sanitary
- ELECTRICAL SERVICE**  
Pacific Gas & Electric
- NATURAL GAS SERVICE**  
Pacific Gas & Electric
- TELEPHONE SERVICE**  
Pacific Bell
- CABLE TELEVISION SERVICE**  
Charter Communications
- SCHOOL DISTRICT**  
Dues Unified School District
- PARK AND RECREATION**  
City of Dues
- FIRE PROTECTION**  
City of Dues  
All fire hydrants to be located per City of Dues standard specifications.
- PHASING**  
Final mapping may occur in phases.  
Multiple final maps may be required based on the tentative subdivision map.
- SOURCE OF TOPOGRAPHIC DATA**  
BY CARTMOUNT AERIAL SURVEY INC., AUG.1999

EVANS RANCH  
 TENTATIVE SUBDIVISION MAP  
 PREPARED FOR: FRANK ANDREWS & DAVID STROUD  
 www.north.com  
 NORTH ASSOCIATES, INC.  
 1750 CROCKER-HALE DRIVE, SUITE 300  
 SACRAMENTO, CALIFORNIA 95833  
 PH: (916) 641-1500  
 FAX: (916) 641-1501  
 www.north.com

**ANDREWS DIXON LLC.**

**PROJECT SUMMARY:**

**LOT A MEDIUM DENSITY - HIGH RESIDENTIAL**

MAXIMUM DENSITY ALLOWED: 8 UNITS/ACRE (700 UNITS)

SITE AREA: 17- 87 ACRES

HOUSING PROVIDED: 24 UNITS

83 2-BR UNITS + 800 SF  
 63 3-BR UNITS + 200 SF

PARKING REQUIRED: 24 SPACES

PARKING PROVIDED: 24 SPACES

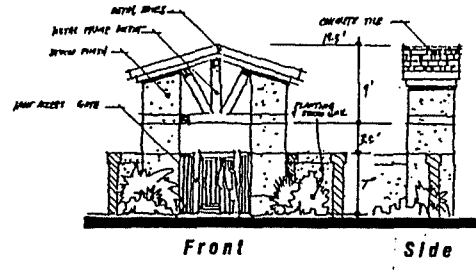
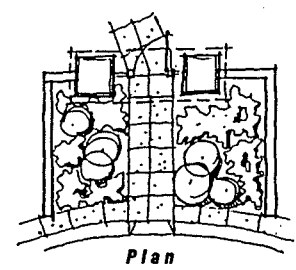
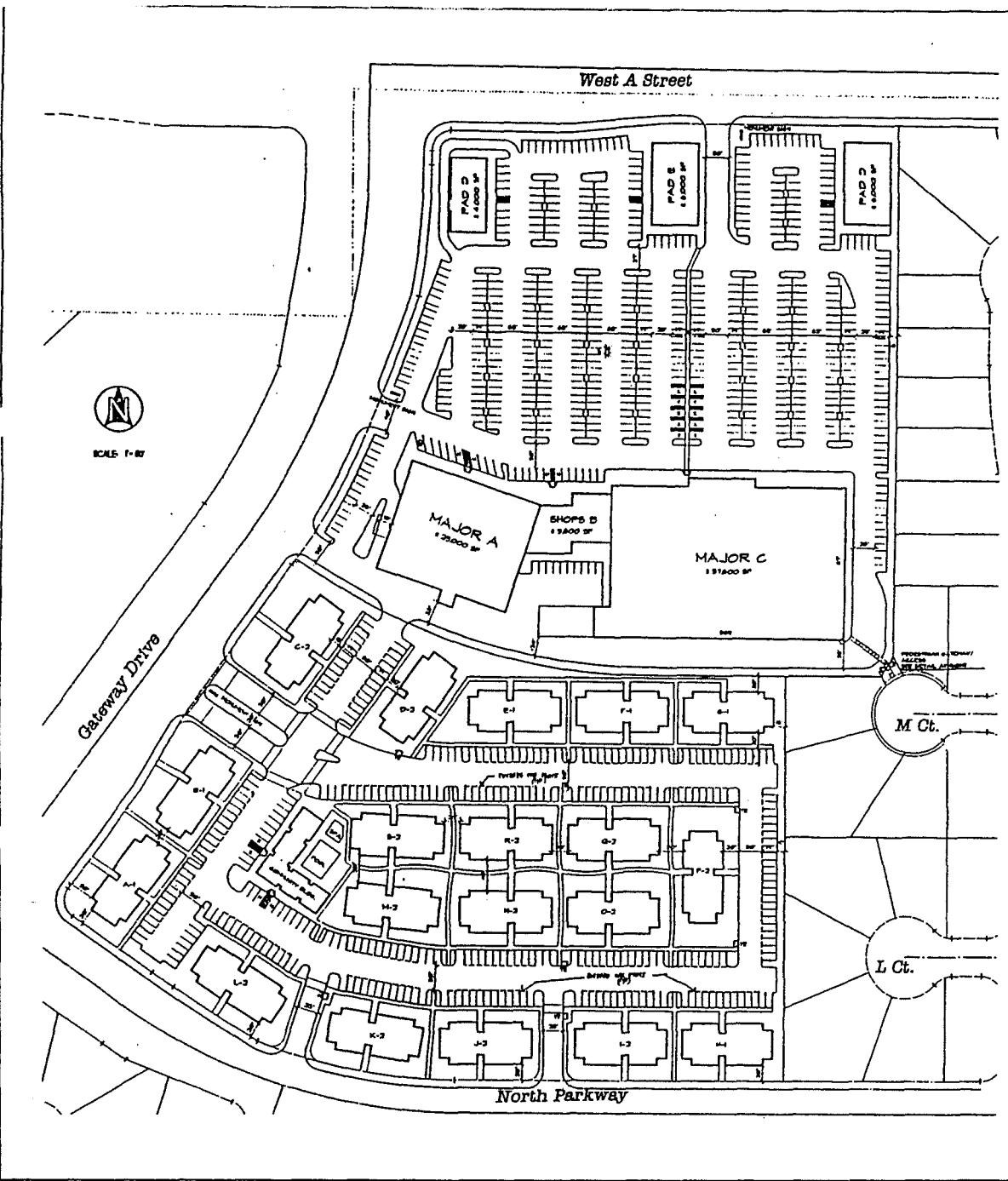
**LOT B - GENERAL COMMERCIAL**

SITE AREA: 17- 80 ACRES

BUILDING AREA: 24,000 SQ. FT.

REBUILDING PATIO: 3,000 SQ. FT.

PARKING PROVIDED: 24 SPACES



**Pedestrian Gateway**

May 4, 2001  
 0010000

**GENERAL NOTES:**

**APPLICANT**  
 Schuler Moore of California  
 1750 Pine Street, Ste. 202  
 Walnut Creek, California 94596  
 PH (925) 943-2830  
 Attn: Vince Fletcher

**SUBOWNER / OWNER**  
 Sanders 1981 Revocable Trust  
 882 Middle Drive  
 Dixon, California 95820

**PLANNER / ENGINEER**  
 Noto Associates, Inc.  
 1750 Chronicle Drive, Suite 200  
 Sacramento, California 95833  
 PH (916) 641-1300  
 Attn: Lee Clark

**ASSESSOR'S PARCEL NUMBERS**  
 114-011-040-040 and 114-154-088

**ACREAGE**  
 30.324 Acres

**EXISTING LAND USE**  
 Agriculture & Open Space

**PROPOSED LAND USE**  
 44 Single Family Residential Typ.(min.7,000sq.ft.)  
 1 Park Lot  
 1 Fire Station Lot

**EXISTING ZONING**  
 R1-PD

**PROPOSED ZONING**  
 R1-PD

**DOMESTIC WATER SUPPLY**  
 Dixon-Sanders Multiple Water Services (DSMWS)  
 California Water (East of Lincoln St.)

**SANITARY SEWER SERVICE**  
 City of Dixon

**STORM DRAINAGE**  
 City of Dixon

**SOLID WASTE DISPOSAL**  
 City of Dixon

**ELECTRICAL SERVICE**  
 Pacific Gas & Electric

**NATURAL GAS SERVICE**  
 Pacific Gas & Electric

**TELEPHONE SERVICE**  
 Pacific Bell

**CABLE TELEVISION SERVICE**  
 Charter Communications

**SCHOOL DISTRICT**  
 Dixon Unified School District

**PARK AND RECREATION**  
 City of Dixon

**FIRE PROTECTION**  
 City of Dixon  
 All fire hydrants to be installed per City of Dixon standards/specifications

**PHASING**  
 Final mapping may occur in phases.  
 Multiple final maps may be recorded based on the tentative subdivision map.

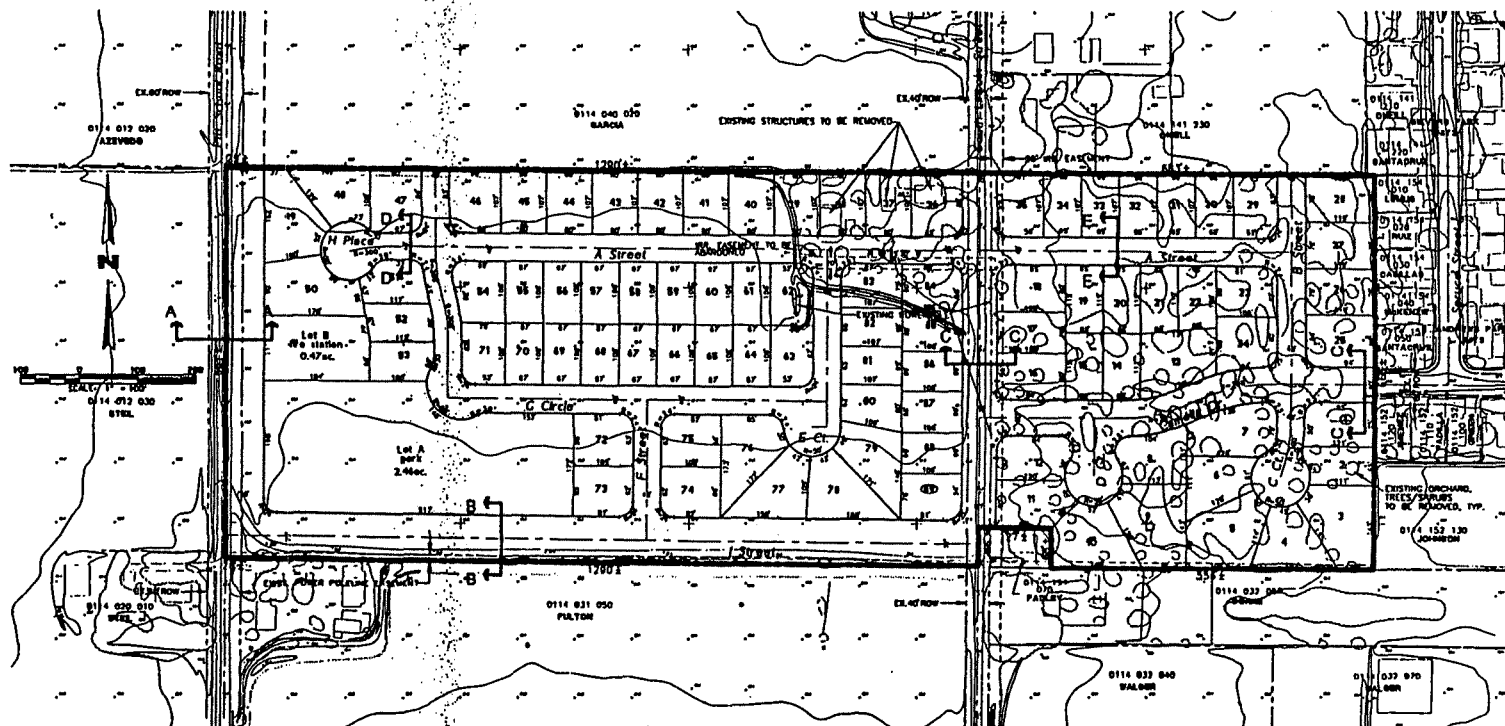
**SOURCE OF TOPOGRAPHIC DATA**  
 BY CARTOGRAPHIC AERIAL SURVEY INC. AUG.1999

**DESCRIPTION**  
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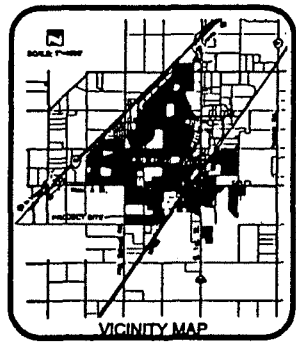
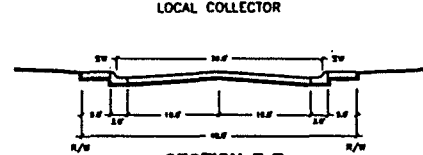
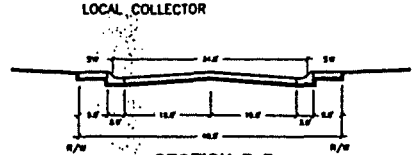
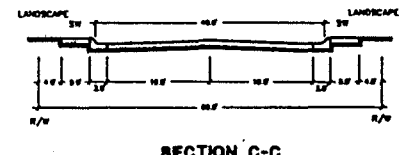
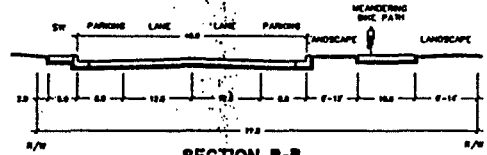
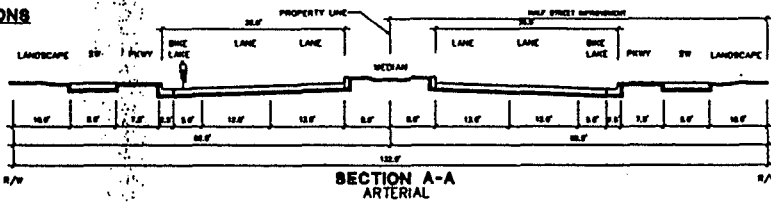
**PARCEL ONE:**  
 Lot Fifty-two (52) as the same is shown on that certain Map entitled "Map of Subdivisions of the Hayes Home Place", filed for record in the Office of the County Recorder of Solano County, California, January 17, 1912.

**PARCEL TWO:**  
 The westerly part of Lot Fifty-six (56) Hayes Home Place, beginning at the southeast corner of said Lot 54, and extending thence North along the center line of Prong Street, 16,000 chains to the northeast corner of said Lot 56; thence East along the northerly boundary line of said Lot 56, 16,348 chains; thence South 09° 07' West, 10,125 chains to the southerly boundary line of said Lot 56; thence North 9° 46' West, along said southerly boundary line 16,348 chains to the point of beginning.

**(EXCEPTING FROM PARCEL TWO:**  
 The following described parcel of land beginning at the southeast corner of Lot 54, thence from said point of beginning, South 89° 46' East along the southerly line of said Lot 54, a distance of 137.00 feet; thence along the southerly line of said Lot 54, northerly parallel to the westerly line of said Lot 54, a distance of 68.00 feet; thence North 89° 46' West parallel to the southerly line of said Lot 54, a distance of 137.00 feet to the westerly line of said Lot 54; thence southerly along the westerly line of said Lot 54, a distance of 68.00 feet to the point of beginning.



**STREET SECTIONS**  
 SCALE: 1"=10'



Orchard Estates-Sanders Property TENTATIVE MAP

**NOTE**  
 BEYOND ENGINEERING

DATE SUBMITTED: 5/11/01  
 PREPARED FOR: SCULLER MOORE

**GENERAL NOTES:**

**APPLICANT**  
Scholar Homes  
1730 Pine Street  
Walnut Creek, CA 94596  
PH: (925) 943-2430  
Attn: Vince Fletcher

**SUBDIVIDER / OWNER**  
Cortis Properties  
1063 River Bank Lane  
Dunsmuir, California 94528-4001  
PH: (925) 352-9908

**PLANNER / ENGINEER**  
Noble Associates, Inc.  
1750 Crocker-Hale Drive, Suite 200  
Sacramento, California 95833  
PH: (916) 841-1500  
Attn: Len Clark

**ASSESSOR PARCEL NUMBERS**  
114-040-20 and 114-040-030

**ACREAGE**  
204 Acres

**EXISTING LAND USE**  
Agriculture & Open Space

**PROPOSED LAND USE**  
37 Single Family Residential Lots (min. 8,400sq. ft.)

**EXISTING ZONING**  
R1-PD

**PROPOSED ZONING**  
R1-PD

**DOMESTIC WATER SUPPLY**  
Dixon Seltzer Municipal Water Service (DSMWS)  
City of Dixon

**SANITARY SEWER SERVICE**  
City of Dixon

**STORM DRAINAGE**  
City of Dixon

**SOLID WASTE DISPOSAL**  
City of Dixon

**ELECTRICAL SERVICE**  
Pacific Gas & Electric

**NATURAL GAS SERVICE**  
Pacific Gas & Electric

**TELEPHONE SERVICE**  
Pacific Bell

**CABLE TELEVISION SERVICE**  
Charter Communications

**SCHOOL DISTRICT**  
Dixon Unified School District

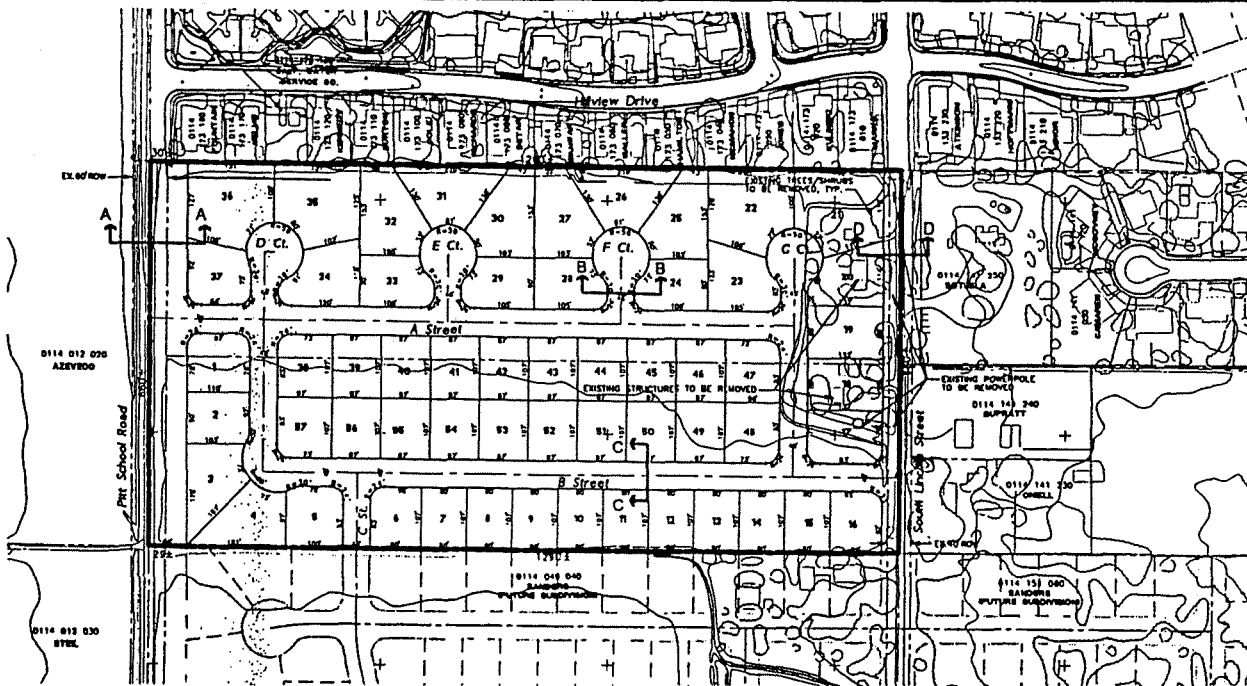
**PARK AND RECREATION**  
City of Dixon

**FIRE PROTECTION**  
City of Dixon  
All fire hydrants to be installed per City of Dixon standard specifications

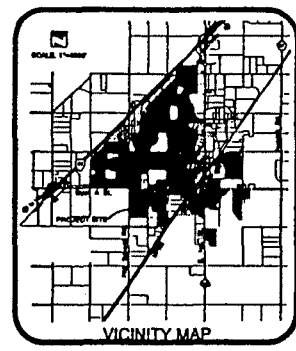
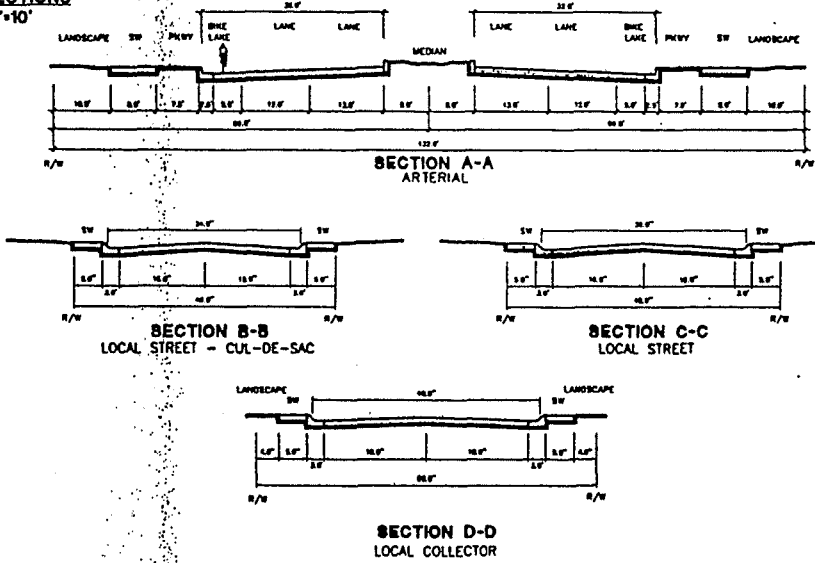
**PHASING**  
Final mapping may occur in phases.  
Multiple final maps may be recorded based on this tentative subdivision map.

**SOURCE OF TOPOGRAPHIC DATA**  
BY CARTWRIGHT AERIAL SURVEY INC. AUG. 1999

**DESCRIPTION**  
REAL PROPERTY in the City of Dixon, County of Solano, State of California, described as follows:  
Lot 48, as shown on that certain map entitled "Map of Subdivision of the Meyer Home Place", filed in the Office of the Solano County Recorder on January 17, 1912 in Book 4 of Maps, Page 7.



**STREET SECTIONS**  
scale: 1"=10'



DATE PREPARED	5/11/01
DATE SUBMITTED	5/11/01
DATE RECORDED	
DATE OF RECORDING	
RECORDING FEE	
ASSessor'S FEE	
PLANNING FEE	
ENGINEERING FEE	
TOTAL FEE	

**Orchard Estates-Garcia Property**  
 TENTATIVE SUBDIVISION MAP  
 PREPARED FOR: SCHOLAR HOMES

**NOTE**  
 BEYOND ENGINEERING  
 1730 CROCKER-HALE DR., SUITE 200, SACRAMENTO, CA 95833  
 916.441.1333 FAX  
 WWW.NFA1.COM

DATE PREPARED	5/11/01
DATE SUBMITTED	5/11/01
DATE RECORDED	
DATE OF RECORDING	
RECORDING FEE	
ASSessor'S FEE	
PLANNING FEE	
ENGINEERING FEE	
TOTAL FEE	

### **Dixon Ridge Tentative Map**

The proposed Dixon Ridge Tentative Map project site is located within the central portion of the Specific Plan area. It is south of West A Street, east of Evans Road, and north of the proposed alignment for South Parkway. The eastern boundary of this project site is approximately the midpoint between Evans Road and Pitt School Road. The proposed alignment for North Parkway bisects the Dixon Ridge site, approximately halfway between West A Street and the proposed alignment for South Parkway. The Dixon Ridge Tentative Map consists of APN 114-012-040 and represents approximately 80 acres of the Specific Plan area. This acreage currently supports one single-family residential home, agricultural production, and open space.

The proposed Dixon Ridge project consists of an application for approval of a Tentative Map that would subdivide the existing single parcel into 230 single-family residential lots and one community park lot. 156 of the single-family lots would fall under the MDL land use designation, with a density of 5 dwelling units per acre. These lots would range between 5,500 square feet and 10,000 or more square feet. Only one lot in this district would be 10,000 square feet or greater. The Tentative Map also includes three landscaping lots of 2,445 square feet each, and a 9,132 square foot public access strip. The public access strip provides residents in the southern portion of the Tentative Map pedestrian access to the community park, located in the northwestern portion of the project area. The proposed community park would consist of 20-acres located between West A Street and North Parkway, east of Evans Road and west of the proposed D Street.

Seventy-four of the proposed lots would be in the LD district, with an average density of 3.7 units per acre. These lots would range in size from 7,000 square feet to 10,000 square feet or greater. Eighteen of the LD lots would be 10,000 square feet or more, with the largest being 16,169 square feet. The LD district also includes a 9,618 square foot public access strip to provide residents in the southern portion of the Tentative Map pedestrian access to the community park, and one 2,444 square foot landscaping lot along the southern lot boundary.

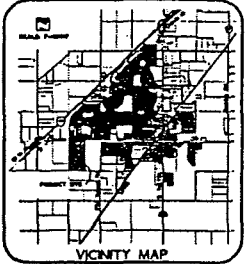
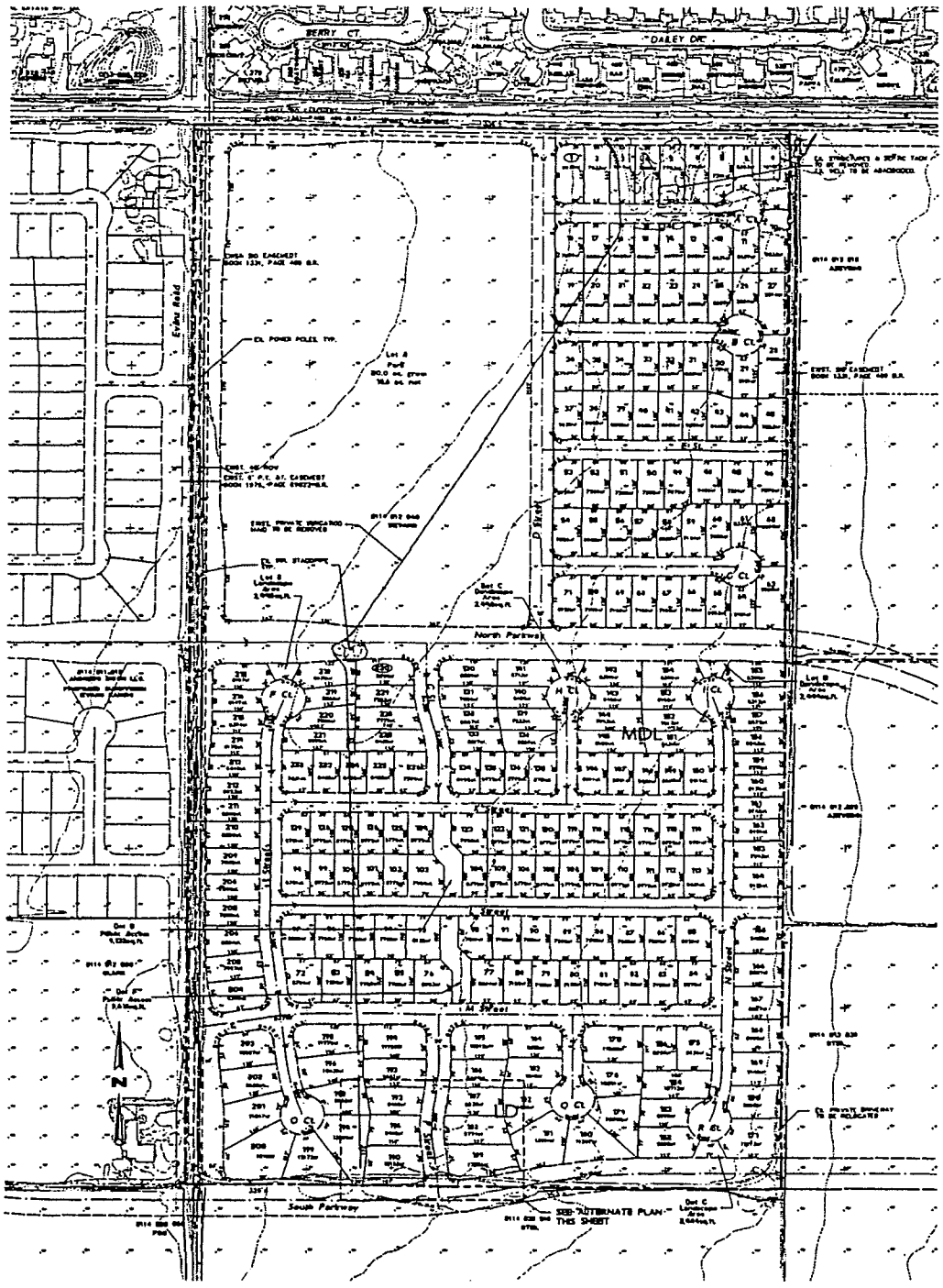
### **Development Agreement**

The Dixon Ridge application also includes a development agreement between the City of Dixon and the project applicant.

### **Clark Ranch Estates/Clark Property – Ryder Homes**

The proposed Clark Ranch Estates project is located in the south-central portion of the Specific Plan area. It is located south of the proposed alignment of North Parkway, east of Batavia Road, immediately west of Evans Road, and immediately north of the proposed alignment for South Parkway. The Clark Ranch Estates Tentative Map consists of APN 114-011-020 which represents approximately 20 acres of the Specific Plan area. The project site currently supports one single-family residence, agricultural activities and open space.

The proposed Clark Ranch Estates project consists of an application for approval of a Tentative Map that would subdivide the existing single parcel into 54 single-family residential lots, one detention basin lot, and one public access/drainage utility lot. One of the proposed single-family lots would encompass the existing residence, allowing the



**GENERAL NOTES:**

**APPLICANT**  
 City of Dixon  
 227 East Main Street  
 Dixon, CA 95618  
 PH (925) 277-1300

**SUBDIVIDER / OWNER**  
 Ernest J. Wynn  
 P.O. Box 140  
 Dixon, CA 95613  
 PH (925) 879-3882

**PLANNING / ENGINEER**  
 1750 Commercial Blvd., Suite 200  
 Sacramento, California 95833  
 PH (916) 444-1220  
 AEAJ, Lic. # 1000

**ASSESSOR PARCEL NUMBER**  
 114-013-040

**ACRES**  
 200 Acres

**EXISTING LAND USE**  
 Dist. State Land Management  
 Agriculture & Open Space

**PROPOSED LAND USE**  
 220 Single Family Residential Lots

**USE USE**    **UNITS**    **UNITS PER ACRE**

1	220	1.10
2	220	1.10

1. Public Accessory Lots  
 2. Public Accessory Lots

**EXISTING ZONING**  
 PD-PA, PD-100

**PROPOSED ZONING**  
 RPD-100, PD-100-100

**DOMESTIC WATER SUPPLY**  
 Dixon Water Mainline Water Service (Private)

**SEWAGE TREATMENT SERVICE**  
 City of Dixon

**STORM DRAINAGE**  
 City of Dixon

**SOLID WASTE DISPOSAL**  
 Dixon Solid Waste

**ELECTRIC SERVICE**  
 Pacific Gas & Electric

**NATURAL GAS SERVICE**  
 Pacific Gas & Electric

**TELEPHONE SERVICE**  
 Pacific Bell

**CABLE TELEVISION SERVICE**  
 Charter Communications

**SCHOOL DISTRICT**  
 Dixon Unified School District

**PARK AND RECREATION**  
 City of Dixon

**FIRE PROTECTION**  
 City of Dixon  
 All fire hydrants to be installed per City of Dixon standard specifications.

**PHASING**  
 Final phasing may occur in phases.  
 Maximum build-out may be recorded based on the final subdivision map.

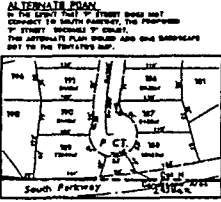
**SOURCE OF TOPOGRAPHIC DATA**  
 BY CARTOGRAPHIC SURVEY INC., 04/19/99

**DESCRIPTION**  
 REAL PROPERTY in the City of Dixon, County of Butte, State of California, described as follows:  
 Lots 22, 23, 24 and 25 in Block 10 on the map entitled the Dixon Water Mainline Water Service, dated January 17, 1978, Book 7 of Maps, Page 7, Butte County Records.

PREPARED BY SUBDIVIDER ERNEST J. WYNN AS SHOWN BY RECORD SUBDIVISION MAP.

**ACCRUGATE DOT ARBA TABLE**

LOT AREA RANGE (SQ. FT.)	NUMBER OF DOTS	
	MIN.	MAX.
5,500-6,999	20	-
6,000-6,999	40	-
7,000-7,999	30	24
8,000-8,999	12	20
9,000-9,999	6	12
10,000 and/or greater	1	10
<b>TOTAL</b>	<b>112</b>	<b>80</b>



**OWNER'S STATEMENT:**  
 I consent to the proposed subdivision.

Property Owner \_\_\_\_\_

Prepared under supervision of:  
 Registered Professional Engineer: **OBSTON D. CLARK**    **ACS 85144**

**NOLTE**  
 DESIGN ENGINEERING

1750 COMMERCIAL BLVD., SUITE 200  
 SACRAMENTO, CA 95833  
 PH (916) 444-1220  
 FAX (916) 444-1221

**DIXON RIDGE**  
 TENTATIVE SUBDIVISION MAP

DATE SUBMITTED: 10/6/91

NO.	DATE	DESCRIPTION	BY	CHKD.
1	10/6/91	PREPARED	OBSTON D. CLARK	OBSTON D. CLARK
2				
3				
4				
5				
6				
7				
8				
9				
10				

preservation of that building. All the proposed residential lots would fall under the Low Density land use designation. Residential density would be approximately 2.8 units per acre, with lot sizes for new single-family homes ranging between 7,000 and 12,000 square feet. The existing residence would be located on a 27,880± square foot lot. The proposed Tentative Map also includes one 1.4 acre detention basin lot, one 0.1 acre public access/drainage utility lot which would provide access to the detention basin, and approximately 1.75± acres of streets.

Development Agreement

The Clark Ranch Estates/Clark Property – Ryder Homes application also includes a development agreement between the City of Dixon and the project applicant.



**GENERAL NOTES:**

**APPLICANT**  
Ryder Homes  
1423 Frank Blvd.  
P.O. Box 4008  
Walnut Creek, CA 94596  
Ph: (925) 937-4373  
Attn: Jay Ryder

**SUBDIVIDER / OWNER**  
Thomas F. Clark & Diane H. Clark  
2711 George Ln  
Dixon, California 95820  
Ph: (707) 878-8560

**PLANNER / ENGINEER**  
Retic Associates, Inc.  
1730 Greenlake Oaks Drive, Suite 200  
Sacramento, California 95833  
Ph: (916) 841-1500  
Attn: Lee Clark

**ASSESSOR PARCEL NUMBERS**  
114-011-020

**ACREAGE**  
201.4 Acres

**EXISTING LAND USE**  
Agriculture & Open Space

**PROPOSED LAND USE**  
53 Single Family Residential Lots (min. 7,000 sq. ft.)

LAND USE	UNITS	UNITS PER AC.
1	53	0.26

1 Existing Residence Lot  
1 Detention Basin Lot  
1 Public Access/Drainage Utility Lot

**EXISTING ZONING**  
R1-PD

**PROPOSED ZONING**  
R1-PD

**DOMESTIC WATER SUPPLY**  
Dixon-Sutter Municipal Water Service (DSMWS)

**SANITARY SEWER SERVICE**  
City of Dixon

**STORM DRAINAGE**  
City of Dixon

**SOLID WASTE DISPOSAL**  
City of Dixon

**ELECTRICAL SERVICE**  
Pacific Gas & Electric

**NATURAL GAS SERVICE**  
Pacific Gas & Electric

**TELEPHONE SERVICE**  
Pacific Bell

**CABLE TELEVISION SERVICE**  
Charter Communications

**SCHOOL DISTRICT**  
Dixon Unified School District

**PARK AND RECREATION**  
City of Dixon

**FIRE PROTECTION**  
City of Dixon  
All fire hydrants to be installed per City of Dixon standard specifications

**PHASING**  
No phasing will occur in this map.

**SOURCE OF TOPOGRAPHIC DATA**  
BY CARTHOGRAPHIC AERIAL SURVEY INC. AUG. 1999

**DESCRIPTION**  
REAL PROPERTY in the City of Dixon, County of Sutter, State of California, described as follows:

Lot 53, Map of "Hanna Place," located in Section 14, 15, 22 and 23, Township 7 North, Range 11 East, N.D.B.M., filed January 17, 1912 in Book 4 of Maps, Page 7, Sutter County Records.

PROPERTY BOUNDARY SHOWN HEREON IS BASED ON RECORD DOCUMENT INFORMATION.

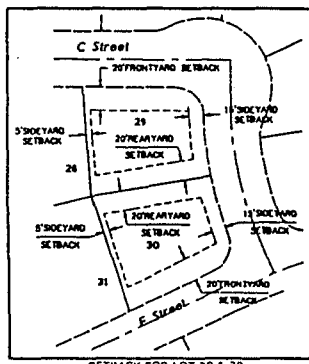
**OWNER'S STATEMENT:**

I consent to the proposed subdivision.

Property Owner \_\_\_\_\_

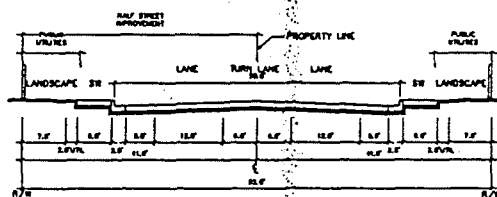
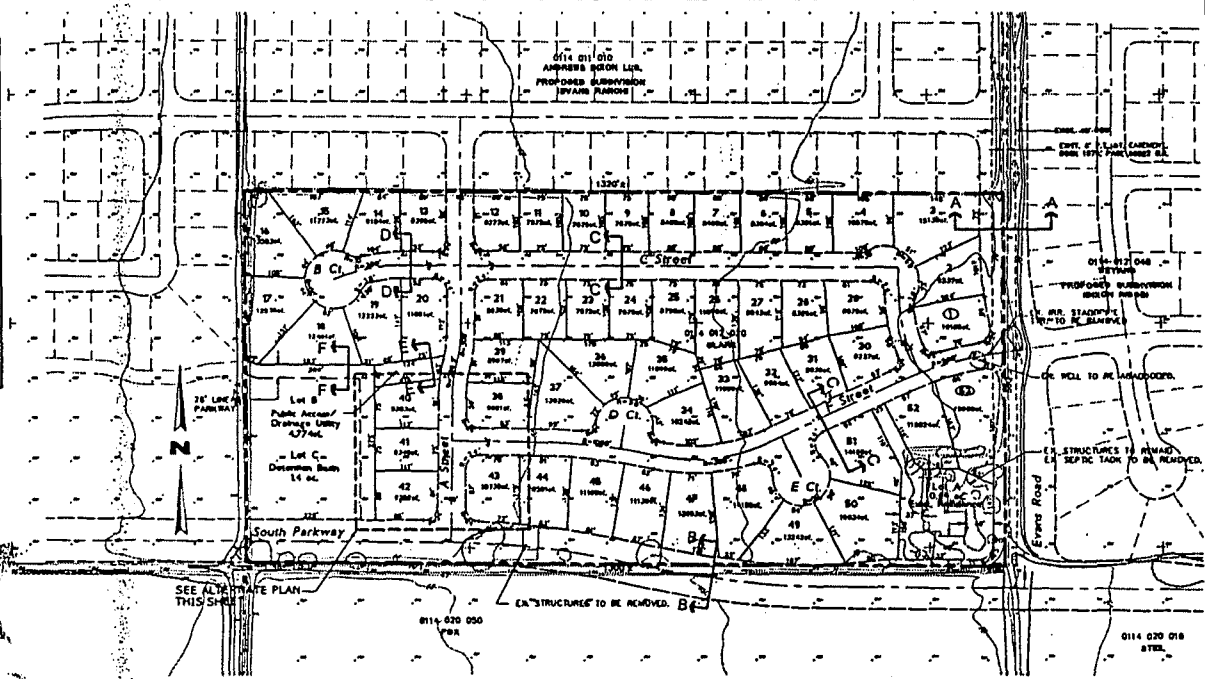
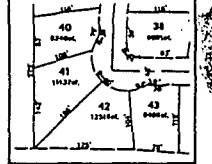
Prepared under supervision of:

Registered Professional Engineer: LESTER D. CLARK RCE 45144

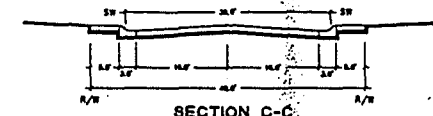


**ALTERNATE PLAN**  
SCALE: 1"=100'

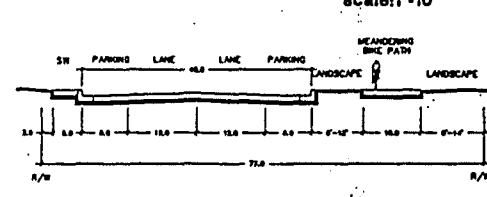
IN THE EVENT THAT "A" STREET DOES NOT CONNECT TO SOUTH PARKWAY, THE PROPOSED "A" STREET CONNECTS "B" STREET.



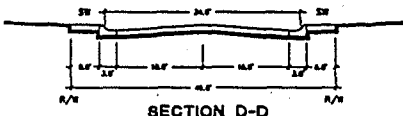
**SECTION A-A**  
COMMERCIAL COLLECTOR - PARKWAY STATUS



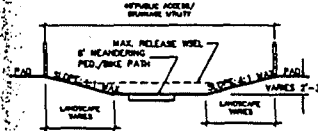
**SECTION C-C**  
LOCAL STREET



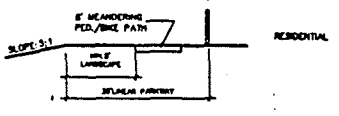
**SECTION B-B**  
LOCAL COLLECTOR



**SECTION D-D**  
LOCAL STREET - CUL-DE-SAC

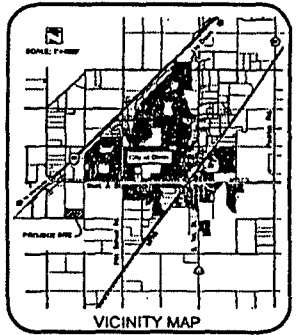


**SECTION E-E**



**SECTION F-F**

**STREET SECTIONS**  
scale: 1"=10'



**AGGREGATE LOT AREA TABLE**

LOT SQ. FT. RANGE	NUMBER OF LOTS
7,000-7,999	6
8,000-8,999	12
9,000-9,999	9
10,000 and/or greater	26
<b>TOTAL</b>	<b>53</b>

DATE SUBMITTED: 11/27/01

Clark Ranch Estates  
TENTATIVE MAP

**NOTICE**  
BEYOND ENGINEERING

SCALE: 1"=100'  
1  
20 FEET  
5/16/03

ENVIRONMENTAL CHECKLIST:

Pursuant to Section 15063, CEQA Guidelines, the City of Dixon has utilized an Environmental Checklist to evaluate the potential environmental effects of the project. The checklist provides a determination of these potential impacts and includes the substantiation developed in support of the conclusions checked on the form.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics                  | <input checked="" type="checkbox"/> Agriculture Resources   | <input checked="" type="checkbox"/> Air Quality            |
| <input checked="" type="checkbox"/> Biological Resources        | <input checked="" type="checkbox"/> Cultural Resources      | <input checked="" type="checkbox"/> Geology /Soils         |
| <input checked="" type="checkbox"/> Hazards/Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Land Use/Planning      |
| <input type="checkbox"/> Mineral Resources                      | <input checked="" type="checkbox"/> Noise                   | <input checked="" type="checkbox"/> Population/Housing     |
| <input checked="" type="checkbox"/> Public Services             | <input checked="" type="checkbox"/> Recreation              | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utility/Service Systems     |   |  |

DETERMINATION: On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature 

Date 4/15/02

Printed name Stephen Streeter

For City of Dixon

EVALUATION OF ENVIRONMENTAL FACTORS:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------------	--	------------------------------------	--------------

I. AESTHETICS -- Would the project:

- |  |                                     |                                     |                          |                          |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |

The proposed Specific Plan would convert 477± acres of farmland and open space to 307± acres of residential land uses, 96± acres of public facility land uses, 32± acres of commercial land uses, and 42± acres of light industrial land uses. The five proposed development projects would utilize ~~205~~ 221.75± acres of residential land uses, ~~25.5~~ 28.75± acres of public facility land uses, 22.5± acres of parks and open space, and 23.5± acres of commercial uses of the Plan area. Development of the proposed Specific Plan will affect visual resources for existing residents adjacent to the Specific Plan area, motorists traveling on West A Street, an arterial roadway, and motorists on Interstate 80 by replacing open space and agricultural land with residential and commercial development. The Solano County General Plan designates Interstate 80 in the vicinity of the Plan Area as a scenic route.

Project elements that mitigate the adverse impacts on visual resources include the provision of a community park adjacent to West A Street and design guidelines that address building design, landscape treatments, signage, site layout, and creation of new sources of light and glare. Specific guidelines are proposed for the development of the Southwest Dixon Commercial Center, the proposed employment center, highway commercial uses, and both single and multiple family residential designs. Guidelines for controlling light and glare recommend the use of shields and the consideration of lighting fixture selection, placement, and orientation to limit light spillage. The proposed guidelines will be evaluated to determine if they are sufficient to ensure that the proposed project would not cause a substantial degradation of the visual character of the site.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- |  |                                     |                          |                          |                          |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The majority of the Southwest Dixon Specific Plan project area is considered to be Prime Farmland, with Class I and Class II soils. Approval of the proposed Specific Plan and Tentative Maps would result in the conversion of prime farmland to non-agricultural uses. Loss of this valuable agricultural land is considered to be a significant impact.

Up to 225 acres within the Plan area, are currently under Williamson Act contracts, including the 20± acres that comprise the Clark Ranch Estates project site. The Williamson Act requires that any contracts need to be terminated prior to development. Inclusion of the development proposal for the Clark property will require specific action to cancel the Williamson Act contract for that property. Compliance with this portion of the Act would ensure that the proposed project would not conflict with the Act. Mitigation for the loss of lands in agricultural production will need to be established.

Farmland in active production exists to the south of the proposed Specific Plan area. This farmland is not included within the City of Dixon. Development of infrastructure related to buildout of the Specific Plan area could result in further conversion of farmland to non-agricultural uses. In addition, urban development of the Specific Plan area could result in potential conflicts with adjacent agricultural operations.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------------	--	------------------------------------	--------------

**III. AIR QUALITY** -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- |   |                                     |                                     |                          |                          |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The proposed project is located within the Sacramento Valley Air Basin; more specifically within the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD). The Sacramento Valley Air Basin has been named a severe non-attainment area for federal ozone standards and is required to comply with standards by 2005 or face consequences ranging from financial penalties to the adoption of more stringent air emission control requirements. The YSAQMD has been named a severe non-attainment area for state and federal ozone standards, and a non-attainment area for state PM<sub>10</sub> standards.

The development of the proposed Specific Plan and Tentative Maps could conflict with implementation of the Sacramento Region Ozone Air Quality Attainment Plan and/or contribute to existing air quality violations within the Air Basin and the YSAQMD. In addition, development of the proposed projects could generate air pollutant emissions that exceed the YSAQMD thresholds of significance. Construction-related activities, including site grading, burning of vegetation and debris, and use of construction equipment could generate particulate matter, carbon monoxide, reactive organic gases (ROG), and nitrogen oxides (NO<sub>x</sub>). ROG and NO<sub>x</sub> are precursors to ozone. The generation of increased levels of these pollutants could prevent the region from reaching attainment with ozone standards.

Operation of the proposed projects could lead to increased air pollutant levels through increased vehicular traffic, residential burning of vegetation, woodstove and fireplace

emissions, and other household and commercial emissions (i.e., from commercial processes, aerosol spraying, cleaning chemicals, gardening chemicals and equipment). Existing residents as well as residents of the proposed projects are considered sensitive receptors that could experience adverse health affects as a result of exposure to increased pollution levels. Residents could be exposed to particulate matter as a result of agricultural operations on parcels south of the Specific Plan area. The increased emissions from construction and operation of the proposed project would be a potentially significant impact and the YSAQMD should be consulted during the preparation of a project EIR for the best methods for reducing air quality emissions.

As the proposed project would not include heavy industrial or intensive agricultural use, no odors or toxic air contaminants would be generated. However, residents of the Specific Plan area and proposed tentative maps could be exposed to odors from agricultural activities south of the project site.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

IV. BIOLOGICAL -- Would the project:

- |  |                                     |                          |                          |                                     |
|--|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The biotic character of the Southwest Dixon Specific Plan area is dominated by agricultural crops, including alfalfa, tomatoes, and sunflower, and a small almond orchard. These crops do not offer wildlife significant cover for roosting, nesting, and denning activities, therefore limiting the wildlife value of the plan area. The area supports small groves of California black walnut trees. These trees are not protected by any local preservation policies or ordinances. No riparian habitat, federally protected wetlands, or other sensitive natural communities exist within the project area. There are no conservation plans in the project vicinity.

No special status species are known to exist within the project area. However, nesting sites for the Swainson's hawk, listed as threatened by the State of California, exist in close proximity to the project area. Guidelines for this species published by the California Department of Fish and Game recognize all field cropland within a 10-mile radius of Swainson's hawk nesting sites as potential foraging areas. The proposed project has the potential to impact Swainson's hawks foraging habitat and nesting sites. In addition, burrowing owls are known to inhabit adjacent lands. Surveys to determine the presence of raptors and other potential species will be conducted. Mitigation measures will be recommended upon completion of these studies, if applicable.

	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Potentially Significant Impact			

V. CULTURAL RESOURCES -- Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Disturb any human remains, including those interred outside of formal cemeteries?

The project site contains historic resources (structures over 50 years old) but is not known to contain any significant archaeological, paleontological, or geological resources. The proposed Specific Plan and development projects could result in the demolition of historic resources. This is considered a potentially significant impact. During construction and excavation activities, unidentified cultural resources may be uncovered. Standard mitigation measures requiring



inspection by a qualified archeologist if construction activities uncover artifacts, bone, or exotic rock should be incorporated into the project EIR to ensure that any impacts remain less-than-significant.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------------	--	------------------------------------	--------------

VI. GEOLOGY AND SOILS -- Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The 1995 Southwest Dixon Specific Plan EIR found that the East Strand of the Midland Fault passes through the extreme eastern edge of the Specific Plan area, the location of the proposed Orchard Estates – Garcia Property and Orchard Estates – Sanders Property Tentative Maps. The California Division of Mines and Geology does not categorize this fault as active. However,

the potential exists for earthquakes along several nearby active faults. Seismic activity in the vicinity could cause moderate to strong ground motion during the life of the proposed developments. All proposed structures would be constructed in compliance with all Uniform Building Codes and building codes of the City of Dixon. Compliance with these regulations would reduce risks associated with seismic activity to less than significant levels. The soils in the project area are not subject to liquefaction or landsliding.

Construction in the project area would result in increased soil, wind, and water erosion due to excavation and grading activities. Erosion control mitigation measures will be included in grading plans in the process of obtaining grading permits for the project. These measures would ensure that soil erosion impacts remain less than significant.

There is a potential for ground subsidence if most of the water supplies for the project come from groundwater. The *North Central Solano County Groundwater Resources Report* (May 16, 1995) prepared by the Solano Water Authority found that groundwater levels have increased in the project area since 1954 and that there is sufficient groundwater to serve urban development in the City of Dixon. Therefore, the impact is considered less than significant.

The plan area soil content has a moderate to high expansion potential, which can cause damage to foundations, pavements, and other structures which would be supported by these soils. The City of Dixon building code and commonly accepted engineering practices already require special design and construction methods for dealing with expansive soil behavior. Because the City design and construction methods will be applied to all development in the Plan Area, this is considered a less than significant impact.

The proposed project would connect to existing sewer systems. Therefore, development of the project would result in no impact regarding soil capability to support septic tanks.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VII. HAZARDS AND HAZARDOUS MATERIALS --**

Would the project:

- |   |                                     |                                     |                          |                                     |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |

Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Potentially hazardous materials may be used as part of commercial and light industrial businesses proposed within the Specific Plan and the Evans Ranch project. The risks associated with the potential uses of hazardous materials will be assessed when specific tenants are proposed for these land use districts. Mitigation measures should be recommended to ensure that impacts related to exposure of persons to hazardous materials generated by commercial and light industrial uses would be reduced to a less than significant level.

The proposed update to the Southwest Dixon Specific Plan eliminates the proposed school site. The nearest school site to the Plan area is approximately ½ mile from the plan area. Therefore, no impact would occur in relation to the presence of hazardous materials or emissions within one-quarter mile of an existing or proposed school.

The project site has had insecticide and herbicide applied to the agricultural crops onsite. Although no documented contamination has been identified through regulatory list review, the potential of pesticide and residue exists. Soil disturbance during development of the project site could expose persons to hazardous waste residues, and future residents could be exposed as well. The 1995 Southwest Dixon Specific Plan EIR identified two sites as having the potential for soil or groundwater contamination from aboveground and underground fuel tanks. The potential for contamination from chemical or petroleum byproducts used in agricultural practices exists within one or more small barns on the project site. These impacts are considered to be potentially significant.

No airports, either public or private, are located within two miles of the proposed project. Therefore, development of the proposed project would result in no impact regarding safety issues related to airport use.

The proposed project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, development of the proposed project would result in no impact on responses to emergencies.

The development of the proposed project is not expected to result in impacts regarding exposure to wildland fires. Evaluation of the potential environmental affects of hazardous materials use or storage from existing and planned uses will be conducted during preparation of the EIR.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

- |   |                          |                                     |                                     |                                     |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other food hazard delineation map?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

The Specific Plan area is not located within the 100-year floodplain and is geographically removed from the potential for hydrologic hazards (i.e., seiche, tsunami). Buildout of the Specific Plan would result in significant increases in the amount of impervious surfaces in the plan area, could expose soil to erosion during storm events, and would result in an increase in the pollutant load in stormwater runoff.

The proposed update to the Specific Plan includes a Drainage Master Plan for the Specific Plan area. This drainage plan proposes drainage infrastructure that would provide a 10-year storm event level of service, including two drainage ponds and an underground series of pipelines and drainage inlets to collect runoff from the surface. Mitigating site runoff with the proposed drainage system would reduce impacts to runoff, erosion, and flooding to less than significant levels. In addition, the EIR should include requirements for development applicants to implement Best Management Practices set forth by the California Regional Water Quality Control Board (CRWQB).

Groundwater is the current water supply for the City of Dixon. The proposed project would generate the need for additional groundwater supplies. The 1995 Southwest Dixon Specific Plan found that the Dixon Solano Municipal Water Service (DSMWS) plans to expand the existing water system to serve the Plan area. The project proponents will be required to fund their fair share of necessary improvements for expansion of the water system.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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IX. LAND USE AND PLANNING - Would the project:

- |   |                                     |                          |                          |                                     |
|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

The project site is located in an agricultural area. With the exception of a few farmhouses, there are no established residential areas located within the project site. Development of the proposed project would not divide an existing community.

The proposed project includes revision to the land use plan prepared for the area in 1995, including amendments to the City's General Plan and zoning designations. The proposal will result in an increase in population densities. These impacts are considered potentially significant and must be evaluated in the project EIR.

No conservation plans exist within the project site; therefore the development of the proposed project would result in no impact to existing conservation plans.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**X. MINERAL RESOURCES -- Would the project:**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

The project site is not known to provide access to any significant mineral resources. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XI. NOISE -- Would the project result in:**

- |   |                                     |                                     |                          |                          |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above level existing without the project?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Residential and commercial land uses exist to the north, residential land uses to the east and rural residential and agricultural land uses exist to the south and west of the Specific Plan area. Construction, transportation, commercial, and industrial noise sources could result in potentially significant impacts to existing residents adjacent to the plan area and proposed residents of the plan area. An evaluation of noise impacts from I-80 on future residents of the Plan area will be conducted and described in the EIR. The project site is not within the land use plan for an airport, and there are no private airstrips within the vicinity. Airport related noise will not be a factor in this project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XII. POPULATION AND HOUSING -- Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed Specific Plan and development projects would result in substantial increases in the population and an increase in job availability from the proposed commercial development in the Evans Ranch project. The proposed development projects would displace two existing single-family residences. **The existing single-family residence on the Clark Ranch Estates project site would be preserved.** The Specific Plan revisions include an increase in residential density from that contemplated in the 1995 Specific Plan.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIII. PUBLIC SERVICES**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governments) facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed Specific Plan includes the provision of a new fire station site on the Orchard Estates – Sanders Property. In addition, project proponents will fund their fair share of mitigation fees for impacts to schools. The proposed Specific Plan proposes 22.5± acres of park land for community and neighborhood park sites. Individual project proponents will pay park impacts fees, dedicate parkland and/or construct park facilities in order to meet increased demands for park and recreation facilities. The proposed increase in residential and commercial land uses and associated population increases will create demand for police and fire protection, schools, and other public facilities. These are considered potentially significant impacts that need to be evaluated in the EIR.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIV. RECREATION --**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed Specific Plan and proposed development projects provide 22.5± acres of parks and open space to meet increased demands for neighborhood and community parks. Development of these parks could result in impacts to air quality, soils and geology, hydrology, and ambient noise levels. Operation of the parks could result in significant noise and transportation impacts to adjacent residential land uses, as well as increased demand for emergency and law enforcement services. The increased population will increase the demand for regional recreation facilities.

Potentially Significant Impact      Less Than Significant With Mitigation Incorporated      Less Than Significant Impact      No Impact

XV. TRANSPORTATION/TRAFFIC -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Result in inadequate parking capacity?

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The increases in residential, commercial, and industrial land uses proposed in the Specific Plan and development projects are anticipated to result in significant increases in traffic in the project

vicinity. Proposed designs of individual development projects must be evaluated to determine if elements of the design pose significant hazards, provide sufficient emergency access or parking capacity, or conflict with adopted City of Dixon or regional alternative transportation plans and policies. A traffic analysis will be conducted and incorporated into the EIR. The analysis will evaluate the proposed Specific Plan and development projects impacts, identify mitigation measures and phasing of their implementation.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b><u>XVI. UTILITIES AND SERVICE SYSTEMS</u> -Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The increases in residential, commercial, and industrial land uses proposed in the Specific Plan and development projects are anticipated to result in significant increases in demands for wastewater treatment and water supply, as well as increases in generation of solid waste. An evaluation will be conducted to determine if sufficient capacity exists to serve the proposed buildout of the Specific Plan.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVII. MANDATORY FINDINGS OF SIGNIFICANCE --

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Form A

Notice of Completion & Environmental Document Transmittal

2002042037
SCH #

Mall to: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: Southwest Dixon Specific Plan Update and Tentative Maps

Lead Agency: City of Dixon Contact Person: Stephen Streeter

Street Address: 600 East A Street Phone: (707) 678-7000

City: Dixon Zip: 95620 County: Solano

Project Location:

County: Solano City/Nearest Community: Dixon Cross Streets: I-80, West A Street, Pitt School Road

Assessor's Parcel No: 114-011-010, -020, -030, -040; 114-011-040-040 Zip Code: 95620 Total Acres: 477

114-012-040, 114-040-020, and 114-154-060 Section: 21 and 22 Twp. 7N Range: 1E Base: Dixon

Within 2 Miles: State Hwy #: I-80, SR 113 Waterways:

Airports: Railways: Southern Pacific Schools:

Document Type:

CEQA: [X] NOP [ ] Supplement/Subsequent EIR NEPA: [ ] NOI [ ] Joint Document
[ ] Early Cons (Prior SCH No.) [ ] EA [ ] Final Document
[ ] Neg Dec [ ] Other [ ] Draft EIS [ ] Other
[ ] Draft EIR [ ] FONSI

Local Action Type:

[ ] General Plan Update [X] Specific Plan [X] Rezone [ ] Annexation
[X] General Plan Amendment [ ] Master Plan [ ] Prezone [ ] Redevelopment
[ ] General Plan Element [ ] Planned Unit Development [X] Use Permit [ ] Coastal Permit
[ ] Community Plan [ ] Site Plan [X] Land Division (Subdivision, etc.) [ ] Other

Development Type:

[X] Residential: Units 1221 Acres Water Facilities: Type MGD
[ ] Office: Sq.ft Acres Employees Transportation: Type
[X] Commercial: Sq.ft Acres 32 Employees Mining: Mineral
[X] Industrial: Sq.ft Acres 42 Employees Power: Type Watts
[ ] Educational Waste Treatment: Type
[ ] Recreational Hazardous Waste: Type
[ ] Other

Funding (approx.): Federal \$ State \$ Total \$

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Project Issues Discussed in Document:

[X] Aesthetic/Visual [X] Flood Plain/Flooding [X] Schools/Universities [X] Water Quality
[X] Agricultural Land [X] Forest Land/Fire Hazard [ ] Septic Systems [X] Water Supply/Groundwater
[X] Air Quality [X] Geologic/Seismic [X] Sewer Capacity [ ] Wetland/Riparian
[X] Archeological/Historical [X] Minerals [X] Soil Erosion/Compaction/Grading [X] Wildlife
[ ] Coastal Zone [X] Noise [X] Solid Waste [X] Growth Inducing
[X] Drainage/Absorption [ ] Population/Housing Balance [X] Toxic/Hazardous [X] Landuse
[ ] Economic/Jobs [X] Public Services/Facilities [X] Traffic/Circulation [ ] Cumulative Effects
[ ] Fiscal [X] Recreation/Parks [X] Vegetation [ ] Other

Present Land Use/Zoning/General Plan Designation:

Existing General Plan designations throughout the project site include Highway Commercial, Neighborhood Commercial, Industrial (Employment Center), Functional (Buffers), Residential (Low Density, Medium Density-Low, and Medium Density-High), Parks, and School Buildings/Play Areas. Existing Zoning designations in the plan area include HC-PD: Highway Commercial - Planned Development; CN-PD: Neighborhood Commercial - Planned Development; CH-ML-PAO-PD: Office Professional; R1-PD: One Family Residential - Planned Development; PMR-PD: Planned Multiple Family District; RM-PD: Multiple Family District - Planned Development; and RM2-PD: Two Family Residential - Planned Development.

Project Description: The project consists of revisions to the 1995 Specific Plan for a 477 acre area in the southwest portion of the City of Dixon. Requested changes to that plan include reconfiguration of land uses and circulation; changes to the Storm Drainage Master Report; amendments to the Development Regulations; and a General Plan Amendment and Rezone reflecting the land use changes. In addition, applications for five subdivision maps; a multi-family residential development, and a commercial development within the Specific Plan area have been submitted to the City. These proposed development projects will also be evaluated in the project EIR.

Signature of Lead Agency Representative: [Signature] Date: 4/5/02

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2002042037  
**Project Title** Southwest Dixon Specific Plan Update and Tentative Maps  
**Lead Agency** Dixon, City of

**Type** NOP - Notice of Preparation  
**Description** The project consists of revisions to the 1995 Specific Plan for a 477 acre area in the southwest portion of the City of Dixon. Requested changes to that plan include reconfiguration of land uses and circulation; changes to the Storm Drainage Master Report; amendments to the Development Regulations; and a General Plan Amendment and Rezone reflecting the land use changes. In addition, applications for five subdivision maps, a multi-family residential development, and a commercial development within the Specific Plan area have been submitted to the City. These proposed development projects will also be evaluated in the project EIR.

**Lead Agency Contact**

**Name** Stephen Streeter  
**Agency** City of Dixon  
**Phone** 707 678-7000 **Fax**  
**email**  
**Address** 600 East A Street  
**City** Dixon **State** CA **Zip** 95620

**Project Location**

**County** Solano  
**City** Dixon  
**Region**  
**Cross Streets** I-80, West A Street, Pitt School Road  
**Parcel No.** 114-011-010,-020,-030,-040;114-011-040-040;114-012-040, 114-040-020, and 114-154-060  
**Township** 7N **Range** 1E **Section** 21,22 **Base** Dixon

**Proximity to:**

**Highways** I-80, SR113  
**Airports**  
**Railways** Southern Pacific  
**Waterways**  
**Schools**  
**Land Use** Highway Commercial, Neighborhood Commercial, Industrial (Employment Center), Functional (Buffers), Residential (Low Density, Medium Density-Low, and Medium Density-High), Parks, and School Buildings/Play Areas. Plan Area include HC-PD: Highway Commercial-Planned Development CN-PD: Neighborhood Commercial-Planned Development; CH-ML-PAO-PD: Office Professional; R1-PD: One Family Residential - Planned Development; PMR-PD: Planned Multiple Family District; RM-PD: Multiple Family District-Planned Development; and RM2-PD: Two Family Residential - Planned Development.

**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife; Landuse; Growth Inducing

**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 3; Native American Heritage Commission; State Lands Commission; Caltrans, District 4; California Highway Patrol; Regional Water Quality Control Bd., Region 5 (Sacramento)



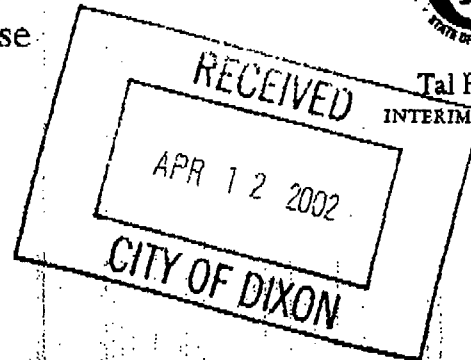
Gray Davis  
GOVERNOR

STATE OF CALIFORNIA

Governor's Office of Planning and Research  
State Clearinghouse



Tal Finney  
INTERIM DIRECTOR



Notice of Preparation

April 8, 2002

To: Reviewing Agencies  
Re: Southwest Dixon Specific Plan Update and Tentative Maps  
SCH# 2002042037

Attached for your review and comment is the Notice of Preparation (NOP) for the Southwest Dixon Specific Plan Update and Tentative Maps draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Stephen Streeter  
City of Dixon  
600 East A Street  
Dixon, CA 95620

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

*Katie Chung for K.S.J.*

Katie Chung  
Associate Planner, State Clearinghouse

Attachments  
cc: Lead Agency

**NOP Distribution List**

County: Solano

SCH# 2002042037

Resources Agency

36

- Resources Agency  
Nadell Gayou
- Dept. of Boating & Waterways  
Bill Curry
- California Coastal Commission  
Elizabeth A. Fuchs
- Dept. of Conservation  
Roseanne Taylor
- Dept. of Forestry & Fire Protection  
Allen Robertson
- Office of Historic Preservation  
Hans Kreutzberg
- Dept of Parks & Recreation  
B. Noah Tilghman  
Environmental Stewardship Section
- Reclamation Board  
Pam Bruner
- S.F. Bay Conservation & Dev't. Comm.  
Steve McAdam
- Dept. of Water Resources  
Resources Agency  
Nadell Gayou

Fish and Game

- Dept. of Fish & Game  
Scott Flint  
Environmental Services Division
- Dept. of Fish & Game 1  
Donald Koch  
Region 1
- Dept. of Fish & Game 2  
Banky Curlls  
Region 2
- Dept. of Fish & Game 3  
Robert Floitké  
Region 3
- Dept. of Fish & Game 4  
William Laudermilk  
Region 4
- Dept. of Fish & Game 5  
Don Chadwick  
Region 5, Habitat Conservation Program
- Dept. of Fish & Game 6  
Gabrina Gatchel  
Region 6, Habitat Conservation Program
- Dept. of Fish & Game 6 (M)  
Tammy Allen  
Region 6, Inyo/Mono, Habitat Conservation Program
- Dept. of Fish & Game M  
Tom Napoli  
Marine Region

- Colorado River Board  
Gerald R. Zimmerman
- Tahoe Regional Planning Agency (TRPA)  
Lyn Barnett
- Office of Emergency Services  
John Rowden, Manager
- Delta Protection Commission  
Debby Eddy
- Santa Monica Mountains Conservancy  
Paul Edelman

Dept. of Transportation

- Dept. of Transportation 1  
IGR/Planning  
District 1
- Dept. of Transportation 2  
Vicki Rice  
Local, Development Review,  
District 2
- Dept. of Transportation 3  
Jeff Pulverman  
District 3
- Dept. of Transportation 4  
Jean Finney  
District 4
- Dept. of Transportation 5  
James Kilmer  
District 5
- Dept. of Transportation 6  
Marc Birbaum  
District 6
- Dept. of Transportation 7  
Stephen J. Buswell  
District 7
- Dept. of Transportation 8  
Mike Sim  
District 8
- Dept. of Transportation 9  
Colleen O'Brien  
District 9

- Dept. of Transportation 10  
Chris Sayre  
District 10
- Dept. of Transportation 11  
Lou Salazar  
District 11
- Dept. of Transportation 12  
Aileen Kennedy  
District 12

Business, Trans & Housing

- Housing & Community Development  
Calhy Creswell  
Housing Policy Division
- Caltrans - Division of Aeronautics  
Sandy Hesnard
- California Highway Patrol  
Lt. Julie Page  
Office of Special Projects
- Dept. of Transportation  
Ron Helgason  
Caltrans - Planning
- Dept. of General Services  
Robert Slappy  
Environmental Services Section

Air Resources Board

- Airport Projects  
Jim Lerner
- Transportation Projects  
Kurt Karperos
- Industrial Projects  
Mike Tolstrup

California Integrated Waste Management Board

- Sue O'Leary
- State Water Resources Control Board  
Diane Edwards  
Division of Clean Water Programs

- State Water Resources Control Board  
Greg Frantz  
Division of Water Quality
- State Water Resources Control Board  
Mike Falkenstein  
Division of Water Rights
- Dept. of Toxic Substances & CEQA Tracking Center

Regional Water Quality Control Board (RWQCB)

- RWQCB 1  
Catherine Hudson  
North Coast Region (1)
- RWQCB 2  
Environmental Document Coordinator  
San Francisco Bay Region (2)
- RWQCB 3  
Central Coast Region (3)
- RWQCB 4  
Jonathan Bishop  
Los Angeles Region (4)
- RWQCB 5R  
Central Valley Region (5)
- RWQCB 5F  
Central Valley Region (5)  
Fresno Branch Office
- RWQCB 5A  
Central Valley Region (5)  
Redding Branch Office
- RWQCB 6  
Lahontan Region (6)
- RWQCB 6V  
Lahontan Region (6)  
Victorville Branch Office
- RWQCB 7  
Colorado River Basin Region (7)
- RWQCB 8  
Santa Ana Region (8)
- RWQCB 9  
San Diego Region (9)

Health & Welfare

- Health & Welfare  
Wayne Hubbard  
Dept. of Health/Drinking Water

Independent Commissions

- California Energy Commission  
Environmental Office
- Native American Heritage Comm.  
Debbie Treadway
- Public Utilities Commission  
Ken Lewis
- State Lands Commission  
Betty Silva
- Governor's Office of Planning & Research  
State Clearinghouse Planner

Food & Agriculture

- Food & Agriculture  
Steve Shaffer  
Dept. of Food and Agriculture

04-1b-2002 12:26PM FROM CITY OF DIXON, CALIF IO 14104042037 F.00

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

**DEPARTMENT OF TRANSPORTATION**

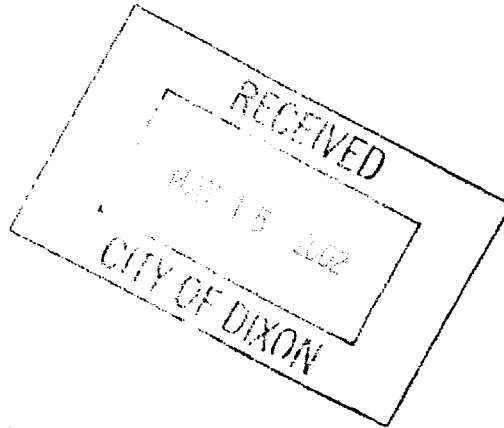
P. O. BOX 23660  
OAKLAND, CA 94623-0660  
(510) 286-4444  
(510) 286-4454 TDD

GRAY DAVIS, Governor



*Flex your power!  
Be energy efficient!*

May 2, 2002



SOL-80-35.55  
SOL080315  
SCH# 2002042037

Mr. Stephen Streeter  
City of Dixon  
Community Development Department  
600 East A Street  
Dixon, CA 95620

Dear Mr. Streeter:

**SOUTHWEST DIXON SPECIFIC PLAN UPDATE**

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the above-referenced project. We have reviewed the Notice of Preparation for a Draft Environmental Impact Report, dated April 5, 2002, and offer the following comments:

1. We recommend that a Traffic Impact Study be prepared because of the scale of the project and the proximity of the site to Interstate 80. Please include the following information in the study:
  - a. Information on the project's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed.
  - b. Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets and highways, including crossroads and controlled intersections for the existing, existing plus project and cumulative scenarios.
  - c. Schematic illustrations of the traffic conditions should include trip distribution percentages and volumes for the scenarios listed above.
  - d. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the facilities being evaluated.
  - e. Mitigation measures that consider highway and non-highway improvements and services. Special attention should be given to alternative solutions to circulation problems which do not rely on increased highway construction, such as transit, pedestrian and bicycle facilities.
  - f. Financing, scheduling, implementation responsibilities, and lead agency monitoring should be fully discussed for all the proposed mitigation measures.

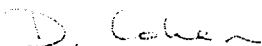


Stephen Streeter  
May 2, 2002  
Page 2

2. Please be advised that the Department has a proposed project to widen Interstate 80 (I-80) from six lanes to eight lanes between Meridian Road overcrossing and Pedrick Road overcrossing. Preliminary studies indicate that additional right-of-way may be required for this project. Therefore, we request that the City of Dixon coordinate with the Department when approving the development of the parcels along I-80 adjacent to and within our proposed project limits.

If you have any questions about this letter, please call Rick Kuo of my staff at (510) 286-5988.

Sincerely,



for: JEAN C.R. FINNEY  
District Branch Chief  
IGR/CEQA



Department of Toxic Substances Control

Edwin F. Lowry, Director  
1001 "I" Street, 25<sup>th</sup> Floor  
P.O. Box 806  
Sacramento, California 95812-0806



Winston H. Hickox  
Agency Secretary  
California Environmental  
Protection Agency

Gray Davis  
Governor

November 2, 2001

Stephen Streeter  
City of Dixon  
600 East A Street  
Dixon, California 95620

Re: Southwest Dixon Specific Plan update and Tentative Maps

The Department of Toxic Substances Control (DTSC) is in receipt of the environmental document identified above. Based on a preliminary review of this document, we have determined that additional review by our regional office will be required to fully assess any potential hazardous waste related impacts from the proposed project. The regional office and contact person listed below will be responsible for the review of this document in DTSC's role as a Responsible Agency under the California Environmental Quality Act (CEQA) and for providing any necessary comments to your office:

James Tjosvold  
Site Mitigation Branch  
8800 Cal Center Drive  
Sacramento, California 95826-3200

If you have any questions concerning DTSC's involvement in the review of this environmental document, please contact the regional office contact person identified above.

Sincerely,

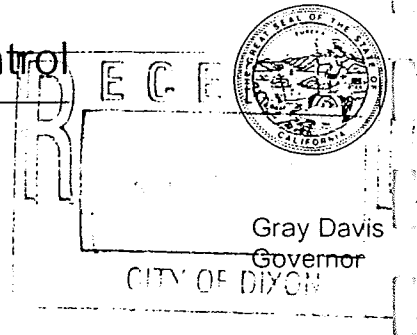
Guenther W. Moskat, Chief  
Planning and Environmental Analysis Section



# Department of Toxic Substances Control

Edwin F. Lowry, Director  
8800 Cal Center Drive, Suite 350  
Sacramento, California 95826

Winston H. Hickox  
Agency Secretary  
California Environmental  
Protection Agency



November 13, 2001

Mr. Stephen Streeter  
City of Dixon  
600 East A Street  
Dixon, California 95620

SOUTHWEST DIXON SPECIFIC PLAN UPDATE AND TENTATIVE MAPS  
(SCH# 1994033079)

Dear Mr. Streeter:

The Department of Toxic Substances Control (DTSC) is in receipt of the California Environmental Quality Act (CEQA) Notice of Preparation (NOP) for the above referenced project. The NOP describes that the subject property has had pesticides applied to agricultural crops on the subject property. The NOP states that portions of the subject property are proposed as development of residential subdivisions, commercial land, parks, public facilities, and a fire station. Although DTSC does not regulate legally applied pesticides, since the property has been used for agricultural purposes we strongly recommend that the site be tested for environmentally persistent organophosphate pesticides such as DDT and metals before development of the subject property occurs.

If you have any questions, please contact me at (916) 255-3586.

Sincerely,

Steven Becker  
Hazardous Substances Scientist

ccs: See next page.

Mr. Stephen Streeter  
November 13, 2001  
Page 2

ccs: Governor's Office of Planning and Research  
State Clearinghouse  
1400 Tenth Street  
Sacramento, California 95814

Ms. Megan Cambridge, Chief  
Expedited Remedial Action Program Unit  
Department of Toxic Substances Control  
8800 Cal Center Drive, Suite 350  
Sacramento, California 95826-3200

**DIXON FIRE DEPARTMENT**  
205 Ford Way, Dixon, California (707) 678-7060

**MEMORANDUM**

**TO:** Stephen Streeter, Community Development Director  
**FROM:** Ric Dorris, Fire Chief *RD*  
**DATE:** November 15, 2001  
**SUBJECT:** Southwest Dixon Specific Plan – Proposed E.I.R.

---

**PROPOSED PROJECT**

I have received the request for information to be included in the environmental impact report (E.I.R.) for the Southwest Dixon Specific Plan Update and Tentative Maps project. The project, an approximate 477-acre plan, is located on the southwest edge of the City in an undeveloped area, which is currently in agricultural use. The plan area is bound by Interstate 80 on the west and West A Street on the north. Pitt School Road forms the eastern boundary for most of the plan area, with approximately 55 acres of the plan area east of this road. The eastern portion of the plan area is bound by Hillview Drive on the north and Spruce Street on the east. The southern boundary of the plan area is contiguous with the southern boundary of the City of Dixon City Limits.

**Policies and Standards**

As stated in the City of Dixon General Plan, the Fire Department requests that the following areas be addressed:

- Engine response consistent with Insurance Services Office (ISO) criteria;
- A firefighter staffing level consistent with the type of fire department and ISO standards for communities similar to Dixon in relationship to actual needs;
- A requirement for built-in fire protection for commercial buildings in excess of 4,000 square feet;
- The spacing of fire stations consistent with recommended ISO standards, with each station on an adequate site, with appropriate firefighting equipment; and
- Water storage and distribution systems capable of providing 4,000 gallons per

minute of sustained flow for at least two hours.

The General Plan also states that proponents of new development shall contribute to the maintenance of an adequate level of public safety within the community, generally through appropriate impact fees.

DIRECTORS  
MARION "MAC" MAGINNIS  
PRESIDENT - DIV. #3

ROBERT HANSEN  
VICE PRESIDENT - DIV. #5

ROBERT S. CURREY  
DIV. #1

BOB BISHOP  
DIV. #2

GUIDO E. COLLA  
DIV. #4



OFFICERS  
ROBERT L. ISAAC  
SECRETARY / MANAGER

JOSEPH B. SUMMERS  
DISTRICT ENGINEER

MINASIAN, SPRUANCE BABER,  
MEITH, SOARES & SEXTON  
ATTORNEYS

STEPHEN J. CARBONARO  
TREASURER

December 13, 2001

Stephen Streeter, Community Development Director  
City of Dixon  
600 East A Street  
Dixon, CA 95620

**Subject: Southwest Dixon Specific Plan Update and Tentative Maps  
Response to Notice of Preparation of a Draft Environmental Impact Report**

Dear Steven:

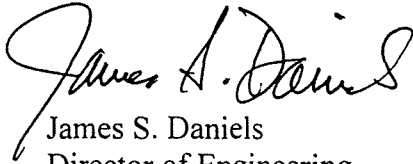
The subject Notice of Preparation was received by the District on October 26, 2001. The Southwest Dixon development area is located within the District and is subject to its assessments and charges. Detachment from the District of developed lands served by DSMWS is not permitted because the District, as a partner in the Dixon-Solano Municipal Water Service, will continue to provide water service to the developed area. The scope and content of the EIR should address the following subjects which may affect the District.

1. The District owns several agricultural irrigation facilities within the proposed development area that must be removed or replaced per District standards, rules and regulations, at the developer's expense.
2. Lands east of South Lincoln Street will be served by California Water Service Company instead of DSMWS. Prior to recordation of final maps, these lands must detach from the District per Solano County LAFCO requirements.
3. The District requires that all parcel/final maps for this development be reviewed, approved and signed by the District. Improvement plans involving SID and DSMWS facilities must be reviewed and approved by the District. Plan review fees apply and are due upon submittal of the maps/plans for review.

These requirements are a result of the review of the Notice of Preparation of a Draft Environmental Impact Report for the Southwest Dixon Specific Plan Update and Tentative Maps. Additional comments may be required upon review of the Draft EIR or the maps and plans for this develop-

ment. Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Jim Daniels at the District office, phone (707) 448-6847, extension 32.

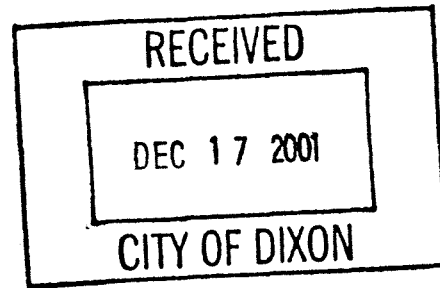
Sincerely,



James S. Daniels  
Director of Engineering

cc: Suzanne Butterfield  
Paul Fuchslin





December 13, 2001

Stephen Streeter, Community Development Director  
City of Dixon  
600 East A Street  
Dixon, CA 95620

**Subject: Southwest Dixon Specific Plan Update and Tentative Maps  
Response to Notice of Preparation of a Draft Environmental Impact Report**

Dear Steven:

The subject Notice of Preparation was received by the Solano Irrigation District on October 26, 2001. The following comments in response to the Notice are made on behalf of the Dixon-Solano Municipal Water Service (DSMWS), a Joint Exercise of Powers Agreement between the City of Dixon and Solano Irrigation District. DSMWS will provide potable water service to the Southwest Dixon development area except for those portions located within the service area of the California Water Service Company (Cal Water).

The water system requirements applicable to the Southwest Dixon development area have been established by DSMWS in the Master Plan for the Water Supply and Delivery System Through Buildout, dated January, 2000. As stated in the Water Master Plan on pages 8 and 9:

The Water Master Plan proposes implementation of capital facility portions of the water supply elements of the General Plan, the Southpark Planned Development, the Southwest Dixon Specific Plan, and the Northeast Quadrant Specific Plan, as modified by subsequent planning by developers and DSMWS. Environmental concerns about expansion of the water system will be addressed in the environmental reviews prepared for development of these areas. In addition, the North Central Solano County Groundwater Resources Report addresses the long term availability of groundwater resources for the City of Dixon and other areas overlying the groundwater basin.

At such time as DSMWS approves the construction of capital projects described in this Water Master Plan, environmental review will be performed on the specific project and alternatives, including no action. Environmental effects of new water supply facilities and distribution systems constructed by developers will be analyzed by environmental assessments for the proposed development projects, where cumulative impacts will be considered at each stage.

DSMWS has also adopted rules, regulations and standard specifications and details that apply to the development. The scope and content of the EIR should address the items stated above, as well as the following subjects, which may affect DSMWS.

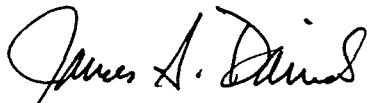
1. An additional well, tank & booster pump station is required to meet the demands of the new development. This was established in the 2000 Water Master Plan prepared by DSMWS. This facility is known as the Southwest Facility. The facility will be designed by the District, and

plans and specifications will be provided by the District. Construction may be contracted by the District, or the developer with inspection by the District. The facility will be built at the developer's expense. Credit of the cost of construction against the developer's connection fees is a matter to be arranged between the developer and the City of Dixon.

2. Sizing of the main water pipelines throughout the development area will be determined by the DSMWS Engineer using computer modeling, which will be done at the developer's expense.
3. Plans and specifications for the water system construction shall be submitted for review and approval to the District on behalf of DSMWS. The DSMWS plan review fees apply and are due upon submittal of the maps or plans for review.
4. The water distribution system will be installed at the developer's expense. All construction shall conform to the DSMWS rules, regulations and standards. All water system construction will be inspected by DSMWS at the developer's expense, the cost of which is not included in the DSMWS connection fees.
5. The developer shall pay connection fees and meter installation fees adopted by DSMWS for each service from the system, unless otherwise agreed between the developer and the City of Dixon.
6. The portions of the Orchard Estates subdivisions east of South Lincoln Street are to be served by Cal Water per the Settlement Agreement and Mutual General Release among Solano Irrigation District, City of Dixon and California Water Service Company, dated July 9, 1992 (the Settlement Agreement). To revise the boundary requires an amendment to the Settlement Agreement that will be coordinated between DSMWS and Cal Water.

These requirements are a result of the review of the Notice of Preparation of a Draft Environmental Impact Report for the Southwest Dixon Specific Plan Update and Tentative Maps. Additional comments may be required upon review of the Draft EIR or the maps and plans for this development. Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Jim Daniels at the District office, phone (707) 448-6847, Ext. 32.

Sincerely,



James S. Daniels  
Director of Engineering, Solano Irrigation District  
DSMWS Engineer

cc: Suzanne Butterfield  
Paul Fuchslin

**SOLANO COUNTY  
TRANSPORTATION DEPARTMENT**

333 Sunset Avenue, Suite 230  
Suisun City, California 94585

Telephone (707) 421-6060  
Fax (707) 429-2894



**John Gray, Director**

Lonnie Baldwin Administration (707) 421-6064  
Paul Wiese Engineering (707) 421-6072

Eben Stevens, Operations  
(707) 421-6055

November 6, 2001

Stephen Streeter  
Community Development Director  
City of Dixon  
600 East A Street  
Dixon, CA 95620

**SUBJECT: Southwest Dixon Specific Plan Update and Tentative Maps**

Dear Mr. Streeter:

For some time, Solano County has been concerned with the impact of growth in Dixon on the County road system. The Dixon City Council in November 1995, agreed to perform a traffic study, which would include our concerns.

Last year we received a copy of a scope of work for a proposal that your department requested for preparing the Dixon Southwest Specific Plan Transportation Impact Study. We responded that the proposed scope looked good and we suggested that a couple of intersections be added to the list.

We have not been consulted on the study and have not received a copy of the final report. If the study has not been completed we again ask that the study be completed to identify traffic impacts to the County and to recommend mitigation of those impacts. The traffic impacts from these projects need to be identified and mitigation recommended before the tentative maps for individual projects are approved. This information is also needed for negotiating development agreements.

Thank you for considering my comments. If you have any questions, please give me a call at 421-6069.

Sincerely,

Gary L. Crawford, L.S.  
Survey & Land Development Supervisor

cc. Ron Tribbett, Public Works Director

**APPENDIX B**

**BIOLOGY REPORT**

# MOORE BIOLOGICAL CONSULTANTS

August 12, 2002

Mr. Leonard Charles  
Leonard Charles & Associates  
7 Roble Court  
San Anselmo, California 94960

Subject: HABITAT ASSESSMENT AND SWAINSON'S HAWK AND BURROWING OWL  
SURVEYS AT THE 500 +/- ACRE SOUTHWEST DIXON SPECIFIC PLAN PROJECT SITE,  
DIXON, CALIFORNIA

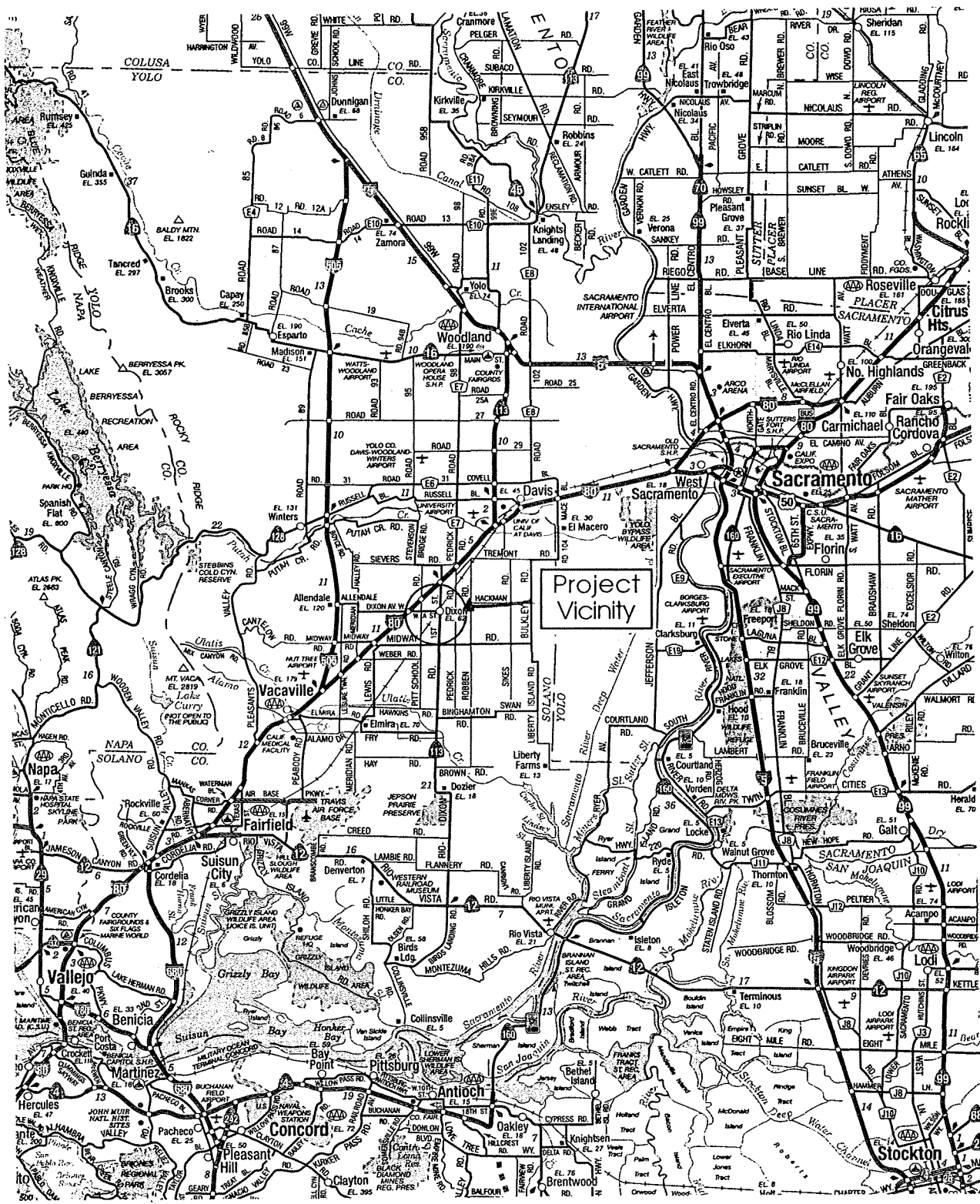
Dear Leonard:

Thank you for contracting with Moore Biological Consultants to conduct biological surveys in support of the Southwest Dixon Specific Plan project. The purpose of our work was to conduct focused nesting-season surveys for Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*) within the subject site (Figures 1 and 2). Our work also included a baseline assessment of on-site habitats, including mapping the existing vegetation within the project site. This letter report summarizes the survey methods and results and identifies mitigation that would reduce impacts to biological resources to a less than significant level.

## Methods

Locations of known occurrences of nesting Swainson's hawks and burrowing owls within the greater project vicinity were identified through a search of California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB, 2002). The search encompassed the USGS 7.5-minute Dixon topographic quadrangle, within which the site is located.

Field surveys were conducted in the early mornings of May 15 and 24, and June 6, 2002. The field effort consisted of driving around the project vicinity and then walking around the site making observations of habitat conditions and existing vegetation and crops throughout the site and in surrounding areas adjacent to the site.



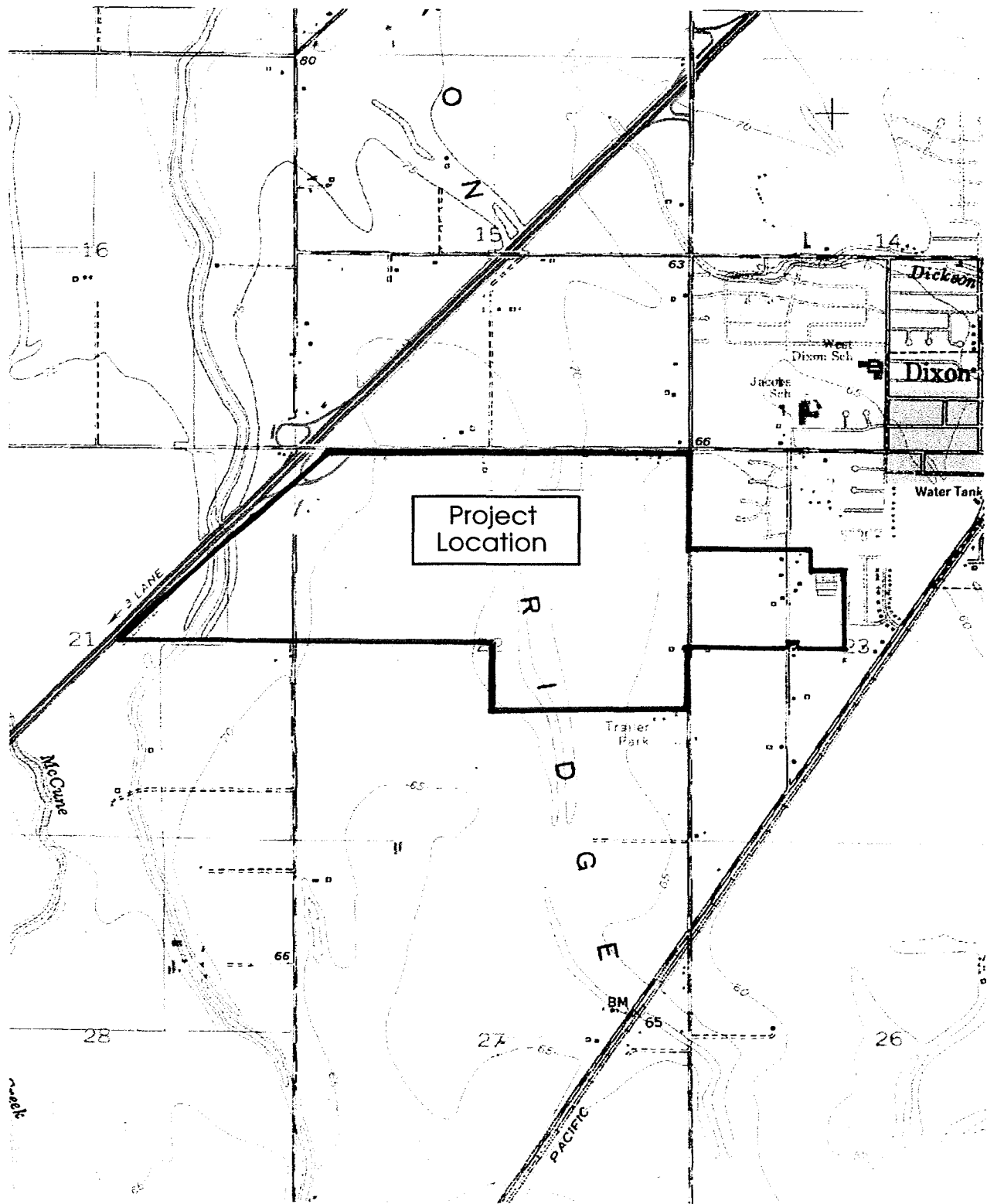
Scale: 1 inch = 9 miles  
 Source: Calif. State Auto Assoc.



N

MOORE BIOLOGICAL

FIGURE 1  
 PROJECT VICINITY



Scale: 1 inch = 2,000 feet  
 Source: USGS 7.5 minute Dixon  
 topographic quadrangle



**MOORE BIOLOGICAL**

**FIGURE 2  
 PROJECT LOCATION**

Protocol-level surveys for nesting Swainson's hawks were conducted as described in CDFG's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (Buteo swainsoni) in the Central Valley of California* (CDFG, 1994). These surveys included a search for hawks flying, perching, or foraging in the project vicinity. Trees within 0.5 miles of the project site boundaries were inspected for hawk stick nests or evidence of nesting Swainson's hawks (i.e., an abundance of pellets and/or whitewash on the ground under potential nest trees). Binoculars and a spotting scope were utilized to inspect and identify trees with potentially active stick nests.

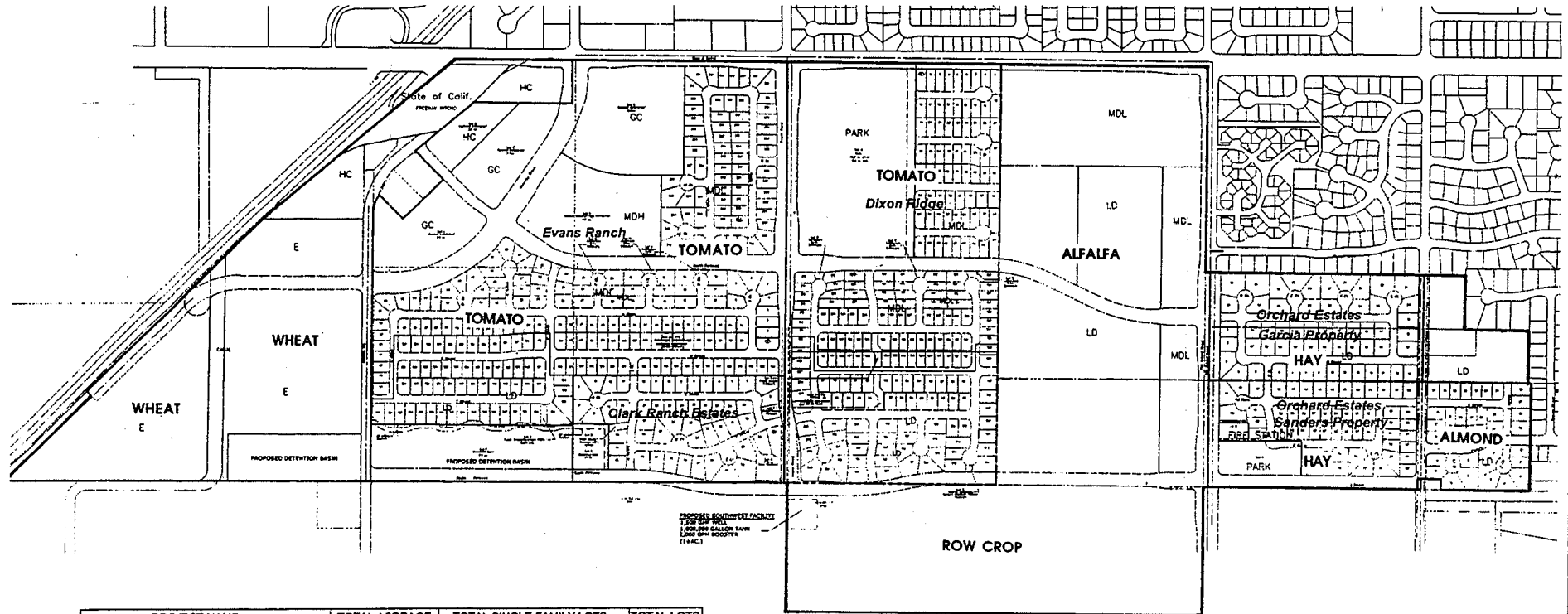
Protocol-level surveys for burrowing owls were also conducted, including a 250-foot buffer area around the site, as described in CDFG's *Staff Report on Burrowing Owl Mitigation* (CDFG, 1995). We searched for small mammal (i.e. ground squirrel) burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets and/or feathers). The need for including the buffer area is based on the potential for on-site construction disturbance to off-site burrowing owls. One hundred percent visual inspection of potential burrowing owl habitat was accomplished by utilizing binoculars and/or a spotting scope and walking along fence lines, dirt roads, and irrigation ditches. It should be noted that intensively farmed alfalfa, winter wheat, and flood irrigated fields do not represent burrowing owl habitat.

## Results

**BIOLOGICAL OVERVIEW:** The project site is located within the southwestern portion of Dixon, California in portions of Sections 21, 22 and 23, T7N, R1E of the USGS 7.5-minute Dixon topographic quadrangle (Figure 2). Land uses in surrounding areas are residential, commercial and agricultural, and include orchards (almond and walnut) row crops, commercial businesses (i.e. gas stations and restaurants) and residential subdivisions. There are a few widely scattered farmhouses and associated outbuildings within the Specific Plan area.

**VEGETATION:** The site consists of essentially level and intensively cultivated fields that are farmed in alfalfa, various row crops (i.e. tomatoes, corn, etc.), hay crops, almonds, and wheat (Figure 3). A network of highly maintained irrigation ditches that are devoid of vegetation and dirt farm roads surround and transect the project site. The edges of the roads as well as the irrigation ditches appear to be routinely sprayed for weed control.





PROJECT NAME	TOTAL ACREAGE	TOTAL SINGLE FAMILY LOTS			TOTAL LOTS
		LD	MDL	MDH	
EVANS RANCH (ASB PROPERTIES)	121± AC	60	203	100	372
ORCHARD ESTATES-SANDERS PROPERTY (SCHULER HOMES)	30± AC	89	-	-	91
ORCHARD ESTATES-GARCIA PROPERTY (SCHULER HOMES)	20± AC	57	-	-	57
DIXON RIDGE (CITATION NORTHERN)	80± AC	74	156	-	237
CLARK RANCH ESTATES (RYDER HOMES)	20± AC	53	-	-	56

November 2001

Proposed Tentative Maps

**NOLTE**  
ENGINEERS

Scale: 1 inch = 1,000 feet



**MOORE BIOLOGICAL**

**FIGURE 3**  
**VEGETATION (CROPS)**

Due to the intensity of farming, there is essentially no native vegetation present on the site. Along the edges of the fields, there are thin discontinuous bands of ruderal grassland vegetation containing a variety of predominantly non-native grasses and weeds species such as oats (*Avena* sp.), wild radish (*Raphanus sativus*), yellow star thistle (*Centaurea solstitialis*), and common mallow (*Malva neglecta*). The remainder of the site is under cultivation. No blue elderberry (*Sambucus mexicana*) shrubs were observed within or adjacent to the Specific Plan area.

There are several relatively tall (i.e., greater than 30 feet tall) black walnut (*Juglans californica*) and ornamental trees along the edges of some the dirt roads that transect the site. There are also tall trees associated with farm houses and businesses within and directly adjacent to the Specific Plan area. The most notable trees in the Specific Plan area are a row of black walnut trees located e along a dirt road at the southern edge of the Dixon Ridge project site. All of the relatively large trees on and surrounding the site are suitable for nesting raptors.

**SWAINSON'S HAWK:** The Swainson's hawk is listed as Threatened by the CDFG and is a Federal Species of Special Concern. In the Central Valley, this hawk typically nests in oak or cottonwood trees in or near riparian habitats. Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, alfalfa, hay, and wheat crops. Most Swainson's hawks are migratory, wintering in Mexico and breeding in California and elsewhere in the western United States. The raptor generally arrives in the Central Valley in mid-March, and begins courtship and nest construction immediately upon arrival at the breeding sites. The young fledge in early July, and most Swainson's hawks leave their breeding territories by late August to early September.

Trees within the greater project vicinity are used by nesting Swainson's hawks and on-site fields represent foraging habitat for this species. While there are suitable nest trees associated with dirt roads and ranch houses within and surrounding the Specific Plan area, no active Swainson's hawk nests were observed in or immediately adjacent to the project site during the recent surveys. The nearest active Swainson's hawk nest located during the recent surveys is approximately 0.5 miles north of the Specific Plan area, in the southwest corner of Section 15.

The CNDDDB (2002) contains several records of Swainson's hawks nesting in the greater Dixon vicinity, including a 2000 occurrence in the northeast corner of Section 22, which is within the north portion of the Specific Plan area. The CNDDDB indicates that a pair was observed nesting in a black walnut tree in 2000, but that no young fledged that year. The CNDDDB report states that territory was unoccupied in 2001. We observed no signs of nesting Swainson's hawks in this area this season. The CNDDDB also contains a record of the pair we observed nesting this year in the southwest portion of Section 15. The CNDDDB reports that this territory was active in both 2000 and 2001, and includes a note that the landowner claims that this territory was also used by nesting Swainson's hawks prior to 2000. A third nearby nest territory reported in the CNDDDB as active in 2000 and 2001 is located in the southwest corner of Section 21, along McCune Creek. The use of this territory in 2002 was not confirmed.

CDFG's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (Buteo swainsoni) in the Central Valley of California* (CDFG, 1994) identifies loss of foraging habitat through conversion of farmland to development a significant impact requiring mitigation in the form of providing Habitat Management Lands to CDFG. Generally, mitigation is accomplished through protecting off-site lands from development in perpetuity through establishing a conservation easement. For projects within one mile of a nest that has been active at least once during the past five years, the mitigation is at a ratio of 1:1. The mitigation ratios are less for projects further away from active nests. In light of the locations of the three nest territories discussed above, the entire Specific Plan area falls within less than one mile of at least one recently active Swainson's hawk nest territory, triggering a 1:1 mitigation ratio for all projects within the Specific Plan area.

**BURROWING OWL:** Burrowing owls are a year-long resident in a variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere. The primary habitat requirement of the burrowing owl is small mammal burrows for nesting. The owl usually nests in abandoned ground squirrel burrows, although they have been known to dig their own burrows in softer soils. In urban areas, burrowing owls often utilize artificial burrows including pipes, culverts, and piles of concrete pieces. This semi-colonial owl breeds from March through August, and is most active while hunting during dawn and dusk.

No burrowing owls were observed in the Specific Plan area during the recent surveys, and the vast majority of the site is poor quality burrowing owl habitat due to the intensity of farming and type of farming (i.e., flood irrigation). Due to intensive farming, there are few ground squirrel burrows located throughout most of the site. There is a relative concentration of ground squirrel burrows associated with the walnut trees along the southern edge of the Dixon Ridge project site, however no evidence of burrowing owls (i.e. whitewash, pellets, or feathers) were observed within any of these burrows, or any of the widely scattered burrows located elsewhere in the Specific Plan area. It should be noted that some of the fields provide potential foraging habitat for burrowing owl.

The CNDDDB (2002) contains several records of burrowing owls nesting in the greater Dixon vicinity, with the nearest occurrence being approximately one mile northeast of the site within the City of Dixon. The CNDDDB contains no other records of burrowing owls near the site. Due to the presence of marginally suitable habitat but lack of occurrences within the Specific Plan area, the likelihood of owls moving in to the Specific Plan area in the future is considered low.

## **Conclusions and Recommendations**

- On-site vegetation consists of leveled farmed fields and some widely scattered trees. There are no unique vegetation communities or wetlands of any type within the Specific Plan area.
- There are no Swainson's hawks currently occupying the project site or buffer area. However, due to the presence of nearby Swainson's hawk nests, the entire site is considered Swainson's hawk foraging habitat, triggering a need for compensatory habitat mitigation at a ratio of 1:1 for areas where farmland is converted to development.
- Swainson's hawk could be adversely affected by site construction if they nested on or near one of the project sites during construction. Although currently unoccupied, there is suitable nesting habitat in the project vicinity for Swainson's hawks. Pre-construction surveys within 0.25 miles of the project site are recommended prior to construction activities between March 1 and August 15. In the event that a Swainson's hawk

nest is located within 0.25 miles of the project site, seasonal construction restrictions may be necessary to eliminate the potential for noise disturbance to nesting hawks. The necessity of such restrictions is dependent on the location of the nest with respect to construction and should be determined by a qualified biologist.

- Burrowing owls are not currently occupying the site or buffer areas. The likelihood of burrowing owls occurring within project site in the future is considered low but depends on future site conditions. If portions of the site lays fallow, the likelihood of occurrence of burrowing owls would increase.
- Pre-construction surveys for burrowing owl should be conducted as outlined in CDFG's (1995) Staff Report on Burrowing Owl (*Athene cunicularia*) Mitigation. If active burrows are found, a qualified biologist should determine temporal restrictions on construction and/or grading activities. If owls need to be moved, they should be passively relocated prior to February 1 or after August 31 using standard methodologies described in CDFG's *Staff Report on Burrowing Owl Mitigation* (CDFG, 1995). As construction will likely take several years and owls could move on the site during the duration of construction, pre-construction surveys should be repeated prior to each phase of ground disturbance.
- We observed no other sensitive species or habitats for sensitive species during the 2002 surveys.

Thank you for contracting with Moore Biological Consultants to conduct these surveys. Please call if we can provide further assistance on this or any other projects. Also, please call me at (209) 365-6828 with any questions.

Sincerely,



Diane S. Moore, M.S.  
Principal Biologist

## References

CDFG (California Department of Fish and Game). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. November 1.

CDFG. 1995. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game, Sacramento, California. September 25.

CNDDDB (California Natural Diversity Database). 2002. California Department of Fish and Game, Sacramento, California.

**APPENDIX C**

**NOISE REPORT**

***SOUTHWEST DIXON SPECIFIC PLAN  
ENVIRONMENTAL IMPACT REPORT  
NOISE SECTION  
DIXON, CALIFORNIA***

**September 3, 2002**



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## INTRODUCTION

The Southwest Dixon Specific Plan Project proposes the development of approximately 477 acres in the City of Dixon. The project site is located east of Interstate 80 and south of West A Street. Pitt School Road forms the majority of the plan area's easternmost boundary, and the City of Dixon southerly City limits bounds the plan area to the south. This noise section presents the fundamentals of environmental acoustics, applicable regulatory background, a description of the existing noise environment in the vicinity of the project area, an evaluation of impacts resulting from the Specific Plan on a programmatic level, an evaluation of impacts resulting from five project-level residential and commercial developments, and presents measures to mitigate any identified impacts resulting from the project.

## SETTING

### Fundamental Concepts of Environmental Acoustics

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level or dBA*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called  $L_{eq}$ . The most common averaging period is hourly, but  $L_{eq}$  can describe any series of noise events of arbitrary duration.

TERM	DEFINITIONS
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
$L_{01}$ , $L_{10}$ , $L_{50}$ , $L_{90}$	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, $L_{eq}$	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, $L_{dn}$	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
$L_{max}$ , $L_{min}$	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

**Definitions Of Acoustical Terms**

**Table 1**

At a Given Distance From Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Impression
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Diesel Pile Driver (100')	100		Very Loud
	90	Boiler Room Printing Press Plant	
Freight Cars (50')	80		
Pneumatic Drill (50')	80		
Freeway (100')	70	In Kitchen With Garbage Disposal Running	Moderately Loud
Vacuum Cleaner (10')	70		
	60	Data Processing Center	
Light Traffic (100')	50	Department Store	
Large Transformer (200')	50		
	40	Private Business Office	Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		Threshold of Hearing
	0		

**Typical Sound Levels Measured In The Environment And Industry**

**Table 2**

*ILLINGWORTH & RODKIN, INC./Acoustical Engineers*

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level, CNEL*, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level, L<sub>dn</sub>* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

### **Regulatory Background**

The State of California and the City of Dixon have established plans and policies designed to limit noise exposure at existing and proposed noise sensitive land uses. These plans and policies are contained in the following documents: (1) the State CEQA Guidelines, Appendix G, (2) Title 24, Part 2 of the State Building Code, and (3) the City of Dixon Natural Environment Element of the General Plan.

The California Environmental Quality Act (CEQA) asks the following questions regarding potential noise effects to evaluate the significance of potential project impacts. Potential noise effects from a project could be considered significant if any of the following occur:

- (a) exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- (b) exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
- (c) a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- (d) a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- (e) for a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels;
- (f) for a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

Of these guidelines, items a, c, and d are applicable to the proposed project. Item b is not applicable because receivers proposed by the project are located over 300 feet from the nearest known generators of groundborne vibration, the Union Pacific Railroad tracks, and at this distance, groundborne vibration levels would be well below perceptibility thresholds. Items e and f of the CEQA guidelines are not applicable because the project is not located in the vicinity of a public or private airport.

CEQA does not define what noise level increase would be considered substantial. Typically, an increase in the  $L_{dn}$  noise level resulting from the project at noise sensitive land uses of 3 dBA or greater would be considered a significant impact when projected noise levels would exceed those considered acceptable for the affected land use. In areas where noise levels are below the “normally acceptable” noise and land use compatibility standard, and would remain below the standard in the future with the project, an increase of 5 dBA or greater would be considered substantial.

### **Title 24, Part 2 of the State Building Code**





New multi-family housing in California is subject to the environmental noise limits set forth in Title 24, Part 2, of the State Building Code. The noise limit is a maximum interior noise level of 45  $L_{dn}$  attributable to exterior noise. Where exterior noise levels exceed 60  $L_{dn}$ , a report must be submitted with the building plans describing the noise control measures which have been incorporated into the design to meet the interior noise limit.

### **City of Dixon Natural Environment Element of the General Plan**

The City of Dixon guides compatible development of land uses with the noise environment in the “Natural Environment” chapter of the Dixon 1993 General Plan. This element establishes noise and land use compatibility guidelines for proposed land uses and sets goals in order to minimize noise throughout the community.

Figure 10 in the Dixon 1993 General Plan (shown as Figure 1) establishes “Acceptable Levels of Noise Exposure” to determine whether a proposed development or land use would be located in an area where special noise mitigating measures are required to meet exterior and interior noise standards. This noise and land use compatibility matrix defines four categories to determine the compatibility of a proposed land use with existing and projected noise levels. “Normally Acceptable” noise levels are satisfactory assuming that the proposed land use would be of normal conventional construction without any special insulation requirements. Projects considered “Conditionally Acceptable” may be permitted only after detailed analysis of noise reduction requirements and when needed noise insulation features are included in the design. Projects located in noise environments considered “Normally Unacceptable” are generally discouraged, but may be permitted only after detailed analysis of noise reduction requirements and when needed noise insulation features are included in the design. “Clearly Unacceptable” noise levels are so severe that new construction or development generally should not be undertaken because mitigation to comply with City noise policies usually is not feasible.

**FIGURE 1  
ACCEPTABLE LEVELS OF NOISE EXPOSURE (FIGURE 10)**

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE					
	L <sub>dn</sub> or CNEL, dB					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Residential- Multi-family	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging – Motels, Hotels	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheatres	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business, Commercial and Professional	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
 <b>Normally Acceptable</b> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.	 <b>Normally Unacceptable</b> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
 <b>Conditionally Acceptable</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.	 <b>Clearly Unacceptable</b> New construction or development should generally not be undertaken					

Goals contained in the “Natural Environment” chapter of the Dixon 1993 General Plan applicable to the proposed project are as follows:

- The City shall protect existing noise sources from future noise-sensitive development.
- The City shall establish a physical development pattern compatible with the noise environment of Dixon.

- The City shall, where feasible, mitigate traffic and other noise to the levels defined in Figure 10. Areas in which noise levels currently exceed, or as a result of future development, will exceed these levels of noise exposure are deemed inappropriate for the development in question.
- The City shall develop buffering standards and procedures to protect residents from freeway/highway traffic and industrial noise. Acoustical design to reduce noise levels will be an important consideration in all projects and developments.

### **Existing Noise Environment**

The 477 acre Specific Plan area is located in the southwest portion of the City of Dixon. The project site is located east of Interstate 80 and south of West A Street. Pitt School Road forms the majority of the plan area's easternmost boundary, and the City of Dixon southerly City limit bounds the plan area to the south. The existing noise environment within and around the plan area is predominantly the result of transportation noise sources including vehicular traffic along Interstate 80, West A Street, and Pitt School Road, and noise generated by railroad trains along the Union Pacific Railroad.

Existing noise levels were quantified during a noise monitoring survey from Wednesday, February 20, 2002 to Thursday, February 21, 2002. The daily trend in noise levels were monitored at four locations at or near the project site (LT-1 to LT-4), and over ten-minute durations at eleven locations throughout the project site and in surrounding areas adjacent to the project site (ST-1 to ST-11). The locations of the noise measurements are shown on Figure 2. Weather conditions were good during the noise monitoring survey, characterized by partly cloudy to clear skies, mild temperatures, and light winds.

Noise measurement LT-1 was located at the southwest corner of the Los Altos Restaurant parking lot approximately 660 feet from the center of the near eastbound Interstate 80 travel lane and 8 feet above the surrounding ground. The noise meter was approximately 200 feet from the centerline of Batavia Road. Figure 3 depicts the measured data at Site LT-1. Hourly equivalent noise levels ranged from about 55 dBA to 65 dBA. The calculated  $L_{dn}$  noise level at Site LT-1 was 67 dBA.

Site LT-2 was located at the eastbound Interstate 80 right-of-way, approximately 57 feet from the center of the near travel lane and 10 feet above the surrounding ground. This measurement recorded the distribution of noise levels generated by Interstate 80 in ten-minute intervals. Figure 4 depicts the measured and estimated data at Site LT-2. Hourly equivalent noise levels ranged from 73 dBA to 83 dBA. The calculated  $L_{dn}$  noise level at Site LT-2 was 85 dBA.

Noise measurement LT-3 was located at the northeast corner of the West A Street/Evans Road intersection, approximately 85 feet from the centerline of West A Street and about 33 feet from the centerline of Evans Road. This measurement location was chosen to represent the existing noise conditions generated by vehicular traffic along West A Street. Figure 5 depicts the measured data at Site LT-3. Hourly average noise levels ranged from about 58 dBA to 66 dBA during the noise measurement period. The calculated  $L_{dn}$  noise level was 69 dBA.

Site LT-4 was located approximately 30 feet from the centerline of Pitt School Road south of Hillview Drive. Noise levels in the vicinity of LT-4 result primarily from vehicular traffic along Pitt School Road. Pitt School Road south of Hillview Drive is a small, two-lane roadway and traffic generally travels faster than the posted speed. Figure 6 depicts the measured data at Site LT-4. Hourly average noise levels ranged from about 52 dBA to 64 dBA yielding an  $L_{dn}$  noise level of about 65 dBA.

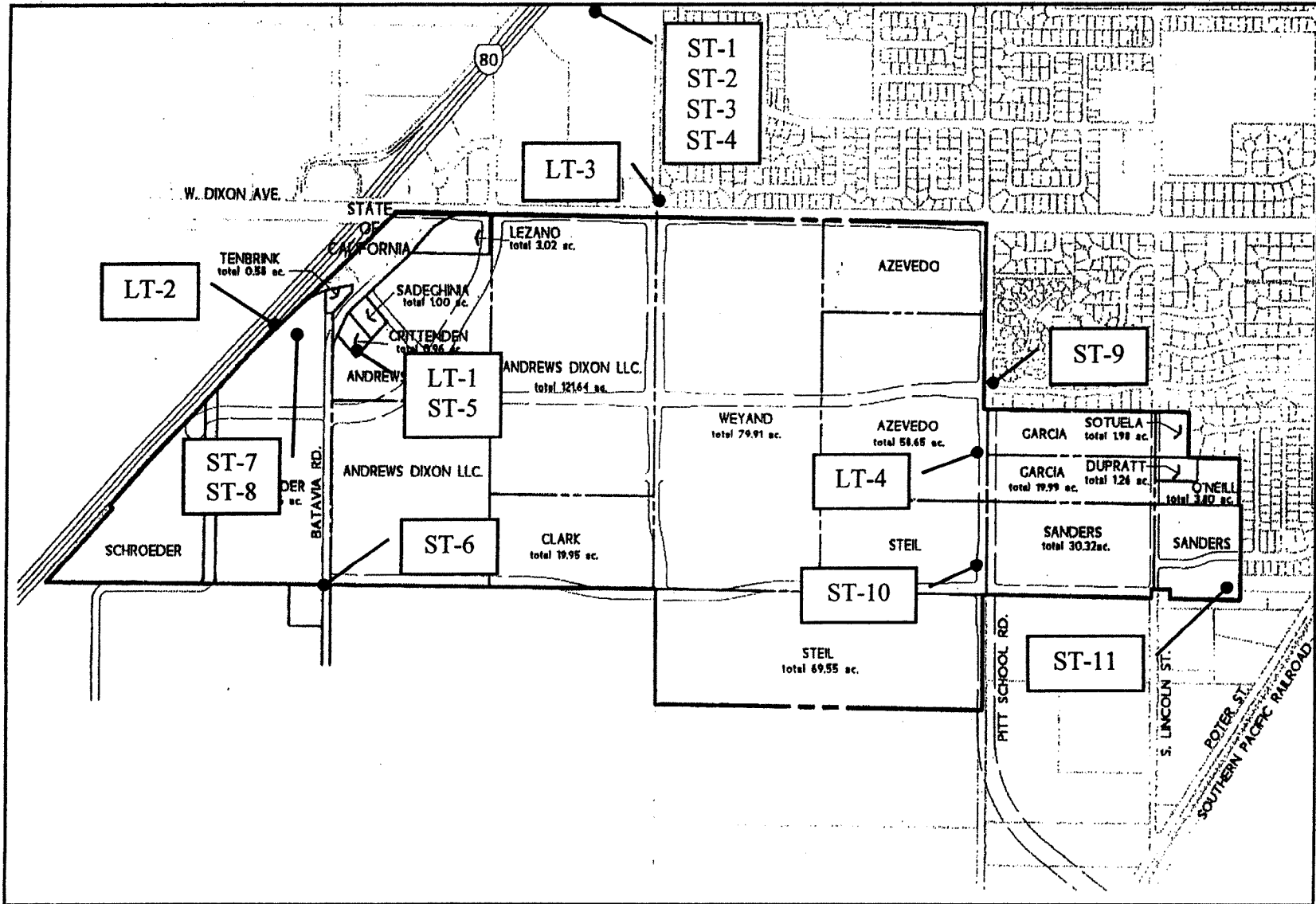
Eleven additional noise measurements were conducted over ten-minute durations at varying locations at or near the Specific Plan area to quantify noise levels throughout the Specific Plan Area. The descriptions of these noise measurement sites, the dates and times of the noise measurements, the measured  $L_{eq}$  noise levels, statistical descriptors, and the estimated  $L_{dn}$  noise levels for the eleven satellite noise measurement locations are shown in Table 3.

**TABLE 3**  
**SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA (dBA)**

Noise Measurement Location	$L_{eq}$	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	$L_{dn}$ (est)
ST-1 ~ 164 ft. from the edge of the near EB I-80 travel lane north of Specific Plan Area (2-21-02; 10:20 to 10:30).	75	78	76	75	73	77
ST-2 ~ 328 ft. from the edge of the near EB I-80 travel lane north of Specific Plan Area (2-21-02; 10:20 to 10:30).	69	72	71	69	67	71
ST-3 ~ 656 ft. from the edge of the near EB I-80 travel lane north of Specific Plan Area (2-21-02; 10:40 to 10:50).	61	64	63	61	59	64
ST-4 ~ In front of # 520 Evans Road north of Specific Plan Area (2-21-02; 10:40 to 10:50).	60	63	60	59	57	62
ST-5 ~ 660 ft. from the center of the near EB I-80 travel lane near LT-1 (2-21-02; 11:40 to 11:50).	58	62	61	57	56	61
ST-6 ~ 1,515 ft. from the edge of the near EB I-80 travel lane near existing residential land use on Batavia Road (2-21-02; 11:40 to 11:50).	55	59	58	55	53	58
ST-7 ~ 164 ft. from the edge of the near EB I-80 travel lane in Specific Plan Area (2-21-02; 11:10 to 11:20).	70	74	72	70	67	72
ST-8 ~ 328 ft. from the edge of the near EB I-80 travel lane in Specific Plan Area (2-21-02; 11:10 to 11:20).	65	69	68	65	61	67
ST-9 ~ 66 ft. from the centerline of Pitt School Road south of Hillview Drive at setback of existing residences in vicinity of Project Area (2-21-02; 13:20 to 13:30).	56	68	58	48	47	62
ST-10 ~ 82 ft. from the centerline of Pitt School Road setback of existing mobile homes in vicinity of Project Area (2-21-02; 13:20 to 13:30).	51	63	52	44	41	57
ST-11 ~ Southeast corner of the Specific Plan Area east of Pitt School Road nearest UPRR and Porter Road (2-21-02; 13:40 to 13:50). ( $L_{dn}$ estimated based on noise contours in General Plan as trains did not pass during noise measurement).	47	59	48	44	42	60-65



# Southwest Dixon Specific Plan Noise Measurement Locations



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Figure 2

### Average Equivalent Noise Levels at LT-1 Parking Lot of Los Altos Restaurant February 20 - February 21, 2002

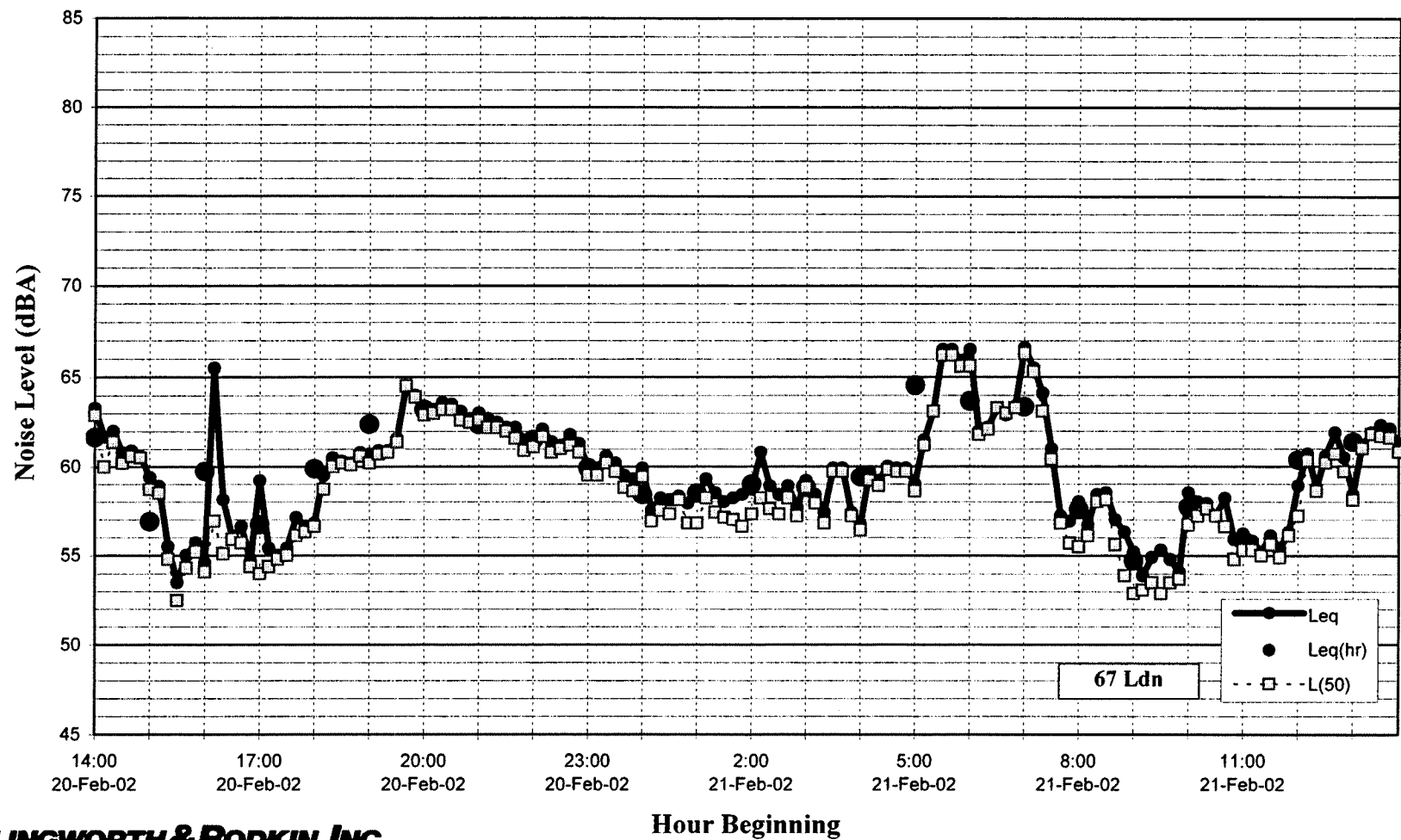
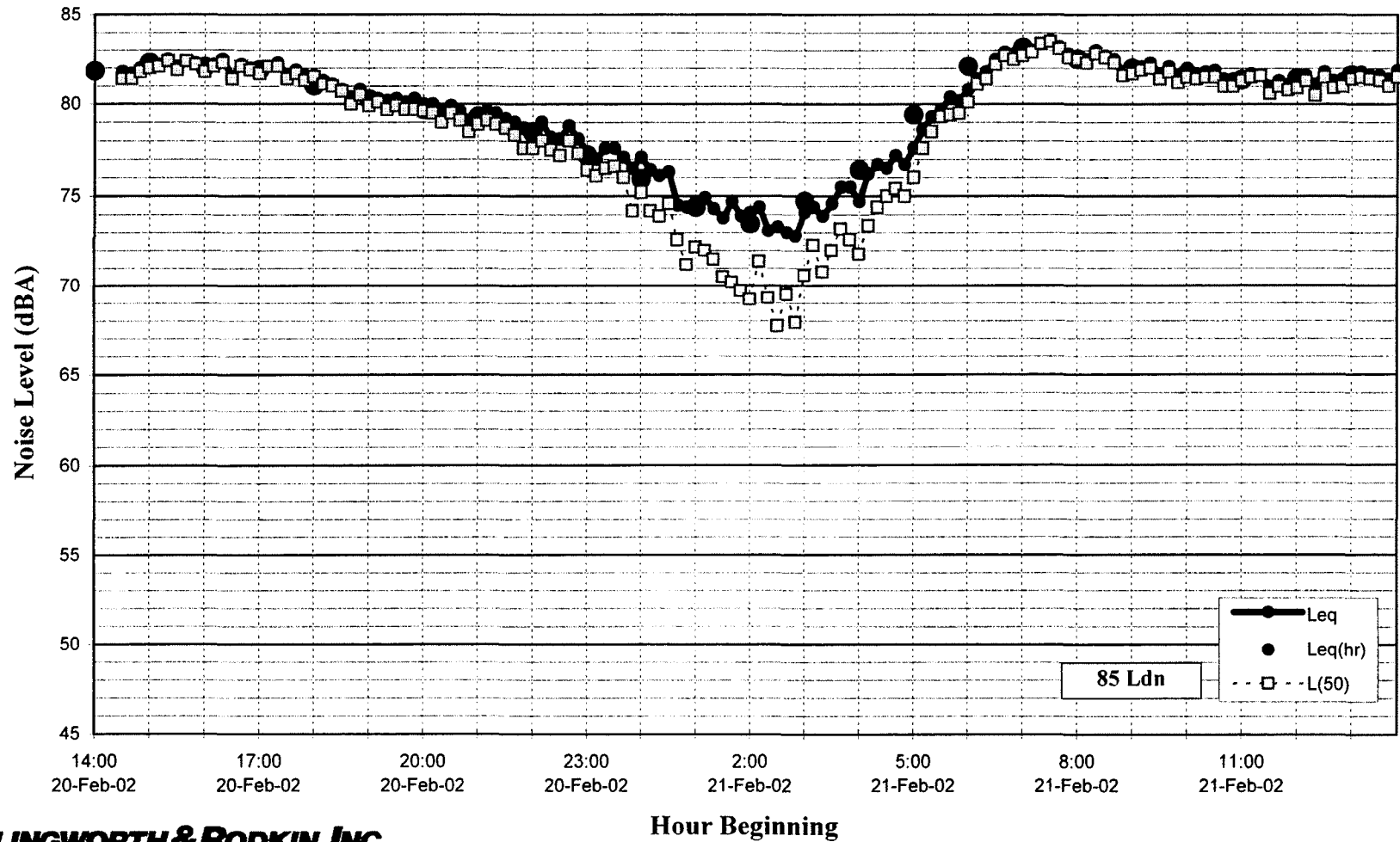


Figure 3

**Average Equivalent Noise Levels at LT-2  
Interstate 80 Right-of-Way  
February 20 - February 21, 2002**



**Figure 4**

### Average Equivalent Noise Levels at LT-3 West A Street February 20 - February 21, 2002

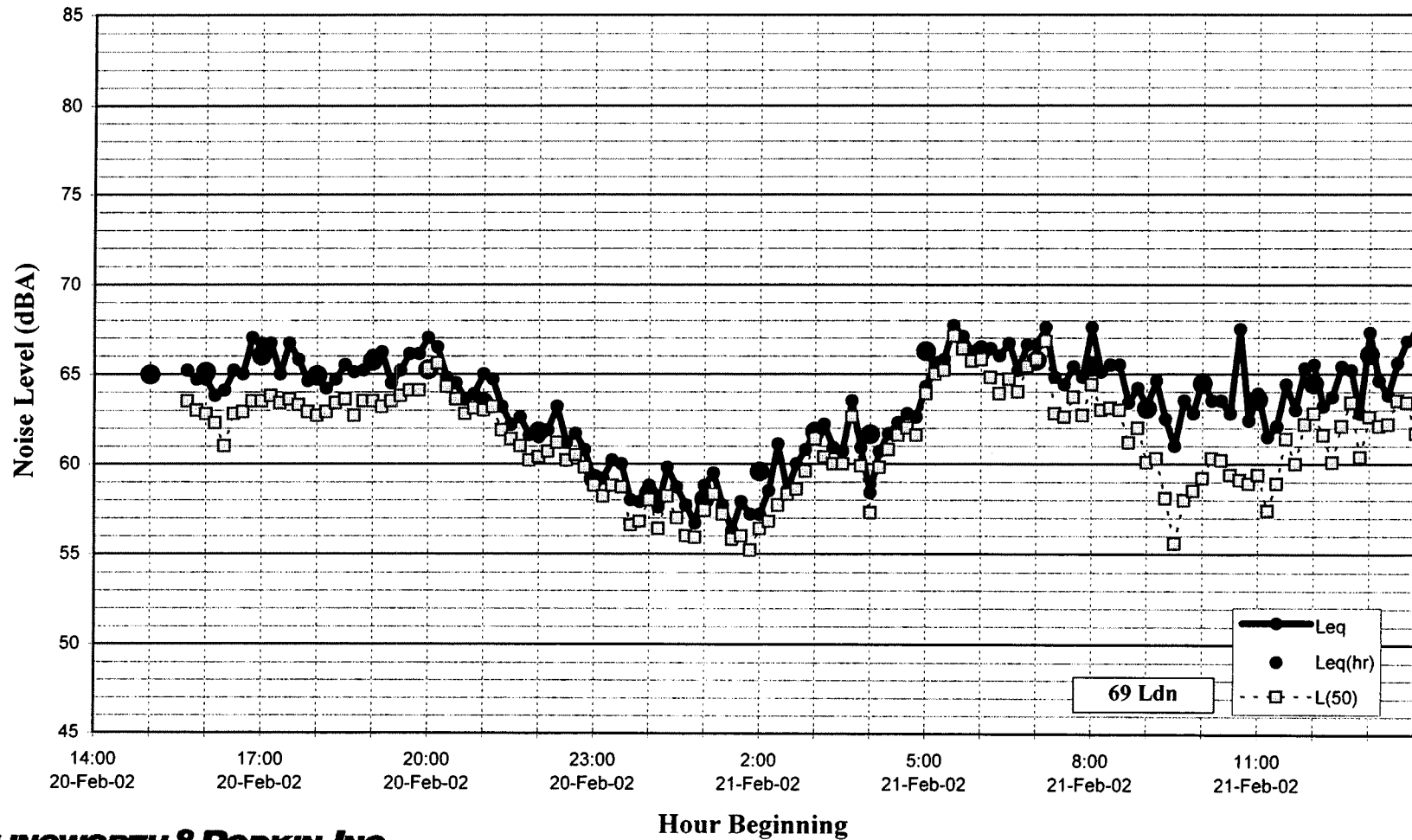
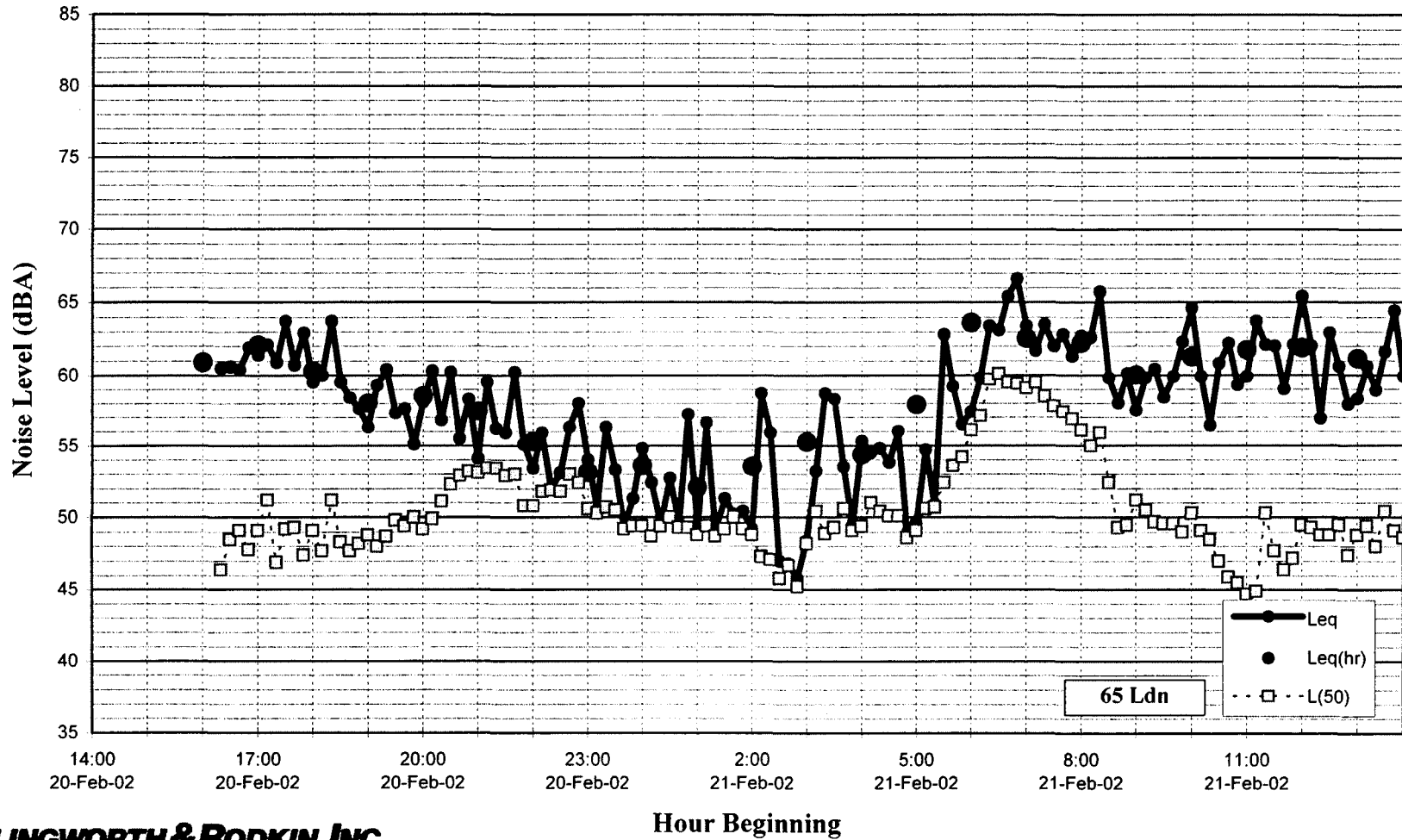


Figure 5

**Average Equivalent Noise Levels at LT-4  
Pitt School Road  
February 20 - February 21, 2002**



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**Figure 6**

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## NOISE IMPACTS AND MITIGATION MEASURES - PROGRAM LEVEL

### Significance Criteria

The CEQA Guidelines indicate that a project would have a significant impact if it would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies, or
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, or
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

**Noise and Land Use Compatibility.** A significant impact would be identified where noise-sensitive land uses (i.e., residences) are proposed in future noise environments exceeding the “normally acceptable” noise level range. For single-family residential projects, a significant impact would be assessed where the project is proposed in noise environments exceeding 60 dBA  $L_{dn}$ . Multi-family residential land uses proposed in areas where the future  $L_{dn}$  exceeds 65 dBA would also result in a significant impact.

**Operations Period.** According to CEQA, a significant impact would be identified if noise levels increase substantially at existing noise sensitive land uses (e.g., residences). A substantial increase to noise levels would occur if the project resulted in an increase of 3 dBA or greater at noise-sensitive land uses where the future noise level would exceed 60 dBA  $L_{dn}$ . Where the existing noise level is at least 5 dBA lower than the “normally acceptable” level for a particular land use, a 5 dBA or greater increase is considered substantial, causing a significant impact.

**Construction Period.** Construction noise levels are treated differently than operations period noise levels, because they are intermittent and temporary. Significant noise impacts would result from construction if noise levels are sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA during the daytime, and above existing ambient levels, would be considered significant when the duration of noise generating activities affecting a particular receptor or group of receptors exceeds one construction season (typically one year).

### Impacts Resulting from the Southwest Dixon Specific Plan

**Impact 1. Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

The future noise environment within the Specific Plan Area would primarily result from transportation noise sources including Interstate 80, local arterial roadways, and the Union Pacific Railroad.  $L_{dn}$  noise levels throughout the site would be expected to be at least 60 dBA or greater as a result of noise generated by Interstate 80 and the U.P.R.R. Where local roadways add to the

background noise levels generated by Interstate 80 and the U.P.R.R., noise levels could be substantially above 60 dBA  $L_{dn}$ .

At the westernmost portion of the Specific Plan Area, Interstate 80 dominates the noise environment. General commercial and highway commercial land uses are concentrated at the northwest corner of the Specific Plan Area and industrial land uses are concentrated in the southwest portion of the Specific Plan Area adjacent to Interstate 80. These uses would be located in a noise environment ranging from about 86 dBA  $L_{dn}$  at the right-of-way to about 65 dBA  $L_{dn}$  at a distance of about 1300 feet (furthest proposed commercial or industrial land use areas) as a result of vehicular traffic along Interstate 80. Exterior noise levels in the vicinity of arterial roadways such as West A Street and Gateway Drive would also contribute to the noise environment of these parcels.

Near the central portion of the Specific Plan Area, noise from Interstate 80 and local arterial roadways would contribute to the future noise environment. Noise levels generated by Interstate 80 would range from about 65  $L_{dn}$  dBA near Gateway Drive to about 60 dBA  $L_{dn}$  near the midpoint between Evans Road and Pitt School Road. Exterior noise levels at proposed residential land uses adjacent to arterial roadways within the Specific Plan Area would also result from vehicular traffic on the local roadways. Arterial roadways such as West A Street, North Parkway, South Parkway, Batavia Road, Gateway Drive, Evans Road, and Pitt School Road would generate noise levels that would exceed the criteria for “normally acceptable” development in context with the noise environment. The combination of noise generated by Interstate 80 and local arterial roadways would yield exterior noise levels throughout the central portion of the plan area that would exceed the “normally acceptable” noise and land use compatibility category.

In the easternmost portion of Specific Plan Area, noise generated by Interstate 80 would contribute to background noise levels (noise in the absence of local noise sources). The predominant noise sources in residential areas located near the midpoint between Evans Road and Pitt School Road and the easternmost boundary of the plan area would result from vehicular traffic along arterial roadways such as Pitt School Road, South Lincoln Street, North Parkway, and South Parkway and railroad noise generated by the Union Pacific Railroad. Exterior noise levels would range from about 60 dBA  $L_{dn}$  at residential land uses proposed away from arterial roadways to about 68 dBA  $L_{dn}$  at residential land uses adjoining Pitt School Road.

Table 4, below, presents the results of traffic noise modeling conducted for the future design year (2025) traffic conditions. Future peak hour traffic volumes, provided by *Fehr and Peers Associates, Inc.*, were input into the Caltrans LEQV2 traffic noise model to calculate the future peak-hour noise level at a distance of 60 feet from the centerline of an arterial roadway. This distance was selected to represent the typical setback of receptors from the arterial roadways. Traffic volumes were divided into three vehicle classifications; light-duty vehicles (autos), medium-duty trucks (2 axels and 6 wheels), and heavy-duty trucks (more than two axels), and were input into the model at 98%, 1 %, and 1% respectively. Vehicles were modeled at a speed of 40 mph. Along arterial streets, the peak hour noise level ( $L_{eq(hr)}$ ) is approximately 2 decibels below the 24-hour average  $L_{dn}$ . The peak-hour noise level was used to estimate the  $L_{dn}$  noise level for residential receivers proposed along arterial roadways in the Specific Plan Area.

With the project, noise levels at proposed noise sensitive residential receivers along major arterials within the project area would range from about 60 to 75 dBA  $L_{dn}$  at a distance of 60 feet from the roadway centerline. These arterial roadways include West A Street, Batavia Road, Gateway Drive,

Evans Road, Pitt School Road, South Lincoln Street, North Parkway, and South Parkway. As noted above, noise levels between 55 and 70 dBA are considered “conditionally acceptable” for single-family residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels between 70 dBA and 75 dBA are considered “normally unacceptable” for single-family residential land uses. Single-family residential land uses proposed along certain roadway segments along West A Street and Gateway Drive would be exposed to future noise levels greater than 70 dBA  $L_{dn}$ . These single-family residential land uses would be considered “normally unacceptable” in noise environments greater than 70 dBA  $L_{dn}$ . This is a potentially significant impact for residential land uses proposed along West A Street and Gateway Drive in the Specific Plan Area.

Additionally, the project proposes the development of multi-family residential land uses east of the Gateway Drive and North Parkway intersection in the westernmost portion of the Specific Plan Area. Multi-family residential land uses are considered “normally acceptable” up to 65 dBA  $L_{dn}$ , “conditionally acceptable” between 60 and 70 dBA  $L_{dn}$ , and “normally unacceptable” between 70 and 75 dBA  $L_{dn}$ . Multi-family residential land uses proposed by the project would be located in areas that would be considered “conditionally acceptable” to “normally unacceptable” for the proposed land use. This is a potentially significant impact.

**Table 4**  
**Future (2025) Noise Levels and Noise Level Contour Distances**  
**along Major Arterial Roadways Within the Specific Plan Area**  
**Abutting Noise Sensitive Development**

Roadway Segment	Noise Level in dBA ( $L_{dn}$ ) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 $L_{dn}$ Noise Contour (feet)	Distance from Roadway Centerline to 60 $L_{dn}$ Noise Contour (feet)
West A Street east of Gateway Drive	74	240	520
West A Street east of Evans Road	73	200	440
Batavia Road	63	--	120
Gateway Drive south of West A Street	74	240	520
Evans Road south of West A Street	< 60	--	--
Pitt School Road south of West A Street	68	110	220
Pitt School Road south of South Parkway	63	--	150
South Lincoln Street	62	--	95
North Parkway east of Gateway Drive	64	--	120
North Parkway east of Evans Road	63	--	120
South Parkway east of Batavia Road	60	--	60
South Parkway east of Evans Road	60	--	60



## Measures to Mitigate Impacts Resulting from the Southwest Dixon Specific Plan

**Mitigation 1.** Shield common outdoor use areas in multi-family residential developments and private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.

A combination of open space buffer zones and/or noise barriers along the roadways would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until site plans and grading plans are developed for each portion of the Specific Plan Area. Data presented in Table 4 shows the largest (worst-case) open space buffer zones required in order to mitigate noise levels in outdoor activity areas without any additional attenuation due to topography or noise barriers. Given the future predicted noise levels along arterial roadways in the Specific Plan Area, noise barriers would likely range in height from six-feet to fourteen-feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

All single- and multi-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA  $L_{dn}$  noise contour distances. A similar report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA  $L_{dn}$  noise contour distances.

**Impact 2 Operations Period Impacts. The project would permanently increase the noise environment at existing noise-sensitive land uses as a result of vehicular traffic accessing the project area. Cumulative traffic noise level increases would result in a potentially significant noise impact.**

Operations period impacts would result from noise generated by traffic traveling to and from the specific plan area. Traffic-related noise could have affects both in the immediate vicinity of the plan area and at greater distances.

**Project Effects on Noise Levels: Increased Traffic.** Table 5 presents the calculated relative increases in traffic noise based on the existing plus project scenario, and the future year (2005) traffic conditions under the no-project and with project scenarios. The existing plus project scenario adds the existing traffic volumes plus the traffic volumes expected to result from the

entire Specific Plan project. Year 2005 no project and with project traffic scenarios are the volumes expected by the year 2005 plus the partial build-out of the Specific Plan. Peak hour traffic volumes with the project, provided by *Fehr and Peers Associates, Inc.*, were compared to existing peak hour traffic conditions to attain the relative difference in noise levels along the major roadways leading to the project site.

Under the existing plus project traffic scenario, noise levels on roadway segments including West A Street east of Almond Street, Evans Road north of West A Street, Pitt School Road south of South Parkway, Porter Street, and Lincoln Street would typically increase by 1 to 2 dBA  $L_{dn}$  with the project above existing conditions. Traffic noise levels generated along West A Street west of Almond Street, Pitt School Road north of West A Street, and Pitt School Road south of West A Street would be expected to increase by about 3 to 6 decibels over existing conditions. The project would result in a substantial increase in noise levels, thus resulting in a potentially significant impact.

Future traffic noise level increases resulting from the project plus other approved projects would also result in a potentially significant impact. Year 2005 (partial build-out of the Specific Plan) and year 2025 (full build-out) traffic volumes were also compared to existing traffic conditions to calculate the relative increases in traffic noise. Noise levels on major arterial roadways leading to the Specific Plan Area would be expected to increase by 2 to 7 dBA over existing noise levels. These increases would be considered substantial and would be considered a potentially significant impact.

Existing noise sensitive residential land uses are located along the identified roadway segments that would be expected to have noise levels that would substantially increase as a result of project-generated traffic. These roadway segments would include West A Street between Evans Road and Almond Street, Pitt School Road north of West A Street, and Pitt School Road south of West A Street. Residential land uses along these roadway segments include residences fronting the arterial roadway that are not protected from noise by a barrier and residences that have outdoor use areas oriented toward the arterial roadway that may or may not be protected by noise barriers. Based on a visual inspection of several of the residential types with and without noise barriers, exterior noise levels in yards adjacent to roadways are expected to currently range from about 55 dBA to 65 dBA  $L_{dn}$ . The predicted noise level increases resulting from the project would substantially increase the noise environments at existing residential receivers with or without existing noise barriers. Visual inspection of existing noise barriers did not indicate that these barriers were designed sufficient to mitigate traffic noise generated by the Southwest Dixon Specific Plan.

**Table 5**  
**Expected Noise Level Increases**  
**along Major Arterial Roadways leading to Specific Plan Area**

<b>Roadway</b>	<b>Existing Plus Project</b>	<b>2005 No Project</b>	<b>2005 With Project</b>	<b>2025 With Project</b>
West A Street Gateway Drive to Almond Street	+ 3 to 5 dBA	+ 1 to 2 dBA	+ 3 to 5 dBA	+ 5 to 7 dBA
West A Street Almond Street to First Street	+ 1 to 2 dBA	+ 1 to 2 dBA	+ 2 to 3 dBA	+ 4 to 5 dBA
Evans Road West A Street to Pitt School Road	+ 2 dBA	+ 1 dBA	+ 2 dBA	+ 3 dBA
Pitt School Road West A Street to West H Street	+ 3 dBA	+ 1 dBA	+ 2 to 3 dBA	+ 4 dBA
Pitt School Road West A Street to South Parkway	+ 6 dBA	+ 3 dBA	+ 4 dBA	+ 6 dBA
Pitt School Road South Parkway to Porter Street	+ 2 dBA	+ 2 dBA	+ 3 dBA	+ 3 dBA
Porter Street Midway Road to West A Street	+ 1 dBA	+ 1 to 2 dBA	+ 1 to 2 dBA	+ 2 to 3 dBA
Lincoln Street Porter Street to West H Street	+ 2 dBA	+ 1 dBA	+ 1 to 2 dBA	+2 dBA

**Mitigation 2 To reduce the impact to a less than significant level, new or larger noise barriers should be constructed to protect existing residential land uses where reasonable and feasible. Where mitigation measures are not reasonable or feasible, this impact would remain significant.**

Existing residential land uses adjoining West A Street and Pitt School Road include several subdivisions north and south of West A Street, subdivisions east Pitt School Road, and a mobile home park west of Pitt School Road near the southernmost boundary of the Specific Plan Area . Residential land uses along these roadways are categorized into three types: residences fronting the arterial roadway (e.g., West A Street between Lincoln Street and Almond Street), residences with outdoor use areas oriented toward the arterial roadways shielded by existing noise barriers (e.g., West A Street between Evans Road and Lincoln Street), and residences with outdoor use areas oriented toward the arterial roadways that are not shielded by barriers (e.g., scattered residential land uses, mobile home park).

Exterior noise level increases resulting from the project would affect the front yard and front rooms of homes fronting the arterial roadway. The construction of noise barriers would not be a feasible noise reduction method because of large gaps in the barrier required to maintain access to and from the roadway. Alternative noise reduction techniques, such as re-paving the arterial roadway with “quiet” pavement types such as Open-Grade Asphaltic Concrete and traffic calming measures could reduce the project traffic noise increases associated with the project in existing front yards. The use of “quiet” pavement can reduce noise levels by about 2 to 5 dBA depending on the existing pavement type, traffic speed, traffic volumes, and other factors. A specific study of existing pavement noise would be required prior to determining whether re-paving existing roads would reduce noise level increases to a less than significant level. Building sound insulation such as sound rated windows and doors could also be provided to affected residential land uses on a case-by-case basis as a method of reducing noise levels in interior spaces.

Residential land uses with outdoor use areas oriented toward the arterial roadway that are shielded by existing noise barriers ranging from six- to eight-feet in height would require substantially larger barriers to mitigate the noise impact resulting from the project. Noise barriers ranging in height from about twelve-feet to fourteen-feet would be required to maintain the current noise reduction plus reduce the project-generated noise increase to below 3 decibels. The larger noise barriers should be designed to achieve an additional 5 decibels of noise reduction at a minimum to be considered reasonable from a cost-benefit perspective.

Residential land uses with outdoor use areas oriented toward the arterial roadway that are not shielded by noise barriers would require the construction of new noise barriers ranging from about six- to eight-feet in height to reduce the noise impact resulting from project generated traffic to a less than significant level. The noise barriers should be designed to achieve at least 5 decibels of noise reduction to be considered reasonable from a cost-benefit perspective.

**Impact 3      The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses. This would be a significant and unavoidable impact.**

***Construction Period Impacts– Program Level.*** The buildout of the Specific Plan area would occur over several years and would generate noise that would temporarily increase the noise environments at existing and future noise sensitive land uses. The effects of noise resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Noise levels during construction would occur in phases including demolition of existing structures on the project site, grading and excavation, the construction of foundations, the erection of the new structures, and finishing. Tables 6 and 7 show typical noise levels generated by construction equipment at a distance of 50 feet from the source and at a distance of 50 feet from the construction activity center, respectively. The highest maximum noise levels generated by project construction would typically range from about 90 to 98 dBA at a distance of 50 feet from the noise source. Typical hourly average construction generated noise levels are about 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods. Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor.

Shielding by buildings or terrain often result in much lower construction noise levels at distant receptors.

Existing or planned receptors may be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

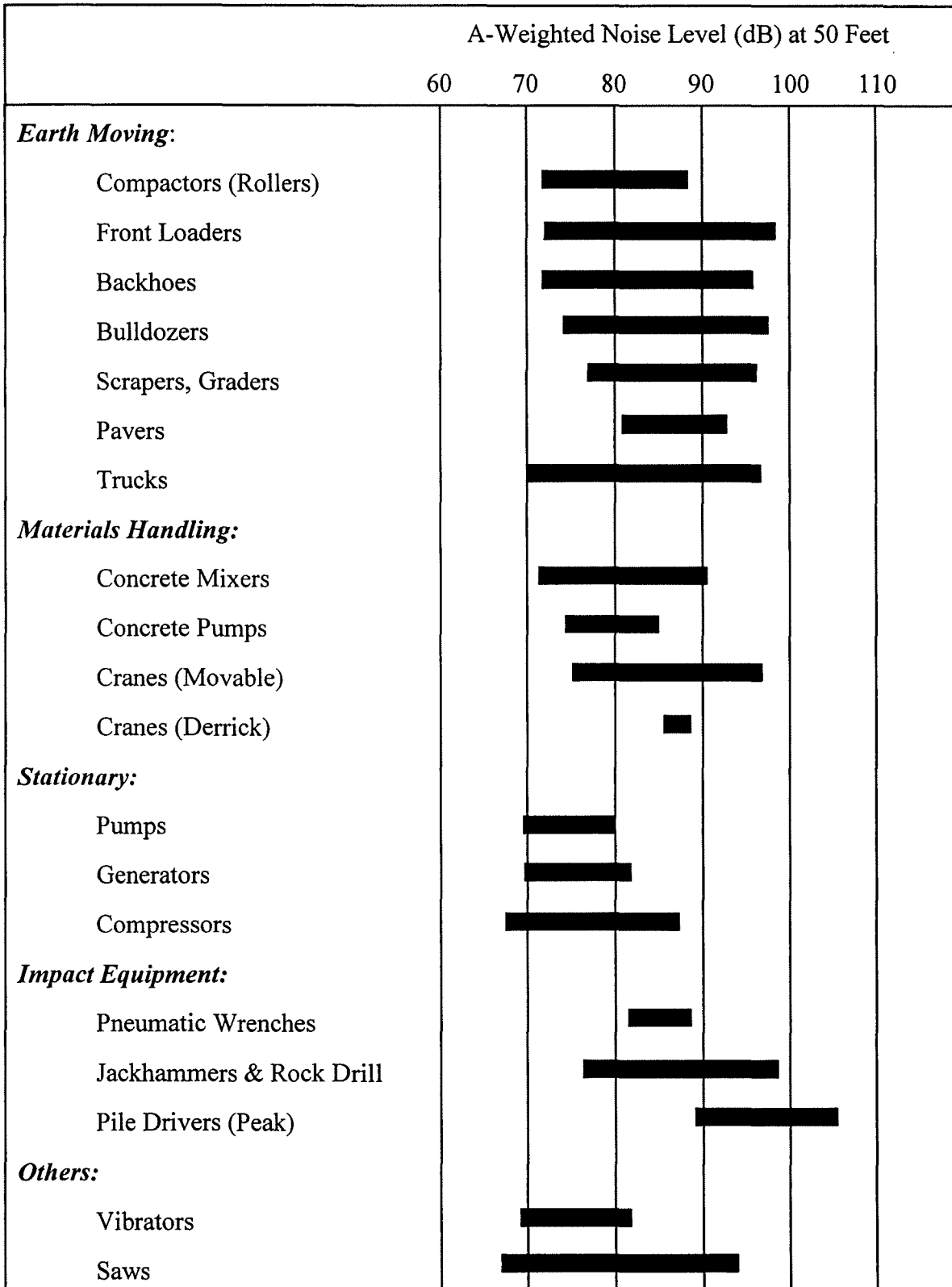
**Mitigation 3 Implement construction noise control measures at all construction sites.**

Typically, when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less, noise impacts are considered less than significant. Construction noise associated with projects of this type are disturbances that are necessary for the construction or repair of buildings and structures in urban areas. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Limiting the hours when construction can occur to daytime hours is often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and utilizing "quiet" construction equipment can also reduce the potential for noise impacts.

- Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way should be restricted to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities within 500 feet of residences should occur on Saturdays, Sundays, or holidays.
- Erect standard plywood construction barriers (minimum height 8 feet) around the construction sites to shield adjacent land uses.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise sensitive receptors. Construct temporary barriers to screen stationary noise generating equipment when located in areas adjoining noise sensitive land uses.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.

- Route all construction traffic to and from the project site via designated truck routes. Prohibit construction related heavy truck traffic in residential areas where feasible. Prohibit construction truck traffic in the project vicinity prior to 7:00 a.m. or after 7:00 p.m. on allowable construction days.
- Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.
- Notify adjacent residents to the project site of the construction schedule in writing.
- Designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a noise disturbance coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices).



Source: Handbook of Noise Control, Cyril M. Harris, 1979

<b>Construction Equipment Noise Level Range</b>	<b>Table 6</b>
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**Typical Ranges of Energy Equivalent Noise Levels at 50 Feet,  
L<sub>eq</sub> in dBA, at Construction Sites**

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.

II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

**Noise Levels by Construction Phases**

**Table 7**



## NOISE IMPACTS AND MITIGATION MEASURES - PROJECT LEVEL

### Evans Ranch Development

The Evans Ranch project site is located in the western part of the Specific Plan area and is bound by Batavia Road on the west, West A Street on the north, Evans Road on the east, and the proposed South Parkway alignment on the south. Development on the project site would include 263 single-family residential lots, 126 multi-family housing units, and highway and general commercial uses.

**Impact 4 Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential and commercial land uses are proposed on the Evans Ranch Parcel. The future noise environment on these parcels would primarily result from vehicular traffic along Interstate 80 and arterial roadways including Batavia Road, West A Street, Gateway Drive, North Parkway, South Parkway, and Evans Road. Table 8, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the project, noise levels would range from about 60 to 75 dBA  $L_{dn}$  at noise sensitive residential land uses proposed along major arterials within the project area. Noise levels throughout the project site would be at least 60 dBA  $L_{dn}$  as a result of noise generated by Interstate 80. Noise levels between 60 and 70 dBA  $L_{dn}$  are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels exceeding 70 dBA  $L_{dn}$  would be considered “normally unacceptable” for residential land uses. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial roadways.

Additionally, residential land uses proposed near the common commercial/residential property lines would be exposed to future noise levels exceeding 60 dBA  $L_{dn}$  as a result of commercial activity. This is a potentially significant impact.

**Table 8  
Future (2025) Noise Levels and Noise Level Contour Distances for Arterial Roadways**

Roadway	Noise Level in dBA ( $L_{dn}$ ) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 $L_{dn}$ Noise Contour (feet)	Distance from Roadway Centerline to 60 $L_{dn}$ Noise Contour (feet)
	Batavia Road	64	–
West A Street	74	240	520
Gateway Drive	75	280	600
North Parkway	64	–	150
South Parkway	60	–	60
Evans Road	< 60	–	–

**Mitigation 4 Shield common outdoor use areas in multi-family residential developments and private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways or noise generated by commercial land uses by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.**

The construction of noise barriers along roadways and the commercial/residential interface would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels, noise barriers would likely range in height from six-feet to fourteen-feet assuming the noise source or barrier and outdoor use areas are at the same elevation.

All single- and multi-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors. A report shall be prepared following the requirements of Title 24, Part 2 of the California Administrative Code for all multi-family housing proposed within the 60 dBA  $L_{dn}$  noise contour distances. A similar report shall be prepared for the City of Dixon for all single-family residential units proposed within the 60 dBA  $L_{dn}$  noise contour distances.

**Impact 5      The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.**

Approximately 263 single-family residential lots, 126 multi-family housing units, and highway and general commercial uses would be constructed on the Evans Ranch project site. The construction of the project would occur in phases over a number of years. Noise impacts resulting from the project would be similar to those described in *Construction Period Impacts– Program Level*.

Currently, noise sensitive residential developments are located north of the project area. In the future, depending upon project phasing in the Specific Plan, noise sensitive residential land uses could be constructed east of the project site on the Dixon Ridge parcel or to the south on the Clark Ranch Estates parcel. Additionally, construction related noise impacts would occur at residential units built during the early phases of the Evans Ranch project. Noise generated by subsequent phases of construction to complete build-out of the project could affect residential units constructed and occupied prior to the later phases of project construction. Existing or planned receptors would be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

**Mitigation 5    Implement construction noise control measures at all construction sites as stated in *Mitigation Measure 3*. Given the expected duration of construction, the impact would remain significant.**

**Orchard Estates-Sanders**

The Orchard Estates-Sanders project site is located in the easternmost portion of the Specific Plan area and is bound by Pitt School Road on the west and existing residential development along Spruce Street to the east. Orchard Estates-Garcia would bound the project site to the north and the site would be bound by the Dixon city limits to the south. Development on the project site would include 89 single-family residential lots, a park, and a fire station.

**Impact 6      Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” for those uses.**

Residential land uses are proposed on the Orchard Estates-Sanders parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial roadways including Pitt School Road and South Lincoln Street. Additionally, the site would be subjected to noise generated by Interstate 80 and the UPRR. Table 9, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the project, noise levels would range from about 62 to 69 dBA  $L_{dn}$  along major arterials within the project area. Exterior noise levels generated by Interstate 80 and the UPRR would be about 60 to 65 dBA  $L_{dn}$  throughout the project site. Noise levels between 60 and 70 dBA  $L_{dn}$  are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial roadways.

**Table 9**  
**Future (2025) Noise Levels and Noise Level Contour Distances**  
**Along Arterial Roadways**

Roadway	Future (2025) Noise Levels and Noise Level Contour Distances Along Arterial Roadways		
	Noise Level in dBA ( $L_{dn}$ ) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 $L_{dn}$ Noise Contour (feet)	Distance from Roadway Centerline to 60 $L_{dn}$ Noise Contour (feet)
Pitt School Road	69	110	240
South Lincoln Street	62	--	95

The project also proposes a Fire Station near the easternmost property boundary of the Orchard Estates-Sanders parcel. At this point in the planning process, the exact specifications regarding the size of the fire station, locations of noise generating equipment, etc. are unknown. Typically, operational noise generated by satellite fire stations include the sounds of emergency sirens and vehicles and the daily testing of equipment. The primary noise associated with the fire station would be the sound of emergency sirens and the trucks themselves as they exit and enter the station after going to and coming back from emergencies. The use of sirens or warning devices are necessary to protect the public. However, many fire stations do not routinely use the warning sirens in residential areas unless they are necessary. For example, if there is no traffic on the local road, the trucks would leave the site and not turn on the sirens until they were needed. If traffic on the road is a problem to trucks entering and exiting the station, a warning stop light system could be constructed that would allow the trucks to enter and exit the site without having to use their warning devices until they were quite far away.

Most of the time, there would be little or no noise generated at the fire station. However, every morning the emergency equipment is checked and engines are started. The emergency sirens and horn are generally tested within the garage with the doors closed, and then the apparatus is moved to the apron and the engine pumps are tested. Noise measurements conducted at similar fire stations during the morning equipment checkout indicate that maximum noise levels at a distance of 50 feet from the activity can reach 80-85 dBA. Other activities at the fire station would generally consist of regular maintenance activities not too different from maintenance at a typical home (truck washing, grounds keeping, etc.). These levels would not measurably increase noise levels that would exist in the area resulting from vehicular traffic along Pitt School Road, although they may occasionally be audible.

**Mitigation 6 Shield private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.**

The construction of noise barriers along the roadways would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels along arterial

roadways in the project area, noise barriers would likely range in height from six-feet to nine-feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

All single-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors.

**Impact 7      The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.**

Noise impacts resulting from the project would be similar to those described in *Construction Period Impacts– Program Level*.

Currently, noise sensitive residential developments are located north and east of the project area. In the future, depending upon project phasing in the Specific Plan, noise sensitive residential land uses could be constructed north of the project site on the Orchard Estates-Garcia parcel or west of Pitt School Road. Existing or planned receptors would be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

**Mitigation 7    Implement construction noise control measures at all construction sites as stated in *Mitigation Measure 3*. Given the expected duration of construction, the impact would remain significant.**

**Orchard Estates-Garcia**

The Orchard Estates-Garcia project site is located in the eastern part of the Specific Plan area north of the Orchard Estates-Sanders parcel. The site is bound by Pitt School Road on the west and South Lincoln Street to the east. Existing residential land uses along Hillview Drive bound the project site to the north and the proposed Orchard Estates-Sanders project site lies to the south. Development on the Orchard Estates-Garcia project site would include 57 single-family residential lots.

**Impact 8      Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” for those uses.**

Residential land uses are proposed on the Orchard Estates-Garcia parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial roadways including Pitt School Road and South Lincoln Street. Additionally, the site would be subjected to noise generated by Interstate 80 and the UPRR. Table 10, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the project, noise levels would range from about 62 to 69 dBA  $L_{dn}$  along major arterials within the project area. Exterior noise levels generated by Interstate 80 and the UPRR would be about 60 to 65 dBA  $L_{dn}$  throughout the project site. Noise levels between 60 and 70 dBA  $L_{dn}$  are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design.

This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial roadways.

**Table 10**  
**Future (2025) Noise Levels and Noise Level Contour Distances**  
**Along Arterial Roadways**

Roadway	Noise Level in dBA ( $L_{dn}$ ) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 $L_{dn}$ Noise Contour (feet)	Distance from Roadway Centerline to 60 $L_{dn}$ Noise Contour (feet)
	Pitt School Road	69	110
South Lincoln Street	62	--	95

**Mitigation 8** Shield private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.

The construction of noise barriers along the roadways would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels along arterial roadways in the project area, noise barriers would likely range in height from six-feet to nine-feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

All single-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors.

**Impact 9** The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.

Noise impacts resulting from the project would be similar to those described in Construction Period Impacts– Program Level.

Currently, noise sensitive residential developments are located north and east of the project area. In the future, depending upon project phasing in the Specific Plan, noise sensitive residential land uses could be constructed south of the project site on the Orchard Estates-Sanders parcel or west of Pitt School Road. Existing or planned receptors would be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

**Mitigation 9 Implement construction noise control measures at all construction sites as stated in Mitigation Measure 3. Given the expected duration of construction, the impact would remain significant.**

**Dixon Ridge**

The Dixon Ridge project site is located in the central portion of the Specific Plan area and is bound by West A Street on the north, Evans Road on the west, and the proposed South Parkway alignment on the south. The easternmost boundary of the project site lies at the approximate midpoint between Evans Road and Pitt School Road. The proposed North Parkway would bisect the Development on the project site would include 230 single-family residential lots and one community park.

**Impact 10 Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential land uses are proposed on the Dixon Ridge parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial roadways including West A Street, Evans Road, the proposed North Parkway alignment, and the proposed South Parkway. Table 11, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the project, noise levels would range from about 60 to 73 dBA  $L_{dn}$  along major arterials within the project area. Noise levels between 60 and 70 dBA  $L_{dn}$  are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels exceeding 70 dBA  $L_{dn}$  would be considered “normally unacceptable” for residential land uses. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial roadways.

**Table 11  
Future (2025) Noise Levels and Noise Level Contour Distances**

<b>Roadway</b>	<b>Noise Level in dBA (<math>L_{dn}</math>) – 60 ft. from the Roadway Centerline</b>	<b>Distance from Roadway Centerline to 65 <math>L_{dn}</math> Noise Contour (feet)</b>	<b>Distance from Roadway Centerline to 60 <math>L_{dn}</math> Noise Contour (feet)</b>
<b>West A Street</b>	<b>73</b>	<b>200</b>	<b>440</b>
<b>North Parkway</b>	<b>63</b>	--	<b>120</b>
<b>South Parkway</b>	<b>60</b>	--	<b>60</b>
<b>Evans Road</b>	<b>&lt; 60</b>	--	-

**Mitigation 10**      **Shield private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.**

The construction of noise barriers along the roadways would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels along arterial roadways in the project area, noise barriers would likely range in height from six-feet to thirteen-feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

All single-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors.

**Impact 11**      **The construction of the proposed project would temporarily elevate noise levels at existing and future noise-sensitive land uses.**

Noise impacts resulting from the project would be similar to those described in *Construction Period Impacts– Program Level*.

Currently, noise sensitive residential developments are located north of the project area. In the future, depending upon project phasing in the Specific Plan, noise sensitive residential land uses could be constructed west of the project site on the Evans Ranch parcel. Existing or planned receptors would be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

**Mitigation 11**      **Implement construction noise control measures at all construction sites as stated in *Mitigation Measure 3*. Given the expected duration of construction, the impact would remain significant.**

#### **Clark Ranch Estates/Clark Property-Ryder Homes**

The Clark Ranch Estates/Clark Property-Ryder Homes project site is located in the south-central portion of the Specific Plan area and is bound by Evans Road on the east, and the proposed South Parkway alignment on the south, and the boundaries of the proposed Evans Ranch development to the north and west. Development on the project site would include 54 single-family residential lots.



**Impact 12 Exposure of Persons on the Project Site to Noise Levels Exceeding the Standards of the General Plan. The project would introduce residential land uses onto sites located in a noise environment that would be considered “conditionally acceptable” or “normally unacceptable” for those uses.**

Residential land uses are proposed on the Dixon Ridge parcel. The future noise environment on this parcel would primarily result from vehicular traffic along arterial roadways including West A Street, Evans Road, the proposed North Parkway alignment, and the proposed South Parkway. Table 12, below, presents the results of traffic noise modeling conducted for the future design year traffic conditions.

With the project, noise levels would range from about 60 to 73 dBA  $L_{dn}$  along major arterials within the project area. Noise levels between 60 and 70 dBA  $L_{dn}$  are considered “conditionally acceptable” for residential land uses, and new uses introduced into this noise environment must meet certain City requirements for noise analysis and noise-attenuating design. Noise levels exceeding 70 dBA  $L_{dn}$  would be considered “normally unacceptable” for residential land uses. This is a potentially significant impact for residential land uses proposed in the project area adjoining arterial roadways.

**Table 12  
Future (2025) Noise Levels and Noise Level Contour Distances  
Along Arterial Roadways**

Roadway	Noise Level in dBA ( $L_{dn}$ ) – 60 ft. from the Roadway Centerline	Distance from Roadway Centerline to 65 $L_{dn}$ Noise Contour (feet)	Distance from Roadway Centerline to 60 $L_{dn}$ Noise Contour (feet)
West A Street	73	200	440
North Parkway	64	--	150
South Parkway	60	--	60
Evans Road	< 60	--	--

**Mitigation 12 Shield private outdoor use areas of single-family residential units from traffic noise generated along arterial roadways by noise barriers where noise levels exceed 60 dBA  $L_{dn}$ . Incorporate noise insulation treatments in residential units as necessary to achieve “acceptable” interior noise levels. With the incorporation of these features, the potential impact would be less than significant.**

The construction of noise barriers along the roadways would reduce the  $L_{dn}$  to 60 dBA or less. The specific heights and limits of noise barriers or open space buffer zones cannot be determined until final grading plans are developed for the project. Given the future predicted noise levels along arterial roadways in the project area, noise barriers would likely range in height from six-feet to thirteen-feet assuming the roadway, barrier, and outdoor use areas are at the same elevation.

All single-family residential land uses located within the 60 dBA  $L_{dn}$  contour distances should be designed such that the indoor  $L_{dn}$  level shall not exceed 45 dBA. The designs for housing shall be reviewed by an acoustical specialist and the necessary noise control treatments included into the project design. All such units shall be provided forced-air mechanical ventilation systems so that windows may be closed for noise control at the occupants discretion. Additional noise control treatments could include sound rated windows and doors.

**Impact 13**            **The construction of the proposed project would temporarily elevate noise levels at future noise-sensitive land uses.**

**Noise impacts resulting from the project would be similar to those described in Construction Period Impacts– Program Level.**

Currently, there are no noise sensitive located in the vicinity of the project area. In the future, depending upon project phasing in the Specific Plan, noise sensitive residential land uses could be constructed west and north of the project site on the Evans Ranch parcel or east of the project site on the Dixon Ridge parcel. Planned receptors could be exposed to noise levels exceeding 60 dBA during the daytime or 55 dBA at night for periods exceeding one construction season. This is a significant and unavoidable temporary noise impact.

**Mitigation 13.**        **Implement construction noise control measures at all construction sites as stated in *Mitigation Measure 3*. Given the expected duration of construction, the impact would remain significant.**

**APPENDIX D**

**WATER SUPPLY REPORT**

Dixon-Solano Municipal Water Service

**Water Supply Assessment  
for the  
Southwest Dixon Development,  
Dixon, California**

**April 11, 2003**

Prepared for DSMWS by:  
Solano Irrigation District  
Engineering Department

Dixon Solano Municipal Water Service  
**Water Supply Assessment for the  
 Southpark Development, Dixon, California**

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- 1. Appendix D, "Projected Number of Housing Units in Dixon Based on a 3 Percent Growth Rate, 1996-2030," from the City of Dixon 1993 General Plan.
- 2. Table 3.2, "Average Daily Demand Rates," from the DSMWS 2000 Water Master Plan

# **Water Supply Assessment for the Southwest Dixon Development**

## **Introduction**

The Southwest Dixon development is proposed for lands within the town of Dixon. It is located in the Dixon-Solano Municipal Water Service (DSMWS) Service Area. DSMWS received a request from Ponticello Enterprises, consultants to the City of Dixon, to provide a Water Supply Assessment pursuant to Water Code §§ 10910-10915. An Environmental Impact Report is being prepared for the Southwest Dixon Specific Plan, and this assessment will provide information to be used in the EIR for evaluating the project's effects on water supply.

Because DSMWS is not yet serving the amount of water or the number of connections to qualify it as a "public water system" per Water Code § 10617, an Urban Water Management Plan has not yet been prepared for DSMWS. Therefore this Water Supply Assessment must contain more information to substantiate its conclusions than it would if an UWMP were available for reference. Substantial evidence supporting the conclusions in this Water Supply Assessment will be taken from information contained in several reports applicable to DSMWS and its water supplies. References to these documents are noted in the "references" section on page 16.

## **Project Description**

The Southwest Dixon development project covers about 477 acres located southwest of central Dixon. This land is currently within the Dixon city limits, but is agricultural land and receives irrigation service from the Solano Irrigation District. Most of the development will receive domestic water service from DSMWS, but there is a small area on its eastern edge that will be served by the California Water Service Company (Cal Water).

Of the 477 acres, approximately 307 acres will be developed into 1,221 housing units of various densities, and 177 acres will be developed into commercial, industrial and other

uses. As required by DSMWS, the developers are required to fund construction of a new water supply facility known as the Southwest Facility. This will include a 1,500 gpm groundwater deepwell, a 1 million gallon water storage tank, and a 2,000 gpm booster pump facility. Water distribution pipelines and individual services will be constructed per improvement plans conforming to DSMWS standards and approved by DSMWS.

### **Requirement for Water Supply Assessment**

Because the Southwest Dixon Specific Plan is a project subject to CEQA, a Water Supply Assessment (WSA) is required per Water Code § 10910(c)(1). The Southwest Dixon development is a "project" per Water Code § 10912(a)(1) since it has more than 500 dwelling units.

### **Summary of Water Supply and Water Rights**

DSMWS is a joint exercise of powers by the City of Dixon and the Solano Irrigation District to jointly provide water for municipal and industrial uses within the common boundaries of the two entities. It was formed under an agreement signed in 1984 which subjected its exercise of powers to restrictions upon the manner of exercising such powers pertaining to the District. DSMWS currently supplies and delivers just groundwater within its service area. Per Water Code § 10910(d)(1) the existing water supply entitlements, water supply rights or water service contracts relevant to the DSMWS water supply for the Southwest Dixon development project must be identified. A description of the quantities of water received in prior years by DSMWS under the existing water supply entitlements, water supply rights or water service contracts must be included as well.

DSMWS may extract ground water for distribution and sale within its service area under Water Code §§ 22075, 22076 and 22078. Therefore it is not relying on the landowner's rights to extract additional groundwater needed to supply the proposed development. For a description of the quantities of groundwater received in prior years by DSMWS, refer to the following section titled "Historical DSMWS Groundwater Production" on page 9.



## **Groundwater Basin Description**

As required by Water Code §10910(f)(2), the following narrative describes the groundwater basin from which the Southwest Dixon development will be supplied. The following information is condensed from the 1988 and 1995 Groundwater Resources Reports. Please refer to Figure A, which is Plate 1 from the 1995 Groundwater Resources Report.

The Southwest Dixon development is bisected by a channel ridge of Putah Creek known as the Dixon Ridge. This puts the Southwest Dixon development partly in the area known as the Southwest Putah Plain (southwest of the Ridge), and partly in the area known as the Putah Creek Fan (northeast of the Ridge). The rest of the existing and proposed development areas in Dixon are located in the Putah Creek Fan. The availability of water from these two hydrogeologic areas will be addressed separately.

### The Southwest Putah Plain

Referring to the 1995 Groundwater Resources Report, pages 13 to 18, the water-bearing strata in the Southwest Putah Plain near Dixon consist of a geologic layer of younger alluvium (less than 25 feet thick), over a layer of older alluvium (60 to 130 feet thick), over the Tehama formation (up to 3,000 feet thick at Dixon). Recharge to the shallow aquifers in the Southwest Putah Plain occurs primarily from deep percolation of precipitation and seepage losses from the small streams flowing out of the English Hills. Direct recharge also occurs from Putah Creek into the older alluvium and into the more permeable layers of the Tehama formation. The Tehama aquifers respond to pumping like a large conduit rather than the typical groundwater basin which is alternately emptied and filled. As water is removed from the Tehama aquifers by wells there is induced within those aquifers a horizontal flow (mainly from the east) into the pumped area. If the amount of this flow (on a seasonal basis) is equal to the amount removed by the wells, the pumped area tends to stabilize and produces a "dynamic equilibrium." An analysis of the static water level measurements from 1987 through 1994 in Vacaville wells indicates that groundwater levels have recovered following periods of heavy pumping.

## The Putah Creek Fan

The Putah Creek Fan also includes alluvial deposits from 60 to 130 feet thick. These are the most permeable and productive aquifers in Solano County. Below the older alluvium lie the aquifers in the upper portion of the Tehama formation. These aquifers are less permeable than the shallower ones, but are thicker and therefore also quite productive. These aquifers are interconnected as evidenced by wells drawing water from different levels having similar water levels in the spring before pumping starts. Recharge to the aquifers in the Putah Creek Fan comes from deep percolation of precipitation and excess applied surface water on the valley floor, seepage losses from Putah Creek, and from subsurface groundwater flow from Yolo County.

Both of these areas are part of the Solano Subbasin of the Sacramento Valley Groundwater Basin as described in DWR Bulletin 118, "California's Groundwater." This groundwater subbasin has not been identified as overdrafted or projected to be overdrafted, nor has it been adjudicated.

## **Groundwater Supply Availability**

### The Southwest Putah Plain

The agencies pumping from the Southwest Putah Plain include the City of Vacaville, the Rural North Vacaville Water District, and Solano Irrigation District. Numerous private wells also draw from this area. The actual volume of water being pumped by the City of Vacaville and others from the deep coarse-grained zone is probably less than 10,000 acre-feet per year. The amount of water being pumped from the deeper coarse-grained zone of the Tehama formation is a minor percentage of the volume of water contained in this zone. The coarse-grained zone of the Tehama formation is a substantial aquifer, and at the present time [1995], due to its depth and the economic cost of installing and maintaining deepwells, it is only being tapped as an important water supply source in the southwestern Sacramento Valley near Vacaville.

The ground water levels do drop during droughts, but they recover. In the Southwest Putah Plain, as noted on pages 15 and 16 of the 1995 Groundwater Resources Report, "During the 1987 to 1992 period when groundwater pumping varied from 5,400 to 6,300 acre-feet per year, there was no significant increase or decrease in the static water levels." On page 16 of the same report it is noted that through the 1987-1992 drought period, "it appears that the safe yield of the [Vacaville] well field may not have been reached."

The proposed Southwest Dixon Well will probably be located in the easternmost part of the Southwest Putah Plain. (See Figure A.) Here the available groundwater quantity should be greater than at the Vacaville well field.

### The Putah Creek Fan

The safe annual groundwater yield for the Putah Creek Fan was estimated in USGS Water Supply Paper 1464 to be approximately 40,000 acre-feet per year before surface irrigation from the Solano Project began in 1959. This surface irrigation increased the recharge and decreased the pumping. It is reasonable to assume an additional net recharge of approximately 10,000 acre-feet per year has occurred. -

Solano Irrigation District currently pumps about 6,000 acre-feet of groundwater annually, and historically has pumped as much as 14,000 acre-feet. See Table 2 and Appendix A of the 1995 Groundwater Resources Report. As recommended in the 1988 Groundwater Resources Report, from 25,000 to 30,000 acre-feet should be pumped annually to augment supplies and avoid water logging of soils in the Putah Fan Area. Therefore it can be assumed that the District could extract an additional average of almost 20,000 acre-feet per year in the Putah Creek Fan.

### Groundwater Monitoring

To protect the groundwater resource in northern Solano County, Solano Irrigation District adopted an A.B. 3030 Groundwater Management Plan in February 1995. In addition, the

City of Dixon and the Solano Irrigation District, among others, participated in the preparation of the 1995 Groundwater Resources Report. The participants in the Report have agreed that groundwater levels will be monitored and groundwater pumping modified, as required to ensure preservation of the groundwater resource. (See the Recommendations beginning on page 26 in the 1995 Groundwater Resources Report.)

### Drought Impacts

Groundwater level measurements have remained reasonably constant in the Putah Creek Fan since the Solano Project was constructed and surface water supplies delivered to the agricultural lands. There is a tremendous amount of useable water stored in the existing groundwater supply which provides the City of Dixon with a safety factor for needed water supplies during periods of drought. The average specific yield (the volume of water which will drain freely from an aquifer) is estimated at 6% for the Putah Creek Fan. The Putah Creek Fan north and west of Dixon includes an area of approximately 45 square miles. In this area each 10-foot thickness below the groundwater table represents a volume of water of approximately 17,000 acre feet. This groundwater supply is available during drought periods to meet the City of Dixon water supply needs. Groundwater levels will reduce during droughts, but following recent droughts water levels have recovered without any long term impacts.

### **Historical DSMWS Groundwater Production**

Water Code § 10910(f)(3) requires a detailed description and analysis of the amount and location of groundwater pumped by DSMWS for the past five years from the groundwater basin from which the Southwest Dixon development project will be supplied. This is to be based on information that is reasonably available including, but not limited to, historic use records.

Table 1 presents the actual annual water usage by the DSMWS system since 1986. The water produced during these years is taken from the DSMWS Reports to the Public Water Supply Branch of the California Department of Health Services. Domestic supply by the

two partners in DSMWS (Dixon and SID) began in 1979 but no records exist of how much water was delivered from 1979 to 1986. The DSMWS water supply is entirely from groundwater deepwells, and no surface water supply is currently used. There are three wells currently in service, all of which are located within the DSMWS Service Area. Please refer to Figure B which is Plate 4.3 of the DSMWS 2000 Water Master Plan (copy attached) to see the locations of Well No. 1 (at the Industrial Park Facility), Well No. 2 (at the Watson Ranch Facility) and Well No. 3 (at the School Well Facility).

### **Documentation of Water Supply**

Water Code § 10910(d)(2) requires demonstration that DSMWS has the right to pump groundwater for the Southwest Dixon development project by providing information related to several issues, as follows:

- A. Written Proof of Entitlement: As described above, DSMWS through its partners (SID and Dixon) has the right to extract and purvey ground water under provisions of the Water Code.
  
- B. Capital Outlay Program: To finance the delivery of the groundwater supply, DSMWS requires that development projects must include the facilities to supply and distribute water to the new development. This may occur by building facilities or by paying connection fees calculated to pay the cost of the facilities. The terms and conditions are set forth in development agreements between the developers and the City of Dixon on behalf of DSMWS.
  
- C. Permits for Construction: Water production facilities are exempt from local building and zoning ordinances per Government Code § 53091(c) and (d). (Nonetheless DSMWS obtains permits for them from the City of Dixon and Solano County at no charge for record purposes.)

D. Required Regulatory Approvals for Conveyance: Since DSMWS is supplying water in accordance with the Water Code, no further regulatory approvals are required for service within its Service Area.

## **Demand Analysis**

### Statutory Requirements

Water Code § 10910(c)(3) requires an analysis of the projected water demand of the Southwest Dixon development project. Since an Urban Water Management Plan has not been prepared for DSMWS, the following discussion has been included in this Water Supply Assessment. The discussion must address several issues:

- A. This discussion must not only address the demand from the Southwest Dixon development, but demands of the existing DSMWS customers, planned future uses, and agricultural and manufacturing uses.
- B. This demand analysis must consider the projected 20-year water demand in 5-year increments in order to verify that a sufficient water supply is available for the planned development throughout the whole DSMWS Service Area.
- C. Water use must be segregated into the water use sectors required by the Urban Water Management Planning Act, Water Code § 10631(e)(1).

In the interest of brevity, some information that might be included in an Urban Water Management Plan is not included here. This includes climatological data, population projections and numbers of connections.

### Prior Analysis

The DSMWS 2000 Water Master Plan water demand analysis is based on land uses defined in the City of Dixon 1993 General Plan. Specifically the number of units or acres

and historic water usage for each land use is collected and analyzed to determine rates of water usage and development. The General Plan land uses correspond well to the “water use sectors” required by Water Code § 10910(e)(1). Therefore the following data is presented in the same format used in the DSMWS 2000 Water Master Plan.

An annual projection of development and water use was included in the 1995 DSMWS Water Master Plan. While it was updated for the 2000 Water Master Plan, it was not included since the updated Plan was to address Buildout conditions only. For this demand analysis, elements of the annual development and water use projections have been updated and condensed to meet the requirements of the Water Code.

### **Development Rates**

To determine the rates at which the General Plan land uses develop, a detailed inventory of existing parcels in the Service Area was prepared. A summary of the information gathered through 1998 is presented as Section 7, “Service Area Inventory,” in the 2000 DSMWS Water Master Plan. For this Water Supply Assessment, a summary of the annual increase in development, sorted by land use, and updated to include every parcel in the DSMWS Service Area as of December, 2002, is presented in Table 3, “Development Rate Analysis, 1994-2002.” The dates on DSMWS meter installation work orders were used to establish when parcels changed from “undeveloped” to “developed.” Further analysis has been done as follows.

#### **Residential Development Rates**

Measure “B,” passed by voters on April 8, 1986, limits the number of new dwelling units to 3% or less of the number of existing units in the entire city at the end of the previous calendar year. Appendix D of the 1993 General Plan is a projection of the number of housing units in Dixon until 2030, based upon this 3% growth rate. Attachment 1 to this report is a copy of Appendix D of the 1993 General Plan. The “New Units” column is used verbatim in the “Residential Allocation” row (row 8) of Table 6 to model the increase in residential units.

The numbers of residential units added each year to the three housing densities (LD, MDL and MDH) are assumed to be in the same proportion as the number of units of each type in 1998. Therefore, of the 147 new units to be added in 1999, 109 are assumed to be Low Density units, 24 are assumed to be Medium Density - Low units, and 15 are assumed to be Medium Density - High units. (See Note 2 on Table 6 for a small table demonstrating this calculation.)

### Commercial and Industrial Development Rates

Table 3, "Development Rate Analysis, 1994-2002," shows the average development rates for the General Plan land uses over the last nine years. These rates are compared with several others in Table 4, "Non-Residential Development Rate Comparison, 1994-2002."

These other rates include:

- Rates used for the Facility Development Analysis in the DSMWS 1995 Water Master Plan;
- Projections in the City of Dixon 1995 Wastewater Treatment and Disposal Facilities Plan, the 1996 Development Fee Plan and the 1998 Traffic Model; and
- Projections by the City of Dixon Community Development Department.

Table 4 also lists the non-residential development rates used in this report, specifically in Table 6. A combination of the growth rates for various commercial and industrial land uses has been used. These rates are six (6) commercial acres per year, fifteen (15) industrial acres per year, and five (5) "other" acres per year. These rates were established in the DSMWS 1995 Water Master Plan (Reference 6) as a reasonable maximum rate, and is close to the high rates from the several City plans and models shown in Table 4. Buildout of all land uses within the existing General Plan area occurs past 2020 except Governmental/ Institutional, which builds out in 2006, and School which builds out in 2014.



## Development beyond General Plan Buildout

The annual demand projections include all areas within the 1993 General Plan, including the Southwest Dixon development area. At the development rates used, the several of the General Plan's land uses will be fully developed ("built out") within the General Plan area within the 20-year period of this analysis. For example, the planned residential units will all be built out by approximately 2011 if the maximum number of units allowed by Measure "B" is constructed each year. It is assumed that new areas will be added to the General Plan and annexed to the City of Dixon, and that development of both residential and non-residential uses will continue in the DSMWS Service Area at the same rates projected for development in the General Plan area. This appears to be a reasonable assumption.

The reader should understand that this implies water demand exceeding the capacity of water supply facilities (wells, tanks and booster pumps) currently planned. When planning for such additional development areas, additional water supply facilities will be required to meet the additional demand. These will be planned in accordance with DSMWS standards and constructed in a timely fashion to meet the increasing water demand. This Water Supply Assessment compares water demand by developed areas with water supply (i.e. groundwater supply), not with the capacity of planned water supply facilities.

### **Water Demand Rates**

Water demand rates in the DSMWS Service Area were established by studying annual water usage records of over 400 water services. This study is presented in Section 3, "Water Demand" and Section 8, "Water Usage Study" in the DSMWS 2000 Water Master Plan. Average usage rates were calculated, and design rates were selected for the several land uses into which the DSMWS Service Area was divided. These rates, called "Average Daily Demand Rates," were summarized in Table 3.2 of the DSMWS 2000 Water Master Plan. Table 3.2 is included in this report as Attachment 2. No major changes have occurred in the planned land uses within the DSMWS Service Area that would affect these water demand rates prepared in 1995 and updated in 2000.

## **Projected Water Demand**

### Normal Water Demand

Based on the analysis of water demand for the General Plan area at buildout that is presented in Table 3.4 of the DSMWS 2000 Water Master Plan, the water demand projection for the current planned development is presented in Table 5, "Projected Water Demand for the DSMWS Service Area at Buildout." However, as noted above, this Assessment assumes development will continue beyond, and after the buildout of, the General Plan area.

Table 6, "Annual Demand Projections," shows this analysis in greater detail, and combines the development and water demand rates to estimate the amount of water needed to serve actual, projected and assumed future development within the DSMWS Service Area. Lines 4 through 18 in Table 6 tabulate the annual increase in the number of units demanding water. From the Pre-1994 columns through 2002, actual numbers are used. From 2003 through 2023 the increase in the number of units is based on the development rates described previously. The water demand figures are stated in acre-feet per year for each land use and are the normal demand averaged over a one year period. Peak demands, as addressed in the DSMWS 2000 Water Master Plan, are not pertinent to this Assessment.

### Dry Year Water Demand

Demand during "dry" years is conservatively assumed to be the same as during normal years. Review of the DSMWS historical water usage implies that this has happened in the past. Variations in demand due to climate are assumed to be accounted for in the averaging of water usage when calculating the Average Daily Demand Rates shown in Attachment 2.

The water demand figures of Table 6, in 5-year increments to conform to the Urban Water Management Planning Act format, are presented in Table 7, "Summary of Annual Demand Projections."

## Comparison of Water Supply and Demand

### Projected Deliveries vs. Projected Demand

All present and future deliveries, as presented in Tables 6 and 7, may be provided from the groundwater resource. Per Tables 6 and 7, by 2023 the water demand is estimated to be approximately 7,200 acre-feet per year. Annual production of groundwater from the basins underlying the planned and future DSMWS Service Area may be increased by approximately 10,000 to 15,000 acre-feet. Assuming that new water supply facilities (wells, etc.) are constructed as development occurs, there is sufficient groundwater available to meet the water demands of new development.

### Conclusion: Sufficiency of Water Supply

The groundwater basin used by DSMWS is in no apparent overdraft condition and can provide enough water without exceeding its safe yield to serve the development proposed for the remainder of the DSMWS service area outlined in the DSMWS Water Master Plan. This includes the Southwest Dixon development project.

Based on the analysis above, we conclude that there is a sufficient water supply to meet the demands of the Southwest Dixon development as well as the other proposed and assumed future developments and other water users within the DSMWS Service Area for the next 20 years and more.

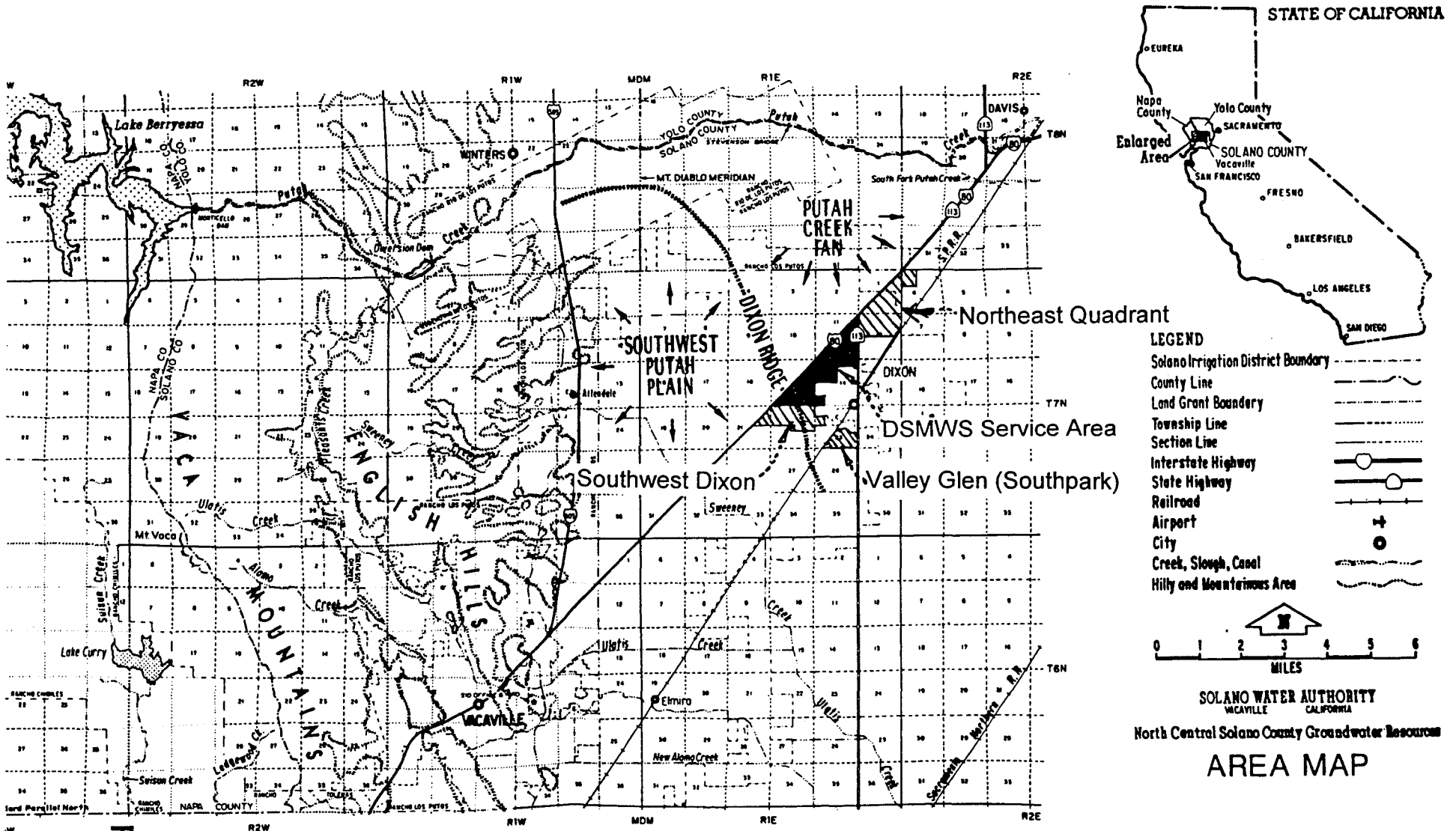
### Qualifications

This Water Supply Assessment is prepared solely for the purpose of complying with Water Code §§ 10910-10915. Pursuant to Water Code § 10914, nothing herein shall be construed to create a right or entitlement to water service or any specific level of water service, nor to impose, expand or limit any duty concerning the obligation of DSMWS to provide certain service to its existing customers or to any future potential customers, or to

modify or otherwise change existing law with respect to projects which are not subject to Water Code §§ 10910-10915. Provision of water service by DSMWS will be based on compliance with development requirements, terms and conditions established by DSMWS.

## References

1. Summers Engineering, Inc., Groundwater Resources, June, 1988, prepared for the Solano Irrigation District. This report is referred to herein as the 1988 Groundwater Resources Report.
2. Summers Engineering, Inc., An Updated Plan for the Improvement of the Irrigation Distribution Works, February, 1993, prepared for the Solano Irrigation District. This report is referred to herein as the 1993 R&B Plan.
3. Summers Engineering, Inc., A.B. 3030 Groundwater Management Plan, February, 1995, prepared for the Solano Irrigation District.
4. Summers Engineering, Inc., North Central Solano County Groundwater Resources Report, dated May 16, 1995; prepared for the Solano Water Authority; known herein as the 1995 Groundwater Resources Report.
5. Dixon-Solano Municipal Water Service, Master Plan for the Water Supply and Delivery System through the Year 2010, October, 1995. This report is referred to herein as the DSMWS 1995 Water Master Plan.
6. Dixon-Solano Municipal Water Service, Master Plan for the Water Supply and Delivery System through Buildout, January, 2000. This report is referred to herein as the DSMWS 2000 Water Master Plan.



- LEGEND**
- Solano Irrigation District Boundary
  - County Line
  - Land Grant Boundary
  - Township Line
  - Section Line
  - Interstate Highway
  - State Highway
  - Railroad
  - Airport
  - City
  - Creek, Slough, Canal
  - Hilly and Mountainous Area



SOLANO WATER AUTHORITY  
 VACAVILLE CALIFORNIA  
 North Central Solano County Groundwater Resource

**AREA MAP**

SUMMERS ENGINEERING, INC.  
 Consulting Engineers  
 HANFORD CALIFORNIA

FEBRUARY 1995

Figure A

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment**

**Table 1  
Historical Annual Groundwater Production by DSMWS**

Year	Production	
	Millions of Gallons	Acre-Feet
1979	*	*
1980	*	*
1981	*	*
1982	*	*
1983	*	*
1984	*	*
1985	*	*
1986	*	*
1987	146.03	448
1988	153.03	470
1989	162.92	500
1990	217.26	667
1991	220.31	676
1992	250.00	767
1993	265.10	814
1994	302.29	928
1995	328.82	1,009
1996	376.32	1,155
1997	454.57	1,395
1998	433.09	1,329
1999	541.42	1,662
2000	554.57	1,702
2001	586.82	1,801
2002	600.89	1,844

\* Information for these years is unavailable.

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment**

**Table 2**  
**Historical Annual Groundwater Production**  
**by Solano Irrigation District, in acre-feet**

Well Number	Irrigation Season			3-Year Averages
	2000	2001	2002	
<b><i>Wells in the Putah Creek Fan</i></b>				
DD 1	0	0	0	
DW 2	439	387	780	
DW 5	184	133	0	
DW 6	0	0	0	
DW 8	383	371	183	
DW 9	346	330	319	
DW 10	0	0	0	
DW 11	0	0	0	
DW 12	158	115	671	
DW 15	201	146	192	
DW 20	739	553	509	
DW 21	8	0	0	
DW 22	164	232	451	
DW 26	512	487	416	
DW 45	361	559	364	
DW 49-A	280	198	455	
DW 49-B	283	271	354	
DW 50	0	970	837	
DW 51	0	0	0	
<b>PCF Subtotals</b>	<b>4,058</b>	<b>4,752</b>	<b>5,531</b>	<b>4,780</b>
<b><i>Wells in the Southwest Putah Plain</i></b>				
DD 2	0	0	0	
DD 3	0	0	0	
DD 4	0	0	0	
DD 5	145	46	15	
DD 6	0	0	0	
DD 7	270	127	148	
DD 8	0	0	0	
DD 9	0	0	0	
DD 10	0	0	0	
DD 11	0	0	0	
DW 1	342	167	568	
DW 27	385	138	200	
DW 29	494	0	392	
DW 35	86	0	13	
DW 36	0	0	0	
DW 39	2	2	2	
<b>SWPP Subtotals</b>	<b>1,724</b>	<b>480</b>	<b>1,338</b>	<b>1,181</b>
<b>Totals</b>	<b>5,782</b>	<b>5,232</b>	<b>6,869</b>	<b>5,961</b>

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment**

**Table 3  
Development Rate Analysis  
1994-2002**

Data presented below is collected from DSMWS meter installation workorders and Solano County Assessor's Maps.

**RESIDENTIAL, in units**

Land Use:	LD + VLD		MDH		MDL		Total	
	# units	% incr.	# units	% incr.	# units	% incr.	# units	% incr.
<b>Planned</b>		3.00%		3.00%		3.00%		3.00%
<b>Actual</b>								
pre-1994	716		101		172		989	
1994	862	20.39%	101	0.00%	197	14.53%	1,160	17.29%
1995	937	8.70%	101	0.00%	286	45.18%	1,324	14.14%
1996	1,095	16.86%	101	0.00%	397	38.81%	1,593	20.32%
1997	1,159	5.84%	101	0.00%	438	10.33%	1,698	6.59%
1998	1,273	9.84%	101	0.00%	457	4.34%	1,831	7.83%
1999	1,273	0.00%	101	0.00%	457	0.00%	1,831	0.00%
2000	1,273	0.00%	101	0.00%	457	0.00%	1,831	0.00%
2001	1,284	0.86%	101	0.00%	457	0.00%	1,842	0.60%
2002	1,333	3.82%	101	0.00%	457	0.00%	1,891	2.66%

**COMMERCIAL, in acres & acres per year**

Land Use:	HC		CC, NC, O		SC	
	Acres	Ac/yr	Acres	Ac/yr	Acres	Ac/yr
<b>Planned</b>		2.5		1.5		2
<b>Actual</b>						
pre-1994	31.09		15.60		6.61	
1994	33.37	2.28	15.60	0.00	6.61	0.00
1995	34.28	0.91	15.60	0.00	6.61	0.00
1996	35.22	0.94	15.60	0.00	11.00	4.39
1997	38.57	3.35	15.60	0.00	12.29	1.29
1998	42.27	3.70	15.60	0.00	12.29	0.00
1999	47.56	5.29	15.60	0.00	12.29	0.00
2000	55.94	8.38	17.45	1.85	12.29	0.00
2001	55.94	0.00	17.45	0.00	12.29	0.00
2002	63.87	7.93	17.45	0.00	12.29	0.00
<b>9 years</b>	<b>32.78</b>	<b>3.64</b>	<b>1.85</b>	<b>0.21</b>	<b>5.68</b>	<b>0.63</b>

**INDUSTRIAL & OTHER, in acres & acres per year**

Land Use:	Industrial		G		P		S		L/S	
	Acres	Ac/yr	Acres	Ac/yr	Acres	Ac/yr	Acres	Ac/yr	Acres	Ac/yr
<b>Planned</b>		15		0.5		1.5		2		1
<b>Actual</b>										
pre-1994	92.57		4.66		28.87		4.30		3.53	
1994	92.57	0.00	4.66	0.00	28.87	0.00	4.30	0.00	3.53	0.00
1995	95.01	2.44	4.66	0.00	28.87	0.00	4.30	0.00	3.53	0.00
1996	95.01	0.00	4.66	0.00	28.87	0.00	4.30	0.00	3.53	0.00
1997	120.52	25.51	4.66	0.00	32.47	3.60	4.30	0.00	9.09	5.56
1998	120.52	0.00	4.66	0.00	40.95	8.48	4.30	0.00	9.09	0.00
1999	136.35	15.83	4.66	0.00	40.95	0.00	4.30	0.00	9.09	0.00
2000	158.91	22.56	4.66	0.00	40.95	0.00	4.30	0.00	9.09	0.00
2001	224.65	65.74	4.66	0.00	40.95	0.00	4.30	0.00	9.09	0.00
2002	227.88	3.23	4.66	0.00	40.95	0.00	4.30	0.00	9.09	0.00
<b>9 years</b>	<b>135.31</b>	<b>15.03</b>	<b>0.00</b>	<b>0.00</b>	<b>12.08</b>	<b>1.34</b>	<b>0.00</b>	<b>0.00</b>	<b>5.56</b>	<b>0.62</b>



Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 4**  
**Non-Residential Development Rate Comparison**  
**1994-2002**

Line	Information Source	Land Use									
		Commercial				Ind.	Other				
		HC	CC, NC, O	SC	Total		G	P	L/S	S	Total
1	<b>DSMWS</b>										
2	<b>Assumed development rate</b>	2.50	1.50	2.00	6.00	15.00	0.50	1.50	1.00	2.00	5.00
3	<b>1995 Water Master Plan</b>										
4	Low development rate	1.00	0.50	1.50	3.00	2.00	0.20	0.50	0.50	1.00	2.20
5	High development rate	2.00	1.50	1.50	5.00	15.00	0.50	1.50	1.00	2.00	5.00
6	<b>1994-2002 Average (see Table 2)</b>	3.64	0.21	0.63	4.48	15.03	0.00	1.34	0.62	0.00	1.96
7	<b>City of Dixon Data</b>										
8	<b>Planning Department</b>										
9	12-year Historical Growth Rate				4.00	6.00					
10	Average-Growth Estimate				7.00	11.00					
11	Aggressive-Growth Estimate				12.00	15.00					
12	<b>Wastewater Treatment Facilities Plan (1995)</b>										
13	Low growth rate				2.00	2.00					
14	Average growth rate				3.50	8.50					
15	High growth rate				5.00	15.00					
16	<b>Development Fee Plan (1996)</b>										
17	30% coverage ratio				5.00						
18	40% coverage ratio					17.80					
19	<b>Traffic Model (1998)</b>										
20	30% coverage ratio				5.00						
21	40% coverage ratio					17.80					

Notes

(1) Only non-residential rates are compared. Residential development is limited per Measure B.

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment**

**Table 5  
Projected Water Demand  
for the DSMWS Service Area at Buildout**

Service Area Zone	Annual Average Demand	
	gallons per minute	acre-feet
Core Zone	1,771	2,857
South Zone		
Southpark (Valley Glen)	238	384
Additional Area	3	5
Southwest Dixon	648	1,045
North Zone	1,026	1,655
<b>Total</b>	<b>3,686</b>	<b>5,946</b>

Based on Table 3.4 in the DSMWS 2000 Water Master Plan.  
Updated with new unit and acreage data from the Valley Glen and  
Southwest Dixon developers.

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Analysis**

**Table 6  
Annual Demand Projections**

**General Notes**

- (1) The existing number of Dwelling Units (DU) and acres of each land use designation (LUD) through 1998 are tabulated in the DSMWS 2000 Water Master Plan, Section 7, Table 7.1. Figures for 1999-2002, based on an update of the DSMWS System Inventory done in December, 2002, have been added.
- (2) The number of new residential Dwelling Units (DU) is given in projections from the City of Dixon Planning Department. They are based on the Measure B 3% Annual Growth Limitation. All growth is assumed to occur in the DSMWS Service Area. The allocation of these yearly figures to each of the three residential land uses is proportional to the number of existing units in each LUD in 1998. For example:

L.U.D.	1998 Data		# UNITS 1999	# UNITS 2000
	No. of Units	Proportion		
LD + VLD	1223	73.94%	109	112
MDL	267	16.14%	24	24
MDH	164	9.92%	15	15
<b>TOTAL</b>	<b>1,654</b>	<b>100.00%</b>	<b>147</b>	<b>151</b>

As of 2000, the proportion of residential land uses was virtually unchanged from 1994. This relationship is assumed to hold true throughout the Demand Analysis period. For this Water Supply Assessment, development is assumed to continue at the same rates, which implies that additional land will be annexed to the City of Dixon and served by DSMWS as it develops.

- (3) Development rates of non-residential areas, in acres/year, are assumed to be as follows. They are from Table 4, line 2.

<b>Commercial</b>	
HC	2.5
NC,CC,O	1.5
SC	2.0
<b>Total Commercial:</b>	<b>6.0</b>
<b>INDUSTRIAL</b>	<b>15.0</b>
<b>Other</b>	
GOVERNMENTAL/INSTITUTIONAL	0.5
PARKS	1.5
SCHOOLS	2.0
LANDSCAPING	1.0
<b>Total Other:</b>	<b>5.0</b>
<b>Grand Total:</b>	<b>26.0</b>

- (4) Annual Average Demand, ADD = (Total DU or acres) x (ADD Demand Rate, per DSMWS 2000 Water Master Plan Table 3.2, in GPD per DU or GPD per acre) x (365 days per year) / (325,851 gallons per acre-foot)

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year	Pre-1994			1994			1995			
2	Land Use Designation (LUD)	Exist.	Total	AAD	New	Total	AAD	New	Total	AAD	
3	Unit	(1)		(4)	(2,3)		(4)	(2,3)		(4)	
4	<b>Residential</b>										
5	LD + VLD	DU	716	716	481	146	862	579	75	937	630
6	MDL	DU	172	172	92	25	197	106	89	286	154
7	MDH	DU	101	101	45	0	101	45	0	101	45
8	<i>Residential Allocation</i>	DU	989	989		171	1,160		164	1,324	
9	<b>Non-Residential</b>										
10	HC	Acres	31.09	31.09	167	2.28	33.37	179	0.91	34.28	184
11	NC,CC,O	Acres	15.60	15.60	50	0.00	15.60	50	0.00	15.60	50
12	SC	Acres	6.61	6.61	21	0.00	6.61	21	0.00	6.61	21
13	Industrial	Acres	92.57	92.57	149	0.00	92.57	149	2.44	95.01	153
14	Governmental/Institutional	Acres	4.66	4.66	15	0.00	4.66	15	0.00	4.66	15
15	Parks	Acres	28.87	28.87	93	0.00	28.87	93	0.00	28.87	93
16	School	Acres	4.30	4.30	28	0.00	4.30	28	0.00	4.30	28
17	Landscaping	Acres	3.53	3.53	23	0.00	3.53	23	0.00	3.53	23
18	Total Non-Residential	Acres	187.23	187.23		2.28	189.51		3.35	192.86	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr			1,166			1,290			1,397	
22	Actual Delivery per DWR Annual Reports						928			1,009	
23	Actual as % of Projected						72.0%			72.2%	

For notes (1) to (4) see General Notes.

Note: Years 1994 to 2002 are shaded signifying historical data is shown.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		1996			1997			1998		
2	Land Use Designation (LUD)		New	Total	AAD	New	Total	AAD	New	Total	AAD
3	Unit		(2,3)		(4)	(2,3)		(4)	(2,3)		(4)
4	<b>Residential</b>										
5	LD + VLD	DU	158	1,095	736	64	1,159	779	114	1,273	856
6	MDL	DU	111	397	213	41	438	235	19	457	246
7	MDH	DU	0	101	45	0	101	45	0	101	45
8	<i>Residential Allocation</i>	DU	269	1,593		105	1,698		133	1,831	
9	<b>Non-Residential</b>										
10	HC	Acres	0.94	35.22	189	3.35	38.57	207	3.70	42.27	227
11	NC,CC,O	Acres	0.00	15.60	50	0.00	15.60	50	0.00	15.60	50
12	SC	Acres	4.39	11.00	35	1.29	12.29	40	0.00	12.29	40
13	Industrial	Acres	0.00	95.01	153	25.51	120.52	194	0.00	120.52	194
14	Governmental/Institutional	Acres	0.00	4.66	15	0.00	4.66	15	0.00	4.66	15
15	Parks	Acres	0.00	28.87	93	3.60	32.47	105	8.48	40.95	132
16	School	Acres	0.00	4.30	28	0.00	4.30	28	0.00	4.30	28
17	Landscaping	Acres	0.00	3.53	23	5.56	9.09	59	0.00	9.09	59
18	Total Non-Residential	Acres	5.33	198.19		39.31	237.50		12.18	249.68	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr				1,582			1,758			1,892
22	Actual Delivery per DWR Annual Reports				1,155			1,395			1,329
23	Actual as % of Projected				73.0%			79.4%			70.3%

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
 Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		1999			2000			2001		
2	Land Use Designation (LUD)		New	Total	AAD	New	Total	AAD	New	Total	AAD
3	Unit		(2,3)		(4)	(2,3)		(4)	(2,3)		(4)
4	<b>Residential</b>										
5	LD + VLD	DU	0	1,273	856	0	1,273	856	11	1,284	863
6	MDL	DU	0	457	246	0	457	246	0	457	246
7	MDH	DU	0	101	45	0	101	45	0	101	45
8	<i>Residential Allocation</i>	DU	0	1,831		0	1,831		11	1,842	
9	<b>Non-Residential</b>										
10	HC	Acres	5.29	47.56	256	8.38	55.94	301	0.00	55.94	301
11	NC,CC,O	Acres	0.00	15.60	50	1.85	17.45	56	0.00	17.45	56
12	SC	Acres	0.00	12.29	40	0.00	12.29	40	0.00	12.29	40
13	Industrial	Acres	15.83	136.35	220	22.56	158.91	256	65.74	224.65	362
14	Governmental/Institutional	Acres	0.00	4.66	15	0.00	4.66	15	0.00	4.66	15
15	Parks	Acres	0.00	40.95	132	0.00	40.95	132	0.00	40.95	132
16	School	Acres	0.00	4.30	28	0.00	4.30	28	0.00	4.30	28
17	Landscaping	Acres	0.00	9.09	59	0.00	9.09	59	0.00	9.09	59
18	Total Non-Residential	Acres	21.12	270.80		32.79	303.59		65.74	369.33	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr				1,946			2,033			2,147
22	Actual Delivery per DWR Annual Reports				1,662			1,702			1,801
23	Actual as % of Projected				85.4%			83.7%			83.9%

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		2002			2003			2004		
2	Land Use Designation (LUD)		New	Total	AAD	New	Total	AAD	New	Total	AAD
3		Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)
4	<b>Residential</b>										
5	LD + VLD	DU	49	1,333	896	122	1,455	978	126	1,581	1,062
6	MDL	DU	0	457	246	27	484	260	27	511	275
7	MDH	DU	0	101	45	16	117	53	17	134	60
8	<i>Residential Allocation</i>	DU	49	1,891		165	2,056		170	2,226	
9	<b>Non-Residential</b>										
10	HC	Acres	7.93	63.87	343	2.50	66.37	335	2.50	68.87	347
11	NC,CC,O	Acres	0.00	17.45	56	1.50	18.95	58	1.50	20.45	62
12	SC	Acres	0.00	12.29	40	2.00	14.29	43	2.00	16.29	49
13	Industrial	Acres	3.23	227.88	368	15.00	242.88	367	15.00	257.88	390
14	Governmental/Institutional	Acres	0.00	4.66	15	0.50	5.16	16	0.50	5.66	17
15	Parks	Acres	0.00	40.95	132	1.50	42.45	137	1.50	43.95	142
16	School	Acres	0.00	4.30	28	2.00	6.30	41	2.00	8.30	54
17	Landscaping	Acres	0.00	9.09	59	1.00	10.09	65	1.00	11.09	72
18	Total Non-Residential	Acres	11.16	380.49		26.00	406.49		26.00	432.49	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr				2,227			2,352			2,530
22	Actual Delivery per DWR Annual Reports				1,844						
23	Actual as % of Projected				82.8%						

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year	2005			2006			2007			
2	Land Use Designation (LUD)	New	Total	AAD	New	Total	AAD	New	Total	AAD	
3	Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)	
4	<b>Residential</b>										
5	LD + VLD	DU	129	1,710	1,149	134	1,844	1,239	138	2,277	1,530
6	MDL	DU	28	539	290	29	569	306	30	599	322
7	MDH	DU	17	152	68	18	170	76	18	188	84
8	<i>Residential Allocation</i>	DU	175	2,401		181	2,582		186	3,064	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	71.37	360	2.50	73.87	372	2.50	76.37	385
11	NC,CC,O	Acres	1.50	21.95	67	1.50	23.45	71	1.50	24.95	76
12	SC	Acres	2.00	18.29	56	2.00	20.29	62	2.00	22.29	68
13	Industrial	Acres	15.00	272.88	413	15.00	287.88	435	15.00	302.88	458
14	Governmental/Institutional	Acres	0.50	6.16	19	0.50	6.66	20	0.50	7.16	22
15	Parks	Acres	1.50	45.45	147	1.50	46.95	151	1.50	48.45	156
16	School	Acres	2.00	10.30	66	2.00	12.30	79	2.00	14.30	92
17	Landscaping	Acres	1.00	12.09	78	1.00	13.09	84	1.00	14.09	91
18	Total Non-Residential	Acres	26.00	458.49		26.00	484.49		26.00	510.49	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) <i>af/yr</i>			2,712			2,897			3,284	
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.



Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year	2008			2009			2010			
2	Land Use Designation (LUD)	New	Total	AAD	New	Total	AAD	New	Total	AAD	
3	Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)	
4	<b>Residential</b>										
5	LD + VLD	DU	142	2,419	1,626	146	2,565	1,724	150	2,715	1,825
6	MDL	DU	31	630	338	32	661	356	33	694	373
7	MDH	DU	19	349	156	20	369	165	20	389	174
8	<i>Residential Allocation</i>	DU	192	3,398		197	3,595		203	3,798	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	78.87	398	2.50	81.37	410	2.50	83.87	423
11	NC,CC,O	Acres	1.50	26.45	80	1.50	27.95	85	1.50	29.45	89
12	SC	Acres	2.00	24.29	74	2.00	26.29	80	2.00	28.29	86
13	Industrial	Acres	15.00	317.88	481	15.00	332.88	503	15.00	347.88	526
14	Governmental/Institutional	Acres	0.50	7.66	23	0.50	8.16	25	0.07	8.23	25
15	Parks	Acres	1.50	49.95	161	1.50	51.45	166	1.50	52.95	171
16	School	Acres	2.00	16.30	105	2.00	18.30	118	2.00	20.30	131
17	Landscaping	Acres	1.00	15.09	97	1.00	16.09	104	1.00	17.09	110
18	Total Non-Residential	Acres	26.00	536.49		26.00	562.49		25.57	588.06	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr			3,540			3,735			3,933	
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		2011			2012			2013		
2	Land Use Designation (LUD)		New	Total	AAD	New	Total	AAD	New	Total	AAD
3		Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)
4	<b>Residential</b>										
5	LD + VLD	DU	155	2,869	1,928	160	3,029	2,036	164	3,193	2,146
6	MDL	DU	34	1,425	766	35	1,460	785	36	1,496	804
7	MDH	DU	21	409	183	21	431	193	22	453	203
8	<i>Residential Allocation</i>	DU	209	4,704		216	4,920		222	5,142	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	86.37	435	2.50	88.87	448	2.50	91.37	461
11	NC,CC,O	Acres	1.50	30.95	94	1.50	32.45	99	1.50	33.95	103
12	SC	Acres	2.00	30.29	92	2.00	32.29	98	2.00	34.29	104
13	Industrial	Acres	15.00	362.88	549	15.00	377.88	571	15.00	392.88	594
14	Governmental/Institutional	Acres	0.00	8.23	25	0.00	8.23	25	0.00	8.23	25
15	Parks	Acres	1.50	54.45	176	1.50	55.95	180	1.50	57.45	185
16	School	Acres	2.00	22.30	144	2.00	24.30	157	2.00	26.30	170
17	Landscaping	Acres	1.00	18.09	117	1.00	19.09	123	1.00	20.09	130
18	Total Non-Residential	Acres	25.50	613.56		25.50	639.06		25.50	664.56	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr				4,509			4,715			4,925
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		2014			2015			2016		
2	Land Use Designation (LUD)		New	Total	AAD	New	Total	AAD	New	Total	AAD
3		Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)
4	<b>Residential</b>										
5	LD + VLD	DU	169	3,362	2,260	175	3,537	2,377	180	3,717	2,498
6	MDL	DU	37	1,533	824	38	1,571	845	39	1,610	866
7	MDH	DU	23	476	213	23	499	224	24	523	234
8	<i>Residential Allocation</i>	DU	229	5,371		236	5,607		243	5,850	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	93.87	473	2.50	96.37	486	2.50	98.87	498
11	NC,CC,O	Acres	1.50	35.45	108	1.50	36.95	112	1.50	38.45	117
12	SC	Acres	2.00	36.29	110	2.00	38.29	116	2.00	40.29	122
13	Industrial	Acres	15.00	407.88	617	15.00	422.88	639	15.00	437.88	662
14	Governmental/Institutional	Acres	0.00	8.23	25	0.00	8.23	25	0.00	8.23	25
15	Parks	Acres	1.50	58.95	190	1.50	60.45	195	1.50	61.95	200
16	School	Acres	2.00	28.30	183	2.00	30.30	195	2.00	32.30	208
17	Landscaping	Acres	1.00	21.09	136	1.00	22.09	143	1.00	23.09	149
18	Total Non-Residential	Acres	25.50	690.06		25.50	715.56		25.50	741.06	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr				5,139			5,357			5,580
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year		2017			2018			2019		
2	Land Use Designation (LUD)	Unit	New (2,3)	Total	AAD (4)	New (2,3)	Total	AAD (4)	New (2,3)	Total	AAD (4)
4	<b>Residential</b>										
5	LD + VLD	DU	185	3,902	2,622	190	4,092	2,750	196	4,287	2,882
6	MDL	DU	40	1,650	887	41	1,692	910	43	1,735	933
7	MDH	DU	25	548	245	25	573	257	26	600	269
8	<i>Residential Allocation</i>	DU	250	6,100		257	6,357		265	6,622	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	101.37	511	2.50	103.87	524	2.50	106.37	536
11	NC,CC,O	Acres	1.50	39.95	121	1.50	41.45	126	1.50	42.95	130
12	SC	Acres	2.00	42.29	128	2.00	44.29	134	2.00	46.29	141
13	Industrial	Acres	15.00	452.88	685	15.00	467.88	708	15.00	482.88	730
14	Governmental/Institutional	Acres	0.00	8.23	25	0.00	8.23	25	0.00	8.23	25
15	Parks	Acres	1.50	63.45	205	1.50	64.95	210	1.50	66.45	214
16	School	Acres	2.00	34.30	221	1.28	35.58	230	0.00	35.58	230
17	Landscaping	Acres	1.00	24.09	155	1.00	25.09	162	1.00	26.09	168
18	Total Non-Residential	Acres	25.50	766.56		24.78	791.34		23.50	814.84	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4)	af/yr			5,807			6,034			6,257
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 6**  
**Annual Demand Projections**

1	Calendar Year	2020			2021			2022			
2	Land Use Designation (LUD)	New	Total	AAD	New	Total	AAD	New	Total	AAD	
3	Unit	(2,3)		(4)	(2,3)		(4)	(2,3)		(4)	
4	<b>Residential</b>										
5	LD + VLD	DU	202	4,489	3,017	208	4,697	3,157	214	4,912	3,301
6	MDL	DU	44	1,779	956	45	1,824	981	47	1,871	1,006
7	MDH	DU	27	627	281	28	654	293	29	683	306
8	<i>Residential Allocation</i>	DU	273	6,895		281	7,176		290	7,466	
9	<b>Non-Residential</b>										
10	HC	Acres	2.50	108.87	549	2.50	111.37	561	2.50	113.87	574
11	NC,CC,O	Acres	1.50	44.45	135	1.50	45.95	139	1.50	47.45	144
12	SC	Acres	2.00	48.29	147	2.00	50.29	153	2.00	52.29	159
13	Industrial	Acres	15.00	497.88	753	15.00	512.88	776	15.00	527.88	798
14	Governmental/Institutional	Acres	0.00	8.23	25	0.00	8.23	25	0.00	8.23	25
15	Parks	Acres	1.50	67.95	219	1.50	69.45	224	1.50	70.95	229
16	School	Acres	0.00	35.58	230	0.00	35.58	230	0.00	35.58	230
17	Landscaping	Acres	1.00	27.09	175	1.00	28.09	181	1.00	29.09	188
18	Total Non-Residential	Acres	23.50	838.34		23.50	861.84		23.50	885.34	
20	<b>Water Demand</b>										
21	Annual Average Demand (AAD) (4) af/yr			6,486			6,720			6,959	
22	Actual Delivery per DWR Annual Reports										
23	Actual as % of Projected										

For notes (1) to (4) see General Notes.

**Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment**

**Table 6  
Annual Demand Projections**

1	Calendar Year	2023			2024			
2	Land Use Designation (LUD)	New	Total	AAD	New	Total	AAD	
3	Unit	(2,3)		(4)	(2,3)		(4)	
4	<b>Residential</b>							
5	LD + VLD	DU	220	5,132	3,449	227	5,359	3,602
6	MDL	DU	48	1,919	1,032	50	1,969	1,058
7	MDH	DU	30	713	319	30	743	333
8	<i>Residential Allocation</i>	DU	298	7,764		307	8,071	
9	<b>Non-Residential</b>							
10	HC	Acres	2.50	116.37	587	2.50	118.87	599
11	NC,CC,O	Acres	1.50	48.95	149	1.50	50.45	153
12	SC	Acres	2.00	54.29	165	2.00	56.29	171
13	Industrial	Acres	15.00	542.88	821	15.00	557.88	844
14	Governmental/Institutional	Acres	0.00	8.23	25	0.00	8.23	25
15	Parks	Acres	1.50	72.45	234	1.50	73.95	239
16	School	Acres	0.00	35.58	230	0.00	35.58	230
17	Landscaping	Acres	1.00	30.09	194	1.00	31.09	201
18	Total Non-Residential	Acres	23.50	908.84		23.50	932.34	
20	<b>Water Demand</b>							
21	Annual Average Demand (AAD) (4) af/yr			7,204			7,454	
22	Actual Delivery per DWR Annual Reports							
23	Actual as % of Projected							

For notes (1) to (4) see General Notes.

Dixon-Solano Municipal Water Service  
Southwest Dixon Water Supply Assessment

**Table 7**  
**Summary of Annual Demand Projections**  
**acre-feet per year**

1	Calendar Year	pre-1994	1997	2002	2003	2008	2013	2018	2023
2	Land Use Designation								
3	<b>Residential</b>								
4	LD + VLD	481	779	896	978	1,626	2,146	2,750	3,449
5	MDL	92	235	246	260	338	804	910	1,032
6	MDH	45	45	45	53	156	203	257	319
7	<b>Non-Residential</b>								
8	HC	167	207	343	335	398	461	524	587
9	NC,CC,O	50	50	56	58	80	103	126	149
10	SC	21	40	40	43	74	104	134	165
11	Industrial	149	194	368	367	481	594	708	821
12	Governmental/Institutional	15	15	15	16	23	25	25	25
13	Parks	93	105	132	137	161	185	210	234
14	School	28	28	28	41	105	170	230	230
15	Landscaping	23	59	59	65	97	130	162	194
16	<b>Water Demand</b>	<b>1,166</b>	<b>1,758</b>	<b>2,227</b>	<b>2,352</b>	<b>3,540</b>	<b>4,925</b>	<b>6,034</b>	<b>7,204</b>

**Attachment 1**

**Appendix D to the  
1993 General Plan of the  
City of Dixon**



**APPENDIX D**

**PROJECTED NUMBER OF HOUSING UNITS IN DIXON  
BASED ON A 3 PERCENT GROWTH RATE, 1996-2030**

YEAR	BASE UNITS	NEW UNITS	CUMULATIVE FROM 1995
1996	4479	134	134
1997	4613	138	272
1998	4752	143	415
1999	4894	147	562
2000	5041	151	713
<b>BY 2000</b>			<b>713</b>
2001	5192	156	869
2002	5348	160	1029
2003	5509	165	1194
2004	5674	170	1365
2005	5844	175	1540
<b>BY 2005</b>			<b>1540</b>
2006	6019	181	1721
2007	6200	186	1907
2008	6386	192	2098
2009	6578	197	2296
2010	6775	203	2499
<b>BY 2010</b>			<b>2499</b>
2011	6978	209	2708
2012	7187	216	2924
2013	7403	222	3146
2014	7625	229	3375
2015	7854	236	3610
<b>BY 2015</b>			<b>3610</b>
2016	8090	243	3853
2017	8332	250	4103
2018	8582	257	4360
2019	8840	265	4626
2020	9105	273	4899
<b>BY 2020</b>			<b>4899</b>
2021	9378	281	5180
2022	9659	290	5470
2023	9949	298	5768
2024	10248	307	6076
2025	10555	317	6392
<b>BY 2025</b>			<b>6392</b>
2026	10872	326	6718
2027	11198	336	7054
2028	11534	346	7400
2029	11880	356	7757
2030	12236	367	8124
<b>BY 2030</b>			<b>8124</b>

**Dixon-Solano Municipal Water Service  
2000 Water Master Plan**

**Table 3.2  
Average Daily Demand Rates**

<b>RESIDENTIAL AREAS</b>	<b>GPD/DU</b>	<b>DUE/DU</b>	<b>GPM/DU</b>	<b>PERSONS/DU</b>	<b>GPCD</b>
VERY LOW DENSITY (VLD)	600	1.00	0.417	3.1	194
LOW DENSITY (LD)	600	1.00	0.417	3.1	194
MEDIUM DENSITY - LOW (MDL)	480	0.80	0.333	3.1	155
MEDIUM DENSITY - HIGH (MDH)	400	0.67	0.278	3.1	129
<b>COMMERCIAL AREAS</b>	<b>GPD/ACRE</b>	<b>DUE/ACRE</b>	<b>GPM/ACRE</b>		
<b>HIGHWAY COMMERCIAL (HC)</b>					
Developed	4,800	8.00	3.33		
Undeveloped	4,500	7.50	3.13		
<b>SERVICE COMMERCIAL (SC)</b>					
Developed	2,880	4.80	2.00		
Undeveloped	2,710	4.52	1.88		
<b>NEIGHBORHOOD COMMERCIAL (NC)</b>					
Developed	2,880	4.80	2.00		
Undeveloped	2,710	4.52	1.88		
<b>COMMUNITY COMMERCIAL (CC)</b>					
Developed	2,880	4.80	2.00		
Undeveloped	2,710	4.52	1.88		
<b>OFFICE (O)</b>					
Developed	2,880	4.80	2.00		
Undeveloped	2,710	4.52	1.88		
<b>INDUSTRIAL AREAS</b>					
Developed	1,440	2.40	1.00		
Undeveloped	1,350	2.25	0.94		
<b>OTHER AREAS</b>					
<b>GOVERNMENT/INSTITUTIONAL (G)</b>					
Developed	2,880	4.80	2.00		
Undeveloped	2,710	4.52	1.88		
<b>PARKS (P)</b>	2,880	4.80	2.00		
<b>LANDSCAPING (L/S)</b>	5,760	9.60	4.00		
<b>SCHOOLS (S)</b>	5,760	9.60	4.00		

Refer to the Water Usage Study in Section 8 and the discussion in Section 3 for development of these figures.

**LEGEND**

DU	Dwelling unit, being one house or one unit of a duplex or triplex, or one apartment in a complex.
DUE	Dwelling Unit Equivalent = one low density residential unit which over a year will use an average of 600 gallons of water per day.
DUE/ACRE	Number of dwelling unit equivalents that use the same amount of water as one acre of the stated non-residential area.
DUE/DU	Number of dwelling unit equivalents that use the same amount of water as one dwelling unit of the stated residential density.
GPCD	Gallons per capita (person) per day, or the average amount of water used by one person
GPD	Gallons per day, a measure of water use.
GPD/ACRE	Gallons per day per acre = GPM/ACRE / 60 minutes / 24 hours, rounded to nearest whole number.
GPD/DU	Gallons per day per dwelling unit = GPM/DU / 60 minutes / 24 hours, rounded to nearest whole number.
GPM	Gallons per minute, a measure of water use.
GPM/ACRE	Gallons per minute per acre.
GPM/DU	Gallons per minute for one dwelling unit.
PERSONS/DU	Persons per dwelling unit, as shown in Table 3.1.

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