Downtown Station Area Specific Plan Program EIR

State Clearinghouse Number: 2006072104

Submitted to
City of Santa Rosa | February 1, 2007

Prepared by:
City of Santa Rosa, Advanced Planning and Public Policy Department

Lead EIR Consultant:
Design, Community & Environment
Comments on the Draft EIR may also be submitted in writing to:

Ken MacNab, City Planner
Advanced Planning and Public Policy
City of Santa Rosa
100 Santa Rosa Avenue, Room 3
Santa Rosa, CA 95404
Fax: (707) 543-3269   Email: KMacNab@ci.santa-rosa.ca.us
# Table of Contents

1. **Introduction** ........................................................................................................ 1-1

2. **Report Summary** .................................................................................................. 2-1

3. **Project Description** ............................................................................................ 3-1

4. **Environmental Evaluation** .................................................................................... 4-1
   4.1 Aesthetics ........................................................................................................... 4.1-1
   4.2 Air Quality ......................................................................................................... 4.2-1
   4.3 Biological Resources ......................................................................................... 4.3-1
   4.4 Cultural Resources ............................................................................................ 4.4-1
   4.5 Geology and Soils .............................................................................................. 4.5-1
   4.6 Hazards and Hazardous Materials ..................................................................... 4.6-1
   4.7 Hydrology and Water Quality ............................................................................ 4.7-1
   4.8 Land Use ........................................................................................................... 4.8-1
   4.9 Noise ................................................................................................................ 4.9-1
   4.10 Population and Housing .................................................................................... 4.10-1
   4.11 Public Services and Recreation ......................................................................... 4.11-1
   4.12 Transportation and Circulation ....................................................................... 4.12-1
   4.13 Utilities and Infrastructure ................................................................................ 4.13-1

5. **Alternatives to the Proposed Project** ................................................................. 5-1

6. **CEQA-Required Assessment Conclusions** ....................................................... 6-1

7. **Report Preparation** ............................................................................................. 7-1
Appendices (Under Separate Cover)
Appendix A – Notice of Preparation
Appendix B – Air Quality
Appendix C – Biological Resources
Appendix D – Cultural Resources
Appendix E – Hazards and Hazardous Materials
Appendix F – Traffic and Circulation
Appendix G – Utilities and Infrastructure
Appendix H – Water Supply Assessment

List of Figures
1. Figure 3-1 Regional Location............................................................. 3-2
2. Figure 3-2 Local Location ................................................................. 3-4
3. Figure 3-3 Specific Plan Area ............................................................ 3-5
4. Figure 3-4 Specific Plan Sub-Areas.................................................... 3-8
5. Figure 3-5 Specific Plan Land Use...................................................... 3-14
6. Figure 3-6 Specific Plan Key Streets................................................ 3-17
7. Figure 4.1-1a Sub-Area Visual Character ........................................ 4.1-4
8. Figure 4.1-1b Sub-Area Visual Character ....................................... 4.1-5
9. Figure 4.1-1c Sub-Area Visual Character ........................................ 4.1-6
10. Figure 4.1-2 Existing Development Density .................................... 4.1-7
11. Figure 4.1-3 Scenic View Across the Specific Plan Area .................. 4.1-14
12. Figure 4.5-1 Regional Faults in the Vicinity of the Specific Plan Area 4.5-10
13. Figure 4.5-2 Soils ............................................................................ 4.5-14
14. Figure 4.6-1 Hazardous Material Sites........................................... 4.6-15
15. Figure 4.8-1 Existing Land Use Designations................................. 4.8-8
16. Figure 4.8-2 Existing City Zoning Designations ............................... 4.8-12
17. Figure 4.8-3 Existing County General Plan Land Use Designations 4.8-17
18. Figure 4.8-4 Existing County Zoning Designations .......................... 4.8-19
19. Figure 4.9-1 Noise and Land Use Compatibility Guidelines .......... 4.9-11
20. Figure 4.9-2 Noise Measurement Locations ........................................ 4.9-15
21. Figure 4.9-3 Daily Trend in Noise Levels at LT-1 ........................... 4.9-17
22. Figure 4.9-4 Daily Trend in Noise Levels at LT-2 ........................... 4.9-18
23. Figure 4.9-5 Daily Trend in Noise Levels at LT-3 ........................... 4.9-19
24. Figure 4.9-6 Daily Trend in Noise Levels at LT-4 ........................... 4.9-21
25. Figure 4.9-7 Daily Trend in Noise Levels at LT-5 ........................... 4.9-22
26. Figure 4.9-8 Daily Trend in Noise Levels at LT-6 ........................... 4.9-23
27. Figure 4.9-9 Daily Trend in Noise Levels at LT-7 ........................... 4.9-24
28. Figure 4.11-1 Existing Schools in the Vicinity ................................. 4.11-17
29. Figure 4.11-2 Existing Park and Recreation Facilities ....................... 4.11-31
30. Figure 4.12-1 Local Circulation System ........................................ 4.12-17
31. Figure 4.12-2 Existing Traffic Volumes ........................................ 4.12-20
32. Figure 4.12-3 Study Intersection Lane Configurations .................. 4.12-21
33. Figure 4.12-4 Future Baseline Traffic Volumes ............................... 4.12-23
34. Figure 4.12-5 Pedestrian and Bicyclist Volumes ............................ 4.12-29
35. Figure 4.12-6 City Bus Routes ..................................................... 4.12-34
36. Figure 4.12-7 Courthouse Square and Railroad Square Sub-Area ... 4.12-37
37. Figure 4.12-8 Existing Weekday Peak-Month Parking Occupancy
   In Courthouse Square Sub-Area .................................................... 4.12-40
38. Figure 4.12-9 Existing Peak-Month Parking Occupancy In Railroad
   Square Sub-Area .......................................................................... 4.12-40
39. Figure 4.12-10 Future plus Specific Plan” Traffic Volumes ............... 4.12-47
40. Figure 4.12-11 Future Lane Configurations .................................. 4.12-49
41. Figure 4.12-12 Weekday Parking Demand for City Hall-
   Performing Arts Center .................................................................. 4.12-69
42. Figure 4.12-13 Future Weekday Parking Demand in Courthouse
   Square Sub-Area .......................................................................... 4.12-69
43. Figure 4.12-14 Future Weekday Parking Demand in
   Railroad Square ........................................................................... 4.12-72
List of Tables

1. Table 2-1 Summary of Impacts and Mitigation Measures .................... 2-6
2. Table 3-1 Estimated Specific Plan Buildout ....................................... 3-9
3. Table 4.2-1 State and Federal Ambient Air Quality Standards............. 4.2-5
4. Table 4.2-2 Highest Measured Air Pollutant Concentrations ............... 4.2-15
5. Table 4.2-3 Summary of Measured Air Quality Exceedances .............. 4.2-17
6. Table 4.2-4 Daily Regional Air Pollutant Emissions –Draft
   Downtown Specific Plan in 2025 ......................................................... 4.2-28
7. Table 4.2-5 Predicted 8-Hour Worst Case Carbon Monoxide Levels ....... 4.2-30
8. Table 4.2-6 Predicted Health Risk from Diesel Particulate Matter
   Emitted by U.S. 101 Traffic- Screening Calculations for
   Downtown Santa Rosa ..................................................................... 4.2-32
9. Table 4.4-1 Archaeological Sites Located within the Specific
   Plan Area ............................................................................................... 4.4-10
10. Table 4.4-2 City of Santa Rosa Designated Historic Landmarks
    within the Specific Plan Area ............................................................. 4.4-11
11. Table 4.4-3 NRHP and CRHR Listed Properties within Sub-Areas ....... 4.4-12
12. Table 4.4-4 Potentially Eligible Historic Resources Observed in
    Specific Plan Area ................................................................................ 4.4-13
13. Table 4.5-1 Soils Survey Characteristics ........................................... 4.5-25
14. Table 4.6-1 Location of Hazardous Material Sites by Sub-Area ......... 4.6-13
15. Table 4.8-1 Santa Rosa General Plan Land Use Designations ............ 4.8-9
16. Table 4.8-2 Santa Rosa Zoning Designations .................................... 4.8-13
17. Table 4.9-1 Definitions of Acoustical Terms .................................... 4.9-3
18. Table 4.9-2 Typical Sound Levels .................................................... 4.9-4
19. Table 4.9-3 Reaction of People and Damage to Buildings for
    Continuous Vibration Levels ............................................................... 4.9-7
20. Table 4.9-5 Railroad Train Groundborne Vibration Impact ............... 4.9-10
21. Table 4.9-4 Summary of Short-Term Noise Levels Measure .............. 4.9-26
22. Table 4.10-1 Entitlements Allowed by the Growth Management
    Ordinance ............................................................................................ 4.10-5
23. Table 4.10-3 Population Trends in Santa Rosa Urban Growth
    Boundary .............................................................................................. 4.10-9
24. Table 4.10-3 Household Trends in Santa Rosa Urban Growth Boundary ................................................................. 4.10-10
25. Table 4.10-4 Housing Affordability in Santa Rosa, 2000 ...................... 4.10-12
26. Table 4.10-5 Estimated Specific Plan Residential Development .......... 4.10-16
27. Table 4.11-1 School Enrollment in Santa Rosa, 2000 ....................... 4.11-18
28. Table 4.11-2 Existing Parks within the Specific Plan Area .................. 4.11-32
29. Table 4.12-1 Intersection LOS Criteria ....................................... 4.12-7
30. Table 4.12-2 Arterial LOS Criteria ............................................... 4.12-8
31. Table 4.12-3 Freeway LOS Criteria ............................................. 4.12-9
32. Table 4.12-4 URBEMIS Location Adjustments ............................... 4.12-12
33. Table 4.12-5 URBEMIS Adjusted Residential Trip Rates .................... 4.12-14
34. Table 4.12-6 Existing Intersection Levels of Service ....................... 4.12-24
35. Table 4.12-7 Existing PM Peak Hour Corridor Levels of Service ........ 4.12-25
36. Table 4.12-8 Existing PM Peak Hour Freeway Levels of Service ........ 4.12-25
37. Table 4.12-9 Future PM Peak Hour Intersection Levels of Service ...... 4.12-27
38. Table 4.12-10 Future PM Peak Hour Corridor Levels of Service ........ 4.12-28
39. Table 4.12-11 Future PM Peak Hour Freeway Levels of Service ........ 4.12-28
40. Table 4.12-12 Existing Parking Supply ........................................ 4.12-38
41. Table 4.12-13 Specific Plan Land Use Summary ............................. 4.12-43
42. Table 4.12-14 Specific Plan Trip Generation .................................. 4.12-45
43. Table 4.12-15 Specific Plan Trip Generation Summary by Sub-Area .. 4.12-46
44. Table 4.12-16 Specific Plan Trip Distribution .................................. 4.12-48
45. Table 4.12-17 Future plus Specific Plan Intersection LOS Summary .. 4.12-50
46. Table 4.12-18 Future PM Peak Hour Corridor Levels of Service ........ 4.12-51
47. Table 4.12-19 Specific Plan Added Trips to Freeway Segments .......... 4.12-58
48. Table 4.12-20 Future PM Peak Hour Freeway Levels of Service ........ 4.12-58
49. Table 4.12-21 Changes to Freeway V/C Ratios with Specific Plan ...... 4.12-59
50. Table 4.12-22 West End Neighborhood Traffic Projections ............... 4.12-62
51. Table 4.12-23 Future Courthouse Square Sub-Area Parking Demand 4.12-70
52. Table 4.12-24 Future Railroad Square Sub-Area Parking Demand ...... 4.12-72
53. Table 4.13-1 Santa Rosa Non-Drought Year Projected Supply and Demand ......................................................................... 4.13-10
54. Table 4.13-2 Residential Equivalency Factors for the Specific Plan Area ............................................................................. 4.13-11
55. Table 4.13-3 City of Santa Rosa Waste Hauled from October 2005 to September 2006 ................................................................. 4.13-35
56. Table 5-1 Project Alternatives Summary ........................................... 5-2
57. Table 5-2 Comparison of Project Alternatives ................................. 5-3
This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the potential environmental consequences of adopting the Downtown Station Area Specific Plan, which has been prepared by the City of Santa Rosa. Because the Specific Plan may be implemented over time, a program-level environmental document, as defined by CEQA Guideline Section 15168, is appropriate. A program-level document is appropriate when a project consists of a series of smaller projects or phases that may be implemented separately. Under the program EIR approach, future projects or phases may require additional, project-specific environmental analysis. In order to identify whether additional analysis would be necessary when the project is implemented, the Lead Agency (the City) will need to determine the following:

- Whether the planned characteristics of the project are substantially different from those defined in the Program EIR;
- Whether the project would require additional mitigation measures; or
- Whether specific impacts were not evaluated in sufficient detail in the Program EIR.

If any of these conditions apply, then a project-specific Initial Study or EIR would be necessary to identify how the impacts of the project differ from those identified in this EIR or what additional mitigation measures would be necessary. This EIR is anticipated to provide a basis for future project-level CEQA analysis.

The assessment in this EIR is designed to inform City of Santa Rosa decision-makers, other responsible agencies, and the public-at-large of the nature of the project and its effect on the environment. Additionally, when appropriate, this Draft EIR identifies mitigation measures that, if effectively implemented, would reduce or avoid potentially significant impacts. Furthermore, this Draft EIR examines alternatives to the proposed project that could reduce or avoid the identified significant impacts.
A. Proposed Action

The City of Santa Rosa has created the Downtown Station Area Specific Plan to address the development and re-development of the 647-acre area in and around the downtown area of Santa Rosa, centered around the proposed Sonoma-Marin Area Rail Transit (SMART) rail station. The Specific Plan would also require some amendments to the Santa Rosa General Plan to make the two documents consistent. The adoption of proposed amendments to the General Plan would establish new land use designations and would ensure consistency between the Specific Plan and the City of Santa Rosa General Plan. The project details for the Specific Plan are described in more detail in Chapter 3 of this Draft EIR.

B. EIR Scope, Issues and Concerns

1. Type of Document and Intended Uses

This EIR is intended to evaluate the environmental impacts of implementing the Specific Plan to the greatest extent possible. Because some uncertainty exists regarding the specific development projects that would be proposed subsequent to the approval of the Specific Plan and the exact nature of those uses, the document has been prepared in sufficient detail to support approval of the Downtown Station Area Specific Plan or an alternative version of the Downtown Station Area Specific Plan, but may need to be augmented in conjunction with future actions in conjunction with individual parcels, depending upon the nature of such proposals. To minimize the need for future costly studies, mitigation measures set out in this EIR will, when possible, provide performance standards to assure environmental impacts are averted and to guide planning and evaluation of future development projects proposed under the Specific Plan.

CEQA provides a number of processes for allowing lead agencies to supplement previously prepared plan- or zoning-level environmental analyses at the project level of decision-making while at the same time avoiding redundant
and duplicative analysis. At least three of them apply here. One is the “program EIR” (CEQA Guidelines §15168); the second is the “tiering” process (Public Resources Code, §§ 21093, 21094; CEQA Guidelines, §15152); and the other is the process set forth in Public Resources Code section 21083.3 and CEQA Guidelines section 15183, which applies, among other things, to projects consistent with previous “zoning actions” for which EIRs are prepared. Nothing in CEQA makes these processes exclusive of one another, or prevents agencies from relying on more than one of them.

This EIR should therefore be treated as a “program EIR,” a “first tier EIR,” and an EIR for a “zoning action.” The following discussion describes how, under each of the processes mentioned above, the City can use this document in connection with later project approvals.

A Program EIR is an EIR prepared on a series of actions that can be characterized as one large project, such as a Specific Plan. A program EIR generally establishes a framework for tiered or project-level environmental documents that are prepared in accordance with the overall program (see CEQA Guidelines Section 15168(a)). The program EIR enables the agency to examine the overall effects of the proposed course of action and to take steps to avoid unnecessary adverse environmental effects. Use of the program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach when individual activities within the program are proposed, the agency would be required to examine the individual activities to determine whether their effects were fully analyzed in the program EIR. If the activities would have no effects beyond those analyzed in the program EIR, the agency could assert that the activities are merely part of the program which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

In any event, as noted above, this “Program EIR” also functions as a “first tier” EIR. Thus, future site-specific approvals may also be narrowed pursuant
to the rules for tiering set forth in CEQA Guidelines section 15152. That section provides, for example, that, where a first tier EIR has “adequately addressed” the subject of cumulative impacts, such impacts need not be revisited in second- and/or third-tier documents. Furthermore, second- and third-tier documents may limit the examination of effects to those that “were not examined as significant effects” in the prior EIR or “[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, the imposition of conditions, or other means.”

Finally, Public Resources Code section 21083.3 and CEQA Guidelines section 15183 generally limit the scope of necessary environmental review for site-specific approvals following the preparation of an EIR for a “zoning action.” For such site-specific approvals, CEQA generally applies only to impacts that are “peculiar to the parcel or to the project,” except where “substantial new information” shows that previously-identified impacts will be more significant than previously assumed. Notably, impacts are considered not to be “peculiar to the parcel or to the project” if they can be substantially mitigated pursuant to previously adopted “uniformly applied development policies or standards.”

The City intends this EIR to be used by other local, State, and federal agencies in the approval process of related entitlements, approvals, and/or permits associated with development within the Downtown Station Area Specific Plan. These agencies are identified preliminarily below in Chapter 3. To the extent that the CEQA streamlining processes described above are available to such agencies, they may choose to rely on them as well.

2. Environmental Review Scoping
The scope of this Draft EIR for the Downtown Station Area Specific Plan was established by the City of Santa Rosa during the “scoping process” that considered comments from public agencies and the community regarding the project after carrying out an Notice of Preparation (NOP). The City circulated the NOP on July 25th, 2006 that described the proposed project and topical areas to be discussed in this EIR. Two public scoping meetings on the
EIR was held on August 9th and 16th, 2006 at the Mayor’s Conference Room in Santa Rosa City Hall. The NOP was sent to a list of persons and agencies known to be interested in the project. The NOP comment period extended from July 25th, 2006 to August 28th, 2006. Because it was anticipated that the project may cause potentially significant impacts on the environment, the City directed this EIR to be prepared without the need for an initial study.

Based on the scoping process, the following environmental issue areas were found to involve potentially significant impacts and are addressed in this EIR:

♦ Aesthetics  
♦ Air Quality  
♦ Biological Resources  
♦ Cultural Resources  
♦ Geology and Soils (includes Mineral Resources)  
♦ Hazards and Hazardous Materials  
♦ Hydrology and Water Quality  
♦ Land Use (includes Agricultural Resources)  
♦ Noise  
♦ Population and Housing  
♦ Public Services and Recreation  
♦ Transportation and Circulation  
♦ Utilities and Infrastructure  

C. Report Organization

This report is organized into the following chapters:

♦ Chapter 1: Introduction provides an introduction and overview of the document.

♦ Chapter 2: Report Summary provides a synopsis of the environmental impacts from the proposed project, describes recommended mitigation measures, and indicates the level of significance of impacts before and after mitigation.
Chapter 3: Project Description describes the proposed project in detail, including the project location, surrounding uses, project characteristics, and required permits and approvals.

Chapter 4: Environmental Evaluation provides an analysis of the potential environmental impacts of the proposed project and presents recommended mitigation measures to reduce their significance, as necessary.

Chapter 5: Alternatives to the Proposed Project considers three alternatives to the proposed project, including the CEQA-required “No Project Alternative.”

Chapter 6: CEQA-Required Assessment Conclusions briefly explains the relationship of the project to other environmental issues included under CEQA’s purview.

Chapter 7: Report Preparation identifies the preparers of the Draft EIR.

D. Environmental Review Process

As required by State Law, this Draft EIR will be available for review by the public and interested parties, agencies and organizations for a 45-day period. The City of Santa Rosa will hold public hearings with the Planning Commission and City Council on the EIR during and after the review period. The public is invited to attend the hearing to offer oral comments on this Draft EIR.

Comments on the Draft EIR may also be submitted in writing during the 45-day review period to:

Ken MacNab, City Planner
Advanced Planning and Public Policy
City of Santa Rosa
100 Santa Rosa Avenue, Room 3
Santa Rosa, CA 95404
Fax: (707) 543-3269 Email: KMacNab@ci.santa-rosa.ca.us
Following the close of the public comment period, a Final Environmental Impact Report (FEIR) will be prepared to respond to all substantive comments related to environmental issues surrounding the project. The FEIR will be available for public review prior to consideration of its certification by the City of Santa Rosa City Council.

Once the City Council certifies the FEIR, it will also consider the project itself, which may be approved or denied. If the project is approved, the City Council may require mitigation measures specified in this EIR as conditions of project approval. Alternatively, they could require other mitigation measures deemed to be effective mitigations for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no mitigation measure is feasible, the City Council will be required to adopt a finding that the impacts are considered acceptable because specific overriding considerations indicate that the project’s benefits outweigh the impacts in question.
2 **Report Summary**

This summary presents an overview of the analysis contained in Chapter 4: Environmental Evaluation. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project.

**A. Project Under Review**

This Draft EIR provides an assessment of the potential environmental consequences of implementing the Santa Rosa Downtown Station Area Specific Plan. The City of Santa Rosa created the Specific Plan for the mixed use and re-development of a 647-acre area in and around the downtown area of Santa Rosa.

The Specific Plan Area is generally located within Santa Rosa’s downtown on the western side of the City and is roughly bounded by College Avenue to the north, Sebastopol Road to the south, Santa Rosa Avenue and E Street to the east, and North Dutton Avenue to the west.

The Santa Rosa Downtown Station Area Specific Plan includes the adoption of proposed General Plan amendments to the City of Santa Rosa General Plan that would establish one or more new Downtown Mixed Use land use designations, as well as Specific Plan policies and design guidelines that would ensure consistency between the Specific Plan and the City of Santa Rosa General Plan.

The Specific Plan intended to provide a comprehensive plan for development of the Specific Plan Area including land uses with their configurations and intensity, property development regulations and design guidelines. Circulation and infrastructure needs and improvements are also identified in the Specific Plan to support phases of development as needed. The adopted Specific Plan, along with the proposed General Plan policies, would become the regulatory framework for the review of future development in the Specific Plan.
Area. The Specific Plan also provides a means for achieving overall design compatibility and consistency for the property. Key components of the Specific Plan include the following:

♦ Land Use Regulations
♦ Development Guidelines and Streetscape Standards
♦ Transportation and Parking
♦ Public Services and Utilities
♦ Implementation and Financing

The Downtown Station Area Specific Plan is the result of a community based vision for the downtown area of the City of Santa Rosa. Centered on the proposed Sonoma-Marin Area Rapid Transit (SMART) station site, the Specific Plan defines the framework for future development in the Plan Area to support its role as a healthy, vibrant regional center. The Specific Plan Area is a lively city center with a mix of shopping and employment opportunities, with an attractive natural creek environment and historic residential neighborhoods close to the city center. The Specific Plan vision includes bicyclists, pedestrians, transit users and drivers sharing an attractive network of streets. The Specific Plan includes a mix of housing, shopping and jobs in a compact area and includes features to preserve the history, character, and natural benefits of the existing environment while allowing for change. This vision is consistent with the Santa Rosa 2020: General Plan as well as other comprehensive plans and codes governing change in the downtown area.

The Specific Plan proposes seven distinct planning areas known as “Sub Areas”. The land uses proposed for each of the Sub Areas are outlined fully in Chapter 3, Project Description.

Additionally, the Specific Plan seeks to amend the current Santa Rosa General Plan. The proposed General Plan Amendments are outlined in Chapter 3, Project Description.
B. Areas of Controversy

The City held a public scoping meeting on August 9 and August 16, 2006 to present the Specific Plan and receive responses. Public comment focused primarily on the following issues:

- Increased traffic on the local roadways
- Compatibility of development with existing community
- Availability of adequate parking
- Bicycle and pedestrian connectivity

Scoping comments are intended to suggest issues that the EIR should address. This EIR assesses all relevant environmental impacts of the Specific Plan.

C. Significant Impacts

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Specific Plan, including land, air, water, minerals, flora, fauna, ambient noise and objects of historic and aesthetic significance.

The proposed Specific Plan has the potential to generate environmental impacts in a number of areas that could be significant:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils (includes Mineral Resources)
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Traffic and Circulation
As shown in Table 2-1, most of the significant impacts in these areas would be reduced to a *less than significant* level if the mitigation measures recommended in this report were implemented or with the policies included in the Specific Plan. Impacts that would remain significant and unavoidable regardless of Specific Plan policies are discussed below in Section E.

**D. Mitigation Measures**

This Draft EIR suggests mitigation measures that would reduce many of the impacts in the areas identified above to *less than significant* levels, as summarized in Table 2-1. Additionally, this Draft EIR includes Specific Plan Policies that are intended to serve as mitigation measures that would reduce specific impacts in some of the areas identified above to a *less than significant* level. Monitoring of recommended mitigation measures along with the Specific Plan policies, identified in this Draft EIR as mitigation, will form the basis of a project-specific mitigation monitoring program to be implemented in accordance with State law.

**E. Unavoidable Significant Impacts**

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. As described in Chapter 4, most of the potential impacts from the proposed Specific Plan are either less than significant, or could be mitigated to less than significant levels by the implementation of mitigation measures. Significant unavoidable impacts were identified in the areas of air quality and transportation and circulation.
F. Alternatives to the Project

This Draft EIR analyzes alternatives to the proposed Specific Plan. Three alternatives to the proposed Specific Plan are considered:

- No Project Alternative. Under this alternative, which is required under CEQA, the proposed Specific Plan would not be implemented and the area would be left in its current state.

- Reduced Growth Alternative. Under this alternative, the overall potential for additional development to occur within the Specific Plan Area would be reduced, thereby resulting in less development than the Specific Plan.

- Reallocated Growth Alternative. This alternative would result in the same amount of future development as the Specific Plan; however, it would be distributed differently within the Specific Plan Area.

G. Summary Table

Table 2-1 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues discussed in Chapter 4.

The table is arranged in four columns: 1) environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. A series of mitigation measures is noted where more than one mitigation may be required to achieve a less-than-significant impact. For a complete description of potential impacts and suggested mitigation measures, please refer to the specific discussions in Chapter 4. Additionally, this summary does not detail the timing of mitigation measures. Timing will be further detailed in the mitigation monitoring program.
### Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
</table>

#### Aesthetics

**Impact AES-1:** Development of multi-story buildings along the Highway 101 and Highway 12 corridors could result in new sources of glare for vehicles traveling along these highways. This would be a *significant* impact.

- *Significance:* S
- *Mitigation Measure AES-1:* For construction of structures along the designated Scenic Highways 12 and 101, the City shall require the use of building materials designed to reduce lighting glare. Examples of these types of materials include, but are not limited to, windows treated with glare reductive coating or film covering, matte-finish tiles, marble, or sheet metal, and non-reflective flashing material.  

#### Air Quality

**Impact AQ-1:** Construction activity during development within the Specific Plan area would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations. This is a *significant* impact.

- *Significance:* S
- *Mitigation Measure AQ-1:* Implement control measures for construction and demolition-related air emissions to ensure that each project sponsor and contractor reduces particulate, ROG, and NOx emissions by complying with the BAAQMD policies and guidelines. Each project sponsor and contractor shall implement the following control measures:
  - Provide transit information kiosks.
  - Cover all trucks hauling construction and demolition debris from the site.
  - Water on a continuous as-needed basis all earth surfaces during clearing, grading, earthmoving, and other site preparation activities.
  - Use watering to control dust generation during demolition of structures or break-up of pavement.

*LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact*
Significant Impact | Significance Before Mitigation | Mitigation Measures | Significance With Mitigation
--- | --- | --- | 
AQ-1 continued | ♦ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas.  
♦ Sweep daily (with water sweepers) all paved areas and staging areas.  
♦ Provide daily clean up of mud and dirt carried onto paved streets from the site.  
♦ Renovation, demolition activities, removal or disturbances of any material that contain asbestos, lead paint or other hazardous pollutants will be conducted in accordance with BAAQMD rules and regulations.  
♦ Properly maintain all construction equipment.  
♦ Reduce equipment idling time.  
For construction near sensitive receptors:  
♦ Install wheel washers for all exiting trucks, or wash off the tires or tracks of trucks and equipment leaving the site.  
♦ Suspend dust-producing activities during periods when instantaneous gusts exceed 25 mph when dust control measures are unable to avoid visible plumes.  
♦ Limit the area subject to excavation, grading and other construction or demolition activity at any one time.  
For sites greater than 4 acres:  
♦ Apply soil stabilizers to previously graded portions of the site inactive for more than ten days, or cover or seed these areas.  
♦ Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind.  
♦ Limit traffic speeds on unpaved roads to 15 mph.  
♦ Replant vegetation in disturbed areas as quickly as possible.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
**Significant Impact**

<table>
<thead>
<tr>
<th>Impact AQ-2: The Downtown Station Area Specific Plan would contribute to increased vehicular and residential area emissions that would exceed BAAQMD thresholds. This is a significant impact.</th>
<th>Significance Before Mitigation</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>SU</td>
</tr>
</tbody>
</table>

**Mitigation Measure AQ-2:** Developers shall implement emissions control measures, where applicable, to development activities within the Specific Plan Area in order to reduce overall emissions from traffic and area sources. The emissions control measures could include the following:

- Where practical, future development proposals shall include physical improvements, such as sidewalk improvements, landscaping and the installation of bus shelters and bicycle parking, that would act as incentives for pedestrian, bicycle and transit modes of travel.
- New or modified roadways should include bicycle lanes where reasonable and feasible.
- Provide transit information kiosks.
- Where practical, employment-intensive development proposals (i.e. office and retail) shall include measures to encourage use of public transit, ridesharing, van pooling, use of bicycles, and walking, as well as to minimize single passenger motor vehicle use.
- Offices or retail uses that have 50 or more employees and provide parking should implement a parking cash-out program (where non-driving employees receive transportation allowance equivalent to the value of subsidized parking).
- Develop parking enforcement and fee strategies that encourage alternative modes of transportation.
- Parking lots or facilities should provide preferential parking for electric or alternatively fueled vehicles.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-2 continued</td>
<td></td>
<td>♦ Require energy efficient building designs that exceed State Title 24 building code requirements.</td>
<td>♦ Only allow low-emitting fireplaces for residential uses, such as those that only burn natural gas.</td>
</tr>
<tr>
<td>Impact AQ-3:</td>
<td>S</td>
<td>Mitigation Measure AQ-3: Buffers for emission sources and sensitive land uses shall be required for residential uses proposed within 170 feet of the freeway and shall undergo detailed analysis to identify site specific health risks associated with DPM emitted from Highway 101. These buffers shall provide appropriate buffers between potential air pollution and odor impacts from land uses that may emit pollution and/or odors when locating (a) air pollution sources, and (b) residential and other pollution-sensitive land users in the vicinity of air pollution sources which may include freeways, gasoline fueling stations and dry cleaning operations that use solvents.</td>
<td>LTS</td>
</tr>
<tr>
<td>Impact AQ-4:</td>
<td>S</td>
<td>Mitigation Measure AQ-4: Implementation of buffers for emission sources and sensitive land uses shall be required for the Specific Plan.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### BIOLOGICAL RESOURCES

<table>
<thead>
<tr>
<th>Impact BIO-1: The Specific Plan proposes to relocate the planned creek crossing at Imwalle Gardens, and it is likely that creek restoration projects would be conducted in conjunction with creekside developments. The implementation of the Specific Plan could impact, either directly or through habitat modifications, some endangered, rare, or threatened species within the Santa Rosa Creek. This would be a significant impact.</th>
<th>S</th>
<th>Mitigation Measure BIO-1: Development shall be designed to minimize disturbance to waterways and riparian vegetation in order to avoid potential impacts to federally listed salmonids. For work in or in close proximity to Santa Rosa Creek, in-stream work shall not start before June 15 and shall be completed by October 15, unless otherwise approved by appropriate agencies. The City shall consult with NOAA Fisheries and CDFG and implement protection measures specified in consultation with those agencies.</th>
<th>LTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact BIO-2: Tree removal, demolition of old buildings and bridge structures, as well as construction disturbances could have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species. This would be a significant impact.</td>
<td>S</td>
<td>Mitigation Measure BIO-2: If there is the potential for destruction of a nest or substantial disturbance to nesting birds or bats due to construction activities, a plan to monitor nesting birds or bats during construction shall be prepared and submitted to the USFWS and CDFG for review and approval. The City shall comply with all USFWS or CDFG guidance for protection of nesting birds. If vegetation, buildings or bridges that potentially provide nesting sites must be removed, a qualified wildlife biologist shall conduct pre-construction surveys. If an active bird nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300 feet for raptors; or (b)</td>
<td>LTS</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant;  S = Significant;  SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-3 continued</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

75 feet for other non-special-status bird species. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete and the young have fledged. Bats shall be absent or flushed from roost locations prior to demolition of buildings. If flushing of bats from buildings is necessary, it shall be done by the biologist during the non-breeding season from October 1 to March 31. When flushing bats, structures shall be moved carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. During the maternity season from April 1 to September 30, prior to building demolition or construction, a qualified biologist shall determine if a bat nursery is present at any sites identified as potentially housing bats. If an active nursery is present, disturbance of bats shall be avoided until the biologist determines that breeding is complete and young are reared.

**Impact BIO-3:** Removal of riparian habitat and restoration efforts along Santa Rosa Creek could have a substantial adverse effect on any riparian habitat or other sensitive natural communities. This would be a significant impact.

<table>
<thead>
<tr>
<th>Impact BIO-3</th>
<th>Significance</th>
<th>Mitigation Measures</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-3</td>
<td>S</td>
<td>Mitigation Measure BIO-3: See Mitigation Measure BIO-1.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

**Impact BIO-4:** The implantation of the Specific Plan could interfere substantially with the movement of migratory fish such as Central California Coast Steelhead and California Coast Chinook salmon. Nesting birds, including special-status species such as Allen’s hummingbird, could also be affected by the removal of trees and other vegetation. The nurseries of the Yuma myotis bat and the Townsend’s western big-eared bat could also be disturbed by demolition or construction during nesting season.

<table>
<thead>
<tr>
<th>Impact BIO-4</th>
<th>Significance</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-4</td>
<td>S</td>
<td>Mitigation Measure BIO-4a: See Mitigation Measure BIO-2.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mitigation Measure BIO-4b: See Mitigation Measure BIO-2.</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### CULTURAL RESOURCES

**Impact CULT-1:** New construction activities, including the widening of existing thoroughfares, that involve ground disturbance could destroy or significantly alter buried archaeological deposits. This would be a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CULT-1:</strong></td>
<td>S</td>
<td>Mitigation Measure CULT-1a: Archaeological monitoring shall be conducted during earth-disturbing activities in the areas of potential impact. If an archaeological site has been identified in the close vicinity of a construction project, the adverse impact shall be mitigated by conducting Phase I archaeological testing in order to determine the boundaries of the site, and to ensure site avoidance before the commencement of construction activities. If construction personnel locate buried cultural materials, work shall be halted or shifted to another area and a qualified archaeologist shall be contacted to determine proper treatment of the find.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

**Mitigation Measure CULT-1b:** A worker orientation program shall be conducted prior to and during earth-disturbing activities in sensitive areas. The program shall summarize relevant laws and regulations that protect archaeological resources, and review applicable avoidance and minimization measures to protect archaeological resources. Exclusionary plastic mesh fencing shall be installed and maintained to prohibit the general public from disturbing sub-surface soils and impacting possible archaeological deposits.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
CULT-1 continued

Mitigation Measure CULT-1c: The City shall require consultation with Native American tribes whenever necessary prior to submittal of entitlement applications for land divisions and/or new construction to ensure the respectful treatment of Native American sacred places. Potential mitigation measures shall include but are not limited to site avoidance, site capping, integration of the site into a recreation space, or data recovery excavations.

Impact CULT-2: Any new construction activities in the vicinity of a historical structure that is listed or eligible for listing on local, State or national registers could impact or alter the historic structure and/or the character or setting of the area. This would be a significant impact.

Mitigation Measure CULT-2a: Adverse impacts of new design elements on the character of a historic building or area shall be evaluated on a case-by-case basis in accordance with the various local, State and federal laws and regulations protecting these resources. Prior to construction, large format camera Historic American Landscape Survey (HALS) Level II black-and-white 8-by-10 inch archival quality prints produced by a professional photographer shall be accompanied by a report by a professional architectural historian. A minimum of twenty views shall be documented and two sets of prints shall be sent to the California State Library in Sacramento.

Mitigation Measure CULT-2b: Specific thoroughfare widening projects within the Specific Plan Area shall be designed so that projects do not detract from the character of the historic building or property. The SRCHB should review such projects for adequate mitigation measures before they are implemented.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### CULT-2 continued

Mitigation Measure CULT-2c: A worker orientation program shall be conducted prior to and during construction activities in sensitive areas. The program shall summarize relevant laws and regulations that protect resources, and review applicable avoidance and minimization measures to protect historic resources. Exclusionary plastic mesh fencing shall be installed and maintained to prohibit equipment from impacting significant structures.

### Impact CULT-3: Excessive vibration-causing equipment in construction areas located less than 25 feet from significant historic masonry buildings and pile-driving within 200 feet of historic structures could have an adverse impact on the integrity of historic resources within the Specific Plan Area. This would be a significant impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact CULT-3</td>
<td>S</td>
<td>Mitigation Measure CULT-3a: The use of heavy bulldozers and other excessive vibration-causing equipment in construction zones shall be excluded within 25 feet of significant historic buildings or structures. A system of spot-check monitoring shall also be performed in these locations to ensure that the historic resources do not sustain damage.</td>
<td>LTS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mitigation Measure CULT-3b: The use of pile-driving equipment during construction activity shall be excluded within 200 feet of all eligible or potentially eligible historic resources; augers shall be used within 200 feet. A system of spot-check monitoring shall also be performed in these locations to ensure that the historic resources do not sustain damage.</td>
<td></td>
</tr>
</tbody>
</table>

### GEOLOGY AND SOILS

Impact GEO-1: Development allowed under the Specific Plan would be subject to seismic ground shaking. This is considered a significant impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact GEO-1</td>
<td>S</td>
<td>Mitigation Measure GEO-1a: All structures in the Specific Plan Area shall be designed in accordance with currently adopted building codes and ordinances of the City of Santa Rosa, including the 2001 California Building Code. A Final Design Review shall be performed by a licensed civil/structural engineer for adherence to the seismic design criteria within the Specific Plan Area.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO-1 continued</td>
<td>Mitigation Measure GEO-1b: A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include the following elements.</td>
</tr>
<tr>
<td></td>
<td>1. The investigation shall be performed under the direction of a state licensed Geotechnical Engineer and/or a Certified Engineering Geologist.</td>
</tr>
<tr>
<td></td>
<td>2. The subsurface investigation shall include drilling, logging and sampling of boreholes to a minimum depth of 25 feet below the ground surface to evaluate soils for their susceptibility to seismically induced ground failure.</td>
</tr>
<tr>
<td></td>
<td>3. If a seismically unstable subsurface material is encountered, the engineer shall identify specific measures to mitigate the impact of seismic ground shaking. Mitigation measures may include soil stabilization techniques such as pressure grouting, specific foundation design measures such as pile foundations, or other methods identified by the engineer.</td>
</tr>
<tr>
<td></td>
<td>4. A written report shall be prepared summarizing the methods used, results of the investigation and specific design measures recommended.</td>
</tr>
<tr>
<td></td>
<td>5. Results of the investigation shall be reviewed by the City, or by a qualified independent consultant retained by the City.</td>
</tr>
<tr>
<td></td>
<td>The City shall require developers to incorporate the mitigation measures into new development.</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### Impact GEO-2: Liquefaction leading to structural damage or collapse of structures could occur within the Specific Plan Area. This is considered a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact GEO-2</strong></td>
<td>S</td>
<td>Mitigation Measure GEO-2: Development of sites within the Specific Plan Area shall require investigation of the potential for soil liquefaction during seismic ground shaking that could result in damage to structures, pavements and utilities. A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include those elements outlined under Mitigation Measure GEO-1b. The City shall require developers to incorporate the mitigation measures into new development.</td>
<td></td>
</tr>
</tbody>
</table>

### Impact GEO-3: Seismically-induced slope failure and instability adjacent to Santa Rosa Creek may be present in the Specific Plan Area for sites located adjacent to Santa Rosa Creek. This is considered a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact GEO-3</strong></td>
<td>S</td>
<td>Mitigation Measure GEO-3: Any new structures planned within 50 feet from the top of the bank of Santa Rosa Creek shall complete a streambank stability analysis to examine the effect of a new structure on bank stability. Structures to be evaluated shall include paved parking areas, retaining walls, buildings and other site improvements. A licensed Civil Engineer or Certified Engineering Geologist shall complete the slope stability analysis. Analysis shall include the effect of increased or concentrated runoff on bank erosion, likelihood of foundation pressure causing bank failure and the impact of grading next to the creek bank in terms of future settlement and erosion. Recommendations from the analysis to be incorporated into development plans shall include use of energy dissipaters or other techniques to reduce outflow velocities of storm drains discharging into Santa Rosa Creek, building setback from the creek and stable grading setback from the creek.</td>
<td></td>
</tr>
</tbody>
</table>

*LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact*
### GEO-4: Expansive Soils

Expansive soils may be present in the Specific Plan Area. Expansive soils may cause damage to pavements, concrete slabs and foundations. This is considered a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO-4: Expansive soils may be present in the Specific Plan Area. Expansive soils may cause damage to pavements, concrete slabs and foundations. This is considered a <em>significant</em> impact.</td>
<td>S</td>
<td>Mitigation Measure GEO-4: A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include those elements outlined under Mitigation Measure GEO-1b. The City shall require developers to incorporate the mitigation measures into new development.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

### HAZARDS AND HAZARDOUS MATERIALS

**Impact HAZ-1:** The increased risk from an accidental spill, fire, or other accident associated with the increase in development is considered a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact HAZ-1: The increased risk from an accidental spill, fire, or other accident associated with the increase in development is considered a <em>significant</em> impact.</td>
<td>S</td>
<td>Mitigation Measure HAZ-1a: Each sub-development in the Specific Plan area shall be required to prepare and implement a post development Stormwater Pollution Prevention Plan (SWPPP) to prevent runoff from dumpsters, maintenance areas and other areas where potentially hazardous or hazardous materials are stored or used from discharging into site waterways and into Santa Rosa Creek. This plan shall be approved by the City in conjunction with design approval for the project. The SWPPP plan shall include, but not be limited to the following: 1. Location of dumpsters and the location of hazardous and potentially hazardous materials storage, including paints, cleaning agents, petrochemicals, and any other potentially hazardous materials storage facilities. The plan shall include details showing coverings and berms to prevent intrusion of rainwater and prevent escape of runoff. Location of signs prohibiting littering and illegal dumping, as well as signs detailing garbage collection services and emergency contacts in the event of a spill.</td>
<td>LTS</td>
</tr>
<tr>
<td>Significant Impact</td>
<td>Significance Before Mitigation</td>
<td>Mitigation Measures</td>
<td>Significance With Mitigation</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>HAZ-1 continued</td>
<td></td>
<td>2. Maintenance and cleanup schedule. This shall include procedures and schedules for sweeping, protecting storm drain inlets from contaminated runoff, cleaning up spills, and eliminating the majority of litter and debris washing into storm drains that may enter local waterways. Regular sweeping is a simple and effective BMP aimed at reducing the amount of litter in storm drain inlets (to prevent clogging) and public waterways (for water quality). The project applicant shall enter into an agreement with the City of Santa Rosa to ensure this maintenance is completed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mitigation Measure HAZ-1b: Registration and compliance with the Hazardous Materials Business Plan (HMBP), Hazardous Waste Generator Program and Accidental Release Program, wherever applicable, is required for businesses with the following quantities of hazardous materials: at least 55 gallons (liquids), 500 pounds (solids) or 200 cubic feet (gases).</td>
<td></td>
</tr>
<tr>
<td>Impact HAZ-2:</td>
<td>Development of sites on hazardous materials lists is considered a <em>significant</em> impact.</td>
<td>S</td>
<td>Mitigation Measure HAZ-2a: Developers shall be required to complete a Phase 1 environmental site assessment for each property to be redeveloped. Should the Phase 1 ESA determine a need for additional sampling and testing to determine the extent of any contamination then a Phase 2 shall be completed with sampling and testing of soil and groundwater if applicable. Should contamination be found at potentially harmful levels the developer shall complete site remediation in accordance with Mitigation Measure HAZ-2b.</td>
</tr>
</tbody>
</table>
HAZ-2 continued

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Mitigation Measures</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
</tr>
</thead>
</table>

Mitigation Measure HAZ-2b: Developers shall complete site remediation in accordance with OSHA Standards, Santa Rosa Fire Department, Sonoma County Environmental Health Department and State Water Resources Control Board Guidelines. The Department of Toxic Substances Control (DTSC) may become involved wherever toxic levels of contamination are found that pose an immediate hazard. Remediation shall reduce human exposure risk and environmental hazards both during and after construction. The remediation plan shall be prepared in accordance with recommendations of the environmental consultant and established procedures for safe remediation. Specific mitigation measures designed to protect human health and the environment will be provided in the plan. Requirements shall include, but not be limited to the following:

1. Documentation of the extent of previous environmental investigation and remediation at the site, including closure reports for Underground Storage Tanks (UST’s) and contaminant concentrations.

2. A site specific Health and Safety Plan (HASP) to be prepared by all contractors at the project site, where applicable. This includes a HASP for all demolition, grading and excavation on the site, as well as for future subsurface maintenance work. The HASP shall include appropriate training, any required personal protective equipment, and monitoring of contaminants to determine exposure. The HASP will be reviewed and approved by a Certified Industrial Hygienist.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### HAZ-2 continued

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Description of protocols for the investigation and evaluation of previously unidentified hazardous materials that could be encountered during project development, including engineering controls that may be required to reduce exposure to construction workers and future users of the site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Requirements for site-specific construction techniques that would minimize exposure to any subsurface contamination, where applicable. This shall include treatment and disposal measures for any contaminated groundwater removed from excavations, trenches, and dewatering systems in accordance with local and Regional Water Quality Control Board guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Sampling and testing plan for excavated soils to determine suitability for reuse or acceptability for disposal at a State licensed landfill facility.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Restrictions limiting future excavation or development of the subsurface by residents and visitors to the proposed development, and prohibition of groundwater development should it be determined from test results.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Completion of an approved remediation plan should land use restrictions be insufficient to allow development to proceed safely. Remediation measures may include excavation and replacement of contaminated soil with clean fill, pumping and treatment of groundwater, thermal treatment, etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### HYDROLOGY AND WATER QUALITY

**Impact HYDRO-1:** Demolition and construction for future development and redevelopment proposed in the Specific Plan could potentially violate water quality standards or waste discharge requirements. This would be a *significant* impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact HAZ-3:</td>
<td>S</td>
<td>Mitigation Measure HAZ-3a: The Fire Department shall review construction plans for roadway modifications, and establish temporary alternative emergency routes necessary for the duration of the construction project. During design review the City shall ensure that roads and driveways are established that meet ordinance and uniform building code requirements for emergency access. The Fire Department shall also review building plans for compliance with the Fire Code and establish future inspection schedule for continuing compliance.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

Mitigation Measure HAZ-3b: The City shall revise the current City of Sonoma and County Emergency Services Plan to reflect new development. It is recommended that any adopted emergency response or evacuation plan include training provisions such as those adopted through the Community Emergency Response Team (CERT) program.

**Mitigation Measure HYDRO-1:** Pursuant to the City of Santa Rosa Stormwater Management Plan (SWMP); grading, erosion control and stormwater ordinances; and National Pollutant Discharge Elimination System (NPDES) requirements, each developer shall develop and implement a Storm Water Pollution Prevention Plan(s) (SWPPP) for each individual development or redevelopment project site to protect water quality during and after construction. The Project SWPPP shall include the following mitigation measures for the construction period:

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
HYDRO-1 continued

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion control/soil stabilization techniques such as straw mulching, erosion control blankets, erosion control matting, and hydro-seeding, shall be utilized, in accordance with the regulations and recommendations outlined in the Santa Rosa Area Standard Urban Storm Water Mitigation Plan (SUSMP) adopted by the City of Santa Rosa, Sonoma County, and the Sonoma County Water Agency. Silt fences used in combination with fiber rolls shall be installed down slope of all graded slopes. Fiber rolls shall be installed in the flow path of graded areas receiving concentrated flows and around storm drain inlets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Best management practices” (BMPs) shall be implemented for preventing the discharge of other construction-related NPDES pollutants beside sediment (i.e. paint, concrete, etc) to downstream waters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After construction is completed, all drainage facilities shall be inspected for accumulated sediment, and these drainage structures shall be cleared of debris and sediment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Long-term mitigation measures to be included in the Project SWPPP shall include, but are not limited to, the following:

- Description of potential sources of erosion and sediment at the proposed project site. Industrial activities and significant materials and chemicals that could be used at the project site should be described. This will include a thorough assessment of existing and potential pollutant sources.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDRO-1 continued</td>
<td></td>
<td>♦ Identification of BMPs to be implemented at the project site based on identified industrial activities and potential pollutant sources. Emphasis shall be placed on source control BMPs, with treatment controls used as needed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>♦ Development of a monitoring and implementation plan. Maintenance requirements and frequency shall be carefully described including vector control, clearing of clogged or obstructed inlet or outlet structures, vegetation/landscape maintenance, replacement of media filters, regular sweeping of parking lots and other paved areas, etc. Wastes removed from BMPs may be hazardous, therefore, maintenance costs should be budgeted to include disposal at a proper site. Parking lot areas shall be cleared of debris that may enter the storm drain system on a daily basis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>♦ The monitoring and maintenance program shall be conducted at the frequency agreed upon by the RWQCB and/or City of Santa Rosa. Monitoring and maintenance shall be recorded and submitted annually to the SWRCB. The SWPPP shall be adjusted, as necessary, to address any inadequacies of the BMPs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>♦ The applicant shall prepare informational literature and guidance on industrial and commercial BMPs to minimize pollutant contributions from the proposed development. This information shall be distributed to all employees at the project site. At a minimum the information shall cover: a) proper disposal of commercial cleaning chemicals; b) proper use of landscaping chemicals; c) clean-up and appropriate disposal of hazardous materials and chemicals; and d) prohibition of any washing and dumping of materials and chemicals into storm drains.</td>
<td></td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact HYDRO-2:</strong> Increased levels of non-point source pollutants may enter the storm drains of the area and ultimately enter Santa Rosa Creek if not controlled through proper Stormwater Pollution Prevention. This would be a significant impact.</td>
<td>S</td>
<td>Mitigation Measure HYDRO-2: Developers will be required to preparation and implement a Specific Plan Area Storm Water Pollution Prevention Program (SWPPP), pursuant to NPDES requirements, as detailed in Mitigation Measure HYDRO-1.</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>Impact HYDRO-3:</strong> Development in the Specific Plan area may create an increase in flood potential in downstream waters by increasing runoff levels. This would be a significant impact.</td>
<td>S</td>
<td>Mitigation Measure HYDRO-3: In accordance with the Santa Rosa Area Standard Urban Storm Water Mitigation Plan (SUSMP) and Sonoma County Water Agency flood control criteria, developers shall develop a Storm Drain Master Plan for individual projects that includes design drawings and calculations of the capacity of the proposed storm drain system for the project. SUSMP-recommended BMPs such as on-site storm water detention, storm drain line upgrades, or infiltration areas shall be incorporated into the project design, as well as storm water treatment controls such as catch basins, storm water separators, and or/other SUSMP-recommended treatment BMPs. The Storm Drain Plan shall also include a hydraulic analysis prepared consistent with Sonoma County Water Agency flood control design criteria to establish whether the existing municipal system has capacity to accommodate any increased flows resulting from the proposed project. The analysis shall include Rational Method calculations of pre- and post-development 10-year peak flows and shall take into account drainpipe slope and elevations, drainpipe size(s), and system head losses. The Storm Drain Plan shall be submitted to the City of Santa Rosa and the Sonoma County Water Agency for review prior to approval. The Storm Drain Plan should be consistent with the City’s SUSMP, SCWA flood control criteria, and General Plan Policies.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### LAND USE

*The Specific Plan would not result in significant impacts related to land use; therefore, no mitigation measures are required.*

### NOISE

Impact NOI-1: Although construction noise would be localized to the individual construction sites, businesses and residences throughout the Specific Plan Area would be intermittently exposed to high levels of noise throughout the construction period. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or more. This would be a significant impact.

<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
</table>
| S                  |                               | Mitigation Measure NOI-1: Developers shall ensure that construction equipment be well maintained and used judiciously to be as quiet as practical. The following measures, when applicable, will be required from developers to reduce noise from construction activities:  
  ♦ Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.  
  ♦ Utilize “quiet” models of air compressors and other stationary noise sources where technology exists.  
  ♦ Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.  
  ♦ Prohibit unnecessary idling of internal combustion engines.  
  ♦ Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.  
  ♦ Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.  
  ♦ A temporary noise control blanket barrier shall be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected. | LTS |

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
</table>
| NOI-1 continued    |                                | ♦ Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.  
♦ Ensure that construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 a.m. to 7:00 p.m.  
♦ Businesses, residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a “construction liaison” that will be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site. | S | LTS |

Impact NOI-2: The future residential units in the Specific Plan would be exposed to outdoor noise levels in excess of 60 Ldn and indoor levels in excess of 45 Ldn. Future commercial uses along Highway 101, Highway 12 and major arterial roadways would be exposed to outdoor noise levels in excess of 70 Ldn. These noise levels would exceed the City and State established land use compatibility thresholds. This would be a significant impact.

Mitigation Measure NOI-2a: In areas where new residential development would be exposed to an Ldn of greater than 60 dB, site-specific noise studies shall be conducted to determine the area of impact and to present appropriate mitigation measures to reduce noise levels to within established allowable levels, which may include the following:

♦ Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### Significant Impact

#### Mitigation Measure NOISE-2: Avoid locating noise sensitive outdoor commercial areas (i.e., outdoor dining, childcare facilities, etc.) adjacent to Highway 101, Highway 12 or major arterial roadways unless they are shielded by sound barriers or structures. Mechanical ventilation should be provided in all noise sensitive commercial uses (i.e., offices, childcare, art galleries, libraries, etc) adjoining Highway 101, Highway 12 or major arterial roadways. Sound rated windows and construction methods may also be necessary.

**LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact**

---

2-27
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT NOI-3:</td>
<td><strong>S</strong></td>
<td>Mitigation Measure NOI-3a: Developers shall reduce vibration from construction activities by implementing the following during construction: ♦ Avoid impact pile driving where possible and use drilled piles when possible since drilled piles causes lower vibration levels where geological conditions permit their use. ♦ Avoid using vibratory rollers and tampers near sensitive areas.</td>
<td><strong>LTS</strong></td>
</tr>
</tbody>
</table>

Mitigation Measure NOI-3b: In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:
♦ Identification of sites which would include vibration compaction activities, such as pile driving, and have the potential to generate groundborne vibration, while considering the sensitivity of nearby structures to groundborne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. This task shall be conducted by a qualified structural engineer.

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
### NOI-3 continued

- Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits and address the need to conduct photo, elevation and crack surveys to document before and after construction conditions. Construction contingencies would be identified for when vibration levels approached the limits.
- At a minimum, vibration monitoring shall be conducted during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
- When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Appropriate mitigation shall be approved and required by the City prior to commencement of construction.

### POPULATION AND HOUSING

*The Specific Plan would not result in significant impacts related to population and housing; therefore, no mitigation measures are required.*
<table>
<thead>
<tr>
<th>Significant Impact</th>
<th>Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUBLIC SERVICES AND RECREATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Specific Plan would not result in significant impacts related to public services and recreation; therefore, no mitigation measures are required.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRANSPORTATION AND CIRCULATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact TRANS-1: Buildout of the Specific Plan in the future would exacerbate unacceptable LOS F traffic conditions in both directions on Highway 101, and unacceptable LOS E conditions on westbound State Highway 12. This would be a significant impact.</td>
<td>S</td>
<td>Mitigation Measure TRANS-1: There are no known freeway capacity projects that would result in acceptable operation in the future, and correspondingly no means for fair-share payments for impacts to Highway 101 to be collected.</td>
<td>SU</td>
</tr>
<tr>
<td><strong>UTILITIES AND INFRASTRUCTURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Specific Plan would not result in significant impacts related to utilities and infrastructure; therefore, no mitigation measures are required.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LTS = Less Than Significant; S = Significant; SU = Significant Unavoidable Impact
The Specific Plan is a planning and regulatory tool available to local governments in the State of California. As allowed under California State Law (Government Code 65450 et seq.), the City of Santa Rosa would use the Downtown Station Area Specific Plan, in part, to implement its adopted General Plan. The Specific Plan, which must be consistent with the City’s General Plan, is intended to provide a greater level of specificity in planning in and around the downtown as an area of special interest and value to the community.

This Draft program-level Environmental Impact Report (EIR) analyzes the potential impacts of adopting and implementing the Downtown Station Area Specific Plan (Specific Plan), which covers a 647-acre area in and around the Downtown area of Santa Rosa. The project also includes the adoption of proposed amendments to the Santa Rosa 2020: General Plan that would establish new land use designations and would ensure consistency between the Specific Plan and the General Plan.

This chapter describes each component of the proposed project. It first discusses the overall location and character of the project study area and then describes in detail the Draft Downtown Specific Plan and its related General Plan Amendments.

The applicant for the proposed project is the City of Santa Rosa.

A. Project Study Area

1. Regional and Local Location
The City of Santa Rosa is located in central Sonoma County, in the northwestern part of the nine-county San Francisco Bay Area. Santa Rosa is approximately 55 miles northwest of San Francisco and 70 miles southwest of Sacramento. Figure 3-1 shows the project site’s regional location.
FIGURE 3-1
REGIONAL LOCATION

- Santa Rosa
- Ukiah
- Pacific Ocean
- Sacramento
- San Francisco
- Yuba City
- Davis
- Stockton
- Tracy
- Oakland
- San Jose
- Napa
- Fairfield
- Stockton
- Santa Rosa
- San Francisco
- San Mateo
- San Joaquin
- Yolo
- Yolo
- Sacramento
- Sonoma
- Mendocino
- Contra Costa
- Alameda
- Solano
- Colusa
- Lake
- Santa Clara
- Santa Clara
- Stanislaus
- Solano
- Marin
- Contra Costa
The Specific Plan Area is generally located within Santa Rosa’s downtown on the western side of the City where Highway 101 intersects with State Route 12 and Santa Rosa Creek. Figure 3-2 shows the local context of the study area.

2. Study Area Boundaries
The EIR study area encompasses the entire Specific Plan Area, the boundaries of which are shown in Figure 3-3. The Specific Plan Area is roughly bounded by College Avenue to the north, Sebastopol Road to the south, Santa Rosa Avenue and E Street to the east, and North Dutton Avenue to the west.

Highway 101, State Route 12, Santa Rosa Avenue, and Third Street provide the major regional and local access routes to the study area. Access to both Highway 101 and State Route 12 is available from local streets within the Specific Plan Area.

3. Study Area Characteristics
The Specific Plan encompasses approximately 647 acres in the downtown area of Santa Rosa, which is divided into numerous individual parcels. Topographically, the study area and areas to its north and south are generally flat, but includes some minor variations in terrain. The more varied terrain of the Mayacama Mountains to the east and the coastal range to the west are visible from certain portions of the study area.

The Specific Plan Area includes a diverse range of existing land uses. In contrast to the single-use land use patterns that characterize the majority of the City, the Specific Plan Area contains a rich mix of land uses at varying levels of development intensity. Although the Specific Plan Area exhibits the highest building densities in the city, many parcels in the Specific Plan Area, particularly in the industrial areas and around the railroad, are vacant or underutilized.
As shown in Figure 3-3, Santa Rosa Avenue, Mendocino Avenue, Wilson Street, Third Street, and Ninth Street are the primary internal roadways within the study area. These and other streets in the study area form a relatively well-connected grid, providing a variety of circulation routes.

There are many pedestrian facilities throughout the Specific Plan Area that are generally in very good condition; however, some of these facilities need improving in order to provide better connections between destinations. In addition, several new connections are proposed in the Specific Plan.

a. Surrounding Development
The area north of the Specific Plan Area is comprised of a mix of retail, residential, office and lighter industrial uses. East of Highway 101, College Avenue is primarily comprised of a mix of office and retail uses with residential further to the north. West of Highway 101, West College Avenue is characterized by a mix of commercial, light industrial and office uses. A major employment center (Santa Rosa Business Park) is located north of College Avenue. The area to the east is primarily a continuation of the Downtown area, however residential uses can be found within the predominantly commercial setting. Land uses along the study area to the south include a mix of commercial, light industrial, residential, and recreational.

B. Project Objectives

The following project objectives have been identified for the Specific Plan:

♦ Establish a land use plan and policy framework that will guide future development and redevelopment within the study area towards transit supportive uses and improvements.

♦ Improve motorized, non-motorized and transit connectivity between the station site and existing adjacent commercial and residential areas.

♦ Develop and implement urban design standards that promote walkable and livable environments within the Specific Plan study area.
♦ Preparation of a comprehensive environmental document (Program EIR) to facilitate subsequent project reviews.

♦ Educate and inform the public about transit oriented development (TOD) concepts and the Specific Plan process.

♦ Identify a policy framework (the procedural framework) that will allow for adoption and implementation of the Specific Plan.

C. Downtown Station Area Specific Plan

This section summarizes the key components of the Specific Plan. The Specific Plan itself, which is available for review at the City of Santa Rosa offices, provides a complete presentation of all components of the Plan.

The Specific Plan Area contains a diverse mix of land uses, development intensities, building heights and circulation patterns. To preserve the character of these diverse neighborhoods while guiding appropriate development, the Specific Plan divides the Specific Plan Area into seven sub-areas. Figure 3-4 illustrates the location and boundaries of the Specific Plan Sub-Areas. These include the Courthouse Square, Railroad Square, Railroad Corridor, Park and Gardens, Imwalle Gardens, Residential and Historic Residential Sub-Areas.

As shown in Table 3-1, during its 20-year planning span, the Specific Plan projects development of up to 3,250 residential units; 197,500 square feet of office and public/institutional uses; 296,000 square feet of retail uses; and a new civic center, that includes a new City Hall building and a 2,500 seat performing arts center, through development or redevelopment of Sub-Areas. The City assumes that this level of development would occur within 20 years and would exceed current General Plan buildout projections. In addition, the City assumes that all parcels within the Specific Plan Area that are not within one of the Sub-Areas where change would occur, would retain their present type and intensity of development.
FIGURE 3.4 SPECIFIC PLAN SUB AREAS

- Specific Plan Area
- Railroad
- Courthouse Square Sub-Area
- Park and Gardens Sub-Area
- Railroad Square Sub-Area
- Railroad Corridor Sub-Areas
- Historic Residential Sub-Areas
- Residential Sub-Areas
- Imwalle Gardens Sub-Area

CITY OF SANTA ROSA
DOWNTOWN STATION AREA SPECIFIC PLAN EIR
TABLE 3-1  ESTIMATED SPECIFIC PLAN BUILDOUT

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Existing (2005)</th>
<th>Specific 2025 Buildout</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sq.Ft. Units</td>
<td>Sq.Ft. Units</td>
<td>Sq.Ft. Units</td>
</tr>
<tr>
<td>Residential Detached</td>
<td></td>
<td></td>
<td>36</td>
</tr>
<tr>
<td>Residential Attached</td>
<td>1,230 4,444</td>
<td>3,214</td>
<td></td>
</tr>
<tr>
<td>Senior Housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial/Retail</td>
<td>2,133,737 2,430,000</td>
<td>296,263 0</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>1,293,586 1,350,000</td>
<td>56,414 0</td>
<td></td>
</tr>
<tr>
<td>Public/Institutional</td>
<td>498,880 640,000</td>
<td>141,120</td>
<td></td>
</tr>
<tr>
<td>Heavy Industrial</td>
<td>8,600 0</td>
<td>(8,600)</td>
<td></td>
</tr>
<tr>
<td>Light Industrial</td>
<td>711,303 20,000</td>
<td>(691,303) 3,250</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>4,646,106 4,440,000</td>
<td>5,295 (206,106)</td>
<td></td>
</tr>
</tbody>
</table>

Source: City of Santa Rosa.

This projected development is expected to result in the loss of 8,600 square feet of heavy industrial and 691,303 square feet of light industrial throughout the Specific Plan Area over the 20-year period.

1. Land Use
The Specific Plan would regulate land uses within the study area through a number of mechanisms. These include:

♦ Goals and policies for land use that would apply to the entire Specific Plan Area.

♦ Sub-Areas, within which the Specific Plan land use designations, development guidelines and streetscape regulations would apply.
♦ Land use regulations that specify permitted and conditionally permitted uses for each Sub-Areas; along with special provisions that would apply to certain land uses or use conditions.

♦ Development and streetscape standards covering development intensity, building heights, setbacks, parking and landscaping.

Each of these components is described in greater detail in the following section.

a. Land Use Goals and Policies
Land use goals and related policies in the Specific Plan focus on a series of interrelated aspects for each Sub-Areas: promoting the development of a significant amount of new housing and a range of housing types; promoting mixed use development and a diversity of uses within the Specific Plan Area, including residential, retail, office, civic, and arts and entertainment uses; increasing overall development intensities, particularly in the area within one-half mile of the commuter rail station site; and preserving the historic fabric of the downtown.

b. Specific Plan Sub-Areas
The Sub-Area Map (Figure 3-4) shows seven Sub-Areas in the Specific Plan Area. Each of the Sub-Areas is defined by a vision for land use, density and height.

The Specific Plan Sub-Areas are defined as follows:

♦ Courthouse Square Sub-Area. This Sub-Area is primarily made up of retail and office uses, with scattered off-street, on-street and structured parking throughout. The Sub-Area remains one of the city’s main activity areas. It encompasses Courthouse Square, the Santa Rosa Plaza shopping mall, and the city, State and federal government buildings.

The Courthouse Square Sub-Area is envisioned as a mixed use area with housing, office and retail uses allowed throughout the Sub-Area. The ground floor of every new development in the Courthouse Square Sub-
Area would be required to have a activity-generating use. Such uses are known to generate human activity in the public realm and include, but are not limited to, shopping and dining destinations. A grocery store use would be allowed and encouraged in this sub-area as would a performing arts center. Densities in the Courthouse Square Sub-Area would continue as existing, which is no specified density limit, but limited by the existing maximum height allowances in the Sub-Area. This means that height limits the density of development. Height limits would continue to be set by the existing Mid-Rise Policy.

- Railroad Square Sub-Area. This Sub-Area is Santa Rosa’s specialty shopping and dining district and is listed on the National Register of Historic Places. It is bound by Third Street and a hotel and conference center to the south, Highway 101 to the east, Sixth Street to the north and Santa Rosa Creek to the west. The district includes the 1904 Railroad Depot, commercial buildings on Fourth Street built between 1915 and 1925, warehouses dating from 1888 to 1914 along the railroad and Hotel La Rose.

The Railroad Square Sub-Area is envisioned as a mixed use area with housing (including hotels), office and retail uses allowed throughout the Sub-Area. The reconstruction of the Railroad Square Water Tower is intended to serve as a landmark for the Sub-Area and gateway feature for the Fourth Street corridor. Activity-generating use would be required at the ground floor of every new development in this Sub-Area including, but are not limited to, shopping and dining destinations. Allowable densities for new housing development would be 40 to 60 dwelling units per acre. Height would be a minimum of two stories and a maximum of five stories north of Third Street, and a maximum of seven stories at the convention center south of Third Street, as specified in the Mid-Rise Policy. Development over 35 feet high in the portion of this Sub-Area north of Third Street is subject to review and approval by the Cultural Heritage and Design Review Board.

- Railroad Corridor Sub-Area. This Sub-Area contains a mixture of light industrial and commercial uses that extend from north to south across
the Specific Plan Area along the rail corridor. The northwestern section of the Railroad Corridor Sub-Area extending north and south of Maxwell Court and between the railroad and North Dutton Avenue, is primarily heavy and light industrial, with retail along the major roads and railroad. Some residences are mixed with commercial, office and industrial uses. The southwestern portion of the Sub-Area extends from the southern side of Highway 12 in the north to the northern side of Sebastopol Road in the south.

The Railroad Corridor Sub-Area is envisioned as a mixed use area with housing allowed throughout the Sub-Area. Neighborhood serving retail and live-work development would be allowed and encouraged in this Sub-Area. Residential development of 25 to 40 units per acre would be allowed. Allowable heights would be no more than four stories with a limit of three stories abutting existing Residential and Historic Residential Sub-Areas.

♦ Park and Gardens Sub-Area. This Sub-Area includes the area along Santa Rosa Avenue between Highway 12 to the south and Charles Street to the north and encompasses parcels along Santa Rosa Avenue. The Sub-Area is envisioned as a mixed use area with housing allowed throughout. Activity-generating ground floor use would be required along Santa Rosa Avenue. Housing density of 13 to 24 dwelling units per acre would be allowed. Allowable heights would be no more than three stories.

♦ Imwalle Gardens Sub-Area. North and south of West Third Street and west of North Dutton Avenue, is the last urban farm in Santa Rosa, which has been in operation since 1886. The gardens are organic, so pesticides and other harmful chemicals are not likely to present problems for surrounding residents. The City’s General Plan acknowledges the role of the Sub-Area as an Urban Area and contains policies supporting city-centered growth and land use intensification.

The Imwalle Gardens Sub-Area is envisioned to be divided into two parts, with the western portion remaining designated for residential consistent with the current General Plan, and the eastern portion and the portion to the south of West Third Street as agricultural use. The resi-
Residential portion would allow the existing housing density of 8 to 13 dwelling units per acre.

- **Residential Sub-Areas.** There are residential neighborhoods within the Specific Plan Area that are not designated as preservation districts, but which contribute to the character of Downtown Santa Rosa. These include the area east of the railroad between College Avenue and Sixth Street, and the area south of Santa Rosa Creek between North Dutton Avenue and Pierson Street. There would be no change to existing land-use designations or densities in these Sub-Area under the Specific Plan.

- **Historic Residential Sub-Areas.** Santa Rosa has a rich historical heritage and many historic buildings and neighborhoods still remain intact in and around the downtown area. Residential preservation districts located within or adjacent to the Specific Plan Area include: St. Rose, Cherry Street, West End, Olive Park and Burbank Gardens. These historic districts add to the character and quality of the downtown area by providing distinctive architecture and a glimpse into Santa Rosa’s history. There would be no change to existing land-use designations or densities in these Sub-Areas under the Specific Plan.

c. **Land Use Designations**
The Specific Plan describes the land use designations and associated development intensities that will apply in the Specific Plan Area. Figure 3-5 illustrates the land use designations for the Specific Plan Area; locations with different land use designations or development intensities from those in the current Santa Rosa General Plan are outlined in black. In order to support the goals set forth in the Land Use Framework, the Specific Plan includes a new land use category, Transit Village, that has two classifications: Transit Village Medium and Transit Village Mixed Use. The General Plan Amendments included as part of the overall project analyzed in this EIR includes the Amendments necessary to bring the Specific Plan and General Plan into consistency for the land use designations used within the Specific Plan Area.
Specific Plan Area

Areas of Change

Low Density Residential

Medium Low Density Residential

Medium Density Residential

Retail & Business Services

Retail/Medium Residential Mixed Use

Retail/High Residential Mixed Use

Office

Office/Medium Residential

Lt Ind/Med Residential Mixed Use

Downtown Mixed Use

Parks and Recreation

Creek

Agriculture

F I G U R E  3.5

SPECIFIC PLAN LAND USE
Residential densities are stated in the Specific Plan as the number of housing units per gross acre of developable land. Development is required within the density range (both maximum and minimum) stipulated in the classification. However, development standards established in the Zoning Code may limit attainment of maximum densities. Areas that have been designated for multiple land uses are distinguished by a striped pattern on the Land Use Map. Single or multiple uses are allowed in these areas, consistent with the designated land uses. The Specific Plan does not change the description of any of the land uses from what is currently defined in the General Plan, except for adding two Transit Village designations and the Urban Agriculture designation for use on the Imwalle Gardens site. The following provides more information on these new land use designations:

♦ **Transit Village Medium.** This classification is intended to accommodate mixed-use development within approximately one-half mile of a transit facility. Development should transition from less intense uses at the outlying edges to higher intensity uses near the transit facility. Although primarily residential in character, ground floor neighborhood-serving retail and live-work uses are encouraged. Housing densities range from 25 to 40 units per gross acre.

♦ **Transit Village Mixed Use.** This classification is intended to accommodate a well-integrated mix of higher intensity residential, office and commercial uses within one-quarter mile of a transit facility. Development is designed and oriented to create a central node of activity at or near the transit facility. Housing densities range from 40 to 60 units per gross acre.

♦ **Urban Agriculture.** This classification preserves remaining farmland within the Urban Growth Boundary. Uses include orchards, cropland and related processing and distribution facilities. Residential densities may not exceed one unit per ten acres or one unit per parcel if less than ten acres.
d. Development Guidelines and Streetscape Standards

Unlike the City’s existing Zoning Code and Design Guidelines, both of which include general requirements for development based on location and land use, the Specific Plan includes Development Guidelines and Streetscape Standards that apply specifically to designated corridors within the Specific Plan Area. These streets and passages are key corridors within the Specific Plan Area and serve as the foundation for its existing and future character, degree of connectivity and emerging development patterns.

The Development Guidelines included in the Specific Plan are “form-based” and regulate the physical form rather than the land use classification to ensure a more attractive and better functioning built environment. The Streetscape Standards govern the design and installation of elements within and along key streets and corridors.

All future projects associated with these streets and corridors would reference the Specific Plan Development Guidelines and Streetscape Standards as the primary authority for all design issues and utilize Santa Rosa’s existing policies and documents for any conditions not addressed. Any projects that are not associated with a designated street or corridor, even if it is within the Specific Plan Area, would be subject to Santa Rosa’s existing Zoning Code and Design Guidelines.

The Specific Plan identifies a series of Street and Corridor Types, which are used to identify areas that are similar in character. The Street and Corridor Types are then divided into two broad categories, Street Types and Corridor Types, each with additional subdivisions within them. The Street Types category includes key travel routes for all modes of transportation and is subdivided into Urban Center Streets, Shop Front Streets, Boulevards, Entryway Streets, Live/Work Streets and Neighborhood Streets. The Corridor Types category includes all key pedestrian and bicycle routes through the Specific Plan Area and is subdivided into the Santa Rosa Creek Corridor, the SMART Rail Corridor and Pedestrian Connectors. Figure 3-6 depicts the key streets identified in the Specific Plan.
The Development Guidelines and Streetscape Standards address each of the Street and Corridor Types and include:

♦ Goals describing the intended character, form and function of the street or corridor.

♦ Development Guidelines establishing the basic parameters governing building form for new construction or substantial renovation.

♦ Development Guidelines Special Conditions describing additional requirements or guidelines for specific private or public building locations.

♦ Streetscape Standards establishing and continuing the development of quality streetscape elements within the street or corridor right of way.

♦ Streetscape Standards Special Considerations describing additional right of way guidelines for unique locations within the Specific Plan Area.

2. Circulation Improvements
The Specific Plan includes multiple circulation improvements to address the impact created by the new development on the local and regional roadway, bicycle and pedestrian systems.

a. Roadway Improvements
A major improvement identified in the Specific Plan that would affect the circulation system is the reunification of Courthouse Square, which would reconfigure the City’s major civic open space in downtown Santa Rosa. Assuming this reunification and the resulting increase in traffic from additional development in the Specific Plan Area, the Specific Plan identifies improvements to the following intersections:

♦ College Avenue/Dutton Avenue
♦ College Avenue/Cleveland Avenue
♦ College Avenue/Highway 101 North, College Avenue/Highway 101 South and College Avenue Corridor
♦ Seventh Street/B Street
♦ Sixth Street/Wilson Street
♦ Third Street/B Street and Third Street Corridor
Third Street/Santa Rosa Avenue
♦ Dutton Avenue/Sebastopol Road and Dutton Corridor
♦ Third Street/Future SMART Site primary north-south street

The Specific Plan also includes the following proposed new streets within the Specific Plan Area:
♦ Fourth Street reconnection through the Santa Rosa Mall
♦ Sixth Street under crossing under Highway 101
♦ SMART north-south connector street
♦ Roberts Avenue reconnection between Sebastopol Road to Third Street
♦ Donahue Street extension north across West Ninth Street
♦ Imwalle Gardens access street north of West Third Street

Additionally, the Specific Plan proposes changes to the functional classification of several streets in the downtown area, which include:
♦ Mendocino Avenue
♦ B Street
♦ Healdsburg Avenue
♦ First Street
♦ Sixth Street
♦ Seventh Street

The roadway improvements are discussed in more detail in Section 4.12, Transportation and Circulation.

b. Pedestrian Improvements
As discussed above, the Specific Plan identifies key streets within the Specific Plan Area and sets standards for streetscape improvements as well as guidelines for private development along those streets and corridors. These standards and guidelines would help to improve the appearance, safety and connectivity for pedestrians on these streets. In addition, pedestrian connectors are identified in each residential neighborhood and streetscape standards and enhancements are identified for these corridors.
Necessary pedestrian connectivity improvements contained in the Specific Plan include:

♦ A regional dedicated bicycle/pedestrian corridor along the SMART right of way, running north-south through the Specific Plan Area.

♦ A new connection through Santa Rosa Plaza to allow twenty-four hour unrestricted travel from Fourth Street in Courthouse Square to Fourth Street in Railroad Square. The Specific Plan recommends a vehicular/pedestrian street to provide more activity and to increase safety, especially during evening hours.

♦ Continuous sidewalks along West Third Street between Imwalle Gardens and Santa Rosa Creek.

♦ Safe pedestrian crossings of Santa Rosa Avenue in the Park and Gardens Sub-Area, particularly at Mill Street.

♦ A wide at-grade pedestrian crossing of Fourth Street across the SMART railroad line.

♦ Guidelines for new development along Santa Rosa Creek in the Specific Plan Area ensuring significant “eyes on the creek” and a level of comfort for pedestrians and bicyclists during daytime and evening hours.

♦ A new connection under Highway 101 at Sixth Street providing a link from the Railroad Square Sub-Area to the Courthouse Square Sub-Area.

♦ As development occurs, new pedestrian-friendly streets into the Maxwell Court neighborhood at the north and the Sebastopol Road neighborhood at the southern end of the Railroad Corridor Sub-Area.

♦ Bulb-outs and other amenities to improve pedestrian comfort and safety at identified locations within the Plan Area.

c. Bicycle Improvements
The Specific Plan respects and supports the findings of the 2001 update of the Bicycle and Pedestrian Master Plan by Wilbur Smith Associates. In the Specific Plan Area, however, some minor changes to the network proposed by the Bicycle and Pedestrian Master Plan will be necessary because of the High-
way 101 widening project, the reunification of Courthouse Square and resulting vehicular traffic changes or anticipated traffic patterns caused by new development. The changes include:

♦ The existing bicycle/pedestrian overpass south of Santa Rosa Creek will be removed because of the Highway 101 widening. The recent completion of the Prince Memorial Greenway nearby provides an alternative Class I bicycle/pedestrian route under the Highway.

♦ A new connection under Highway 101 at Sixth Street is also a result of the Highway 101 widening project. The City is currently studying lane configurations but it is assumed that bicycle lanes will be included.

♦ The Class II bike lanes and Class III bike route proposed for Cleveland Avenue and Wilson Street are not proposed in the Specific Plan because there will be a dedicated Class I bicycle/pedestrian trail along the SMART right of way just one block to the west. The dimension of Cleveland Avenue and Wilson Street in this area is very narrow and bike lanes would be difficult to achieve in any case.

♦ The proposed Class II lanes on Ninth Street between Wilson and A Street will instead be a Class III bike route because of the volume of traffic there. It is likely that the new highway underpass at Sixth Street will provide Class II lanes and this will draw some bicycle traffic away from Ninth Street.

3. Parking
Based on the Parking Analysis for the Downtown Station Area Specific Plan that was prepared for the Specific Plan, and is included in Appendix F of this EIR, the Specific Plan includes a parking demand approach and adjustments to parking standards for sub-areas to encourage transit use and reduce the amount of land dedicated to parking. The specific parking requirements are discussed in more detail in Section 4.12, Transportation and Circulation.

4. Transit
A primary consideration of the Downtown Station Area Specific Plan is to increase the effectiveness of transit in the Specific Plan Area and thereby re-
lieve some of the pressure on the vehicular circulation system. The various features of the Specific Plan are designed to encourage increased transit use, such as increased density, appropriate parking ratios, and policies to work closer with the Sonoma-Marin Area Rail Transit.

5. Public Services and Utilities
Several improvements to public services and utilities would be made under the Specific Plan to support the additional development that would occur. The following provides a summary of the improvements identified in the Specific Plan. Additional detail on improvements to the utilities infrastructure is included in Section 4.13, Utilities and Infrastructure.

a. Parks and Recreational Facilities
The Specific Plan indicates locations for several new parks, including new pocket parks in the Maxwell Court and Sebastopol Road areas, a new linear park along Santa Rosa Creek in the western part of Imwalle Gardens, a public green/amphitheatre near Sixth Street and Pierson Street and a new Prince Gateway Park located at Santa Rosa Avenue and Sonoma Avenue. The total for these proposed parks is approximately 4.5 acres. The Specific Plan also recommends the creation of a neighborhood community facility in all or part of the Fitzgerald building in the Sebastopol Road area, and the creation of a new Performing Arts Center as part of a new Civic Center on the existing city hall site.

b. Utilities
For the Specific Plan, an infrastructure report was prepared that identifies improvements necessary to the water, sewer and storm drainage systems, as well as telephone, cable, gas and electrical systems to support the development allowed under the Specific Plan. The Specific Plan includes policies tying future growth to the provision of services.
D. General Plan Amendments

The proposed project includes amendments to the 2002 Santa Rosa General Plan. The City would adopt these amendments to ensure consistency between the Specific Plan and the existing General Plan, as is required by State Law. For the purposes of analysis in this EIR, it is assumed that the General Plan Amendments only apply to the Specific Plan Area and are necessary to ensure consistency with the General Plan and allow for the implementation of the Specific Plan. If the City decides to apply some of the General Plan changes to areas outside of the scope of the Specific Plan, it would require additional environmental analysis. In addition, any General Plan Amendments that did not directly implement the Specific Plan, as analyzed in this EIR, would require additional environmental review.

The following summarizes the proposed amendments:

♦ Land Use Element
  • Text additions and deletions necessary for addition and removal of land use classifications.
  • Revisions to text, graphics and figures related to land use.
  • Policy revisions (related to siting of grocery stores and buffering between residential and industrial land uses).
  • Other text revisions necessary for consistency with above changes.

♦ General Plan Land Use Diagram
  • Addition of new land use designations (Transit Village, Urban Agriculture).
  • Removal of “Mixed Use” land use designation from the Specific Plan Area.
  • Reunified Courthouse Square.
  • Addition of new proposed neighborhood park sites.
  • Modifications to street network (new streets, change in functional classifications).
  • Changes to existing land use designations.
Transportation Element
- Revision of Figure 5-1 to include new streets and changes to functional classifications.
- Revision of Figure 5-2 to include revisions to bicycle network.
- Revisions to Transportation Appendix to reflect changes in functional classifications.

Public Services and Facilities
- Revision of Figure 6-1 to add new neighborhood park sites.
- Revisions to text and tables related to park sites and park acreage to reflect additions of new neighborhood parks.

Other
- Revisions to text, graphics and figures related to land use, housing and population changes as necessary.

E. Required Permits and Approvals

As stated above, the proposed project includes the following:
- Certification of this EIR.
- Adoption of the Downtown Station Area Specific Plan.
- Adoption of a series of General Plan Amendments to ensure required consistency between the City of Santa Rosa General Plan and the Specific Plan.
This chapter consists of 13 sections that evaluate the environmental impacts of the proposed Downtown Station Area Specific Plan. In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the proposed Specific Plan are analyzed for the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils (includes Mineral Resources)
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use (includes Agricultural Resources)
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Circulation
- Utilities and Infrastructure

A. Format of the Environmental Evaluation

Each section in Chapter 4.0 generally follows the same format and consists of the following subsections:

- The Regulatory Framework subsection contains an overview of the federal, State and local laws and regulations applicable to each environmental review topic.
- The Existing Conditions subsection describes current conditions with regard to the environmental factor reviewed.
- The Standards of Significance subsection tells how an impact is judged to be significant in this EIR. These standards are based on the CEQA Guidelines and other regulatory criteria where noted.
The Impact Discussion gives an overview of potential impacts of the Specific Plan and tells why impacts were found to be significant or less than significant. This section includes a discussion of cumulative impacts of the proposed project.

The Impacts and Mitigation Measures section numbers and lists identified impacts and identifies measures that would mitigate each impact, where such measures are available.

In Sections 4.1 through 4.13, each numbered impact is considered significant prior to mitigation. Mitigation measures have been suggested that would reduce significant impacts to less than significant levels. Following identified mitigation measures, there is a statement whether the mitigation would reduce the impact to less than significant, or whether it would remain significant and unavoidable.

B. Cumulative Impact Analysis

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable. A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR together with other reasonably foreseeable projects causing related impacts.

In the case of an area-wide planning document such as a Specific Plan, cumulative effects occur from development under the Plan within the city combined with effects of development in other portions of the city and region. By definition, no development within the Specific Plan Area would be considered part of the cumulative impacts; instead, development inside the Specific Plan Area is part of the project itself.

Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly de-
scribe its basis for concluding that the incremental effect is not cumulatively considerable.

The cumulative impacts analyses in Sections 4.1 to 4.13 are included in the Impact Discussion in each section.

1. Geographic Area for Cumulative Analysis
Individual cumulative impacts may occur over different geographic areas. The cumulative discussions in Sections 4.1 through 4.13 explain the geographic scope of the area affected by each cumulative effect (e.g. watershed or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basinwide projections of emissions is the best tool for determining the cumulative effect. For most resource issues, the cumulative context evaluated in this EIR is the City of Santa Rosa and its Urban Growth Boundary.

2. Cumulative Projects Considered
The CEQA Guidelines provide two approaches to analyzing cumulative impacts. The first is the “list approach,” which requires a listing of past, present, and reasonably anticipated future projects producing related or cumulative impacts. The second is the summary approach wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions are summarized. A reasonable combination of the two approaches may also be used.

The cumulative impacts of a Specific Plan take into account growth projected by the Specific Plan for the Specific Plan Area, in combination with impacts from projected growth in the rest of Santa Rosa and the City’s Urban Growth Boundary. In each of the following 13 sections, the cumulative impact analysis examines cumulative effects of the proposed Specific Plan, in combination with City of Santa Rosa-projected growth for the city and Urban Growth Boundary.
According to the Santa Rosa 2020: General Plan, the population within the City of Santa Rosa and its Urban Growth Boundary is expected to reach a total of 195,300 by year 2020. By this same time approximately 19,300 housing units are also projected.

For the purposes of this cumulative analysis, a city-level cumulative analysis is used for the impact analyses. The potential cumulative effects of the proposed Specific Plan are summarized in each of the following 13 sections.
4.1 AESTHETICS

This chapter describes the existing aesthetic character of the Specific Plan Area and evaluates the potential aesthetic impacts associated with the Specific Plan.

A. Regulatory Framework

This section summarizes existing City of Santa Rosa policies and regulations that apply to aesthetics of the Specific Plan Area.

1. Relevant City of Santa Rosa General Plan Goals and Policies
The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to aesthetics.

   a. Transportation Element

   Goal T-G: Identify, preserve and enhance scenic roads throughout Santa Rosa in both rural and developed areas.

   ♦ Policy T-G-6: Provide large setbacks from scenic roads, as possible, to avoid encroachment of buildings on the view of the roadway.

   ♦ Policy T-G-11: Underground utility lines along scenic roads.

   ♦ Policy T-G-15: Require that scenic road rights-of-way are wide enough to preserve natural vegetation. Provide appropriate construction setbacks to retain views along the corridor.

   b. Urban Design Element

   Goal UD-A: Preserve and enhance Santa Rosa’s scenic character, including its natural waterways, hillsides, and distinctive districts.

   ♦ Policy UD-A-1: Maintain view corridors to natural ridgelines and landmarks, such as Taylor Mountain and Bennett Mountain.

   ♦ Policy UD-A-2: Strengthen and emphasize community focal points, visual landmarks, and features that contribute to the identity of Santa Rosa using design concepts and standards implemented through the
Zoning Code, Design Review Guidelines, City Entries Policy, Preservation District Plans, Scenic Roads policies, and Area Plans.

♦ Policy UD-A-5: Require superior site and architectural design of new development projects, to improve visual quality in the city.

Goal UD-C: Enhance and strengthen the visual quality of major entry routes into the City, as well as major corridors that link neighborhoods with downtown.

♦ Policy UD-C-6: Require that buildings, sound walls and other structures highly visible from Highway 101 or Highway 12 and adjoining neighborhoods be designed to enhance and improve scenic character.

2. Santa Rosa Zoning Code
a. 20-28.050 Scenic Road (SR) Combining District
The -SR combining district is intended to enhance and preserve the natural and constructed features that contribute to the character of scenic roads. Natural and constructed features include trees, rock walls, view corridors, road configuration and tree canopy.

b. 20-30.080 Outdoor Lighting
Outdoor lighting on private property shall comply with the requirements specified within the City’s Zoning Code. Some of these requirements include setting maximum height limits for outdoor light fixture, the use of energy-efficient fixtures and lamps (high pressure sodium, hard-wired compact fluorescent, etc.) and the use of shielded or recessed fixtures to reduce light bleed to adjoining properties.

3. Santa Rosa Design Guidelines
The City’s design guidelines provide direction to designers as well as establish criteria for review of projects. Downtown specific design guidelines were adopted as part of the City’s Mid-Rise Policy, which is discussed below. The purpose of the design guidelines is to provide a clear set of design policies to project sponsors such as developers, property owners, architects, designers and public agencies including City projects. The design guidelines are the
primary design criteria which the city staff, boards and commissions and the City Council will use to evaluate project proposals. These guidelines apply to all projects that require design review, including most new buildings, the design of subdivisions, infill development and public improvements, such as streets. Some single family houses, as allowed by the Zoning Code, are not required to incorporate the design preferences included in these guidelines.

4. City of Santa Rosa Mid-Rise Policy
A zoning amendment was adopted in Fall 2005, which allows for five-, seven- and ten-story buildings in specific locations around the city, with a raised maximum height of 150 feet. In conjunction with adoption of the Mid-Rise Policy, the City also adopted a set of design guidelines specific to the Downtown area.

B. Existing Conditions

This section discusses the existing aesthetic quality of the Specific Plan Area and its immediate surroundings. It is divided into separate discussions for each Sub-Area.

1. Visual Character of the Specific Plan Area
The visual character of the Specific Plan Area varies greatly across several distinct Sub-Areas, as is depicted in Figure 4.1-1. In the approximately one square mile of the Specific Plan Area there are seven distinct Sub-Area types: Courthouse Square, Railroad Square, Railroad Corridor, Park and Gardens, Historic Residential, Residential and Imwalle Gardens. These areas contain a diverse range of uses including a working farm, a dormant rail corridor, a regional shopping center, a thriving historic commercial district, the business and government hub of the County and the historic Courthouse Square and major commercial and institutional office buildings. Figure 4.1-2 is a map of the Specific Plan Area showing density of existing development. All buildings and structures are shown in black to help show the character of the spaces in between buildings.
Courthouse Square

Railroad Square
FIGURE 4.1-1b

SUB-AREA VISUAL CHARACTER

Railroad Corridor

Historic Residential
FIGURE 4.1-1c

SUB-AREA VISUAL CHARACTER

Residential

Park & Garden

Imwalle Gardens
Figure 4.1-2

Existing Development Density

Specific Plan Area

+++ Railroad
a. Courthouse Square Sub-Area
The Courthouse Sub-Area is the main civic, entertainment, retail and office center for the City of Santa Rosa and a unifying element of Downtown activity. The original town plat included First through Fifth Streets and A through E Streets. At the center of the original town plat was a plaza square the size of a city block. Although most of the original downtown grid remains intact, much of the historically-scaled building stock has been replaced, since the middle of the last century by larger-scale buildings, including the enclosed Santa Rosa Plaza mall. Most of the buildings in the Courthouse Sub-Area are one- to three-story structures with a consistent façade along the sidewalk and no setback from the right-of-way.

The civic center is located on the southeast portion of the Sub-Area and includes several blocks between Santa Rosa Avenue and E Street. Most of the larger retail and office uses are located along the edges of this area and include buildings that are between two- and five-stories. This area is typically less dense than the Fourth Street retail corridor and includes several buildings with larger footprints and deeper setbacks.

All utilities in this Sub-Area have been under-grounded. Additionally, this Sub-Area is unique in having mature street trees, particularly Redwoods, throughout the Sub-Area. This creates a pleasant visual character within this Sub-Area while still allowing for views of the distant landscape. Views of the foothills to the north and east are visible from most major roadways.

b. Railroad Square Sub-Area
The Railroad Square Sub-Area was placed on the National Register of Historic Places in 1979 and still retains many of its historic retail and warehouse structures. Serving as a specialty shopping area and tourist destination, Fourth Street is the primary retail corridor and contains several historic one- and two-story stone and brick structures. Other streets in this Sub-Area include slightly taller buildings, with typically one- to four-stories of residential and mixed-use buildings with a mix of old and new construction. The Sub-Area also includes a neighborhood park with basalt
buildings constructed from stone quarried in the nearby hills and several historic buildings, including a three-story masonry structure built in 1907. Views to the Santa Rosa Creek are visible from the southern and western edges of the sub area and along the east-side are views to Highway 101.

c. Railroad Corridor Sub-Area
Most of the buildings in the Railroad Corridor Sub-Area are long and low, characterized by low-rising concrete block and corrugated metal architecture, with adjacent gravel or paved parking areas separating the building from the streets. This area is developed with mostly industrial uses, the history of which is reflected in the larger parcel sizes and the orientation of older structures towards the rail line. A small concentration of social services by non-profits and religious institutions are also found within the Sub-Area. Buildings in the north end of this Sub-Area are newer construction, while those located in the Western Farm Center and adjacent to Railroad Square are typically older or historic structures. Roadway improvements vary throughout the area, with most roads improved with curbs, gutters and intermittent sidewalks. View of the distant foothills are possible within the Sub-Area when not blocked by the limited trees, taller buildings, or overhead utility lines.

d. Park and Gardens Sub-Area
This Sub-Area is located along Santa Rosa Avenue, between Highway 12 to the south and Charles Street to the north. This Sub-Area only encompasses parcels along Santa Rosa Avenue. Buildings within the Sub-Area are characterized by low-rising, one- to two-story commercial serving uses, including a Greyhound depot and auto dealerships. Views of the distant foothills are possible towards the north on Santa Rosa Avenue and most of the residential streets to the east.

e. Historic Residential District Sub-Areas
The City of Santa Rosa contains several historic residential neighborhoods which have been designated as historic districts. Some of these neighborhoods are in the Specific Plan Area and have many similar
characteristics so they have been grouped together as the Historic Residential District Sub-Areas. Generally located along the periphery of the Specific Plan Area, the Sub-Areas specifically include the West End Historic District on the west side, St. Rose Historic District to the north, Cherry Street Historic District to the northeast, Olive Park Historic District to the south, and a portion of the Burbank Gardens Historic District along the southeast perimeter.

The neighborhoods that comprise the Historic Residential District Sub-Areas contain an assortment of single-family homes built throughout the last century. Scattered uses, such as schools and parks are found across all of the historic residential neighborhoods. These include the historic DeTurk Round Barn in the West End Historic District, Olive Park in the Olive Park Historic District and the Luther Burbank Historic Home and Gardens in the Burbank Gardens Historic District. Views to the creek are visible from the West End and Olive Park Historic Districts, and the foothills are visible to the east from the Cherry Street and Burbank Gardens Historic Districts.

f. Residential Sub-Areas
The Residential Sub-Areas are comprised of three distinct neighborhoods across the Specific Plan Area, each of which has a unique character and mix of uses. The first residential Sub-Area is the Juilliard Park neighborhood and is generally bounded by Highway 101 to the west, Highway 12 to the south, Sonoma Avenue to the north and Santa Rosa Avenue to the east. This area includes a mix of lower-intensity retail uses along the Santa Rosa Avenue corridor, as well as predominantly one- to two-story, small lot, single- and a few multi-family housing. The 9-acre Juilliard Park is located within this Sub-Area, acting as a community focal point and gathering place. Mature trees within and around the park provide a broad shade area for local residents. The mature trees and landscaping found throughout the Sub-Area provide as screens for the visual clutter created by the overhead utility lines. Limited views of the surrounding foothills are possible on a few of the residential streets.
The second neighborhood is located in the southwestern portion of the Specific Plan Area and is bounded by the Santa Rosa Creek to the north, the rail line to the east, Highway 12 to the south and the Imwalle Gardens property to the west. The western half of the neighborhood includes a large multi-family complex containing two-story apartment clusters connected by internally organized streets and sidewalks. The eastern portion of the neighborhood contains 1960s-era single-family ranch and cottage style homes. Various mature trees, limited landscaping and view corridors of the surrounding foothills exist within the Sub-Area.

The third neighborhood included in the Residential Sub-Areas is located north of the Historic Railroad Square area and is bounded by Highway 101 to the east, West College Avenue to the north, the rail line to the west and Sixth Street to the south. This Sub-Area contains primarily one and two-story early 20th century single-family homes and small retail shops. This Sub-Area’s visual character is impacted by the lack of landscaping, extensive visual clutter caused by overhead utility lines and the elevated structure of Highway 101. View corridors of the surrounding foothills are very limited.

g. Imwalle Gardens Sub-Area

Imwalle Gardens is located in the southwestern corner of the Specific Plan Area and is bisected by West Third Street. Imwalle Gardens was the last larger-scale farm operating within the City’s Urban Boundary and is surrounded by residential subdivisions. Although there is currently no large-scale agriculture production occurring in the Imwalle Gardens Sub-Area, a small portion of the site is used for limited agriculture production in association with the small retail/distribution store location on the property. Only a few small structures affiliated with Imwalle Gardens exist on the southern and eastern portions of the property. The western portion of the site remains completely undeveloped and contains a large open field. Santa Rosa Creek borders the northern edge of the property, and is visible from the area. Additionally, given the distance of the property from Highway 101, views of the foothills to the east are also visible from the site.
2. Visual Character of the Surrounding Area

a. North of the Specific Plan Area
The area north of the Specific Plan Area is comprised of a mix of retail, residential, office and light industrial uses in predominantly one- and two-story structures. As with other parts of the city, overhead utility lines clutter the visual landscape and views of the surrounding foothills. East of Highway 101, College Avenue is primarily comprised of a mix of office, retail and a limited amount of residential uses. Residential neighborhoods are found further to the north. West of Highway 101, College Avenue is characterized by a mix of commercial, light industrial and office uses. A major employment center (Santa Rosa Business Park) is located north of College Avenue.

b. East of the Specific Plan Area
The area to the east is primarily a continuation of the Downtown, however residential uses can be found within the predominantly office and commercial setting. As with the Downtown, the limited residential buildings within this area tend to be older than the rest of the city comprised of one- and two-stories, utility lines are predominantly undergrounded and mature trees and landscaping are found throughout the area. Non-residential buildings range from one story to four stories. Views of the surrounding foothills are possible throughout the area.

c. South of the Specific Plan Area
Land uses along the Specific Plan Area to the south include a mix of commercial, light industrial, residential and recreational, in where structures are mainly one- and two-stories in height. The architecture throughout the area is diverse in both style and age. Although there are mature trees and landscaping found throughout this area, it is not consistent, especially on the major corridors. Views of the surrounding foothills are possible throughout the area, although they are impacted by the visual clutter from the overhead utility lines.
d. West of the Specific Plan Area
This area is dominated by a subdivision of single-family, single-story detached homes. Curving streets and a handful of cul-de-sacs provide the experience of a typical suburban development. Mature trees and landscaping are commonly found throughout the area. As with the Railroad Corridor Sub-Area, this area also has industrial and commercial uses along College Avenue. Views of the surrounding foothills are possible throughout the area when not obstructed by the overhead utility lines.

3. Scenic Vistas Within and Across the Specific Plan Area
The Specific Plan Area, consisting of approximately 1 square mile, is located in a predominantly urbanized area of Santa Rosa and is characterized in visual terms by a variety of existing residential, commercial, office and light industrial development. As in most urbanized area, the Specific Plan Area has its share of mature landscaping and trees (both public and private), as well as overhead utilities that obstruct possible view corridors. Furthermore, given that the Specific Plan Area’s topography is relative flat, there are limited opportunities for public scenic vistas within and across the Specific Plan Area of the surrounding Sonoma Mountain foothills, mainly to the north and east. Figure 4.1-3 illustrates common views from the Specific Plan Area. There are better public views of the foothills to the west of Santa Rosa visible from the Highways 12 and 101.

4. Scenic Resources and Highways
There are no officially-designated State scenic highways adjacent to the Specific Plan Area, although the segment of Highway 12 between Highway 101 and Santa Rosa’s eastern city boundary is eligible to become a State scenic highway.1

---

Nevertheless, the City’s General Plan has two designated scenic roads within the Specific Plan Area: Highway 12 and Highway 101. The General Plan intends to maintain these scenic roads through appropriate urban planning.

5. Lighting and Glare

Due to the built, urbanized setting of the Specific Plan Area, lighting and glare are commonly found throughout the Specific Plan Area. Existing sources of light in the Specific Plan Area include streetlamps, parking-lot lighting, storefront and signage lighting, vehicle headlights and interior lights that spill over to the exterior of buildings through windows. Glare is created by reflection of natural (i.e. sunlight) and artificial light off of existing windows and building surfaces.

C. Standards of Significance

The Specific Plan would have a significant impact with regard to aesthetic qualities if it would:

a. Substantially degrade the existing visual character or quality of the site and its surroundings.

b. Have a substantial adverse effect on a scenic vista.

c. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a State scenic highway.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

D. Impact Discussion

This section discusses the impacts of the Specific Plan on the aesthetic character of the Specific Plan Area and its surrounding area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.
1. Project Impacts
   a. Substantially degrade the existing visual character or quality of the site
      and its surroundings.

   Implementation of the Specific Plan would allow for development and redevelop-
   ment within the Specific Plan Area, which could change the existing
   character of the Specific Plan Area and its surroundings. At buildout of the
   Specific Plan in 2025, an estimated 3,250 housing units would be allowed for
   development. Along with residential development, an additional 296,000
   square feet of commercial/retail space, 56,000 square feet of office space and
   141,000 square feet of public/institutional space are also projected for develop-
   ment within the life of the Specific Plan.

   Much of the proposed development that would occur under the Specific Plan
   would be infill of commercial and industrial parcels in the Courthouse
   Square, Railroad Square and Railroad Corridor Sub-Areas. Specifically, about
   90 percent of the residential and retail development under the Specific Plan
   would occur within these three Sub-Areas. The Specific Plan also envisions
   substantial amount of new development to occur within areas that are cur-
   rently vacant, underutilized or undeveloped. This includes the rebuilding of
   the historic Water Tower in Railroad Square along the Fourth Street corri-
   dor. The introduction of new or redeveloped uses in existing areas and new
   development on currently vacant lands has the potential to alter the visual
   character and qualities of those places, which potentially could result in the
   degrading of the community’s aesthetic character if not developed in an ap-
   propriate manner.

   Implementation of the Specific Plan would integrate and supplement the Gen-
   eral Plan Urban Design Element goals and policies. For example, Policy UD-
   A-1 requires the maintenance of view corridors to natural ridgelines and
   landmarks, such as Taylor Mountain and Bennett Mountain. Additionally,
   Policy UD-A-5 requires superior site and architectural design of new develop-
   ment projects to improve visual quality in the city. Furthermore, the
   City’s adopted design guidelines would also work to prevent the development
   of structures, buildings and facilities in the future from having significant im-
pacts on the existing visual quality and character by having supplemental development and streetscape standards that regulate building heights and setbacks.

The Specific Plan’s vision for the Residential and Historic Residential Sub-Areas is that there would be minimal changes to the areas from what currently exists. To reinforce this vision, the Specific Plan does not include changes to the existing land use designations, densities or height limits within these Sub-Areas. Additionally, the Specific Plan incorporates a comprehensive land use approach for adjacent Sub-Areas, with supporting policies, aimed at preserving and enhancing the existing character within the Residential and Historical Residential Sub-Areas. For example, development within the Railroad Square Sub-Area would have urban design guidelines providing additional restrictions to ensure that new development is appropriate in both design and scale, respects the existing context and transitions into the Residential and Historical Residential Sub-Areas. Additionally, Specific Plan Policy SP-LU-4.6 requires the development of properties along Fourth Street and West Fourth Street in Railroad Square to be designed to maintain views of the historic Water Tower from the Fourth Street corridor. The rebuilding of the Water Tower would occur on currently vacant land, located at the western end of the Fourth Street corridor. Construction of the Water Tower would not result in an adverse visual impact to the surrounding area, since the majority of the surrounding land is either vacant or under utilized and the water tower was historically located in the area prior to being disassembled. Also, the Water Tower is intended serve as a historic feature for the Railroad Square Sub-Area, as well as a gateway feature amenity.

With the adoption of Specific Plan land use policies and supporting policies, in conjunction with the other existing policies mentioned above, the Specific Plan will have a less than significant impact on the existing visual character.

b. Have a substantial adverse effect on a scenic vista.
Scenic views and vistas, including those of the Sonoma Mountain foothills and the foothills to the west of Santa Rosa, contribute to the visual character
of the Specific Plan Area. As mentioned above, the Specific Plan would integrate existing City goals, policies and guidelines to preserve these scenic views and vistas. Goal UD-A of the General Plan requires the preservation and enhancement of Santa Rosa’s scenic character, including its natural waterways, hillsides and distinctive districts. Policy UD-A-1 supports this goal by requiring the City to maintain view corridors to natural ridgelines and landmarks, such as Taylor Mountain and Bennett Mountain. Policy UD-A-2 requires the City to strengthen and emphasize community focal points, visual landmarks and features that contribute to the identity of Santa Rosa using design concepts and standards implemented through the Zoning Code, Design Review Guidelines, City Entries Policy, Preservation District Plans, Scenic Roads policies and Area Plans. Furthermore, the Specific Plan’s Development Standards and Streetscape Guidelines generally require step-backs for new development taller than three-stories tall at appropriate places in the effort to prevent an impact to these scenic views and vistas.

Taken together, the existing goals, policies and guidelines and those proposed by the Specific Plan would diminish the environmental impact to scenic vistas to a less than significant impact.

c. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a State scenic highway.

Scenic roads are important in that they direct views to areas of exceptional beauty, natural resources, landmarks, historic or cultural interest, adding to the sense of pride and identity for the community. As previously mentioned, there are no State-designated scenic highways in or through the Specific Plan Area, according to the California Department of Transportation. However, the City of Santa Rosa has designated both Highway 12 west of Highway 101, and Highway 101 as scenic roads.

Goal T-G of the General Plan requires the City to identify, preserve and enhance scenic roads throughout Santa Rosa in both rural and developed areas. Supporting this goal are several policies, one of which, Policy T-G-11, calls to underground utility lines along scenic roads. Policy T-G-15 requires that sce-
nic road rights-of-way be wide enough to preserve natural vegetation, while providing for appropriate construction setbacks to retain views along the corridor. Policy T-G-6 requires development to provide large setbacks from scenic roads, as possible, to avoid encroachment of buildings on the view of the roadway. Additionally, Policy UD-C-6 requires that buildings, sound walls and other structures highly visible from Highway 101 or Highway 12 and adjoining neighborhoods be designed to enhance and improve scenic character.

Implementation of the City’s Design Guidelines and Zoning Code, particularly the –SR combining district, would ensure that new development or redevelopment under the Specific Plan would preserve and protect scenic resources along the City’s Scenic Roads. For example, the –SR combining district specifies any removal or alteration of a rock wall or other identified scenic feature in conjunction with new development or a public project within the -SR combining district shall be avoided or minimized whenever possible, through alternative project configurations.

As a result, the Specific Plan would have less than significant impact in regards to scenic resources.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Development and/or redevelopment under the Specific Plan could introduce new sources of light and glare, which could have a negative impact by degrading the visual quality of the Specific Plan Area. However, the City’s Zoning Code regulates outdoor lighting specifically, which minimizes the potential impact from new development or redevelopment. Under the Outdoor Lighting section, the City Code specifies that no permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness, as determined by the City. Furthermore, the Code also regulates the height and shielding of lighting fixtures. The Code specifies that an outdoor light fixture shall be limited to a maximum height of 14 feet or the height of the nearest building, whichever is less. As for the shielding, the Code specifies that light-
ing fixtures should confine glare and reflections within the boundaries of the site to the maximum extent feasible. Additionally, implementation of the City’s Design Guidelines would further limit new sources of light, as well as glare, when specific development projects are in the Specific Plan Area.

Implementation of the Specific Plan would allow for development of new multi-story buildings along the designated Scenic Highway 101 and Highway 12 corridors. Depending upon building materials used during construction, these new buildings could result in new sources of glare for vehicles traveling along these highways. This new source of glare could result in a significant impact within the Specific Plan Area.

2. Cumulative Impacts
Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative aesthetics impact. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to negatively impact the aesthetics of the city would be reduced to a less than significant level. The Specific Plan would be subject to the same General Plan policies.

In addition, the development of the lands within the Specific Plan Area would not contribute to an overall shift in the visual character of the City of Santa Rosa area. Development within the Specific Plan Area is predominantly focused Sub-Areas that are buffered by existing residential neighborhoods or in areas that already have higher concentrations of building massing. Additionally, the areas surrounding the Specific Plan Area are primarily low to medium density residential neighborhoods that are not intending to change character in the foreseeable future. Therefore, the Specific Plan would not contribute to a significant cumulative impact on aesthetic resources.
E. Impacts and Mitigation Measures

Impact AES-1: Development of multi-story buildings along the Highway 101 and Highway 12 corridors could result in new sources of glare for vehicles traveling along these highways. This would be a significant impact.

Mitigation Measure AES-1: For construction of structures along the designated Scenic Highways 12 and 101, the City shall require the use of building materials designed to reduce lighting glare. Examples of these types of materials include, but are not limited to, windows treated with glare reductive coating or film covering, matte-finish tiles, marble, or sheet metal, and non-reflective flashing material.

Significance After Mitigation: Less than significant.
This chapter examines the degree to which the Specific Plan may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities such as site grading, as well as long-term effects related to the ongoing operation of the Specific Plan are discussed. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. “Emission” refers to the actual quantity of pollutant, measured in pounds per day. “Concentration” refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm) or micrograms per cubic meter (µg/m3). This section was prepared by Illingworth & Rodkin, Inc.

A. Regulatory Setting

This section summarizes key federal, State and City statutes, regulations and policies that would apply to the project. At the federal level, the United States Environmental Protection Agency (EPA) administers the federal Clean Air Act (CAA). The California Clean Air Act is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels. The Bay Area Air Quality Management District (BAAQMD) regulates air quality at the regional level, which includes much of the nine-county Bay Area.

1. Federal Laws and Regulations

a. United States Environmental Protection Agency

The EPA is responsible for enforcing the federal CAA. The EPA is also responsible for establishing National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside State waters (e.g. beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than
California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

2. State Laws and Regulations
   a. California Air Resources Board
      The CARB, part of the California Environmental Protection Agency, is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing the California Ambient Air Quality Standards (CAAQS). The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. The CAAQS are more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective on March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. The CARB also monitors ambient air quality throughout the State.

   b. Bay Area Air Quality Management District
      In 1955, the California Legislature created the Bay Area Air Quality Management District (BAAQMD). The agency is primarily responsible for assuring that the national and State ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities. The BAAQMD does not have authority to regulate emissions from motor vehicles.
c. Bay Area Clean Air Plan

To protect public health, the BAAQMD has adopted plans to achieve ambient air quality standards. The BAAQMD must continuously monitor its progress in implementing 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.

Air quality plans addressing the California Clean Air Act are developed about every three years. The plans are meant to demonstrate progress toward meeting the more stringent 1-hour $O_3$ California Ambient Air Quality Standards (CAAQS). The latest plan, which was adopted in January 2006, is called the Bay Area 2005 Ozone Strategy. This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the region would make progress toward attaining the stricter State air quality standards, as mandated by the California Clean Air Act. The plan is designed to achieve a region-wide reduction of $O_3$ precursor pollutants through the expeditious implementation of all feasible measures. The plan proposes implementation of transportation control measures (TCMs) and programs such as Spare the Air. Spare the Air is a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation.

d. Air Pollutants and Ambient Air Quality Standards

The federal and California Clean Air Acts establish ambient air quality standards for different pollutants. The 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 ($O_3$), nitrogen dioxide ($NO_2$), particulate matter with a diameter less than 10 microns (PM$_{10}$), sulfur dioxide (SO$_2$), and lead (Pb). Recently, fine particulate matter or PM$_{2.5}$ was added as a criteria pollutant. Air quality studies generally focus on five pollutants that are most commonly measured and regulated: CO, $O_3$, $NO_2$, SO$_2$, and suspended particulate matter, i.e. PM$_{10}$ and PM$_{2.5}$. 
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 standards. Federal and State air quality standards are shown in Table 4.2-1. Both the national and California ambient air quality standards have been adopted by the Bay Area Air Quality Management District (BAAQMD).

i. Carbon Monoxide
CO, a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. Automobile exhaust and residential wood burning in fireplaces and woodstoves emit most of the CO in the Bay Area. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. The highest CO concentrations measured in the Bay Area are typically recorded during the winter.

ii. Ozone
Ground-level ozone is the principal component of smog. Ozone is not directly emitted into the atmosphere, but instead forms through a photochemical reaction of reactive organic gases (ROG) and nitrogen oxides (NOx), which are known as ozone precursors. Ozone levels are highest from late spring through autumn when precursor emissions are high and meteorological conditions are warm and stagnant. Motor vehicles create the majority of reactive organic gas and nitrogen oxide emissions in the Bay Area. Exposure to levels of ozone above current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms...
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>State Standards</th>
<th>Federal Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time</td>
<td>Primary(a)</td>
<td>Secondary(b)</td>
</tr>
<tr>
<td>Ozone</td>
<td>8-hour</td>
<td>0.07 ppm (137 µg/m³)</td>
<td>0.08 ppm (157 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>0.09 ppm (182 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>8-hour</td>
<td>9.0 ppm (10 mg/m³)</td>
<td>9 ppm (10 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>20 ppm (23 mg/m³)</td>
<td>35 ppm (40 mg/m³)</td>
</tr>
<tr>
<td>Nitrogen dioxide</td>
<td>Annual</td>
<td>—</td>
<td>0.053 ppm (100 µg/m³) Same as primary</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>0.25 ppm (470 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Annual</td>
<td>—</td>
<td>0.03 ppm (80 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>24-hour</td>
<td>0.04 ppm (105 µg/m³)</td>
<td>0.14 ppm (365 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>3-hour</td>
<td>—</td>
<td>— 0.5 ppm (1,300 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>0.25 ppm (655 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Annual</td>
<td>20 µg/m³ (geometric mean)</td>
<td>— Same as primary</td>
</tr>
<tr>
<td></td>
<td>24-hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³ Same as primary</td>
</tr>
<tr>
<td>PM₁.₅</td>
<td>Annual</td>
<td>12 µg/m³</td>
<td>15 µg/m³</td>
</tr>
<tr>
<td></td>
<td>24-hour</td>
<td>—</td>
<td>35 µg/m³</td>
</tr>
<tr>
<td>Lead</td>
<td>Calendar quarter</td>
<td>—</td>
<td>1.5 µg/m³ Same as primary</td>
</tr>
<tr>
<td></td>
<td>30-day average</td>
<td>1.5 µg/m³</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis. (a) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than 3 years after that state’s implementation plan is approved by the EPA. (b) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. (c) The national 1-hour ozone standard was revoked by the US EPA on June 15, 2005. (d) The annual PM₁₀ standard was revoked by the US EPA on September 21, 2006 and a new PM₁.₅ 24-hour standard was established.
such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children and others who spend greater amounts of time outdoors during smoggy periods. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants. Ozone can also damage materials such as rubber, fabrics and plastics. In April 2005, the California Air Resources Board approved a new eight-hour standard of 0.07 ppm and retained the one-hour ozone standard of 0.09 ppm after an extensive review of the scientific literature. Evidence from the reviewed studies indicate that significant harmful health effects could occur among both adults and children if exposed to levels above these standards.

iii. Nitrogen Dioxide
NO₂, a reddish-brown gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like O₃, NO₂ is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as nitrogen oxides (NOx) and are major contributors to O₃ formation. NO₂ also contributes to the formation of PM₁₀ (see discussion of PM₁₀ below). Levels of NO₂ in the Bay Area are relatively low.

iv. Sulfur Oxides
Sulfur oxides, primarily SO₂, are a product of high-sulfur fuel combustion. The main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. Industrial chemical manufacturing is another source of SO₂. SO₂ is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. Due to the lack of sources, SO₂ is found at low concentrations in the North Bay region.

v. Suspended Particulate Matter (PM)
Particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition,
and can be made up of many different materials such as metals, soot, soil, and dust. Particles 10 microns or less in diameter are defined as “respirable particulate matter” or “PM$_{10}$”. Fine particles are 2.5 microns or less in diameter (PM$_{2.5}$) and can contribute significantly to regional haze and reduction of visibility. Inhalable particulates come from smoke, dust, aerosols, and metallic oxides. Although particulates are found naturally in the air, most particulate matter found in the area are emitted either directly or indirectly by motor vehicles, industry, construction, agricultural activities, and wind erosion of disturbed areas. Most PM$_{2.5}$ is comprised of combustion products such as smoke. Extensive research reviewed by CARB indicates that exposure to outdoor PM$_{10}$ and PM$_{2.5}$ levels exceeding current ambient air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma. PM exposure is also associated with increased risk of premature deaths, especially in the elderly and people with pre-existing cardiopulmonary disease. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Besides reducing visibility, the acidic portion of PM (nitrates, sulfates) can harm crops, forests, aquatic and other ecosystems. In June 2002, the ARB adopted new ambient air quality standards for PM$_{10}$ and PM$_{2.5}$, resulting from an extensive review of the health-based scientific literature. The U.S. EPA recently updated the 24-hour standard for PM$_{2.5}$ and eliminated the annual PM$_{10}$ standard.

vi. Toxic Air Contaminants (TAC)
TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g. dry cleaners). TACs are typically found in low concentrations, even near their source (e.g. diesel particulate matter and benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide aver-
DieSEL exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the ARB, and are listed as carcinogens either under the State’s Proposition 65 or under the federal Hazardous Air Pollutants program. California has adopted a comprehensive diesel risk reduction program. The U.S. EPA has adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These go into effect in June 2006.

In cooler weather, smoke from residential wood combustion can be a source of TACs. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind, the pollution can persist for many hours. This occurs in sheltered valleys during the winter. Wood smoke also contains a significant amount of PM10 and PM2.5. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

e. Sensitive Receptors
Sensitive receptors are people who are particularly susceptible to the adverse effects of air pollution. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools and parks. Both State and national ambient air quality standards were developed with the intent to protect sensitive receptors from the adverse impacts of air pollution.

3. Local Programs and Regulations
a. City of Santa Rosa General Plan
The updated Santa Rosa General Plan, adopted in 2002, plans for population growth through 2020. With population growth comes more motor vehicle use, consumer products use and burning of fossil fuels, so air emissions may
increase. Much of the increase is expected to be offset by decreases in emission rates of motor vehicles. However, these increases could lead to more frequent and severe violations of air quality standards. Therefore, the EIR for the General Plan incorporates a wide range of mitigations that can reduce air quality impacts. Mitigations in the General Plan are broad in scope, and the City expects each specific project to implement measures appropriate to the site, scale of activity and other relevant factors. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan.

Goal LUL-A: Foster a compact rather than a scattered development pattern.

♦ Policy LUL-A-1: As part of Plan Implementation - including development review, capital improvements programming and preparation of detailed area plans - foster close land use/transportation relationships to promote use of alternative transportation modes and discourage travel by automobile.

Goal UD-B: Preserve and strengthen downtown as a vital and attractive place.

♦ Policy UD-B-2: Encourage, promote and assist in the development of housing units within downtown for a mix of income levels and housing types, including integrating housing into existing buildings as mixed use.

Goal UD-D: Avoid strip patterns of commercial development. Improve the appearance and functioning of existing commercial strip corridors, such as Santa Rosa Avenue and Sebastopol Road.

♦ Policy UD-D-1: Restructure existing strip developments to cluster commercial uses in neighborhood nodes, with higher density housing included in the mix where possible. Residential, office, or institutional uses that generate less traffic should be located between the nodes.
Goal UD-E: Create a framework of public spaces at the neighborhood, city, and regional scale.

♦ Policy UD-E-2: Provide an open space network that is linked by pedestrian and bicycle paths, and that preserves and enhances Santa Rosa’s significant visual and natural resources.

Goal UD-G: Design residential neighborhoods to be safe, human-scaled, and livable.

♦ Policy UD-G-2: Locate higher density residential uses adjacent to transit facilities, shopping and employment centers, and link these areas with bicycle and pedestrian paths.

Goal H-C: Expand the supply of housing available to lower income households.

♦ Policy H-C-6: Promote development of second units. Discuss this option with residential developers during initial development application meetings.

Goal T-A: Provide a safe and sustainable transportation system.

♦ Policy T-A-2: Evaluate corridor levels of service (LOS) and develop strategies to improve service levels.

Goal T-B: Provide a safe, efficient, free-flowing circulation system.

♦ Policy T-B-1: Require site design to focus through-traffic on arterial streets. Promote the following design techniques to increase driver safety and traffic efficiency:
  • Reduce the number of driveways and intersections;
  • Combine driveways to serve numerous small parcels;
  • Avoid residential access;
  • Install street lights;
  • Install and facilitate timing of traffic signals; and
  • Ensure continuous sidewalks.
Goal T-H: Expand the existing transit network to provide convenient and efficient public transportation to workplaces, shopping, and other destinations.

♦ Policy T-H-2: Implement the Long and Short Range Transit, which include CityBus proposals for transit and TSM improvements.

♦ Policy T-H-4: Coordinate transit services and transfers between the various transit operators serving Santa Rosa.

Goal T-I: Support implementation of rail service along the Northwest Pacific Railroad.

♦ Policy T-I-2: Preserve options for future rail stations along the NWPRR corridor by zoning land in proximity to the potential station sites for higher residential densities and/or mixed use development.

Goal T-J: Provide attractive and safe streets for pedestrians and bicyclists.

♦ Policy T-J-1: Pursue implementation of walking and bicycling facilities as envisioned in the City’s Updated Bicycle and Pedestrian Master Plan.

Goal T-K: Develop a safe, convenient, and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas, and employment centers.

♦ Policy T-K-1: Link the various citywide pedestrian paths, including street sidewalks, Downtown walkways, pedestrian areas in shopping centers and work complexes, park pathways and other Creekside and open space pathways.

♦ Policy T-K-6: Integrate multi-use paths into all creek corridors, railroad rights-of-way, and park designs.

Goal T-L: Develop a citywide system of designated bikeways that serves both experienced and casual bicyclists, and which maximizes bicycle use for commuting, recreation and local transportation.

♦ Policy T-L-1: Provide bicycle lanes along all arterial streets and high volume collector streets.
Policy T-L-2: Provide bicycle lanes on major access routes to all schools and parks.

Policy T-L-7: As part of the City’s Capital Improvement Program, or street and intersection projects constructed by private developers, install and construct bicycle facilities, including Class I paths, Class II lanes, or Class III route signs, signal detectors, showers, lockers, bicycle parking and/or other facilities.

Goal PSF-A: Provide recreational facilities and parks for all sectors of the community.

Policy PSF-A-7: Acquire park sites adjacent to existing and proposed schools, where possible, and develop these sites as joint use facilities.

Policy PSF-A-8: Integrate the bicycle and pedestrian path networks envisioned in the City’s Updated Bicycle and Pedestrian Master Plan with regional park plans, so that users can safely and comfortably access the full range of public open spaces.

Goal PSF-C: Provide superior educational opportunities for children and all members of the community.

Policy PSF-C-2: Maintain good communication with area school districts on all matters pertaining to the need for and the provision of school sites and facilities. Integrate the planning efforts of the City and the school districts by locating school facilities that allow safe pedestrian and bicycle access, as well as ensuring construction of traffic calming measures in the vicinity, and designing attractive facilities that contribute to neighborhood identity and pride.

City of Santa Rosa City Code

The Santa Rosa City Council adopted Ordinance No. 3567, regulating the installation of wood burning appliances and operation of non-certified wood heaters in 2002 (City Code, Chapter 17-35, Sec. 17-35.010 et seq.). The ordinance specified the type of wood-burning appliances that may be installed and maintained within the City and bans the use of non-certified wood-burning...
appliances after June 1, 2004. This ordinance is intended to reduce PM emissions from wood burning devices.

B. Existing Conditions

Air quality conditions and pollutant concentrations found in Santa Rosa are a result of pollutant emissions and meteorological conditions. Air pollutant emissions generated in Santa Rosa affect both residents of Santa Rosa and those downwind. Likewise, emissions generated upwind are transported into the City and can affect the city’s residents. While short-term changes in air pollutant concentrations are mainly affected by changes in meteorology, long-term trends are primarily affected by rates of emissions.

The following section describes the existing air quality conditions for the City of Santa Rosa.

1. Climate and Topography

Santa Rosa’s meteorological conditions are cool and dry in the summers and mild and moderately wet in the winters. Air quality in Santa Rosa is influenced by terrain effects and ocean breezes that travel through the Petaluma and Cotati Valleys. Winds from the south and southwest are most prevalent in Santa Rosa. These are the breezes that travel from the Pacific Ocean to Sonoma County through the Petaluma Gap (roughly between Bodega Bay and Petaluma) and are channeled by the Sonoma Mountains to the east. Sea breezes traveling to Santa Rosa via the Petaluma Gap and the Russian River Valley to the west-northwest provide relatively clean air to Santa Rosa. When the ocean breeze is weak, however, winds from the east can dominate and carry pollutants to Santa Rosa from the Carquinez Strait area. Air quality in Santa Rosa is superior to that of many valley cities in the Bay Area because of the city’s location, the terrain and clean ocean breeze.

The climate of Santa Rosa is typical of the Bay Area’s interior valleys, tempered by exposure to sea breezes. Summer monthly maximum average tem-
temperatures are in the low 80’s °F, and winter monthly minimum average temperatures are in the high-30’s °F. Santa Rosa receives about 30 inches of annual precipitation with most of it occurring in the winter months.

2. Air Pollution Potential
The clear skies with relatively warm conditions that are typical in summer combine with localized air pollutant emissions to elevate O₃ levels. Air quality standards for O₃ traditionally are exceeded when relatively stagnant conditions occur for periods of several days during the warmer months of the year. Weak wind flow patterns combined with strong inversions substantially reduce normal atmospheric mixing. Key components of ground-level O₃ formation are sunlight and heat; therefore, significant O₃ formation only occurs during the months from late spring through early fall. Air pollution potential in the project area is not as high as other parts of the Bay Area because winds generally do not transport enough of the precursor pollutants into that area (highest concentrations occur at monitoring stations in the eastern and southern portions of the Bay Area that are usually downwind of the major urban areas). However, pollutants emitted in the North Bay area can be transported down-wind and contribute to air quality problems in those problem areas. Light winds that are common in winter combine with strong surface-based inversions caused by cold air trapped near the surface, to trap pollutants such as particulates (e.g. wood smoke) and carbon monoxide. This can lead to localized high concentrations of these pollutants.

3. Air Monitoring Data
The BAAQMD monitors air quality conditions at over 30 locations throughout the Bay Area. The Santa Rosa Monitoring Station is located on Fifth Street. Criteria pollutants monitored include O₃, CO, NO₂, hydrocarbons, PM₁₀ and PM₂.₅. The gaseous pollutants (i.e. O₃, CO and NO₂) are monitored continuously while particulate matter (i.e. PM₁₀ and PM₂.₅) are sampled for 24 hours every sixth day. A summary of the data recorded at this station is shown in Table 4.2-2 for the period 2000 through 2004 (the complete 2005 data set is not available at the time of this writing).
## Table 4.2-2  Highest Measured Air Pollutant Concentrations

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Average Time</th>
<th>Measured Air Pollutant Levels</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Santa Rosa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O₃</td>
<td>1-Hour</td>
<td>0.09 ppm</td>
<td>0.08 ppm</td>
<td>0.10 ppm</td>
<td>0.08 ppm</td>
<td>0.07 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8-Hour</td>
<td>0.06 ppm</td>
<td>0.06 ppm</td>
<td>0.08 ppm</td>
<td>0.06 ppm</td>
<td>0.05 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>CO</strong></td>
<td>8-Hour</td>
<td>2.4 ppm</td>
<td>2.1 ppm</td>
<td>1.8 ppm</td>
<td>1.6 ppm</td>
<td>2.0 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>NO₂</strong></td>
<td>1-Hour</td>
<td>0.06 ppm</td>
<td>0.05 ppm</td>
<td>0.06 ppm</td>
<td>0.05 ppm</td>
<td>0.05 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>0.013 ppm</td>
<td>0.013 ppm</td>
<td>0.012 ppm</td>
<td>0.011 ppm</td>
<td>0.011 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>Fine Particulate Matter (PM₂.₅)</strong></td>
<td>24-Hour</td>
<td>76 µg/m³</td>
<td>51 µg/m³</td>
<td>39 µg/m³</td>
<td>27 µg/m³</td>
<td>34 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>11 µg/m³</td>
<td>11 µg/m³</td>
<td>9 µg/m³</td>
<td>8 µg/m³</td>
<td>8 µg/m³</td>
<td></td>
</tr>
<tr>
<td><strong>Respirable Particulate Matter (PM₁₀)</strong></td>
<td>24-Hour</td>
<td>74 µg/m³</td>
<td>60 µg/m³</td>
<td>36 µg/m³</td>
<td>48 µg/m³</td>
<td>39 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>21 µg/m³</td>
<td>18 µg/m³</td>
<td>17 µg/m³</td>
<td>18 µg/m³</td>
<td>16 µg/m³</td>
<td></td>
</tr>
<tr>
<td><strong>Bay Area (Basin Summary)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O₃</td>
<td>1-Hour</td>
<td>0.13 ppm</td>
<td>0.16 ppm</td>
<td>0.13 ppm</td>
<td>0.11 ppm</td>
<td>0.12 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8-Hour</td>
<td>0.10 ppm</td>
<td>0.11 ppm</td>
<td>0.10 ppm</td>
<td>0.08 ppm</td>
<td>0.09 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>CO</strong></td>
<td>8-Hour</td>
<td>5.1 ppm</td>
<td>4.5 ppm</td>
<td>4.0 ppm</td>
<td>3.4 ppm</td>
<td>3.1 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>NO₂</strong></td>
<td>1-Hour</td>
<td>0.11 ppm</td>
<td>0.08 ppm</td>
<td>0.09 ppm</td>
<td>0.07 ppm</td>
<td>0.07 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>0.024 ppm</td>
<td>0.019 ppm</td>
<td>0.021 ppm</td>
<td>0.019 ppm</td>
<td>0.019 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>Fine Particulate Matter (PM₂.₅)</strong></td>
<td>24-Hour</td>
<td>NA</td>
<td>77 ug/m³</td>
<td>56 ug/m³</td>
<td>74 ug/m³</td>
<td>55 ug/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>NA</td>
<td>14 ug/m³</td>
<td>11.7 ug/m³</td>
<td>11.6 ug/m³</td>
<td>11.8 ug/m³</td>
<td></td>
</tr>
<tr>
<td><strong>Respirable Particulate Matter (PM₁₀)</strong></td>
<td>24-Hour</td>
<td>109 µg/m³</td>
<td>80 µg/m³</td>
<td>60 µg/m³</td>
<td>65 µg/m³</td>
<td>81 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>29 ug/m³</td>
<td>25 ug/m³</td>
<td>25 ug/m³</td>
<td>26 ug/m³</td>
<td>24 ug/m³</td>
<td></td>
</tr>
</tbody>
</table>

Notes: ppm = parts per million  NA = data not available.
Values reported in bold for Santa Rosa exceed ambient air quality standard.
Values reported in bold for Bay Area Basin Summary exceed ambient air quality standard.
Source: California Air Resources Board 2006.
Table 4.2-3 shows the number of days per year that air pollutant levels exceeded national or State standards in Santa Rosa and the entire Bay Area monitoring network. No exceedances of the NAAQS for O₃ (1- or 8-hour concentrations) were recorded at this station. Measured concentrations of CO and NOₓ did not exceed the NAAQS or CAAQS. However, measured concentrations of O₃ and PM₁₀ exceeded the State standards during the 5-year period. The State standard for O₃ was exceeded on one day in 2003. The State standard for PM₁₀ was exceeded on zero to four sampling days annually during the period.

Data from all stations throughout the Bay Area indicate that the national ambient air quality standard for O₃ concentrations (recently revoked) was exceeded on 0 to 2 days annually. The 8-hour national ambient air quality standard for O₃ was exceeded 0 to 7 days annually. The more stringent State O₃ standard was exceeded on 7 to 19 days annually. The State PM₁₀ standard was exceeded on 6 to 10 sampling days annually and the PM₂.₅ national standard was exceeded on 0 to 5 days annually.

Air pollutant levels in Santa Rosa are generally lower than those measured throughout the Bay Area. For instance, ozone levels tend to be about 20 percent to 50 percent lower than the highest levels measured in the Air Basin. Only the well ventilated areas in the Central Bay Area (e.g. San Francisco and Oakland) have lower levels. PM₁₀ levels in Santa Rosa tend to be similar to those in the rest of the Bay Area with the exception of San Jose, where more exceedances of the State standard are experienced.

4. Current Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet State or federal ambient air quality standards for ground level O₃ or State standards for fine particulate matter. For O₃, the entire Bay Area is designated non-attainment at both the federal and State levels.
The BAAQMD along with the other regional agencies (i.e. Association of Bay Area Governments and the Metropolitan Transportation Commission) has prepared an Ozone Attainment Plan to address the NAAQS for O₃. The 2001 Ozone Plan includes a strategy to attain the national ambient air quality standard for O₃. In 2004, EPA made a finding that the Bay Area has attained the national 1-hour ozone standard. However, in 2005, EPA revoked the 1-hour ozone standard, leaving the 8-hour standard as the prevailing national ozone standard. The EPA classified the region as Marginally Non-attainment for the 8-hour O₃ standard. EPA requires the region to adopt a plan that will bring it into attainment with that standard by 2007.
The Bay Area has met the CO standards for over a decade and is classified as at Attainment by the EPA. The EPA grades the region unclassified for all other air pollutants, which include PM10 and PM2.5. This means that the area likely meets the standard.

At the State level, the Bay Area as a whole is considered Serious Non-attainment for ground level O3 and Non-attainment for PM10 and PM2.5. California ambient air quality standards are more stringent than the national ambient air quality standards. The region is required to adopt plans on a triennial basis that show progress towards meeting the State O3 standard and local air districts (e.g. BAAQMD) are required to make efforts to reduce public exposure to PM10 and PM2.5. The area is considered Attainment or Unclassified for all other pollutants.

Air quality plans addressing the California Clean Air Act are developed about every three years. The plans are meant to demonstrate progress toward meeting the more stringent 1-hour O3 CAAQS. The latest plan, which was adopted in January 2006, is called the Bay Area 2005 Ozone Strategy. This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the region would make progress toward attaining the stricter State air quality standards, as mandated by the California Clean Air Act. The plan is designed to achieve a region-wide reduction of O3 precursor pollutants through the expeditious implementation of all feasible measures. The plan proposes implementation of transportation control measures (TCMs) and programs such as Spare the Air. Spare the Air is a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation.

In 2003, the California Legislature enacted Senate Bill 656, to reduce public exposure to PM10 and PM2.5. SB 656 legislation required BAAQMD to review a list of PM control measures compiled by CARB and identify measures that are most appropriate to the region. BAAQMD reviewed this list and adopted
a PM implementation schedule on November 16, 2005. The BAAQMD staff report along with comments on the report focused mainly on wood smoke issues. Of the 103 measures compiled by CARB, BAAQMD proposed implementing four of the measures. Many of the measures were either similar to measures already adopted by BAAQMD or the benefit of the measure would not be significant. Ten measures that target wood burning were identified for further study. These include rulemaking that could prohibit installation of open fireplaces or wood burning stoves that do not meet current EPA standards. One measure could prohibit wood burning on certain nights. BAAQMD identified additional PM reduction efforts that are being implemented immediately. These include characterizing and controlling wood smoke. BAAQMD plans to enhance monitoring at the neighborhood level and focus more on controlling wood smoke. One measure would include lowering the forecasted air quality index threshold used to make Spare the Air Tonight alerts and step up enforcement when complaints regarding wood smoke are received. SB 656 requires CARB to prepare a report by 2009 that describes actions taken to fulfill the requirements of the legislation as well as recommendations for further actions to assist in achieving the State PM standards.

5. Clean Air Plan Consistency
A key element in air quality planning is to make reasonably accurate projections of future human activities that are related to air pollutant emissions. Most important is vehicle activity. The BAAQMD uses population projections made by the Association of Bay Area Governments and vehicle use trends made by the Metropolitan Transportation Commission to formulate future air pollutant emission inventories. The basis for these projections comes from cities and counties. In order to provide the best plan to reduce air pollution in the Bay Area, accurate projections from local governments are necessary. When General Plans are not consistent with these projections, they cumulatively reduce the effectiveness of air quality planning in the region. The City’s General Plan projects a future (post 2020) population that is lower than the projections used for the current clean air plan. Therefore, the City’s General Plan is considered consistent with the 2005 Bay Area Ozone
Strategy, which is the most recent clean air plan. Specific plans that increase the amount of vehicle use can conflict with these projections.

6. Transportation Control Measures
The clean air plans have included transportation control measures aimed at reducing air pollution from vehicle use. The effectiveness of these measures are taken into account when projecting future air quality conditions. The Bay Area Clean Air Plan included 20 transportation control measures, which seven require participation at the local level.

7. Buffers
There are no major stationary sources of air toxic contaminants or odor emissions identified in the Specific Plan Area. The largest source of air toxic contaminants would be U.S. 101 traffic. The BAAQMD and CARB recommend that cities include buffers between sensitive receptors and sources of air toxic contaminant emissions and odors. In April 2005, CARB released the final version of the Air Quality and Land Use Handbook, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors near sources of air pollution. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits, but could create air quality problems. The primary purpose of the CARB document is to highlight the potential health impacts associated with proximity to common air pollution sources, so that those issues are considered in the planning process. CARB makes recommendations regarding the siting of new sensitive land uses near freeways, truck distribution centers, dry cleaners, gasoline dispensing stations and other air pollution sources. These “advisory” recommendations are based primarily on modeling information for studies conducted throughout the State and may not be entirely reflective of conditions in Santa Rosa and Sonoma County. Siting of new sensitive land uses within these recommended distances may be appropriate due to site-specific conditions (e.g. source strength or meteorology), but should only be done after site-specific studies are conducted to identify the actual health risks. CARB acknowledges that land use agencies have to balance other siting con-
siderations such as housing and transportation needs, economic development priorities and other quality of life issues. Buffers should be considered with existing and proposed industrial sources to avoid health, odor and nuisance impacts.

C. Standards of Significance

1. BAAQMD’s Significance Criteria
To further clarify how the thresholds below are assessed, the significance criteria established by the applicable air quality management district or air pollution control district is relied upon. The following are the significance criteria that the BAAQMD has established to determine project impacts and which are used in this EIR:

a. Consistency with Clean Air Planning Efforts
The BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999) recommends using an analysis that determines the consistency between the Specific Plan’s projected population growth and vehicle miles traveled (VMT) to the projections in the latest Clean Air Plan (CAP). Consistency is also demonstrated by assessing whether the Specific Plan implements all of the applicable CAP transportation control measures, and assess whether the plan provides buffer zones around potential sources of odors, toxics and accidental releases.

A key element in air quality planning is to make reasonably accurate projections of future human activities, particularly vehicle activities that are related to air pollutant emissions. The BAAQMD uses population projections made by ABAG and vehicle use trends made by MTC to formulate future air pollutant emission inventories. These projections are based on land uses information provided by cities and counties. In order to provide the best plan to reduce air pollution in the Bay Area, accurate projections from local governments are necessary. When projects and General Plans are not consistent with these projections, they cumulatively reduce the effectiveness of air qual-
ity planning in the region. The Bay Area 2005 Ozone Strategy, which addresses the more stringent State ozone standards, was recently adopted by the BAAQMD. The Specific Plan uses the most recent projections.

b. Construction
The BAAQMD’s approach to the CEQA analysis of construction impacts is to emphasize the implementation of effective and comprehensive control measures rather than detailed quantification of emissions. PM<sub>10</sub> is the pollutant of greatest concern from construction activities. The BAAQMD CEQA Guidelines provide feasible control measures for construction emissions of PM<sub>10</sub>. If the appropriate construction controls are implemented, air pollutant emissions for construction activities would be considered less than significant.

c. Operations
Specific Plan build-out would cause a significant air quality impact if it were to result in:

♦ Ozone precursor emissions (ROG and NOx) and PM<sub>10</sub> emissions from direct and indirect sources (non-typical construction) that exceed the thresholds recommended by the BAAQMD. The BAAQMD recommends a threshold of 80 pounds per day or 15 tons per year for direct and indirect sources of ROG, NOx and PM<sub>10</sub>.

♦ Emissions of CO that cause a projected exceedance of the ambient CO State standard of 9.0 ppm for 8-hour averaging period. Additionally, for CO, an increase of 550 pounds per day would be considered significant if it leads to a possible local violation of the CO standards (i.e. if it creates a “hot spot”).

♦ An increase in ROG, NOx, or PM<sub>10</sub> emissions, of more than 80 pounds per day or 15 tons per year, would also be considered to contribute substantially to the significant cumulative effect.

d. Exposure of New Residences to Toxic Air Contaminants
CARB has identified diesel particulate matter (DPM) as a TAC. Under the BAAQMD CEQA Guidelines, an incremental risk of greater than ten cases
per million at the Maximally Exposed Individual (in the case of the project allowing residences near Highway 101) would result in a significant impact.

e. Odors
Odors are assessed based on the potential of the Specific Plan to result in odor complaints.

2. Project’s Standards of Significance
The project would have a significant effect on the environment with respect to air quality if it would:

a. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

b. Result in a cumulatively considerable net increase of any nonattainment pollutant.

c. Expose sensitive receptors to substantial pollutant concentrations.

d. Create objectionable odors affecting a substantial number of people.

e. Conflict with or obstruct implementation of the applicable air quality plan.

D. Impact Discussion

The following provides an analysis of the effects of the proposed Specific Plan on local and regional air quality.

1. Project Impacts
The following provides a discussion of the Specific Plan Area related impacts that could occur as a result of the Specific Plan.

a. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
b. Result in a cumulatively considerable net increase of any nonattainment pollutant.

i. Construction Impacts

Buildout of the Specific Plan Area would involve construction activities over 20 years. The numerous small- and medium-sized construction projects that would result from implementation of the Specific Plan could result in different air quality impacts based on their size, duration and proximity to sensitive receptors. The following construction activities would generate pollutant emissions: excavation, grading, construction worker travel to and from project sites, delivery and hauling of construction supplies and debris to and from the project site, and fuel combustion by on-site construction equipment. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust and other air contaminants. Because the Specific Plan Area includes or is adjacent to a number of sensitive receptors, including residential areas and senior housing, air quality impacts from construction would be significant if not mitigated.

PM$_{10}$ is typically the most significant source of air pollution from construction, particularly during site preparation and grading. PM$_{10}$ emissions from construction can vary daily, depending on the level and type of activity taking place, the equipment being operated, weather conditions and soil conditions. Typically, the BAAQMD does not require quantitative PM$_{10}$ analysis for construction. Instead, the BAAQMD has identified a set of feasible PM$_{10}$ control measures for construction activities. According to the BAAQMD’s CEQA Guidelines, if all of these control measures are implemented, a *less-than-significant* impact is expected for PM$_{10}$ emissions.

Another source of construction impacts would be exhaust emissions from construction vehicles. The BAAQMD calculates region-wide construction exhaust emissions of ozone precursor pollutants (NOx and ROG) in air quality planning efforts to attain and maintain ambient air quality standards. Therefore, quantitative analyses of these construction emissions are not recommended by the BAAQMD unless the lead agency believes there would be unusually large or intensive activities. However, the construction of several
Downtown Station Specific Plan projects simultaneously could generate an unusually large amount of construction emissions. Dust generated by construction activities could be considered a *significant* impact.

In addition to ozone precursors, much of the heavy construction equipment utilized to construct these projects would be diesel fueled and therefore generate diesel particulate matter, which is identified by CARB as a Toxic Air Contaminant. Diesel particulate matter is estimated to contribute significantly to the overall potential inhalation cancer risk. Excavation and grading of sites, especially those with underground components, are expected to result in the highest emissions of diesel particulate matter during the construction period. During these periods, diesel exhaust emissions could constitute a potential impact. Because construction activities are temporary, these impacts are not likely to be significant. However, mitigation measures should be required to minimize exposure to sensitive receptors. Dust-related and exhaust emissions during construction periods could result in a *significant* impact.

**ii. Operational Emissions**

The build-out of the Specific Plan Area would intensify land uses above those already anticipated under the General Plan. This would create new automobile trips, generating emissions of criteria air pollutants, which could affect both regional and local air quality. The traffic study, as discussed in the traffic section of this EIR, predicts an addition of almost 27,000 new daily weekday automobile trips beyond those already included in the General Plan. These additional vehicular trips would exceed BAAQMD thresholds. Although development within the Specific Plan would comply with all the General Plan Policies listed above, which would help reduce this impact, this impact would remain *significant*.

Future changes to air quality resulting from these automobile trips were predicted using computer models. Specific Plan-related emissions were calculated using the URBEMIS2002 model, while predicted CO concentrations were modeled using screening methodologies based on the CALINE4 model. The
methodologies used for these analyses along with modeling output are contained in the Appendix B.

a) Regional Air Quality Impacts
The Specific Plan Area would include a mix of land uses: construction of multi- and single-family residences, hotels, live/work units, offices, a performing arts center, a library, and multi-story mixed use buildings. From an air quality and land use planning perspective, these features may have beneficial impacts to air quality. They would provide housing located near employment centers and Sonoma County transit systems. However, under the BAAQMD’s CEQA Guidelines, potential new emissions are compared against established significance thresholds. Emissions of ozone precursor pollutants (ROG and NOx) and small particulate matter (PM10) can affect air quality throughout the Bay Area.

To evaluate the project effects on regional air quality, emissions of ozone precursor pollutants and PM10 were predicted. The URBEMIS2002 Model Version 8.7, obtained from the CARB, was used to predict air pollutant emissions associated with project-related automobile use. This model combines assumptions for automobile activity (e.g. number of trips, vehicle mix, vehicle miles traveled) with vehicle emission factors.

The model was set up to use default inputs for the San Francisco Bay Area along with project type and size, specific trip generation data, and build out year. Model defaults include parameters such as the typical daytime temperature, trip types and lengths, and vehicle mix. Project trip generation data were obtained from W-Trans (see the trip generation portion of the Traffic section). The average daily trip generation includes the reduction for land uses that would be replaced by plan uses or uses that are accounted for in the General Plan. In developing trip generation data, W-Trans included plan features that would reduce vehicle trip generation rates. The features were accounted in the unmitigated URBEMIS2002 modeling as follows:

- Mixture of uses (e.g. retail and residential).
- Proximity to local and regional transit.
♦ Pedestrian linkages (including attractive sidewalk or pathways) in the Specific Plan Area that connect specific sites to adjacent land uses.

♦ Bicycle linkages throughout the site (including bike lanes on adjacent roadways).

Emissions from new buildings constructed under the Specific Plan would be associated with “area sources” such as combustion of natural gas used for space and water heating and use of consumer products and landscape equipment. Wood smoke emissions were not considered since the City has a wood smoke ordinance (City Code, Chapter 17-35, Sec. 17-35.010 et seq.) that would reduce emissions to a negligible level.

The plan was modeled to built-out as anticipated market conditions in 2025. Results of the URBEMIS2002 modeling that report changes to emissions of ozone precursor pollutants and PM₁₀ are shown in Table 4.2-4. Emissions are shown for both the plan build out and existing or planned uses that would be replaced by the Specific Plan uses.

Net new emissions from development under the Specific Plan area as anticipated market conditions in 2025, is expected to result in direct and indirect emissions of ROG and PM₁₀ that would exceed the thresholds established by the BAAQMD. A large portion of the ROG emissions would be the result of projected use of consumer products associated with residential uses. Mobile sources associated with these uses would make up a majority of the new NOx and PM₁₀ emissions. Emissions of ROG that exceed the significance thresholds could impact the regions’ effort to attain and maintain the ozone ambient air quality standards, since ROG is a precursor pollutant to ozone formation. The project’s emissions of PM₁₀, which also would exceed the thresholds for future build-out, may cumulatively contribute to exceedances of the State standard and potential exceedances of the federal and State PM₂.5 standards. Although development within the Specific Plan Area would comply with all the General Plan Policies mentioned above, which would help reduce this impact, it would still remain a significant impact because the increase in
emissions are predicted to be above the significance thresholds established by the BAAQMD.

b) Stationary Sources
Not included on Table 4.2-4 are emissions from any potential permittable on-site stationary source, such as boilers or emergency generators. The exact nature of possible on-site stationary sources cannot be determined at this time; thus, specific air emissions from future occupants of project structures cannot be estimated. However, these types of sources may require construction and operational permits from the BAAQMD, which would include new source review and possible application of Best Available Control Technology (BACT) emission control measures. Since they would need to comply with all applicable BAAQMD regulations, regulated stationary on-site sources are generally not considered to have a significant air quality impact. Stationary sources that are exempt from BAAQMD permit requirements because they fall below emission thresholds for permitting would not be considered to
have a significant air quality impact. For this reason, this impact is considered less than significant.

c) Local Air Quality Impacts
Carbon monoxide (CO) emissions from traffic generated by the project 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 CO. The intersections at College Avenue and Cleveland Avenue, as well as 3rd Street and B Street would experience the combination of highest traffic volumes and worst congestion. CO concentrations were predicted for the six highest volume intersections, and the results are shown in Table 4.2-5. Although there are 1- and 8-hour standards for CO, the 8-hour standard is the most stringent and is always exceeded if the 1-hour standard is exceeded. Therefore, this analysis evaluated impacts against the 8-hour standard.

As shown in Table 4.2-5, modeling that predicted 8-hour CO concentrations with the project are anticipated to be below CCAAQS. Although traffic will increase under cumulative conditions, CO concentrations are anticipated to decrease because vehicles will be cleaner and pollute less. Therefore, the impact of the Specific Plan generated traffic on local air quality is considered to be less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations.
The Specific Plan could include new residences, which are considered sensitive receptors adjacent to Highway 101. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits, but could create air quality problems. CARB’s Air Quality and Land Use Handbook (2005) provides guidance, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors (e.g. homes or daycare centers) near sources of air pollution.
### Table 4.2-5  Predicted 8-Hour Worst Case Carbon Monoxide Levels (in PPM)

<table>
<thead>
<tr>
<th>Description</th>
<th>2026 Without Plan</th>
<th>2026 With Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Avenue and Dutton Avenue</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>College Avenue and Cleveland Avenue</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>College Avenue and Mendocino Avenue</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>3rd Street and Dutton Avenue</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>3rd Street and B Street</td>
<td>3.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Dutton Avenue and Sebastopol Road</td>
<td>2.9</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Significance Thresholds (CAAQS) 9.0 ppm for 8-hour exposure

---

### Background Risk

Since identifying Diesel Particulate Matter (DPM) as a toxic air contaminant, CARB has conducted studies to identify existing health effects from exposure to DPM. The CARB has identified the average year 2000 statewide potential cancer risks due to DPM at 540 excess cases per million people. The potential risk near high volume freeways was found to be much higher. The risk is predicted to decrease in the future due to efforts to reduce DPM emissions from a variety of sources. The 2000 CARB report predicts an average statewide risk at 360 excess cancer cases per million people in 2020. Modeling information compiled by CARB indicates that the cancer health risk from air toxic contaminants in downtown Santa Rosa is between 250 and 500 chances in one million, while the risk in the most urbanized areas of the Bay Area exceeds 1,000 chances per million.

---

1 California Air Resources Board 2000.
ii. **Analysis of DPM Cancer Risk**

This analysis involved the development of future DPM emissions for traffic on Highway 101 using the latest version of the CARB EMFAC2002 emission factor model with defaults for Sonoma County. DPM emissions are anticipated to decrease in the future, while traffic increases. Since this analysis assesses the risk of Specific Plan Area residences to future exposures, the lower future emissions were taken into account. The EMFAC2002 results were then adjusted to the traffic mix on Highway 101 reported by Caltrans (2005). Emission factors were developed for 2010 and 2030, using the calculated mix of diesel-fueled vehicles. Future traffic projections on Highway 101 were included, which indicates that average daily traffic on Highway 101 would increase by about 30 percent over the study period. Emission factors and traffic volumes are not available for years beyond 2030.

Dispersion modeling was conducted using the Cal3qhr model, which is acceptable to the BAAQMD for this type of analysis. Screening meteorological conditions were used in the modeling. These are conditions that are expected to result in conservative or credible “worst-case” modeled concentrations. Other inputs to the model included geometry (based on aerial photographs), and the DPM emission factors obtained from the EMFAC2002 model. The model predicts one-hour concentrations, which are converted to annual concentrations using a persistence factor of 0.1. Modeled results for 2010, 2020 and 2030 are averaged to develop a 70-year average exposure levels for someone residing at a specific distance near the freeway beginning in 2010. Model inputs and detailed results are provided in the Appendix B.

Modeled concentrations of DPM were used to compute the residential cancer risks, which were computed using the methods recommended by BAAQMD and the California Office of Environmental Health Hazard Assessment (OEHHA). Predicted health risks from exposure to DPM emitted from U.S. 101 traffic are summarized in Table 4.2-6.

Over the course of a 70-year lifetime exposure, the incremental risk of exposure to Specific Plan Area residents was calculated at 10 excess cancer cases per
TABLE 4.2-6  PREDICTED HEALTH RISK FROM DIESEL PARTICULATE MATTER EMITTED BY U.S. 101 TRAFFIC – SCREENING CALCULATIONS FOR DOWNTOWN SANTA ROSA

<table>
<thead>
<tr>
<th>Description</th>
<th>50 Feet</th>
<th>100 Feet</th>
<th>200 Feet</th>
<th>500 Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Risk in 2010</td>
<td>31.6</td>
<td>23.9</td>
<td>16.9</td>
<td>10.0</td>
</tr>
<tr>
<td>Health Risk in 2020</td>
<td>17.4</td>
<td>13.2</td>
<td>9.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Health Risk in 2030</td>
<td>13.0</td>
<td>9.8</td>
<td>6.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Health Risk Based on</td>
<td>16.3</td>
<td>12.3</td>
<td>8.7</td>
<td>5.1</td>
</tr>
<tr>
<td>70-Year Average Exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Note: Bold indicates health risk exceeds BAAQMD significance threshold.

... million people or greater for people residing within about 170 feet from the freeway. The DPM concentrations decrease at positions further from the freeway. Specific Plan Area residences sited within 170 feet of the near Highway 101 lanes may be exposed to substantial air pollution levels, due to the predicted health risk. The actual distance would probably be less since the analysis employed screening meteorological conditions that usually result in higher concentrations. U.S. EPA and the CARB have required cleaner engine technologies and diesel fuel reformulation that are reducing the DPM emissions from these vehicles. The effect of these lower emissions rates reduces the area near freeways where significant DPM exposures would occur. For sensitive receptors, such as residential uses, a significant impact is considered a ten in one million chance of contracting cancer where the receptor is exposed to the source almost 24 hours per day for 70 years. The Specific Plan does allow some residential development within 170 feet of the near lanes of Highway 101.

Siting of new residences or sensitive receptors along U.S. 101 within 170 feet of travel lanes could result in a significant impact. These findings are based on screening modeling procedures. Specific projects with residences panned
within 170 feet of the highway should undergo further detailed analysis to identify whether the impact is actually significant (i.e. health risk is 10 in one million or greater).

The Specific Plan could include residences near Highway 12; however, this highway has much lower truck volumes than U.S. 101 and would result in lower health risk. Heavy-duty truck traffic is the source of most DPM emitted from roadways. Truck volumes on Highway 12 are about 25 percent of those on U.S. 101. The health risk from Highway 12 would be about 25 percent of the risk from U.S. 101. Therefore, the health risk along Highway 12 would be less than 50 feet from the highway travel lanes, where residential or siting of sensitive receptors would not occur.

d. Create objectionable odors affecting a substantial number of people.
The implementation of the Downtown Station Area Specific Plan would result in the development of a mix of residential, retail, restaurant and office uses similar in type to the existing development in downtown Santa Rosa and in typical urban downtowns. The Downtown Station Area Specific Plan does not include any specific uses that would create objectionable odors, so no impacts are expected to occur beyond those that would be occur under the General Plan. Thus, the Specific Plan would result in a less-than-significant impact.

e. Conflict with or obstruct implementation of the applicable air quality plan.
A key element in air quality planning is to make reasonably accurate projections of future human activities, particularly vehicle activities that are related to air pollutant emissions. The BAAQMD uses population projections made by the Association of Bay Area Governments and vehicle use trends made by the Metropolitan Transportation Commission to formulate future air pollutant emission inventories. These projections are based on estimates from cities and counties. In order to provide the best plan to reduce air pollution in the Bay Area, accurate projections from local governments are necessary. When
General Plans are not consistent with these projections, they cumulatively reduce the effectiveness of air quality planning in the region.

The Downtown Station Area Specific Plan would result in an amount and intensity of growth in the Specific Plan Area that is more intense than foreseen in the current Santa Rosa General Plan for that area. The plan would produce approximately 27,000 more trips than would occur under the General Plan. The impacts from growth associated with development within the Specific Plan Area are identified under the discussion of Regional Air Quality Impacts. However, this growth is not expected to conflict with regional air quality planning efforts since growth within Santa Rosa would remain below ABAG projections.

All development within Santa Rosa, including development within the Specific Plan Area would be subject to the City’s Growth Management Plan (General Plan Policy GM-B-1 sets a limits for the number of new housing units that could be constructed in Santa Rosa). With the limits and growth plan in place, Santa Rosa’s population is projected to be less than ABAG projections in 2020. VMT associated with this project is anticipated to grow at a lower rate than growth associated with traditional development within Santa Rosa since the Specific Plan development would include a complimentary mix of uses and be oriented towards transit uses. The Specific Plan would increase residential development in an area served by transit and a mix of different land uses that serve each other. This type of development supports smart growth, which in turn results in lower rate of vehicle miles traveled. Smart growth is a term used by ABAG and MTC to describe development that reflects higher densities, mixed use and a higher proportion of housing and employment growth in urban areas, particularly near transit stations and along transit corridors, as well as in town centers. The higher emissions of ozone precursor pollutants would be consistent with predictions contained in the adopted Clean Air Plan (i.e. 2005 Bay Area Ozone Strategy), and would result in a less-than-significant impact.
2. Cumulative Impacts
Cumulative air quality impacts were evaluated based on both a quantification of the plan-related air quality impacts and the consistency of the Specific Plan Area with projections used for local and regional air quality plans (i.e. the Santa Rosa General Plan and the Bay Area 2005 Ozone Strategy). Cumulative air quality impacts are considered as a part of the plan-level analysis discussed above since future traffic projections used for the air quality analysis were generated by a cumulative traffic model. As shown in Table 4.2-4, ozone precursor (i.e. ROG) and PM10 emissions resulting from build out of the plan are predicted to be above the significance thresholds established by the BAAQMD, and may impact the regions’ effort to attain and maintain the ozone ambient air quality standards. Development within the Specific Plan would comply with all of the General Plan Policies mentioned above, which would help reduce the impact. The impact could still contribute to a cumulatively significant (see Impact AQ-2) net increase of criteria pollutants for which the region is non-attainment under an applicable federal or State ambient air quality standard.

E. Impacts and Mitigation Measures

Impact AQ-1: Construction activity during development within the Specific Plan area would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations. This is a significant impact.

Mitigation Measure AQ-1: Implement control measures for construction and demolition-related air emissions to ensure that each project sponsor and contractor reduces particulate, ROG, and NOx emissions by complying with the BAAQMD policies and guidelines. Each project sponsor and contractor shall implement the following control measures:

♦ Provide transit information kiosks.

♦ Cover all trucks hauling construction and demolition debris from the site.
Water on a continuous as-needed basis all earth surfaces during clearing, grading, earthmoving, and other site preparation activities.

Use watering to control dust generation during demolition of structures or break-up of pavement.

Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas.

Sweep daily (with water sweepers) all paved areas and staging areas.

Provide daily clean up of mud and dirt carried onto paved streets from the site.

Renovation, demolition activities, removal or disturbances of any material that contain asbestos, lead paint or other hazardous pollutants will be conducted in accordance with BAAQMD rules and regulations.

Properly maintain all construction equipment.

Reduce equipment idling time.

For construction near sensitive receptors:

Install wheel washers for all exiting trucks, or wash off the tires or tracks of trucks and equipment leaving the site.

Suspend dust-producing activities during periods when instantaneous gusts exceed 25 mph when dust control measures are unable to avoid visible plumes.

Limit the area subject to excavation, grading and other construction or demolition activity at any one time.

For sites greater than 4 acres:

Apply soil stabilizers to previously graded portions of the site inactive for more than ten days, or cover or seed these areas.

Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind.

Limit traffic speeds on unpaved roads to 15 mph.
Replant vegetation in disturbed areas as quickly as possible.

**Significance After Mitigation:** Less than significant.

**Impact AQ-2:** The Downtown Station Area Specific Plan would contribute to increased vehicular and residential area emissions that would exceed BAAQMD thresholds. This is a significant impact.

**Mitigation Measure AQ-2:** Developers shall implement emissions control measures, where applicable, to development activities within the Specific Plan Area in order to reduce overall emissions from traffic and area sources. The emissions control measures could include the following:

- Where practical, future development proposals shall include physical improvements, such as sidewalk improvements, landscaping and the installation of bus shelters and bicycle parking, that would act as incentives for pedestrian, bicycle and transit modes of travel.
- New or modified roadways should include bicycle lanes where reasonable and feasible.
- Provide transit information kiosks.
- Where practical, employment-intensive development proposals (i.e. office and retail) shall include measures to encourage use of public transit, ridesharing, van pooling, use of bicycles, and walking, as well as to minimize single passenger motor vehicle use.
- Offices or retail uses that have 50 or more employees and provide parking should implement a parking cash-out program (where non-driving employees receive transportation allowance equivalent to the value of subsidized parking).
- Develop parking enforcement and fee strategies that encourage alternative modes of transportation.
- Parking lots or facilities should provide preferential parking for electric or alternatively fueled vehicles.
♦ Require energy efficient building designs that exceed State Title 24 building code requirements.

♦ Discourage use of gasoline-powered landscape equipment.

♦ Implement and enforce truck idling restrictions of three minutes.

♦ Only allow low-emitting fireplaces for residential uses, such as those that only burn natural gas.

**Significance After Mitigation:** Significant and Unavoidable.

**Impact AQ-3:** The development of new residences within the Specific Plan area could expose sensitive receptors to unhealthy levels of TACs emitted by traffic on Highway 101. This would be a *significant* impact.

**Mitigation Measure AQ-3:** Buffers for emission sources and sensitive land uses shall be required for residential uses proposed within 170 feet of the freeway and shall undergo detailed analysis to identify site specific health risks associated with DPM emitted from Highway 101. These buffers shall provide appropriate buffers between potential air pollution and odor impacts from land uses that may emit pollution and/or odors when locating (a) air pollution sources, and (b) residential and other pollution-sensitive land users in the vicinity of air pollution sources which may include freeways, gasoline fueling stations and dry cleaning operations that use solvents.

**Significance After Mitigation:** Less than significant.

**Impact AQ-4:** Siting of new residences or sensitive receptors along Highway 101 within 170 feet of travel lanes could result in a *significant* impact.

**Mitigation Measure AQ-4:** Implementation of buffers for emission sources and sensitive land uses shall be required for the Specific Plan.

**Significance After Mitigation:** Less than significant.
This section evaluates potential impacts on the existing biological resources including vegetation, riparian zones and wildlife found within the Specific Plan Area.

A. Regulatory Framework

This section summarizes existing federal, State and local laws, policies and regulations that pertain to biological resources.

1. Federal Laws and Regulations

The federal regulations that are applicable to biological resources in the site vicinity are the Federal Endangered Species Act (ESA), the Clean Water Act (CWA) and the Migratory Bird Treaty Act (MBTA). Relevant portions of these regulations are summarized below.

a. Federal Endangered Species Act

The ESA establishes protection for species that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS). Sections 9 and 4(d) of the ESA prohibit “take” of endangered and threatened animal species. The USFWS has jurisdiction over wildlife and resident fish; the National Marine Fisheries Service (NOAA Fisheries) has jurisdiction over anadromous fish.

For plants, the ESA prohibits the removal or destruction of any endangered plant on federal land as well as destruction of an endangered plant species in non-federal areas in knowing violation of any State law. Section 7 of the ESA mandates that all federal agencies consult with the USFWS to ensure that federal agencies’ actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat for listed species.

b. Clean Water Act

Section 401 of the CWA requires a water quality certification from the State for all nationwide or individual permits issued by the USACE under Section
404 of the CWA. The Regional Water Quality Control Board (RWQCB) is the State agency in charge of issuing Section 401 water quality certification or waiver.

Section 402 of the CWA requires a National Pollutant Discharge Elimination System (NPDES) permit for discharge of pollutants into water. For projects that will disturb more than one acre, an NPDES permit will need to be obtained from the State Water Resources Control Board. As part of this permit, a Storm Water Pollution Prevention Plan (SWPPP) to control erosion and sediment must be prepared and implemented.

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into "Waters of the United States" including wetlands.

c. Federal Migratory Bird Treaty Act
The Federal Migratory Bird Treaty Act (MBTA) prohibits take of most species of birds and their active nests, eggs and nestlings, without a permit from the USFWS. Activities that cause abandonment of a nest are also considered non-permitted take, prohibited by the MBTA.

2. State Laws and Regulations
a. California Endangered Species Act
The California Endangered Species Act (CESA) prohibits the take of State-listed endangered and threatened species unless specifically authorized by the California Department of Fish & Game (CDFG). The CDFG administers the CESA and authorizes take through permits or memorandum of understanding issued under Section 2081 of the California Fish and Game Code (CFGC). Section 2090 of CFGC requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.
b. California Fish and Game
CFGC Section 1600 et seq., regulates activities that would substantially alter the channel, bed, or bank of, a lake, river, or stream. Section 1600 of the CFGC requires notification to the CDFG for stream alteration activities and may require a streambed alteration agreement with attached conditions to protect water quality, fish and wildlife species, along with associated aquatic and riparian habitats.

CFGC Sections 3511, 4700, 5050 and 5515 (Fully Protected Species), designates certain animal species as “fully protected” under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians) and 5515 (fish). Fully protected species may not be taken or possessed at any time and no permits may be issued for incidental take of these species.

The CFGC Bird Protections Section 3503 prohibits taking, possession or destruction of the nest or eggs of most bird species unless authorized by the CDFG. Section 3503.5 prohibits the taking of any birds of prey, their nests or eggs.

CFGC Sections 1900-1913 the Native Plant Protection Act (NPPA) includes provisions that prohibit the taking of endangered or rare native plants from the wild and a salvage requirement for landowners. The CDFG administers the NPPA and generally regards as “rare” many plant species included on lists 1A, 1B and 2 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California.1

c. California Environmental Quality Act
The Oak Woodlands Bill (Senate Bill 1334) amended CEQA, effective January 1, 2005, to require counties to determine whether a project subject to CEQA may lead to a significant environmental impact as a result of the conversion of oak woodlands. If there may be a significant effect, mitigation

measures must be employed to reduce the impact and promote oak woodland conservation.

3. Local Regulations and Policies
   a. City of Santa Rosa General Plan, Open Space and Conservation Element
      This section includes goals of rehabilitating and restoring channelized waterways, allowing for growth of riparian vegetation and avoiding disruption or pollution of the waterway. It also includes development guidelines for creek-side areas, including flood control, setback restrictions, orientation of buildings and recreational enhancements.

Goal OSC-D: Conserve wetlands, vernal pools, wildlife ecosystems, rare plant habitats and waterways.

- **Policy OSC-D-1**: Utilize existing regulations and procedures, including Subdivision Guidelines, Zoning, Design Review and environmental law, to conserve wetlands and rare plants. Comply with the federal policy of no net loss of wetlands using mitigation measures such as:
  - Avoidance of sensitive habitat,
  - Clustered development,
  - Transfer of development right, and/or
  - Compensatory mitigation, such as restoration or creation.

- **Policy OSC-D-7**: Rehabilitate existing channelized waterways, as feasible, to remove concrete linings and allow for a connection with the stream channel and the natural water table. Avoid creating additional channelized waterways, unless no other alternative is available to protect human health, safety and welfare.

- **Policy OSC-D-8**: Restore channelized waterways to a more natural condition which allows for more natural hydraulic functioning, including development of meanders, pools, riffles and other stream features. Restoration should also allow for growth of riparian vegetation which effectively stabilizes banks, screens pollutants from runoff entering the channel, enhances fisheries and provides other opportunities for natural habitat restoration.
Policy OSC-D-9: Ensure that construction adjacent to creek channels is sensitive to the natural environment. Ensure that natural topography and vegetation is preserved along the creek and that construction activities do not disrupt or pollute the waterway.

Policy OSC-D-10: Orient development and buildings toward creeks, while providing privacy, security and an open transition between public and private open spaces.

Policy OSC-D-11: New development along channelized waterways should allow for an ecological buffer zone between the waterway and development. This buffer zone should also provide opportunities for multi-use trails and recreation.

Policy OSC-D-12: New development should maintain an adequate setback from channelized waterways to recognize the 100-year flood elevation and allow for stream corridor restoration. Setbacks identified in the Zoning Code should serve as minimum setbacks. Larger setbacks are encouraged in accordance with Restoration Concept Plans to meet restoration and enhancement goals.

Goal OSC-E: Conserve significant vegetation and trees.

Policy OSC-E-2: Preserve and regenerate native oak trees.

Policy OSC-E-4: Require incorporation of native plants into landscape plans for new development, where appropriate and feasible, especially in areas adjacent to open space areas or along waterways.

b. City of Santa Rosa, Amending Santa Rosa City Code, Chapter 17-24, Trees

This ordinance requires that a permit be obtained prior to the alteration, removal or relocation of trees.
c. City of Santa Rosa Zoning Code, Section 20-30.040 – Creekside Development
This section requires minimum setbacks from waterways for structures built along banked waterways and channelized waterways, with exceptions for bridges, utilities and existing structures or properties adjacent to existing structures.

d. City of Santa Rosa, Santa Rosa Waterways Plan
This plan presents guidelines, mitigation measures and criteria for protecting and enhancing streams, including Santa Rosa Creek. It includes guidelines for setback requirements and limits on development adjacent to waterways, as well as protection and restoration guidelines for waterways in developed areas.

e. City of Santa Rosa, Design Guidelines, Section 4.4 Creeks, Riparian Corridors and Storm Drainage
This policy provides guidelines to preserve natural waterways, restore channelized waterways, protect riparian growth and provide for storm drainage and flood control using open channels.

f. Santa Rosa Creek Master Plan (City of Santa Rosa, Sonoma County, Sonoma County Water Agency)
This plan provides a framework for restoration and development along Santa Rosa Creek. It includes goals of conserving and restoring natural habitat, maintaining water flow capacity, access and recreational opportunities.

As part of the Citywide Creek Master Plan effort, the City is in the process of consolidating and updating the plans listed in subsections d, e and f above.

g. Santa Rosa Plain Conservation Strategy
The purpose of the strategy is to develop a long-term conservation program sufficient to mitigate potential adverse effects on listed species due to future development on the Santa Rosa Plain. The program will contribute to the recovery of the Sonoma County distinct population of the California tiger
Salamander (CTS) (*Ambystoma californiense*), Sonoma sunshine (*Blennosperma bakeri*), Burke’s goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnathes vinculans*) and many-flowered navarretia (*Navarretia leucocephala ssp. plieantha*) (listed plants) with the conservation of their sensitive habitats. Both interim and long-term mitigation ratios for CTS, wetlands and listed plants are detailed.

### h. Santa Rosa Storm Water Management Plan

In 1997, Santa Rosa was issued a joint National Pollutant Discharge Elimination System (NPDES) permit with the County of Sonoma and SCWA by the RWQCB. The NPDES permit identifies the Storm Water Management Plan (SWMP) implemented by the City to control and eliminate storm water pollution discharge. The City must comply with the provisions of the permit by ensuring that new development and redevelopment mitigate water quality impacts to storm water runoff both during construction and operation periods of projects.

Under direction from the State Water Resources Control Board, the City prepared a Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP was developed in 2003 as a part of the NPDES permit for the City of Santa Rosa, the County of Sonoma and the Sonoma County Water Agency. The purpose of the SUSMP is to manage the quality and quantity of storm water runoff in the Santa Rosa area and to aid in the conservation of natural areas in the region. The SUSMP describes and evaluates various “Best Management Practices” (BMPs) for storm water management and outlines procedures for BMP maintenance and inspection. Both private-sponsored and public capital improvement projects in the Santa Rosa area are governed by SUSMP requirements.

Additionally, a Notice of Intent (NOI) should be submitted with the RWQCB to ensure coverage under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. A developer must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be
developed and implemented for each site covered by the general permit. A SWPPP should include SUSMP BMPs designed to reduce potential impacts to surface water quality during construction of the project.2

B. Existing Conditions

This section describes existing conditions in the Specific Plan Area and identifies animal and plant species and vegetation communities, including any special-status species and sensitive communities that may occur in the Specific Plan Area. Additional background data and information regarding identified animal and plant species may be found in Appendix C.

1. Regional Conditions

The City of Santa Rosa is a medium-sized urban and semi-urban community with a population of approximately 160,000. It is located 55 miles north of San Francisco on the Santa Rosa Plain. It lies 30 miles east of the Pacific coastline and 15 miles south of the Russian River. The region has a moderate climate and receives approximately 36 inches of rainfall per year. The area is generally flat with rolling hills and mountains to the east. Elevation ranges from 65 to 200 feet above sea level on the plain, and 400 to 700 feet above sea level in the mountains nearby. The outskirts of the City support agricultural uses, particularly dairy farms and wine grapes. Outside the City, the Santa Rosa Plain is characterized by vernal pool, seasonal wetland and associated grassland habitat.

2. Project Area Conditions

The Specific Plan Area of the City of Santa Rosa is located in the central section of the City and consists of approximately 650 acres. It is situated on the Santa Rosa Plain west of the Sonoma Mountains of the coastal range. Drainage is to the northwest toward the Laguna de Santa Rosa. The Laguna drains

---

Santa Rosa Creek and other creeks in the area, as well as functioning as a major floodwater storage basin for the lower Russian River, located to the northwest.

The Specific Plan Area consists of an urban developed town center with several light-to-moderate industrial areas and two main highway thoroughfares: Highway 12 and Highway 101. The area encompasses the bulk of Downtown Santa Rosa, including the civic center and Railroad Square, and adjacent residential and light industrial areas. There are also some undeveloped land including parks, farmland and ruderal areas, with Santa Rosa Creek running through the Specific Plan Area. This creek is currently channelized; however, restoration to its natural state is planned. Overall, this area is considered heavily urbanized with moderate-to-high levels of disturbance.

a. Vegetation Types
The Specific Plan Area is located in Downtown Santa Rosa, where there is little natural vegetation present. Vegetation types observed were developed/disturbed, ruderal, urban landscape/ornamental and agricultural fields. Santa Rosa Creek, which runs through the Specific Plan Area, is channelized with concrete and rip-rap and contained some limited riparian vegetation, such as willows (Salix spp.) and cottonwood (Populus spp.), amongst other ruderal vegetation. No wetland areas were identified in the literature review or the field survey.

i. Urban Landscape/Developed
Urban landscape vegetation, consisting of ornamental trees, shrubs and lawn, is the dominant vegetation type in the Specific Plan Area. Most of the Specific Plan Area is developed or paved, with the only vegetation being ornamental plantings along the road or outside buildings. The trees observed within the urban landscape included coast redwood (Sequoia sempervirens), Monterey pine (Pinus radiata), maples (Acer spp.), California black oak (Quercus kelloggii), coast live oak (Quercus agrifolia), valley oak (Quercus lobata) and willows. Other than patches of ruderal vegetation and agricultural fields in
the Imwalle Gardens Sub-Area, urban landscape covers most of the remainder of Downtown Santa Rosa Specific Plan Area.

**ii. Ruderal**

Ruderal vegetation was common throughout the Specific Plan area and was dominated by non-native grasses and forbs. This vegetation is characterized by weedy species that readily colonize disturbed soils in areas such as vacant lots and roadside strips. Within the Specific Plan Area, ruderal vegetation occurs along the railroad grade, in the old rail yard and on patches of industrial properties. Species composition consists mostly of non-native, annual grasses and other herbs. Typical ruderal species include grasses such ripgut brome (*Bromus diandrus*), wild oat (*Avena spp.*) and weedy herbs, such as vetch (*Vicia sativa*), storksbill (*Erodium cicutarium*) and bindweed (*Convolvulus arvensis*).

**iii. Agricultural**

In the Imwalle Gardens Sub-Area there are three agricultural fields. Two were recently mowed and the third was unmowed and vegetated predominately by non-native grasses and herbs, including black mustard (*Brassica nigra*), poison oak (*Toxicodendron diversilobum*) and coyotebrush (*Baccharis pilularis*). There is a stand of California black walnuts (*Juglans hindsii*), which contained a variety of bird species, on the southern side of this field surrounded by California blackberry (*Rubus ursinus*), poison hemlock, calla lilies (*Zantedeschia aethiopica*), miner’s lettuce (*Montia perfoliata*) and a variety of non-native grasses and forbs.

**iv. Riparian**

Riparian vegetation in the Specific Plan Area occurs along Santa Rosa Creek. Riparian scrub is a shrub-dominated community that grows along the banks of watercourses and in some other areas with high water tables. Willow shrubs generally dominate riparian scrub; other occasional species include big-leaf maple (*Acer macrophyllum*), California buckeye (*Aesculus californica*) and California bay (*Umbellularia californica*). Riparian plant communities provide high habitat value for wildlife. These communities can provide impor-
tant nesting habitat for birds, offer cover and refuge sites for amphibians, reptiles and small mammals and serve as important movement corridors for wildlife.

Riparian woodland occurs along the banks of perennial and seasonal watercourses. It is similar to riparian scrub, but includes a tree canopy over the associated watercourse. Characteristic tree species include mature willows, big-leaf maple, California buckeye, California bay, box elder (*Acer negundo var. californicum*) and cottonwoods (*Populus spp.*). Riparian woodland can also include a variety of oak trees. Within the Specific Plan Area corridor, riparian scrub and sparse riparian woodlands occur along Santa Rosa Creek only. Much of the creekside area has been riprapped or channelized, removing the riparian habitat.

b. Wildlife Habitat
The Specific Plan Area consists almost entirely of developed areas with buildings, warehouses, paved or gravel parking areas and roads. Landscaped areas, planted trees and ruderal vegetation within the area provide marginal habitat for wildlife. Landscaped vegetation can provide moderate habitat for species such as Anna’s hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), Brewer’s blackbird (*Euphagus cyanoccephalus*) and raccoon (*Procyon lotor*). Common reptiles, such as western fence lizard (*Sceloporus occidentalis*), may also use ruderal areas such as roadsides and railroad berms for thermal basking.

Cliff swallows (*Petrochelidon pyrrhonota*), barn swallows (*Hirundo rustica*) and a number of bat species may also nest under bridges or overhead roads. Cliff swallow nests were observed in the main parking garage in the Courthouse Square Sub-Area. Bats may also roost or nest inside of disused buildings.

Santa Rosa Creek runs through the center of the Specific Plan Area. This portion of Santa Rosa Creek running through the Specific Plan Area was channelized for flood control purposes. The Creek flows through a concrete culvert from E Street to Santa Rosa Avenue, then daylights into a restored
reach with planted sedges, shrubs, and trees. The grouted rip-rap between Olive Street and Pierson Street will be replaced with a natural bottom and native plantings during the final phase of the Prince Memorial Greenway Creek Restoration Project (anticipated for 2007-8). Downstream of Pierson Street, the Creek includes maturing trees that provide shade to migrating steelhead trout and various resident wildlife species.

There is weedy vegetation and very little riparian growth, which limits roosting or foraging habitat for migrant and resident bird species, such as great egret (*Casmerodius albus*) or great blue heron (*Ardea herodias*), and offers limited cover and refuge sites for amphibians, reptiles or small mammals. The Creek is also anadromous fish habitat, containing the federally Threatened Central California Coast steelhead (*Oncorhynchus mykiss*). Although Central California coast steelhead has been known to occur in the portion of Santa Rosa Creek within the Specific Plan Area, the habitat appears unsuitable for spawning and rearing and would be used primarily as a migratory corridor.

Blackberry bushes provide cover for smaller mammals, such as brush rabbit (*Sylvilagus bachmani*) and deer mouse. Blackberry scrub communities are used by a variety of birds for perching and foraging and can also provide protected nesting. Blackberry scrub was seen in several locations in the Railroad Corridor Sub-Area.

Grassland can support a variety of small mammals and provide important foraging habitat for raptors and other bird species. Birds commonly found foraging in grasslands include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*) and western meadowlark (*Sturnella neglecta*). Common mammals include black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*) and Botta’s pocket gopher (*Thomomys bottae*). Rodent burrows in grassland habitats also provide essential upland refuge sites for some amphibians and reptiles. Grassland habitat was observed in the Railroad Corridor Sub-Area, and particularly in the Imwalle Gardens Sub-Area, which contained the largest parcel of wildlife habitat in the Downtown area. A number of small mammal burrows, as well as a large flock of
Brewer’s blackbirds and western meadowlarks, were observed in Imwalle Gardens during the site visit.

c. Special Status Species
The following federally listed wildlife species were determined to have a moderate or high likelihood of occurring in the Specific Plan Area. Species determined to have a low likelihood of occurring in the Specific Plan Area, such as the California Tiger Salamander, are not addressed in this section of this EIR. Additional information on species with a low likelihood of occurrence can be found in Appendix C.

i. Threatened Species

♦ Central California Coast steelhead (*Oncorhynchus mykiss*). The Central California Coast Evolutionary Significant Unit (ESU) of steelhead is a federally listed Threatened species. This ESU includes all naturally spawned populations of steelhead in coastal drainages from the Russian River basin south to Santa Cruz County and in the San Francisco/San Pablo Bay basin as far east as the Napa River. Critical habitat has been designated for this ESU in all occupied stream reaches in its geographic range, including Santa Rosa Creek.

Although steelhead are generally anadromous, juveniles spend a considerable time rearing in fresh water and some individuals may remain in fresh water throughout their life cycle. Generally, adults begin returning to streams with the first heavy rains of fall, with peak migration occurring in winter to early spring. Most spawning takes place from January through April, depending on the timing of immigration. Steelhead usually spawn in high-gradient, upper reaches of tributaries. After hatching, steelhead usually stay in fresh water for 1 to 2 years. Juvenile steelhead can occupy a variety of in-stream habitats that provide adequate cover, food supply and cold water temperatures. Out migration usually occurs between February and June and requires sufficiently high flows and cool water temperatures.
♦ California Coastal chinook salmon (*Oncorhynchus tshawytscha*). The California Coastal ESU of chinook salmon includes all naturally spawned populations from the Russian River watershed north to Redwood Creek in Humboldt County. Critical habitat is designated for this ESU in all occupied stream reaches in its geographic range, including the Specific Plan Area. Fall-run chinook have been seen in Santa Rosa Creek, though it is unknown whether they use the reach encompassed by the Specific Plan Area.\(^3\)

ii. *Species of Concern*

♦ **Townsend’s western big-eared bat** (*Corynorhinus townsendii townsendii*). This species is found throughout California except at very high altitudes. It prefers moist habitats. This bat roosts exclusively in open sites in caves or in human-made structures such as mines and abandoned buildings; however, it is very sensitive to disturbance. This species is also listed as a California Species of Special Concern.

♦ **Yuma myotis bat** (*Myotis yumanensis*). Yuma myotis is found predominantly in open woodlands and it typically forages over water and roosts in buildings, mines, caves and crevices, under bridges and even in swallow nests. They utilize a variety of roosting habitats and are often found in man-made structures. Yuma myotis may occur in abandoned buildings, particularly near water bodies.

♦ **Allen’s hummingbird** (*Selasphorus sasin*). This hummingbird typically nests in trees in a variety of semi-open habitats including open oak woodlands, streamside groves, well-wooded suburbs and city parks. This species migrates to Mexico for the winter. The riparian woodlands and stands of trees that occur intermittently may provide suitable nesting habitat for this species.

\(^3\) Personal communication with Steve Brady, City of Santa Rosa, April 10, 2006.
C. Standards of Significance

The Specific Plan would have a significant impact with regard to biological resources if it would:

a. Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (§§ 670.2 or 670.5) or in Title 50, Code of Federal Regulations (§§ 17.11 or 17.12).

b. Have a substantial adverse effect, either directly or indirectly 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.

c. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

d. 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.

e. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or

g. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
D. Impact Discussion

This section analyzes potential biological impacts for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts
   a. Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations or in Title 50, Code of Federal Regulations. The Specific Plan proposes to relocate the planned creek crossing at Imwalle Gardens to a more centralized location. In addition, it is likely that creek restoration projects would be conducted in conjunction with creekside developments conducted under the auspices of the Specific Plan. Creek restoration projects would be likely to involve removal of concrete channels and restoration of banks, earth channel and riparian vegetation. Construction of stream crossings could cause mortality, harm or disturbance to federally listed Chinook salmon and steelhead if they are present in or near work areas. During construction, migratory passageways for adults or juveniles could be temporarily blocked. While spawning by these species is not expected within the Specific Plan Area, juvenile fish could be present and could be displaced by work activities or injured by construction equipment. Construction-related increases in water turbidity or sedimentation could also adversely affect migrating or rearing fish. Both Central California Coast steelhead and California Coastal Chinook have a high likelihood of occurring in the Specific Plan Area during the appropriate season.

The City’s SWMP requires development to be designed to minimize disturbance to waterways and riparian vegetation in order to avoid potential impacts to federally listed salmonids. Implementation of the Specific Plan would require all projects under it to develop and implement their individual Storm Water Pollution Prevention Plan (SWPPP), as required by the City’s Storm Water Management Plan (SWMP). A SWPPP would include SUSMP “BMPs” designed to control erosion and sediment.
However, impacts related to endangered, rare or threatened species could occur during the implementation of the Specific Plan. These impacts, including restoration projects in or in the vicinity of Santa Rosa Creek, as well as development adjacent to the creek could impact endangered, rare or threatened species and would create a significant impact.

b. Have a substantial adverse effect, either directly or indirectly 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.

Allen's hummingbird nests in trees, and may be found in urban or suburban settings during nesting season. It is moderately likely to occur in the Specific Plan Area. Tree removal during nesting season would be likely to impact this species, as well as other birds which nest in the Downtown area.

Demolition of old buildings and bridge structures could impact special-status bat species if they inhabit any of these structures. Abandoned buildings and hidden cavities in old structures could possibly be used as roosting or nursery sites. If an active bat nursery is present, construction activities could disturb or harm breeding adults or offspring and adversely affect their reproductive success.

Existing regulations implemented by permitting agencies, such as the USFWS and CDFG, require a plan to monitor nesting birds or bats during construction be prepared and submitted to the respective agency if there is the potential for destruction of a nest or substantial disturbance to nesting birds or bats due to construction activities.

However, impacts related to habitat modification could occur and cause adverse effects to a species identified as a candidate, sensitive, or special-status species. The environmental impact from development projects involving habitat removal, such as tree removal or structure removal or remodeling of existing buildings, could cause a significant impact.
c. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.

Riparian habitat is found along Santa Rosa Creek in the Specific Plan Area. The riparian vegetation includes willow shrubs as well as big-leaf maple, California buckeye, California bay and a variety of oak species that may include a tree canopy over the watercourse. Riparian habitats are considered sensitive by the resource agencies because of their high value to wildlife and because of the substantial loss and degradation of these habitats regionally. Removal of riparian vegetation could reduce potential nesting and cover sites for animals, reduce beneficial shading of watercourses and potentially affect bank stability. However, along Santa Rosa Creek, riparian vegetation is limited because much of the creekside area has been riprapped or channelized. Vegetated areas feature sparse riparian vegetation along with weedy species.

The Prince Memorial Greenway Restoration Project restored a riprapped and channelized portion of Santa Rosa Creek extending from Railroad Street in the Railroad Square to Santa Rosa Avenue. Although little riparian vegetation remains, further restoration efforts on the Creek could impact existing riparian habitat.

Implementation of the Specific Plan would involve civic, retail/office, and residential development adjacent to the creek. Given the developed state of these reaches of the creek, and provided that such developments are in concurrence with the guidelines and policies established by the City of Santa Rosa, the Sonoma County Water Agency, notably creek setback requirements established in the Santa Rosa Waterways Plan, the anticipated impact on riparian vegetation could be reduced. However, if development projects are done in close proximity to the Santa Rosa Creek and sensitive communities, significant impacts could occur.
d. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means. The Specific Plan Area does not include any federally protected wetlands, including marshes, vernal pools, or coastal areas. Therefore, the Specific Plan would have no impact on such resources.

e. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Central California Coast Steelhead and California Coast Chinook salmon use Santa Rosa Creek as part of their migratory corridor, though they are unlikely to spawn in the reaches encompassed by the Specific Plan. Development increasing water temperature or turbidity or decreasing dissolved oxygen levels would adversely affect creek water quality and reduce the habitat for these Federally Threatened fish species. Erosion and sedimentation due to construction would be a possible cause of water quality impairment.

Implementation of the Specific Plan would require all projects under it to develop and implement their individual Storm Water Pollution Prevention Plan (SWPPP), as required by the City’s Storm Water Management Plan (SWMP). A SWPPP would include SUSMP “BMPs” designed to control erosion and sediment.

Nesting birds, including special-status species such as Allen’s hummingbird, would be affected by the removal of trees and other vegetation in the Specific Plan Area. These and other development-related activities could destroy active nests, harm individual birds, or cause nest abandonment, if they occurred during the nesting season. The MBTA protects most birds, including both common and special-status species, from “incidental take.” Activities that cause abandonment of an active nest are also considered non-permitted take, protected by the MBTA.
Bat nurseries could also be disturbed by demolition of buildings or other structures, or construction during the nesting season. The Yuma myotis bat and the Townsend’s western big-eared bat, both considered moderately likely to occur in the Specific Plan Area, preferentially nest in abandoned buildings or other human-made structures. If an active bat nursery is present, construction activities could disturb or harm breeding adults or offspring and adversely affect their reproductive success.

Existing regulations implemented by permitting agencies, such as the USFWS and CDFG, require a plan to monitor nesting birds or bats during construction be prepared and submitted to the respective agency if there is the potential for destruction of a nest or substantial disturbance to nesting birds or bats due to construction activities.

Taken together, the existing goals, policies and guidelines would diminish the environmental impact from development projects to potential wildlife corridors and nursery sites. However, it is possible that development projects could disturb waterways and riparian vegetation and remove structures that provide nesting sites for species. The development of such projects could result in a significant impact.

f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The proposed restoration and development activities would not conflict with local policies or ordinances protecting biological resources. The Santa Rosa General Plan Open Space and Conservation element has goals of rehabilitating and restoring channelized waterways, allowing for growth of riparian vegetation and avoiding disruption or pollution of the waterway. The goals also describe development guidelines for creekside areas, including flood control, setback requirements, orientation and recreational enhancements. The City of Santa Rosa Zoning Code, the Santa Rosa Creek Design Guidelines, the Sonoma County General Plan, Santa Rosa Waterways Plan and the Santa Rosa Creek Master Plan all provide similar objectives and goals for creek water quality and restoration. The City is in the process of consolidating and
updating these plans as part of the Citywide Creek Master Plan effort. The City also requires a City permit for tree removal. The Specific Plan is designed to be compliant with these existing policies and regulations by deferring to their specific requirements as applicable. Adherence to the existing policies and ordinances would result in a less-than-significant impact.

g. 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 proposed renovation activities were not found to be in conflict with local, regional, State, or federal habitat conservation plans. There are no formal Habitat Conservation Plans covering this area. Therefore, the Specific Plan would result in no impact to conservation plans.

2. Cumulative Impacts

Development within the Santa Rosa Urban Growth Boundary has the potential to cumulative impact sensitive biological resources, such as sensitive species and wetlands. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to cumulatively impact biological resources would be reduced to a less than significant level. Implementation of the Specific Plan without mitigating measures could result in impacts to significant biological resources, including tree nesting birds, bats and Central California Coast Steelhead; however, as discuss below, the identified General Plan policies and mitigation measures identified in this EIR would reduce the impact to a less than significant level. In addition, the majority of the vegetation currently present in the Specific Plan Area is ruderal, consisting primarily of non-native plant species occurring in discontinuous patches, which provide relatively low habitat value to wildlife. The Specific Plan’s compliance with the existing General Plan policies and the mitigation measures identified below would result in the Specific Plan not contributing to a significant cumulative impact on biological resources.
E. Impacts and Mitigation Measures

Impact BIO-1: The Specific Plan proposes to relocate the planned creek crossing at Inwalle Gardens, and it is likely that creek restoration projects would be conducted in conjunction with creekside developments. The implementation of the Specific Plan could impact, either directly or through habitat modifications, some endangered, rare, or threatened species within the Santa Rosa Creek. This would be a significant impact.

Mitigation Measure BIO-1: Development shall be designed to minimize disturbance to waterways and riparian vegetation in order to avoid potential impacts to federally listed salmonids. For work in or in close proximity to Santa Rosa Creek, in-stream work shall not start before June 15 and shall be completed by October 15, unless otherwise approved by appropriate agencies. The City shall consult with NOAA Fisheries and CDFG and implement protection measures specified in consultation with those agencies.

Significance After Mitigation: Less than significant.

Impact BIO-2: Tree removal, demolition of old buildings and bridge structures, as well as construction disturbances could have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species. This would be a significant impact.

Mitigation Measure BIO-2: If there is the potential for destruction of a nest or substantial disturbance to nesting birds or bats due to construction activities, a plan to monitor nesting birds or bats during construction shall be prepared and submitted to the USFWS and CDFG for review and approval. The City shall comply with all USFWS or CDFG guidance for protection of nesting birds.

If vegetation, buildings or bridges that potentially provide nesting sites must be removed, a qualified wildlife biologist shall conduct pre-
construction surveys. If an active bird nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300 feet for raptors; or (b) 75 feet for other non-special-status bird species. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete and the young have fledged. Bats shall be absent or flushed from roost locations prior to demolition of buildings. If flushing of bats from buildings is necessary, it shall be done by the biologist during the non-breeding season from October 1 to March 31. When flushing bats, structures shall be moved carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. During the maternity season from April 1 to September 30, prior to building demolition or construction, a qualified biologist shall determine if a bat nursery is present at any sites identified as potentially housing bats. If an active nursery is present, disturbance of bats shall be avoided until the biologist determines that breeding is complete and young are reared.

Significance After Mitigation: Less than significant.

Impact BIO-3: Removal of riparian habitat and restoration efforts along Santa Rosa Creek could have a substantial adverse effect on any riparian habitat or other sensitive natural communities. This would be a significant impact.

Mitigation Measure BIO-3: See Mitigation Measure BIO-1.

Significance After Mitigation: Less than significant.

Impact BIO-4: The implantation of the Specific Plan could interfere substantially with the movement of migratory fish such as Central California Coast Steelhead and California Coast Chinook salmon. Nesting birds, including special-status species such as Allen’s hummingbird, could also be affected by
the removal of trees and other vegetation. The nurseries of the Yuma myotis bat and the Townsend’s western big-eared bat could also be disturbed by demolition or construction during nesting season.

**Mitigation Measure BIO-4a**: See Mitigation Measure BIO-1.

**Mitigation Measure BIO-4b**: See Mitigation Measure BIO-2.

**Significance After Mitigation**: Less than significant.
4.4 Cultural Resources

This chapter analyzes the broad environmental effects of the Specific Plan with respect to the cultural resource in the Specific Plan Area.

A. Regulatory Framework

This section summarizes key federal, State and City statutes, regulations and policies that would apply to the Specific Plan.

1. Federal Laws and Regulations

a. National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established the National Register of Historic Places (NRHP) as the official designation of historical resources, including districts, sites, buildings, structures and objects. Nominations are listed if they are significant in American history, architecture, archaeology, engineering and culture.

For a property to be eligible for listing in the NRHP, it must meet one or more criteria for significance and retain integrity. The seven aspects of integrity are location, design, setting, materials, workmanship, feeling and association.

Sites less then 50 years of age, unless of exceptional importance, are not eligible for the National Register.

Listing in the NRHP does not entail specific protection for a property, but it does guarantee recognition in the planning for federal or federally-assisted projects as defined in Section 106 of the NHPA, eligibility for federal tax benefits and qualification for federal historic preservation assistance. Project effects on properties listed in the NRHP must be evaluated under CEQA.

b. Secretary of the Interior’s Standards for Identification

The Secretary of the Interior’s Standards and Guidelines for archaeology and historic preservation are not regulatory and do not set or interpret policy.
They are intended to provide technical advice about archeological and historic preservation activities and methods. These Standards and Guidelines were effective as of September 29, 1983 and are prepared under the authority of Sections 101(f) (g), (h) and Section 110 of the NHPA, as amended. The Standards and the philosophy on which they are based result from nearly twenty years of intensive preservation activities at the federal, State and local levels. The purposes of the Standards are:

♦ To organize the information gathered about preservation activities.

♦ To describe results to be achieved by federal agencies, States and others when planning for the identification, evaluation, registration and treatment of historic properties.

♦ To integrate the diverse efforts of many entities performing historic preservation into a systematic effort to preserve our nation’s culture heritage.

The following groups or individuals are encouraged to use these Standards:

♦ Federal agency personnel responsible for cultural resource management pursuant to Section 110 of the NHPA, as amended, in areas under federal jurisdiction. A separate series of guidelines advising federal agencies on their specific historic preservation activities under Section 110 is in preparation.

♦ State Historic Preservation Offices (SHPO) responsible under the NHPA, as amended, by making decisions about the preservation of historic properties in their states in accordance with appropriate regulations and the Historic Preservation Fund Grants Management Manual. The SHPO serve as the focal point for preservation planning and act as a central state-wide repository of collected information.

♦ Local governments wishing to establish a comprehensive approach to the identification, evaluation, registration and treatment of historic properties within their jurisdictions.

♦ Other individuals and organizations needing basic technical standards and guidelines for historic preservation activities.
2. State Laws and Regulations

a. California Register of Historic Resources

The California Register of Historical Resources (CRHR) establishes a list of properties to be protected from substantial adverse change (Public Resources Code Section 5024.1). An historical resource may be listed in the California Register if it meets any of the following criteria:

♦ It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

♦ It is associated with the lives of persons important in California’s past.

♦ It 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 value.

♦ It has yielded or is likely to yield information important in prehistory or history.

The CRHR includes properties that are listed or have been formally determined to be eligible for listing in the NRHP, State Historical Landmarks and eligible Points of Historical Interest. Other resources require nomination for inclusion in the CRHR. These may include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic resource surveys conducted in accordance with SHPO procedures, historic resources or districts designated under a local ordinance and local landmarks or historic properties designated under local ordinance.1

b. CEQA Regulations Regarding Human Remains

Section 15064.5 of the State CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on nonfederal land. These procedures are outlined in Public Resources Code

Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism and inadvertent destruction; establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

c. Health and Safety Code, Section 7052 and 7050.5
Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California NAHC.2

d. Local and Tribal Intergovernmental Consultation (Senate Bill (SB) 18)
Implementation of Senate Bill 18 (SB 18), which went into effect January 1, 2005, set forth new requirements for local governments (city and county) to consult with Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning.3 The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use designations are made by a local government.


3 SB 18 amends Government Sections (GC) 65040.2, 65092, 65351 and 65560, while adding GC sections 65352.3, 65352.4 and 65562.5.
e. California Native American Historical, Cultural and Sacred Sites Act (CNAHCSSA)
The CNAHCSSA applies to both State and private lands. The Act requires that upon discovery of human remains, that construction or excavation activity cease and that the county coroner be notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons mostly likely to be descended from the Native American remains. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.4

f. Public Resource Code, Section 5097
Public Resources Code, Section 5097 specifies procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC which prohibits willfully excavating removing, destroying, injuring or defaming any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands.

The City of Santa Rosa is required to comply with Public Resource Code Section 5097.5 for its activities on publicly-owned land.5

g. Public Resources Code, Section 21083.2
This code specifies the responsibilities of the lead agency to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an un-

disturbed state. The code also details required mitigation measures if unique archaeological resources are not preserved in place or not left in an undisturbed state. A project applicant must provide a guarantee to the lead agency to pay one-half the estimated cost of mitigating the significant effects of the project on unique archaeological resources. In determining payment, the lead agency shall give due consideration to the in-kind value of project design or expenditures that are intended to permit any or all archaeological resources or California Native American culturally significant sites to be preserved in place or left in an undisturbed state.

3. Local Regulations and Policies

a. Relevant City of Santa Rosa General Plan Goals and Policies

The following lists applicable General Plan goals and policies contained in the Historic Preservation Element most pertinent to the Specific Plan in regards to cultural and historical resources.

Goal HP-A: Protect Native American heritage.

♦ Policy HP-A-1: Review proposed developments and work in conjunction with Sonoma State University’s Northwest Information Center to determine whether sites contain known Native American resources or have the potential for such resources.

♦ Policy HP-A-2: Require that areas found to contain significant artifacts be examined by a qualified consulting archaeologist for recommendations concerning protection and preservation.

♦ Policy HP-A-3: If cultural resources are encountered during grading, avoid altering the materials and their context until a qualified cultural resource consultant has evaluated the situation and recorded identified cultural resources.

Goal HP-B: Preserve Santa Rosa’s historic structures and neighborhoods.

♦ Policy HP-B-1: Ensure that alterations to historic buildings and their surrounding settings are compatible with the character of the structure
and the neighborhood. Ensure that specific rehabilitation projects follow the Secretary of Interior’s Standards for Rehabilitation to a reasonable extent, taking into consideration economic and technical feasibility.

♦ Policy HP-B-2: Preserve significant historic structures. Consider various alternatives to demolition of these structures, including the adaptive reuse of historic buildings for contemporary uses.

♦ Policy HP-B-8: Preserve sites that are eligible for the National Register of Historic Places and pursue listing eligible sites in the Register.

Goal HP-C: Increase public participation in the historic preservation process.

♦ Policy HP-C-1: Prepare and distribute educational guides and walking tour brochures of places of historical, architectural or cultural interest in Santa Rosa, to increase public awareness of these resources.

♦ Policy HP-C-2: Hold neighborhood meetings to achieve the following:
  • Increase public awareness of preservation issues and opportunities;
  • Provide information on the historic designation process; and
  • Alert neighborhoods, when necessary, to the pending loss of significant buildings or other features.

♦ Policy HP-C-3: Educate citizens about Santa Rosa’s historic past by creating a lecture program for presentation to community groups and school classes.

b. City of Santa Rosa Zoning Code
The Santa Rosa Zoning Code, Title 20, provides for a Historic (-H) Combining District (20-28.040) “to preserve and/or enhance neighborhood character and residential privacy within designated historic districts by establishing height limits for structures proposed within the combining district that are more restrictive than the height limits of the primary zoning district.”
4.4-8

c. City of Santa Rosa 1988 Preservation Ordinance
The 1988 Preservation Ordinance was created by the City’s Cultural Heritage Board. Santa Rosa’s on-going support of preservation planning is also mentioned in the City’s General Plan, which includes a separate Preservation Element for Historic Resources. Railroad Square is called out as an example of a historic landmark.

B. Existing Conditions

This section describes the general existing conditions of the cultural and historical resources found in the Specific Plan Area.

1. Methodology
In the Specific Plan Area, there are five Historic Preservation Districts, eight Historic Landmarks, seven archaeological sites and fifteen historic structures that are listed or eligible for listing on the various local, State and national registers.

Literature reviews and cultural surveys were conducted to identify archaeological and historical resources in the Specific Plan Area. It should be noted that the literature review for historic resources was made for the entire Specific Plan Area, whereas the pedestrian archaeological and historic structure survey was conducted only in Specific Plan Areas identified as higher priority at the time of the survey. The record search for these cultural resources was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, which is housed at Sonoma State University. The records search included a review of all site records and study reports on file within a 0.5-mile radius of the Specific Plan Area. Included in the review were the California Inventory of Historical Resources (California Department of Parks and Recreation 1976)\(^6\) and the California Office of His-

toric Preservation’s (CA-OHP) Five Views: An Ethnic Historic Site Survey for California,\(^7\) California Historical Landmarks,\(^8\) California Points of Historical Interest\(^9\) and the Historic Properties Directory Listing.\(^{10}\) Depending on the location and type of site, a combined pedestrian and/or windshield survey was performed in the Specific Plan Area by an archaeologist and an architectural historian from Garcia and Associates.

2. **Archaeological Resources**
Archaeological sites in the Specific Plan Area are described in Table 4.4-1 and found to be located in three of the seven Sub-Areas. These sensitive cultural resources are potentially eligible for listing in the NRHP and the CRHR.

3. **Historic Structures**
Exceptionally significant buildings have been designated Landmarks, and historic neighborhoods have been designated Preservation Districts (PDs) by the City of Santa Rosa’s Cultural Heritage Board (SRCHB)\(^{11}\). Seven historic PDs have been identified in the City of Santa Rosa, of which five are located within the Specific Plan Area: Olive Park PD, St. Rose PD, Cherry Street PD, Railroad Square PD and West End PD. Four historic preservation districts are situated within the Historic Residential Sub-Areas and one historic district is in the Railroad Square Sub-Area. A portion of the Burbank Gardens PD is included in the Park and Gardens Sub-Area.

---


### Table 4.4-1  Archaeological Sites Located Within the Specific Plan Area

<table>
<thead>
<tr>
<th>Archaeological Site Designation</th>
<th>Land Sub-Area(s)</th>
<th>Reference(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic Debris, along R.R. tracks</td>
<td>Railroad Corridor, Railroad Square</td>
<td>Newland and Esser (1999:3)</td>
<td>Depression Era “Hobo Jungle” deposits</td>
</tr>
<tr>
<td>Hukabetawi</td>
<td>Railroad Corridor</td>
<td>Windmiller (2002)</td>
<td>Pomo village site</td>
</tr>
<tr>
<td>Site A CA-SON-860/H</td>
<td>Courthouse Square</td>
<td>Fredrickson (1976); Mikkelsen, et al. (1985); Praetzellis and Praetzellis (1984); Praetzellis and Praetzellis (1985)</td>
<td>Prehistoric mid-den, lithic scatter/historic debris</td>
</tr>
<tr>
<td>Late 19th century Chinatown</td>
<td>Courthouse Square</td>
<td>1893 Santa Rosa Waterworks Map</td>
<td>Possible Chinese related historic features and debris</td>
</tr>
<tr>
<td>Well shaft site CA-SON-1173/H</td>
<td>Courthouse Square</td>
<td>Praetzellis (1979); Praetzellis and Praetzellis (1979)</td>
<td>Historic deposit with ceramics, dietary bone and glass. “Old Post Office” moved to this location.</td>
</tr>
<tr>
<td>4-SON-11</td>
<td>Courthouse Square</td>
<td>Melander, et al. (1973)</td>
<td>Prehistoric lithic scatter</td>
</tr>
<tr>
<td>Kabeticiuwa</td>
<td>Courthouse Square</td>
<td>Fredrickson (1976); Windmiller (2002)</td>
<td>Pomo village site</td>
</tr>
</tbody>
</table>


The SRCHB has designated nineteen historic landmarks within the City. Eight of these are located in the Specific Plan Area, as shown in Table 4.4-2.

Other significant historic structures are those listed or eligible for listing on the NRHP and the CRHR. NRHP- and CRHR-listed properties within the Sub-Areas are shown in Table 4.4-3.
### Table 4.4-2 City of Santa Rosa Designated Historic Landmarks within the Specific Plan Area

<table>
<thead>
<tr>
<th>Resource Number</th>
<th>Name</th>
<th>Address</th>
<th>Land Use Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHB8</td>
<td>DeTurk Round Barn</td>
<td>819 Donohue St.</td>
<td>Historic Residential</td>
</tr>
<tr>
<td>CHB13</td>
<td>Rosenberg Building</td>
<td>306 Mendocino Ave.</td>
<td>Courthouse Square</td>
</tr>
<tr>
<td>CHB16</td>
<td>Tripp House</td>
<td>1023 Fourth St.</td>
<td>Courthouse Square</td>
</tr>
<tr>
<td>CHB29</td>
<td>Luther Burbank Home and Garden</td>
<td>Sonoma &amp; Santa Rosa Ave.</td>
<td>Historic Residential</td>
</tr>
<tr>
<td>CHB47</td>
<td>Rosenberg's Department Store</td>
<td>700 Fourth St.</td>
<td>Courthouse Square</td>
</tr>
<tr>
<td>CHB62</td>
<td>Sara Building Sibbald Donovan Manor</td>
<td>725 College Ave.</td>
<td>Historic Residential</td>
</tr>
<tr>
<td>CHB77</td>
<td>Church of One Tree</td>
<td>492 Sonoma Ave.</td>
<td>Residential</td>
</tr>
<tr>
<td>CHB148</td>
<td>Alexander House</td>
<td>412 Humboldt St.</td>
<td>Courthouse Square</td>
</tr>
</tbody>
</table>


4. Potentially Eligible Historic Resources

The historic resources survey of buildings and structures identified fifteen potentially significant historic resources not previously listed as NRHP, CRHR, or Santa Rosa Historic Landmarks. The findings are listed in Table 4.4-4. The potentially significant buildings are in three of the seven Sub-Areas: Imwalle Gardens, Railroad Corridor and Railroad Square. Due to the generalized level of surveying, there may also be other buildings within the Specific Plan Area that would be considered potentially significant.

5. Native American and Other Consultation

As part of the consultation process with Native American organizations and individuals, the NAHC was contacted with a request for information about
TABLE 4.4-3  NRHP AND CRHR LISTED PROPERTIES WITHIN SUB-AREAS

<table>
<thead>
<tr>
<th>NRHP Number</th>
<th>Year</th>
<th>Name</th>
<th>Address</th>
<th>Land Use</th>
<th>Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>197000561</td>
<td>1870-1925</td>
<td>Railroad Square National Register Historic District</td>
<td>Bounded by West Third St, West 6th St, Davis St and Santa Rosa Creek</td>
<td>Railroad Square</td>
<td>Railroad Square</td>
</tr>
<tr>
<td>1979000561</td>
<td>1888</td>
<td>Cannery Warehouse (Railroad Square NRHP contributor and eligible for individual CRHR listing)</td>
<td>46 West 6th St</td>
<td>Railroad Square</td>
<td></td>
</tr>
<tr>
<td>1979000561</td>
<td>1917</td>
<td>Former Cal Pak Cannery and Associated Water Tower (Railroad Square NRHP contributor and eligible for individual CRHR listing)</td>
<td>3 West Third St</td>
<td>Railroad Square</td>
<td></td>
</tr>
<tr>
<td>1979000561</td>
<td>1919</td>
<td>Cannery Plant #5 (Railroad Square NRHP contributor and eligible for individual CRHR listing)</td>
<td>60 West 6th St</td>
<td>Railroad Square</td>
<td></td>
</tr>
<tr>
<td>1979000559</td>
<td>1910</td>
<td>Old Post Office (Listed on the NRHP)</td>
<td>425 7th St</td>
<td>Courthouse Square</td>
<td></td>
</tr>
<tr>
<td>1994001497</td>
<td>1937</td>
<td>Rosenberg’s Department Store (Listed on the NRHP)</td>
<td>700 4th St</td>
<td>Courthouse Square</td>
<td></td>
</tr>
</tbody>
</table>


sacred lands that may be located within the Specific Plan Area. A search of the Sacred Lands file housed at the NAHC did not result in the identification of any sacred lands within the Specific Plan Area. The NAHC provided a list of 16 local groups and individuals to contact for further information regarding local knowledge of sacred lands. Each group or individual was notified by mail and contacted by telephone. Ms. Kathleen Smith, affiliated with the Pomo Coast/Miwoks, expressed concerns about the possible presence of tra-
### Table 4.4-4  POTENTIALLY ELIGIBLE HISTORIC RESOURCES OBSERVED IN SPECIFIC PLAN AREA

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Resource</th>
<th>Address</th>
<th>Construction Date</th>
<th>Assessor’s Parcel No.</th>
<th>Historic Landmark Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Corridor</td>
<td>Single family residence/business</td>
<td>28 Maxwell Ct</td>
<td>Unknown</td>
<td>010-131-036</td>
<td>None</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Western Farm Wholesale</td>
<td>55 West 8th St</td>
<td>Unknown</td>
<td>010-161-036</td>
<td>None</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>American Produce Co. Warehouse</td>
<td>21 West 7th St</td>
<td>1895</td>
<td>010-161-036</td>
<td>7N (Needs to be reevaluated; formerly NR status code 4-Appears eligible for National Register.)</td>
</tr>
<tr>
<td>Railroad Square</td>
<td>Fred Olivia House &amp; Shop</td>
<td>124 West 6th St</td>
<td>1936</td>
<td>Unknown</td>
<td>3D (Appears eligible as a contributor to a fully documented district.)</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>John H. and Ruth Cooper House</td>
<td>107 Sebastopol Rd</td>
<td>1906</td>
<td>125-123-010</td>
<td>6Y (Determined ineligible for NR by consensus through Section 106 process—Not evaluated for CR or Local Listing)</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Palin Bros. Building</td>
<td>35 Sebastopol Rd</td>
<td>1946</td>
<td>125-123-010</td>
<td>6Y (Determined ineligible for NR by consensus through Section 106 process—Not evaluated for CR or Local Listing)</td>
</tr>
<tr>
<td>Inwalle Gardens</td>
<td>Single-family residence</td>
<td>691 West 3rd St</td>
<td>Unknown</td>
<td>125-041-022</td>
<td>None</td>
</tr>
<tr>
<td>Inwalle Gardens</td>
<td>Inwalle Gardens Complex (house,</td>
<td>685 West 3rd St</td>
<td>1924</td>
<td>125-041-022</td>
<td>3D (Appears eligible as a contributor to a fully documented district.)</td>
</tr>
<tr>
<td>Inwalle Gardens</td>
<td>Single-family residence</td>
<td>655 West 3rd St</td>
<td>Unknown</td>
<td>125-041-022</td>
<td>None</td>
</tr>
<tr>
<td>Inwalle Gardens</td>
<td>Single-family residence</td>
<td>410 West 3rd St</td>
<td>c. 1920</td>
<td>125-041-022</td>
<td>None</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Two additional ancillary buildings at west end of 265 Roberts Ave. lot</td>
<td>265 Roberts Ave</td>
<td>Unknown</td>
<td>125-121-011</td>
<td>None</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Shamrock Materials Inc. Building</td>
<td>285 Roberts Ave</td>
<td>Unknown</td>
<td>125-121-011</td>
<td>None</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Fitzgerald Building</td>
<td>265 Roberts Ave</td>
<td>1921</td>
<td>125-121-011</td>
<td>3S (Appears eligible for NR as an individual property through survey evaluation.)</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Guanella Bros. Building</td>
<td>350 Roberts Ave</td>
<td>1941</td>
<td>125-121-011</td>
<td>6Y (Determined ineligible for NR by consensus through Section 106 process—Not evaluated for CR or Local Listing)</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>Oscar and Jennie Swanets House</td>
<td>113 Sebastopol Rd</td>
<td>1924</td>
<td>125-123-010</td>
<td>6Y (Determined ineligible for NR by consensus through Section 106 process—Not evaluated for CR or Local Listing)</td>
</tr>
</tbody>
</table>

ditional plants along Santa Rosa Creek, which cuts through the Specific Plan Area. Nick and Ken Tipon of the Federated Indians of Graton Rancheria and June Dollar of the Dry Creek Rancheria have been in informal consultation with the City regarding this project. Nick and Ken Tipon have requested that subsequent development under the Specific Plan be required to consult with the Tribe prior to submittal of entitlement applications. They have also expressed an interest in working with the City in the future to establish a more formalized pre-development consultation process.

Both the Sonoma County Library and Sonoma County Museum were also contacted for information regarding cultural or historic resources in the Specific Plan Area. Neither institution has responded to the written requests.

6. Paleontological Resources
A records search using the University of California’s Museum of Paleontology web site\(^\text{12}\) indicated that no paleontological resources exist on the project site itself. Also, since the Specific Plan Area is already developed and used for urban purposes, there is a very low possibility of finding any paleontological resources.

C. Standards of Significance

The Specific Plan would have a significant impact on archaeological and historical resources with regard to CEQA Guidelines if it would:

a. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

b. Cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5.

\(^{12}\) http://www.ucmp.berkeley.edu/collections/catalogs.html Search conducted November 14, 2006 by DC&E.
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.

D. Impact Discussion

This section analyzes potential cultural resources impacts for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts

a. Cause a substantial adverse change in the significance of an archaeological resource.

The record search and the limited survey have identified archaeological sites in the Specific Plan Area that risk impact from the proposed activities of the Specific Plan. Any activity in the Specific Plan Area that involves ground disturbance of any kind could adversely change or destroy an archaeological site which would be considered significant.

To address these potential risks, there are existing regulations that would help protect archaeological resources. Such measures include the Secretary of the Interior’s Standards for Identification (Standards I and II), which requires survey activities to be conducted to document the information necessary to achieve defined preservation goals. Adherence to the Standards from the Secretary of the Interior guidelines are required by Policy HP-B-1 under the General Plan. In addition, General Plan Policy HP-B-8 requires sites to be preserved that are eligible for the National Register of Historic Places and pursue listing eligible sites in the Register. Additionally, the CNAHSSA and Policies HP-A-2 and HP-A-3 under the General Plan require for proper notification of experts upon discovery of human remains, significant artifact, or cultural resources for proper assessment and to determine the necessity for construction or excavation activity to cease. Moreover, proper implementa-
tion of regulations from the Public Resources Code, specifically Section 21083.2, would diminish the potential impacts from any project involving the demolition or adverse change of an archaeological site that is listed on the NRHP or CRHR or is eligible for listing.

While the Specific Plan would need to comply with these regulations, new construction activities, including the widening of existing thoroughfares, that involve ground disturbance could destroy or significantly alter buried archaeological deposits. This would be a significant impact.

b. Cause a substantial adverse change in the significance of a historical resource.

Given the several historical resources in the Specific Plan Area, development allowed under the proposed Specific Plan could involve the destruction and/or adverse alteration of the physical characteristics of a historical structure. In addition, the demolition, construction, renovation and relocation of buildings may adversely impact the historical character or setting of a historic district. Building and renovation staging areas may also have short-term impacts on the resources by detracting from the character of the historical districts.

However, existing regulations, policies and standards diminish these potential impacts. For example, the Secretary of the Interior’s Standards for Identification (Standards I and II) require survey activities to be conducted to document the information necessary to achieve defined preservation goals. Adherence to the Standards from the Secretary of the Interior guidelines are required by Policy HP-B-1 under the General Plan. Additionally, the City’s Preservation Ordinance of 1988 and General Plan Policies HP-B-2 to HP-B-8 are designed to preserve and enhance the City’s historic structures and neighborhoods. For the former, Santa Rosa’s Cultural Heritage Board reviews all proposed adverse impacts to historic structures and provides proper mitigation measures. Also, Goal HP-C under the General Plan, and all of its supporting policies, seek to increase public participation in the historic preservation process. Implementation of these policies would reduce the impact of deterioration by
increasing the awareness of Santa Rosa’s historic wealth and encouraging public participation in the stewardship of these invaluable resources.

While the Specific Plan would need to comply with these regulations, any new construction activities, in the vicinity of a historical structure that is listed or eligible for listing on local, State or national registers could impact or alter the historic structure and/or the character or setting of the area. This would be a *significant* impact.

In addition, the use of excessive vibration-causing equipment during construction adjacent to historic structures could adversely affect historic resources. This would be a *significant* impact.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
To date, no paleontological resources have been identified within the Specific Plan Area. Although the potential exists for ground-disturbing activities to inadvertently impact an unknown resource, the likelihood of direct or indirect impacts is low due to the highly developed condition of the area. However, if these resources are inadvertently discovered, then the General Plan policies outlined in HP-A-2 and HP-A-3 (with assistance from a paleontologist) should be invoked as well as federal and State statutes protecting these resources from disturbance and destruction.

Therefore, the existing goals, policies and guidelines would diminish the environmental impact from potential destruction of unique paleontological resources, sites or unique geologic features resulting from development or redevelopment to a *less-than-significant* impact.

d. Disturb any human remains, including those interred outside of formal cemeteries.
No human remains are known to exist in the Specific Plan Area based on the negative results from the literature search and the consultation with the NAHC. Although the likelihood of encountering human remains is low,
existing regulations, policies and standards diminish these potential impacts. For example, the Secretary of the Interior’s Standards for Identification (Standards I and II) require survey activities to be conducted to document the information necessary to achieve defined preservation goals. Adherence to the Standards from the Secretary of the Interior guidelines are required by Policy HP-B-1 under the General Plan. Additionally, the CNAHCSSA and Policies HP-A-2 and HP-A-3 under the General Plan require for proper notification of experts upon discovery of human remains and for construction or excavation activity to cease.

Therefore, the existing goals, policies and guidelines would diminish the environmental impact from accidental disturbance of any human remains to a less-than-significant impact.

2. **Cumulative Impacts**

Cultural resources such as historical, archaeological and paleontological resources in the Santa Rosa Urban Growth Boundary could be cumulatively impacted by future development and related construction activities in the region, as identified in the General Plan EIR. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to cumulatively impact cultural resources would be reduced to a less-than-significant level. The impacts resulting from the activities set forth in the Specific Plan are congruent with City of Santa Rosa’s General Plan and require the same mitigations measures. Such regulations and mitigation include the monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains and the protection of cultural resources. Since the Specific Plan would also be subject to the same regulations and policies, as well as the mitigation measures adopted as part of the Specific Plan, the Specific Plan would contribute to a less-than-significant cumulative impact.
E. Impacts and Mitigation Measures

Impact CULT-1: New construction activities, including the widening of existing thoroughfares, that involve ground disturbance could destroy or significantly alter buried archaeological deposits. This would be a significant impact.

Mitigation Measure CULT-1a: Archaeological monitoring shall be conducted during earth-disturbing activities in the areas of potential impact. If an archaeological site has been identified in the close vicinity of a construction project, the adverse impact shall be mitigated by conducting Phase I archaeological testing in order to determine the boundaries of the site, and to ensure site avoidance before the commencement of construction activities. If construction personnel locate buried cultural materials, work shall be halted or shifted to another area and a qualified archaeologist shall be contacted to determine proper treatment of the find.

Mitigation Measure CULT-1b: A worker orientation program shall be conducted prior to and during earth-disturbing activities in sensitive areas. The program shall summarize relevant laws and regulations that protect archaeological resources, and review applicable avoidance and minimization measures to protect archaeological resources. Exclusionary plastic mesh fencing shall be installed and maintained to prohibit the general public from disturbing sub-surface soils and impacting possible archaeological deposits.

Mitigation Measure CULT-1c: The City shall require consultation with Native American tribes whenever necessary prior to submittal of entitlement applications for land divisions and/or new construction to ensure the respectful treatment of Native American sacred places. Potential mitigation measures shall include but are not limited to site avoidance, site capping, integration of the site into a recreation space, or data recovery excavations.

Significance After Mitigation: Less than significant.
Impact CULT-2: Any new construction activities in the vicinity of a historical structure that is listed or eligible for listing on local, State or national registers could impact or alter the historic structure and/or the character or setting of the area. This would be a significant impact.

Mitigation Measure CULT-2a: Adverse impacts of new design elements on the character of a historic building or area shall be evaluated on a case-by-case basis in accordance with the various local, State and federal laws and regulations protecting these resources. Prior to construction, large format camera Historic American Landscape Survey (HALS) Level II black-and-white 8-by-10 inch archival quality prints produced by a professional photographer shall be accompanied by a report by a professional architectural historian. A minimum of twenty views shall be documented and two sets of prints shall be sent to the California State Library in Sacramento.

Mitigation Measure CULT-2b: Specific thoroughfare widening projects within the Specific Plan Area shall be designed so that projects do not detract from the character of the historic building or property. The SRCHB should review such projects for adequate mitigation measures before they are implemented.

Mitigation Measure CULT-2c: A worker orientation program shall be conducted prior to and during construction activities in sensitive areas. The program shall summarize relevant laws and regulations that protect resources, and review applicable avoidance and minimization measures to protect historic resources. Exclusionary plastic mesh fencing shall be installed and maintained to prohibit equipment from impacting significant structures.

Significance After Mitigation: Less than significant.
Impact CULT-3: Excessive vibration-causing equipment in construction areas located less than 25 feet from significant historic masonry buildings and pile-driving within 200 feet of historic structures could have an adverse impact on the integrity of historic resources within the Specific Plan Area. This would be a significant impact.

Mitigation Measure CULT-3a: The use of heavy bulldozers and other excessive vibration-causing equipment in construction zones shall be excluded within 25 feet of significant historic buildings or structures. A system of spot-check monitoring shall also be performed in these locations to ensure that the historic resources do not sustain damage.

Mitigation Measure CULT-3b: The use of pile-driving equipment during construction activity shall be excluded within 200 feet of all eligible or potentially eligible historic resources; augers shall be used within 200 feet. A system of spot-check monitoring shall also be performed in these locations to ensure that the historic resources do not sustain damage.

Significance After Mitigation: Less than significant.
4.5 **Geology and Soils**

This chapter summarizes information on geology, soils and seismic hazards, and mineral resources in the project area, as well as potential area-wide geologic hazards and regional seismic characteristics that are relevant to development within the Specific Plan Area. An evaluation of the impacts of adoption and implementation of the Specific Plan with regard to these potential hazards and resources follows.

Included is a discussion of potential impacts and mitigations for development. Certain conditions, such as weak or erosive soils, may be practically mitigated through suitable grading, foundation engineering, and drainage controls, while other impacts such as the impact from seismic shaking can only be mitigated to an acceptable standard or level of risk. Most geologic impacts result from the active tectonic setting of the region with its location on the margin between the Pacific and North American Tectonic Plates. Soils are especially influenced by climate and both historical and recent changes in land use and vegetation patterns.

A. **Regulatory Framework**

This section summarizes existing State and City of Santa Rosa policies and regulations that apply to the geology, soils and mineral resources of the Specific Plan Area.

1. **State Laws and Regulations**
   a. Alquist-Priolo Earthquake Fault Zoning Act
   The Alquist-Priolo Earthquake Fault Zoning Act was passed by the California Legislature in 1972\(^1\) to mitigate the hazard of surface faulting to structures. The act’s main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Local agencies must regulate most development in fault zones.
established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, the city or county with jurisdiction must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

b. California Seismic Hazards Mapping Act
The California Seismic Hazards Mapping Act of 1990\(^1\) (California Public Resources Code Sections 2690-2699.6) addresses seismic hazards other than surface fault rupture, such as liquefaction and seismically induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into project plans to reduce hazards associated with seismicity and unstable soils.

c. California Building Code
The California Building Code (CBC) of 2001 has been adopted by most jurisdictions in California to oversee construction. The CBC defines four Seismic Zones in California, which are ranked according to their seismic hazard potential. Zone 1 has the least seismic potential and Zone 4 has the highest seismic potential. The Bay Area is located in Seismic Zone 4 and thus development is required to comply with all design standards applicable to Seismic Zone 4.

The earthquake protection law (California Health and Safety Code section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum standards for seismic safety and structural design to meet earthquake protection requirements are set forth in Chapter 16 of the CBC.

---


d. Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted in response to land use conflicts between urban growth and essential mineral production. SMARA requires the State Geologist to classify land according to the presence or absence of significant mineral deposits. Local governments must consider this information before land with important mineral deposits is committed to land uses incompatible with mining.

SMARA provides for the evaluation of an area’s mineral resources using a system of Mineral Resource Zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource.

- MRZ-1. Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2. Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3. Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4. Areas where available information is inadequate for assignment into any other MRZ.

2. Local Regulations and Policies

a. City of Santa Rosa General Plan Health and Safety Element

The intent of the Health and Safety Element is to identify and evaluate natural and human-made hazards that are present or potentially present in the community, and to establish goals, policies and actions necessary to reduce those hazards to acceptable levels. Hazards discussed in the element include seismic hazards, such as earthquakes, soil erosion and landslide hazards. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan.
Goal NS-C: Prohibit development in high-risk geologic and seismic hazard areas to avoid exposure to seismic and geologic hazards.

♦ Policy NS-C-1: Prior to development approval, require appropriate geologic studies to identify fault trace locations within active fault zones as designated by the provisions of the Alquist-Priolo Earthquake Fault Zoning Act. California registered geologists or engineers must conduct these studies and investigation methodologies must comply with guidelines set forth by the Alquist-Priolo Earthquake Fault Zoning Act.

♦ Policy NS-C-2: Require comprehensive geotechnical investigations prior to development approval, where applicable. Investigations shall include evaluation of landslide risk, liquefaction potential, settlement, seismically-induced landsliding, or weak and expansive soils. Evaluation and mitigation of seismic hazards, including ground shaking, liquefaction, and seismically-induced landslides, shall comply with guidelines set forth in the most recent version of the California Division of Mines and Geology (CDMG) Special Publication 117.

♦ Policy NS-C-3: Restrict development from areas where people might be adversely affected by known natural or manmade geologic hazards. Hazards might include unstable slopes, liquefiable soils, expansive soils or weak poorly engineered fills, as determined by a California registered geologist or engineer.

♦ Policy NS-C-4: Restrict development of critical facilities—such as hospitals, fire stations, emergency management headquarters, and utility lifelines, including broadcast services, sewage treatment plants, and other places of large congregations—in areas determined as high risk geologic hazard zones (e.g. Rodgers Creek Fault zone, liquefiable soils, areas of slope instability).

♦ Policy NS-C-5: Require identification and evaluation of existing structural hazards related to unreinforced masonry, poor or outdated construction techniques, and lack of seismic retrofit. Abate or remove any structural hazard that creates an unacceptable level of risk, including re-
requiring post-earthquake building inspections and restricting entry into compromised structures.

♦ **Policy NS-C-6**: Require appropriate and feasible seismic retrofit, as determined by a registered structural engineer, of commercial, industrial and public buildings that are not currently retrofitted and are located within areas determined to experience strong ground shaking during an earthquake.

♦ **Policy NS-C-7**: Require inspection for structural integrity of water storage facilities, water conveyance facilities, electricity transmission lines, roadways, water detention facilities, levees and other utilities after a major seismic event, especially on the San Andreas or Rodgers Creek faults.

♦ **Policy NS-C-8**: Adopt mandatory, minimum erosion control measures for current properties and those under construction that exhibit high erosion potential, are in areas of steep slopes, or have experienced past erosion problems. Control measures shall reduce soil erosion from primary erosional agents, including wind, construction operations, and storm water runoff.

b. Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan for the Bay Area, City of Santa Rosa

The Disaster Mitigation Act of 2000 (DMA 2000) was signed into law by the President of the United States on October 30, 2000. It places new emphasis on local mitigation planning to promote a proactive disaster preparedness approach and reduce the growing cost of disaster relief efforts by the Federal Emergency Management Agency (FEMA). It requires State and local jurisdictions to develop Hazard Mitigation Plans to qualify for specific post disaster grants. The Plans must identify measures that will be undertaken before natural disasters occur to reduce the level, frequency and cost of damage and harm occurring from such events.

---

ABAG has developed a Multi-Jurisdictional Local Hazard Mitigation Plan for the Bay Area that was adopted on March 17, 2005. The Santa Rosa City Council has adopted (Resolution No. 26562 on May 16, 2006) the ABAG document *Taming Natural Disasters* as the City’s Hazard Mitigation Plan.

**c. Building Code**
Chapter Title 18 of the Santa Rosa Municipal Code addresses general building and construction practices and lists requirements. Building and construction is required to be in accordance with the California Building Code Volumes 1 & 2, 2001 Edition, published by the International Conference of Building Officials and the California Building Standards Commission. Review and abatement of existing buildings considered seismic hazards is included under Chapter 18-48.

**d. Grading and Soils Ordinances**
Chapter Title 19 of the City of Santa Rosa Municipal Code discusses grading and soils requirements for structural foundations. Provisions include completion of a preliminary soils report prepared by a licensed civil engineer based upon adequate test borings or excavations of the subdivision. This may be waived if the Chief Building Official determines that critically expansive soil or other soils problems that could lead to structural defects do not exist. If the soils report indicates the presence of critically expansive soil or other soil problems which, if not corrected, would lead to structural damage, the City requires a complete soils investigation for each lot in the subdivision prepared by a licensed civil engineer. This report is required to include recommended corrective actions to prevent structural damage to proposed structures. The report and investigation are conditions of approval for subsequent plan level and building permits.

---

e. Santa Rosa Storm Water Mitigation Plan

In 1997, Santa Rosa was issued a joint National Pollutant Discharge Elimination System (NPDES) permit with the County of Sonoma and Sonoma County Water Agency (SCWA) by the regional water quality control board (RWQCB). The NPDES permit identifies the Storm Water Management Plan (SWMP) implemented by the City to control and eliminate storm water pollution discharge. The City must comply with the provisions of the permit by ensuring that new development and redevelopment mitigate water quality impacts to storm water runoff both during construction and operation periods of projects.

Under direction from the SWRCB, the City prepared a Standard Urban Storm Water Mitigation Plan (SUSMP). The SUSMP was developed in 2003 as a part of the NPDES permit for the City of Santa Rosa, the County of Sonoma and the SCWA. The purpose of the SUSMP is to manage the quality and quantity of storm water runoff in the Santa Rosa area and to aid in the conservation of natural areas in the region. The SUSMP describes and evaluates various “Best Management Practices” (BMPs) for storm water management and outlines procedures for BMP maintenance and inspection. Both private-sponsored and public capital improvement projects in the Santa Rosa area are governed by SUSMP requirements.

Additionally, a Notice of Intent (NOI) with the RWQCB is required to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. A developer must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the general permit. A SWPPP should include SUSMP BMPs designed to reduce potential impacts to surface water quality during construction of the project.5

---

B. Existing Conditions

This section discusses the existing geological and soil conditions of the Specific Plan Area and its immediate surroundings.

1. Regional Seismicity

The Specific Plan Area lies in the tectonically active Coast Ranges Geomorphic Province of Northern California, on the plain of Santa Rosa Creek. Northwest to southeast trending ridges and valleys are common in the area. This alignment is strongly influenced by active tectonics along the boundary between the North American and Pacific Tectonic Plates delineated by the San Andreas Fault System. Active deformation is expressed along this boundary margin through discrete movement along various faults, movement that generates earthquakes.

Sonoma County faults are characterized by both strike-slip or horizontal displacement and dip-slip or vertical displacement. Some faults strike northwest-southeast and include several fault strands in a broad zone, while others are represented by a single actively creeping fault trace. Displacement along a fault trace or series of fault traces generates an earthquake. Over long periods of time the fault traces accommodating movement and active deformation within a fault zone change. Some traces become inactive as movement is accommodated along other traces. The frequency of recent fault rupture can be determined from fault trenching, geomorphic mapping, seismic refraction studies and other techniques and is a good indicator of future earthquakes, especially where there is good exposure. However, since earthquakes sometimes result from rupture along historically inactive or even buried faults their exact location can be difficult to predict.

Major active faults located within 30 miles of the Specific Plan Area are the Rodgers Creek, San Andreas, Maacama and Hayward Faults. Each of these faults is capable of producing a large earthquake that could result in strong
seismic shaking of the site. The nearest mapped active fault trace to the Specific Plan Area is the Rodgers Creek fault, which passes approximately 3,000 feet east of the Specific Plan Area. Other nearby active faults includes the Maacama fault (10 miles north), San Andreas Fault (19 miles southwest) West Napa fault (26 miles southeast), Green Valley fault (29 miles east) and Hayward fault (35 miles southeast). These faults are identified in Figure 4.5-1.

Major seismic events in the region that have resulted in moderate to strong ground shaking of the site include the 1868 Hayward earthquake of estimated magnitude 7.0, the great 1906 San Francisco earthquake of approximate magnitude 7.9, the 1969 5.6 and 5.7 earthquakes in Santa Rosa, and the 1989 Loma Prieta Earthquake of magnitude 6.9. A recent earthquake of magnitude 5.2 on the nearby West Napa fault on September 3, 2000, near the town of Yountville, reportedly caused between 15 and 70 million dollars in losses, mostly in Napa, while little or no damage was reported in Santa Rosa.

2. Regional Geology
The Geologic Map of the Santa Rosa Quadrangle shows the site is located on the alluvial plain of Santa Rosa Creek. The area is underlain by recent Holocene age alluvium (deposited in the last 11,000 years) while also being bordered by older Pleistocene age alluvial fan and terrace deposits of the Huichica Formation and Glenn Ellen Formation that are dated to between 11,000 years and 2 million years before present. Most sediment has been eroded and washed from neighboring Pliocene age rocks of the Sonoma Volcanic formation that is thought to underlie alluvium at depth. These volcanic deposits of basalt, andesite, rhyolite and volcanic tuff are common in the Sonoma Mountains east of the site. The volcanics are thought to have intruded

---

7 California Division of Mines and Geology, 1980, Geology for Planning in Sonoma County.
Source: USGS web site http://quake.usgs.gov/, accessed November 16, 2006. USGS Disclaimer: Because of the large number of faults in California and Nevada, the faults shown on these maps do not constitute an exhaustive collection. They were chosen typically because they are larger and/or exhibit more recent offset than others. However, our understanding of faults is constantly expanding, and new faults and better data may be added to these maps as our knowledge about these structures advances. These maps should not be considered as zoning guides, nor be used for risk assessment.
through the older Cretaceous to Jurassic age rocks of the Franciscan Formation between 5 and 2 million years ago. The older Franciscan Complex rocks of estimated age between 64 million and 180 million years are commonly found west of the Santa Rosa Plain in the coastal mountains and along the ridgeline of the Sonoma Mountains. Intermediate Pliocene age sedimentary deposits of both the non-marine Petaluma Formation and marine Wilson Grove Formation show that the area was subject to rising and falling sea level that throughout the late Cenozoic era and into the Pleistocene.

The Franciscan complex is composed of weakly to strongly metamorphosed greywacke (sandstone), argillite, limestone, basalt, serpentine, chert and other rocks. This rock was accreted onto the edge of the North American continent during the long period of active subduction of the Pacific Plate beneath the North American Plate. The formation is derived from Jurassic oceanic crust and pelagic deposits that are overlain by Late Jurassic to Late Cretaceous sedimentary deposits. Metamorphic grade in this rock is highly variable which reflects the complicated history of the Franciscan.

Since the late Cenozoic era, subduction has been replaced by transform faulting along faults of the San Andreas System. There has also been major climate change and dramatic rising and lowering of sea level. Due to the complex geologic history of the area there is a wide variety of volcanic rocks and sedimentary rocks of varying metamorphic grade to be found in the region. These units are often juxtaposed along ancient fault contacts and the structure is complicated by not only ancient deformation, but by active fault deformation. Imprinted on this geology is the drainage pattern of the Santa Rosa Creek Watershed.

---

3. Site Geology

An area geologic map shows two units mapped within the Specific Plan area.\(^9\) Young alluvial fan deposits (Qyf) of Quaternary age are mapped north of Santa Rosa Creek and south of the creek west of Roberts Avenue, while the remainder of the plan area south of the creek is mapped as old alluvial fan deposits (Qof) of Quaternary Age (greater than 10,000 years old and less than 2 million years old). The younger fan deposits are described as consisting of moderately sorted fine sand and silt with gravel. Older deposits are described as deeply weathered and poorly sorted coarse sand and gravel.

The older deposits are coarser since they are nearer the sediment source, while the more distal and younger deposits are likely comprised of the finer fraction of sediment washed from the older deposits. Since the area has been developed these deposits are likely to have been significantly graded and there is also a significant volume of imported fill in developed areas that may have a totally different composition.

More detailed geotechnical information will need to be obtained during completion of site design level geotechnical reports completed for developments within the Specific Plan Area. During the site visit on January 17, 2006, soils in the vicinity of the railroad track were generally observed to be silty and able to pond water.

4. Site Soils

According to the Sonoma County Soils Survey\(^{10}\), the Specific Plan Area north of Santa Rosa Creek is underlain by Yolo Silty Loam (YsA), while the area south of the creek is underlain by the Zamora Silty Clay Loam. Deposits within the channel were mapped as river wash.

---


\(^{10}\) United States Department of Agriculture (USDA) Soil Conservation Service (SCS), 1972, *Soil Survey for Sonoma County*. 

4.5-12
Yolo soils are well drained loams underlain by recent alluvium derived from sandstone and shale. Zamora soils are described as well-drained clay loams underlain by alluvium from mixed sedimentary sources. Prior to urbanization these soils would have been considered good for orchards, vineyards, row crops and truck crops. A significant difference is that soils of the Zamora series have high shrink swell potential, compared to low to moderate potential for soils of the Yolo series. With higher clay content soils of the Zamora Series may not drain as well and could promote ponding and more runoff. River wash is composed of recent deposits of gravel, sand and silt. These soils are depicted in Figure 4.5-2.

5. Mineral Resources
According to the Santa Rosa General Plan, no significant mineral resources are identified with the Specific Plan Area.

C. Standards of Significance
The Specific Plan would have a significant impact with regard to geological and soil conditions if it would:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

   ♦ 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;

   ♦ Strong seismic ground shaking;

   ♦ Seismic-related ground failure, including liquefaction; or

   ♦ Landslides.

b. Result in substantial soil erosion or the loss of top soil.
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.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property.

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.

f. 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.

g. 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.

D. Impact Discussion

This section analyzes potential geological impacts for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: fault rupture, strong seismic ground shaking and seismic-related ground failure, such as liquefaction or landslides.

i. Ground Rupture

The potential impact from fault rupture is that ground movement along a fault cause tearing apart, cracking, or other damage that will destroy or severely undermine structures built on or in close proximity to a fault. Such
damage would result in major property damage and could endanger the life and health of any occupants.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 initiated a program of mapping active and potentially active faults. Active and potentially active faults in Sonoma County have undergone extensive investigation in the past. ABAG has summarized results from many of these studies to quantify the potential impact to certain areas, while the California Geological Survey has established Earthquake Fault Zone (EFZ) boundaries.

The latest available maps show the nearest EFZ to the Specific Plan Area is for the Rodgers Creek Fault. The western edge of this approximately 1,000 to 1,500 foot wide zone is mapped 2,500 feet east of the eastern edge of the Plan Area, while the actual fault trace upon which the zone is centered lies about 3,000 feet to the east. No other faults considered active or potentially active are mapped across the Specific Plan Area. Aside from mapped faults there could also be a rupture on an undiscovered or blind thrust fault. Such an earthquake caused major damage in the Northridge area of the San Fernando Valley in Southern California in 1991. This risk is difficult to assess, but is considered most likely parallel to a mapped thrust fault zone, particularly where there has been evidence of recent uplift or mountain building. However, this is not the case in the Specific Plan Area so the risk from fault rupture is considered a less-than-significant impact.

Ground Shaking
The impact from ground shaking is that strong to violent ground shaking cause foundation or other major structural damage leading to damage or collapse, falling objects endangering people and structures, and creation of general ground instability undermining or weakening structures leading to eventual collapse or requiring major repairs. The San Francisco Bay Area is a seismically active region and experts consider it likely that the Specific Plan Area would be subjected to at least strong seismically induced ground shaking within the design life of the development. According to a recent study completed by the Working Group on California Earthquake Probabilities
(WGCEP) assessing the probability of earthquakes in the San Francisco Bay Area,\textsuperscript{11} there is a 62 percent probability that a major earthquake of Richter Magnitude 6.7 or greater will strike the region during the next 30 years.

The intensity of ground shaking will vary with the distance and magnitude of the earthquake causing the ground shaking. There is likely to be at least strong shaking equivalent to a Modified Mercalli intensity (MMI) of VII due to a major earthquake along the San Andreas, Maacama, Hayward, or other faults. A major earthquake along the nearby Rodgers Creek Faults is predicted to generate violent ground shaking equivalent to a MMI level of IX.\textsuperscript{12}

According to ABAG, such shaking could completely destroy or badly damage unreinforced masonry or poorly built structures not meeting the current seismic code. Structures built to meet the current seismic code for resistance to lateral movement including shear keys, bolted foundations, shear walls and other precautionary engineering methods are not predicted to be destroyed, but are likely to suffer at least minor damage, especially from items falling off shelves, cracked facades, damaged utility pipes, etc. Frame structures are predicted to shift off foundations if not bolted. Peak ground accelerations for the site with a 10-percent probability of being exceeded in a 50-year period are estimated to be between 60 and 70 percent of the acceleration due to gravity (g) for the Specific Plan Area north of Santa Rosa Creek and between 50 and 60 percent of gravity for the area south of Santa Rosa Creek.

Actual ground motions resulting from ground acceleration may be amplified or dampened depending on the underlying geologic materials. Deep and soft soils tend to amplify waves, whereas shallow soils overlying hard bedrock tend to dampen shaking intensity. In the Specific Plan Area, a relatively thick layer of alluvium from Santa Rosa Creek could amplify shaking where sedimentary layers are unconsolidated, or where there are weak soils. Factors


reducing amplification of ground waves include use of engineered fill, shallow rock and subsurface drains designed to reduce ground saturation underneath foundations.

However, all structures in the Specific Plan Area shall be designed in accordance with currently adopted building codes and ordinances of the City of Santa Rosa, including the 2001 California Building Code. Furthermore, General Plan Policy NS-C-2 requires a comprehensive geotechnical investigation prior to development approval, where applicable. Such investigation shall include evaluation of all seismic hazards, including seismic ground shaking. Additionally, Policy NS-C-4 under the General Plan restricts development of critical facilities in high-risk geologic hazard zones. Policy measures NS-C-5 and NS-C-6 under the General Plan further require identification, evaluation and retrofitting of historical buildings, including any proposed to remain in the historical districts proposed in the Specific Plan Area. Moreover, Policy NS-C-7 under the General Plan requires inspection of major utilities following earthquakes. In addition, Title 19 of the Santa Rosa Municipal Ordinance requires proper foundation engineering and construction in accordance with recommendations of a licensed civil engineer.

Incorporation of seismic construction standards will reduce the potential for significant catastrophic effects of ground shaking such as complete structural failure, but may not eliminate completely the hazard of seismically induced ground shaking. Therefore, seismic shaking is considered a significant impact to development proposed in the Specific Plan.

iii. Liquefaction

Liquefaction is the temporary transformation of saturated, cohesionless soil into a viscous liquid as a result of ground shaking. According to the USGS (2000) map of liquefaction risk summarized on the Sonoma County website, soils within the Specific Plan Area are considered to have moderate susceptibility to liquefaction. This assessment is likely due to the occurrence of deep alluvial soils in close proximity to active faults.
The Specific Plan Area is not shown to be an area with a high liquefaction risk such as the area along the Russian River. While the site is shown to have moderate susceptibility it does not have shallow groundwater and well sorted or poorly graded sandy soils like those found along the Russian River that are considered most susceptible, nor does it have deep unconsolidated fill deposits such as those that failed in the Marina District of San Francisco during the 1989 Loma Prieta earthquake of estimated magnitude 6.9.

In order to assess the liquefaction potential in more detail requires site-specific analysis of soils that would be completed for a geotechnical investigation or geologic assessment. While this may have been done for newer structures or renovations within the Specific Plan Area, it has not been comparatively assessed for all sites within the Specific Plan Area. However, general soils characteristics used to determine liquefaction potential may be determined from the soil survey. In addition to shallow groundwater causing saturated soils, the most important measure determining if a soil is prone to liquefaction is cohesion. Cohesion reduces liquefaction potential, with those soils at greatest risk having little or no cohesion, such as sandy or silty soils. While the soils survey did not directly measure cohesion, it is well know that clayey or highly plastic soils have the highest cohesion. Based on these criteria, the area underlain by Yolo Silty Clay Loam soils with plasticity index between 5 and 15, would have slightly less cohesion than the area underlain by the Zamora Clay Loam, with plasticity index between 5 and 20. Therefore, the area north of Santa Rosa Creek may have a slightly greater risk for liquefaction.

General Plan Policy Measure NS-C-2 requires an investigation for all development for the potential of soil liquefaction during seismic ground shaking to result in damage to structures, pavements and utilities. However, even with this policy, liquefaction represents a significant impact to development proposed in the Specific Plan area.

Closely related to liquefaction, but not requiring saturated soils, is dynamic densification. Dynamic densification or ground subsidence can occur when dry cohesionless soils collapse as a result of seismic shaking. This may be par-
particularly true of unconsolidated sandy fill, or ground overlying hollow areas due to caves, mines, or areas with excessive groundwater removal. Since soils described within the Specific Plan Area are considered to have significant quantity of fine and at least low to moderate plasticity soils they may have enough cohesion to produce only a slight risk of seismically induced densification. However, proper implementation of City and State regulations regarding site specific geotechnical investigations should establish the severity of this hazard. This impact is considered less than significant.

iv. Landslides
Seismically induced slope failure is another secondary seismic hazard. During earthquake-induced ground shaking, unstable slopes can fail, causing landslides and debris flows. The Specific Plan Area is not known to be located within an earthquake induced landslide zone. However, very steep slopes greater than 50 percent adjacent to the creek may be subject to some type of slope failure as a result of violent ground shaking.

Another feature characteristic of slope instability that could result from an earthquake is lurch cracking. Lurch cracking is the development of fissures or cracks on slopes overlain by weak soils that can result from swaying, rolling, or spreading of the ground during a strong earthquake. This hazard is considered minimal due to lack of slopes, except at the top of bank next to Santa Rosa Creek where development that encroaches upon the bank top may be susceptible to some sort of slope failure. Although General Plan Policy NS-C-3 requires development restrictions in unstable areas, including any unstable slopes, the policy does not identify the banks of Santa Rosa Creek as particularly unstable. The greatest chance of such failure would occur in response to strong seismic shaking, and, therefore, seismically induced slope failure and instability adjacent to Santa Rosa Creek. This is considered a significant impact to development under the Specific Plan.

b. Result in substantial soil erosion or the loss of topsoil.
Redevelopment of sites within the Specific Plan Area will involve the removal of existing structures and pavement that currently help to stabilize site soils.
The exposure of the soils during land clearing and grading activities may lead to increased surface runoff and erosion, with possible impacts to Santa Rosa Creek. However, because the Plan Area is nearly level, the potential for soil erosion is slight and soil loss can be easily controlled. To reduce erosion the City of Santa Rosa Grading and Erosion Control Ordinance requires the preparation and implementation of an erosion control plan. Moreover, Policy NS-C-8 under the General Plan requires erosion control measures be implemented to reduce soil erosion from runoff, construction operations, wind and other causes. These requirements overlap those of the Storm Water Management Plan, which requires the preparation and implementation of a SWPPP for individual development or redevelopment projects proposed under the Specific Plan. Therefore, erosion and loss of topsoil is considered a less-than-significant impact to development under the Specific Plan.

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.

Settlement of soils is a primary consideration for the stability of any foundation or structure. Settlement may be due to removal of groundwater trapped in pore spaces within soils. This type of settlement generally occurs in sand and silty sand soils. The reduction in pore pressure would cause the load to compress the pore space causing settlement. Settlement may also occur due to compressibility of dry soils. Fine-grained soils such as silts and clays may also settle. Settlement of fine-grained soils is generally related to density and moisture content of the soils. Low density, high moisture content soils commonly settle during loading. Deep, fine-grained soils are present within the Specific Plan Area and may be subject to compression and settlement during loading with fill soils or structural foundations.

According to the “geotracker” database\(^\text{13}\) maintained by the State of California that contains monitoring well data, the depth to groundwater in the area

has been recorded between 7 and 25 feet below the ground surface, while general soils information indicates no difference in compressibility between different soils mapped across the Specific Plan Area.

In general, soils conditions are suitable for development and may be engineered in accordance with the California Building Code and other geotechnical requirements to provide sufficient foundation for structures. Requirements include removal of any non-suitable soils consisting of native subgrade or fill soils and replacement with compacted and moisture conditioned engineered fill in accordance with accepted geotechnical standards. Testing, required under General Plan Policy NS-C-2, will be required prior to development approval, where applicable. Investigations shall include evaluation of landslide risk, liquefaction potential, settlement, seismically-induced landsliding, or weak and expansive soils. Proper implementation of these regulations and policies would reduce the impact from geologic units and soils on development to a less-than-significant impact.

Slope steepness is generally the dominant factor governing slope stability, along with drainage and soil and bedrock conditions. Steep slopes that exceed 50 percent are especially prone to landslides in areas of weak soil and/or bedrock. Debris flows and shallow slope failures are known to occur on very steep slopes with shallow soils.

Slope failures occur when the shear stress of a soil or rock mass exceeds its shear strength. Shear stress can be increased by adding to the weight of the soil or rock mass through saturation or loading. Shear strength can be reduced by erosion or grading at the toe of a slide mass. Failure can occur due to either an increase in shear stress or a decrease in shear strength. Zones of low shear strength are often associated with the presence of expansive clay soils and weak bedrock units or structural features susceptible to failure. Sandy soils on steep slopes can experience failure during periods of intense rainfall when loading of the soil with water exceeds the rate at which the soil can drain. These types of failures are generally termed debris flows or mudflows when finer material is involved. Landslides involve the discrete or co-
herent motion of a block of material and frequently occur along fault traces or structural discontinuities.

The Specific Plan Area slope is easterly at approximately 0.5 percent and geologic maps show no landslides that threaten the project area since the area is nearly flat, so the risk of slope failure on the majority of the Specific Plan Area is considered low. However, maps are not detailed enough to show small slope failures such as could occur along the banks of Santa Rosa Creek and on embankments. The occurrence of these slope failures is reduced due to revetments along the creek and banks that are typically less steep than two horizontal to one vertical (50 percent). No obvious signs of slope failure were observed during the site reconnaissance in the vicinity of the railroad bridge and retaining walls were in good condition.

While existing conditions do not indicate particularly unstable soil conditions, improper compaction of engineered fill, creation of unstable slopes or cuts during mass grading or unforeseen conditions could be an issue. Due to the lack of subsurface data and uncertainty regarding specific development plans adjacent to Santa Rosa Creek could be considered a significant impact.

d. Be located on expansive soil creating substantial risks to life or property. Soils with moderate to high expansion potential are susceptible to shrinking and swelling due to fluctuations in moisture content and are a common cause of foundation deterioration, especially cracking of concrete slabs. Expansive soils are defined in Table 18-1-B of the Uniform Building Code (1994), later adapted in the 2001 California Building Code adopted by the City of Santa Rosa. According to these criteria, highly expansive soils have an expansion index exceeding 90. Such soils are highly plastic, as they will deform constantly under a constant stress, not the case for brittle or visco-elastic solids and liquids. Highly plastic soils have a large plasticity index and behave plastically over a wide range of moisture conditions.
Within the Specific Plan Area, soils are considered moderately plastic and are therefore considered to have at least moderate expansion potential. Soil properties are summarized in Table 4.5-1.

The primary difference between the soils is that those mapped south of the creek are slightly more plastic and predicted to have a higher shrink swell potential. In general, Table 4.5-1 shows a general occurrence of fine-grained alluvial soils, some of which may be expansive enough to cause foundation damage across the Specific Plan Area. This represents a **significant** impact.

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.

The area wastewater will be serviced by the City of Santa Rosa’s sewer system. Therefore, this is considered to have **no impact**.

f. 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.

No mineral resources are identified within the Specific Plan Area by the Santa Rosa 2020: General Plan. Therefore, **no impact** would occur.

g. 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.

As indicated before, the Specific Plan is considered to have **no impact** on mineral resources as no mineral resources are identified within the Specific Plan Area.

2. **Cumulative Impacts**

Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to geology and seismicity. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to result in a geologic or seismic cumulatively impact would be reduced to a
TABLE 4.5-1  **SOILS SURVEY CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>Area</th>
<th>Shrink Potential</th>
<th>Swell Potential</th>
<th>PI&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Strength</th>
<th>Compressibility</th>
<th>Runoff Rates</th>
<th>Erosion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yolo Silty Loam</td>
<td>Nth. of Creek</td>
<td>Low to Moderate</td>
<td>5-15</td>
<td>Fair to Poor</td>
<td>Medium</td>
<td>Slow</td>
<td>Slight</td>
<td></td>
</tr>
<tr>
<td>Zamora Silty Clay Loam</td>
<td>St. of Creek</td>
<td>Moderate</td>
<td>5-20</td>
<td>Fair to Poor</td>
<td>Medium</td>
<td>Slow</td>
<td>Slight</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> PI: Plasticity Index


less-than-significant level. Given that the Specific Plan Area is relatively flat, there is low potential for the Specific Plan to cumulatively contribute to erosion or landslides. Soils in the Specific Plan Area are not designated for protection and therefore it does not matter if they are graded in compliance with existing policies and regulations. There is a potential impact from increased population in a seismic zone. However, this impact is discussed under the risk from seismic shaking and would be adequately addressed through compliance with City’s General Plan policies, ordinances and the mitigated measures adopted as part of the Specific Plan. In addition, the Specific Plan would result in no impact to mineral resources. Overall development is unlikely to change the geology of the region, therefore, the Specific Plan would not contribute to a cumulative impact regarding geological and soil concerns.

**E. Impacts and Mitigation Measures**

**Impact GEO-1:** Development allowed under the Specific Plan would be subject to seismic ground shaking. This is considered a *significant* impact.

**Mitigation Measure GEO-1a:** All structures in the Specific Plan Area shall be designed in accordance with currently adopted building codes.
and ordinances of the City of Santa Rosa, including the 2001 California Building Code. A Final Design Review shall be performed by a licensed civil/structural engineer for adherence to the seismic design criteria within the Specific Plan Area.

Mitigation Measure GEO-1b: A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include the following elements.

(1) The investigation shall be performed under the direction of a state licensed Geotechnical Engineer and/or a Certified Engineering Geologist.

(2) The subsurface investigation shall include drilling, logging and sampling of boreholes to a minimum depth of 25 feet below the ground surface to evaluate soils for their susceptibility to seismically induced ground failure.

(3) If a seismically unstable subsurface material is encountered, the engineer shall identify specific measures to mitigate the impact of seismic ground shaking. Mitigation measures may include soil stabilization techniques such as pressure grouting, specific foundation design measures such as pile foundations, or other methods identified by the engineer.

(4) A written report shall be prepared summarizing the methods used, results of the investigation and specific design measures recommended.

(5) Results of the investigation shall be reviewed by the City, or by a qualified independent consultant retained by the City.

The City shall require developers to incorporate the mitigation measures into new development.

Significance After Mitigation: Less than significant.
Impact GEO-2: Liquefaction leading to structural damage or collapse of structures could occur within the Specific Plan Area. This is considered a significant impact.

Mitigation Measure GEO-2: Development of sites within the Specific Plan Area shall require investigation of the potential for soil liquefaction during seismic ground shaking that could result in damage to structures, pavements and utilities. A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include those elements outlined under Mitigation Measure GEO-1B.

The City shall require developers to incorporate the mitigation measures into new development.

Significance After Mitigation: Less than significant.

Impact GEO-3: Seismically-induced slope failure and instability adjacent to Santa Rosa Creek may be present in the Specific Plan Area for sites located adjacent to Santa Rosa Creek. This is considered a significant impact.

Mitigation Measure GEO-3: Any new structures planned within 50 feet from the top of the bank of Santa Rosa Creek shall complete a stream-bank stability analysis to examine the effect of a new structure on bank stability. Structures to be evaluated shall include paved parking areas, retaining walls, buildings and other site improvements. A licensed Civil Engineer or Certified Engineering Geologist shall complete the slope stability analysis.

Analysis shall include the effect of increased or concentrated runoff on bank erosion, likelihood of foundation pressure causing bank failure and the impact of grading next to the creek bank in terms of future settlement and erosion.
Recommendations from the analysis to be incorporated into development plans shall include use of energy dissipaters or other techniques to reduce outflow velocities of storm drains discharging into Santa Rosa Creek, building setback from the creek and stable grading setback from the creek.

**Significance After Mitigation:** Less than significant.

**Impact GEO-4:** Expansive soils may be present in the Specific Plan Area. Expansive soils may cause damage to pavements, concrete slabs and foundations. This is considered a *significant* impact.

**Mitigation Measure GEO-4:** A subsurface geotechnical investigation shall be performed to evaluate soils in the subsurface at each proposed development or redevelopment site. The investigation shall include those elements outlined under Mitigation Measure GEO-1B.

The City shall require developers to incorporate the mitigation measures into new development.

**Significance After Mitigation:** Less than significant.
4.6 HAZARDS AND HAZARDOUS MATERIALS

This section discusses existing hazards and hazardous materials in the Specific Plan Area and also future hazards and hazardous materials that could result from proposed redevelopment outlined in the Specific Plan. Hazards include human exposure to any contamination during construction and site redevelopment, as well as post development exposure risks that could result from changing land use and increased population.

The evaluation is based on review of existing environmental documentation available for the Specific Plan Area and adjacent areas, site reconnaissance and conversations, current regulatory laws and regulations concerning transportation, storage and use of hazardous materials in Santa Rosa.

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials include waste that has been abandoned, discarded, or recycled on the property and as a result represents a continuing hazard as the development is proposed. Hazardous materials also include any contaminated soil or groundwater.

A. Regulatory Setting

This section summarizes existing federal, State and City of Santa Rosa policies and regulations that apply to hazards and hazardous materials for the City of Santa Rosa.

1. Federal Laws and Regulations
At the federal level, the chief environmental regulator is the U.S. Environmental Protection Agency (EPA), Region IX for Northern California. The EPA maintains responsibility for cleanup of federal lands and waterways.
Since the Specific Plan Area does not include significant federal holdings most of the regulatory authority is delegated to the State of California.

A few of the databases with information on hazardous materials are the Federal Superfund list started through the Comprehensive Environmental Response, Conservation and Liability Act (CERCLA) of 1980, the United States EPA’s Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), HAZNET, the leaking underground storage tank information system (LUST) and the Cortese list. These databases are also a primary source of information for legal disclosures, such as Phase 1 Environmental Site Assessments (ESA) and to facilitate interagency cooperation.

2. State Laws and Regulations
In California, the Department of Toxic Substances Control (DTSC) is chiefly responsible for regulation, handling, use and disposal of toxic materials in California, while the State Water Resources Control Board (SWRCB) regulates discharge of potentially hazardous materials to waterways and aquifers and administers the basin plans for groundwater resources in the various regions of the state. The North Coast Regional Water Quality Control Board oversees surface and groundwater in the Santa Rosa area. Programs intended to protect workers from exposure to hazardous materials and from accidental upset are covered under the Occupational Health and Safety Administration at both the federal level (OSHA) and at the State level through the California Division of Occupational Safety and Health (CAL/OSHA), as well as through the California Department of Health Services (DHS). Air quality is

---

1 California Environmental Protection Agency’s website. http://www.calepa.ca.gov/About/History01/, accessed on November 7, 2006.
regulated through the Air Resources Board (ARB) and Bay Area Air Quality Management District (BAAQMD).

3. Transportation Regulations
Transportation of hazardous materials on the highways is regulated through the Federal Department of Transportation (DOT) and the California Department of Transportation (Caltrans). This includes a system of placards, labels and shipping papers required to identify the hazards of shipping each class of hazardous materials. Existing federal and State laws address risks associated with the transport of hazardous materials. These laws include regulations outlined in the Hazardous Materials Transportation Act administered by the DOT.\(^5\) Caltrans is mandated to implement the regulations established by the DOT, which are published as the Federal Code of Regulations, Title 49, commonly referred to as 49 CFR. The California Highway Patrol (CHP) enforces these regulations. Regulations of hazardous materials and wastes include the manufacture of packaging and transport containers; packing and repacking; labeling; marking or placarding; handling; spill reporting; routing of transports; training of transport personnel; and registration of highly hazardous material transport.

4. Local Regulations and Policies
a. Relevant City of Santa Rosa General Plan Goals and Policies
The Specific Plan will need to be consistent with the City of Santa Rosa’s General Plan goals and policies. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to hazards and hazardous materials.

---
\(^5\) Code of Federal Regulations, Title 49, Parts 100-185 Hazardous Materials Transportation Requirements.
i. Noise and Safety Element

Goal NS-A: Prepare for disasters.

♦ Policy NS-A-1: Maintain the Emergency Operations Plan as the City’s disaster-response plan. Work with Sonoma County to update joint-emergency response and disaster response plans, as needed.

♦ Policy NS-A-2: Develop a public awareness program on the nature and extent of natural hazards in the Planning Area and ways of minimizing the effects of disasters.

♦ Policy NS-A-3: Establish community programs which train volunteers to assist police, fire and civil defense personnel during and after disasters.

Goal NS-E: Minimize dangers from hazardous materials.

♦ Policy NS-E-1: Require remediation and cleanup, and evaluate risk prior to reuse, in identified areas where hazardous materials and petroleum products have impacted soil or groundwater.

♦ Policy NS-E-2: Require that hazardous materials used in business and industry are transported, handled and stored in accordance with applicable local regulations.

♦ Policy NS-E-3: Restrict siting of businesses, including hazardous waste repositories, incinerators or other hazardous waste disposal facilities, that use, store, process, or dispose large quantities of hazardous materials or wastes in areas subject to seismic fault rupture or very violent ground shaking.

♦ Policy NS-E-4: Where applicable, identify and regulate appropriate regional and local routes for transportation of hazardous materials and hazardous waste. Require that fire and emergency personnel can easily access these routes for response to spill incidences.

♦ Policy NS-E-5: Require commercial and industrial compliance with the Sonoma County Hazardous Materials and Waste Management Plan.

♦ Policy NS-E-6: Generate and support public awareness and participation in household waste management, control and recycling through county
programs including the Sonoma County Household Hazardous Waste Management Plan.

**Goal NS-F: Minimize the potential for wildland fires.**

- **Policy NS-F-1**: Require proposed developments in high or medium fire hazard areas to investigate a site's vulnerability to fire and to minimize risk accordingly.
- **Policy NS-F-2**: Require new development in areas of high wildfire hazard to utilize fire-resistant building materials. Require the use of on-site fire suppression systems, including automatic sprinklers, smoke and/or detection systems, buffers and fuel breaks and fire retardant landscaping.
- **Policy NS-F-3**: Prohibit untreated wood shake roofs in areas of high fire hazard.
- **Policy NS-F-4**: Continue monitoring water fire-flow capabilities throughout the City and improving water availability at any locations having flows considered inadequate for fire protection.
- **Policy NS-F-5**: Require detailed fire prevention and control measures, including community firebreaks, for development projects in high fire hazard zones.
- **Policy NS-F-6**: Minimize single-access residential neighborhoods in development areas near open space and provide adequate access for fire and other emergency response personnel.

**ii. Transportation Element**

**Goal T-M: Continue the availability of air transportation services.**

- **Policy T-M-1**: Encourage the provision of convenient air travel opportunities for Santa Rosa residents.
- **Policy T-M-2**: Work with Sonoma County to maintain Charles M. Schulz-Sonoma County Airport’s continued safe and successful operation by discouraging the development of incompatible uses in airport safety zones.
Policy T-M-3: Support efforts at the Charles M. Schulz-Sonoma County Airport to minimize negative effects of air transportation, such as surface street congestion, air pollution, noise and safety concerns.

Policy T-M-4: Support continued operation of commercial air services at Charles M. Schulz-Sonoma County Airport.

Policy T-M-5: Support continued operation of private shuttle services to San Francisco and Oakland International Airports.

b. Environmental Standards

While there are many regulatory programs, there are fewer standards for determining exposure risks due to contamination. Currently the most commonly used are the Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) for commercial/industrial and residential developments, the California Environmental Protection Agency’s, and the Department of Toxic Substances Control California Human Health Screening Levels (CHHSL). According to their publication, environmental screening levels (ESL) are to be used as Tier 1 guidelines. In other words the presence of a chemical at concentrations in excess of an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring, but indicates that a potential for adverse risk may exist and that additional evaluation is warranted.

In general, the ESLs facilitate a site review, including comparison of contaminant levels with standards, review of remediation plans and procedures and review of closure documentation and limitations on future land use. Other standards, such as the Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) have been developed to establish hazardous materials concentrations for industrial sites and landfills.

---

6 California Environmental Protection Agency, 2005, Screening of Sites with Contaminated Soil and Groundwater, CALEPA.

7 California Environmental Protection Agency, 2005, Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, CALEPA.
through work completed by the DTSC. Most of this information can be found through a search of environmental databases and file review at local agencies. Regulatory agencies maintain a database of properties and businesses affected by contamination or properties and businesses where there is significant risk from contamination due to use, storage, or disposal of hazardous materials, underground fuel tanks, or other hazards.

c. Local Hazardous Materials Oversight

In the Specific Plan Area, hazardous materials and contaminants are locally regulated through the Santa Rosa Fire Department (SRFD). The SRFD operates as a Certified Unified Program Agency (CUPA). CUPA programs include the Hazardous Materials Business Plan Program, Hazardous Waste Program, Underground Storage Tank Program, Accidental Release Program and the portions of the Uniform Fire Code that address hazardous materials. General program requirements include inspections of businesses and review of permit conditions and procedures for the handling, storage, use and disposal of hazardous materials. The Hazardous Materials Business Plan is used to keep track of the use of hazardous materials by businesses in accordance with both State and federal laws. The Hazardous Waste Generator Program is based on the Hazardous Waste Control Law found in the California Health and Safety Code Division 20, Chapter 6.5 and regulations found in the California Code of Regulations, Title 22, Division 4.5.8

The SRFD also administers the local oversight program (LOP). The LOP oversees the investigation and cleanup of fuel releases from underground storage tanks. Sites are entered into the LOP when a release from an underground tank is reported. A similar program provides for the permitting, monitoring and surveillance of septic tanks, chemical toilets and vaults, as well as abandonment and disposal of septic waste within Sonoma County.

---

The Santa Rosa Industrial Waste Program enforces regulations issued to businesses that discharge wastewater into the Santa Rosa Sub-regional Water Reclamation System. The Industrial Waste Program consists of inspections, monitoring and permitting of businesses to ensure their compliance.\(^9\)

First responders to hazardous material emergencies could be the SRFD or hazardous material specialists such as the Sonoma County Hazardous Materials Response Team. State law requires that first responders to a release of hazardous materials have a minimum 40 hours of training in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard.\(^10\)

d. **Hazardous Material Regulatory Enforcement**

Enforcement of environmental regulations depends upon both public and private reporting of spills, leaks, or other violations. The Santa Rosa Police Department Environmental Crimes Unit also provides enforcement. Officers in this program have specialized training in environmental crime investigations and hazardous materials recognition and work closely with regulatory specialists from other City departments such as the SRFD Hazardous Materials Team; Utilities Department Industrial Waste Section; Community Development Building Code Inspectors; and the Public Works Department Storm Water Management Program, to ensure that environmental regulations are adhered to.

The Sonoma County Environmental Health Division is charged with administering the State of California’s Medical Waste Program. Regulation of potentially hazardous pesticide and herbicides is under the jurisdiction of the Sonoma County Agricultural Commissioner. The City of Santa Rosa Public Works Department administers the Stormwater Management Program that is

---


\(^10\) Code of Federal Regulations, Title 29, Section 1910.120 Hazardous Waste Operations Training.
designed to reduce urban runoff from polluting local waterways through use of best management practices, monitoring and other techniques.

B. Existing Conditions

This section discusses the existing conditions in regards to hazards and hazardous materials within the Specific Plan Area.

1. Historical Hazardous Materials

There is a long history of hazardous materials use and storage that is directly related to the types of industries that have operated in the Specific Plan Area. Downtown Santa Rosa developed rapidly following arrival of the railroad in 1870 with the construction of warehouses and mills. The 1894 Sanborn Map in the vicinity of the old railroad station shows a wool mill and several fruit packing warehouses. Later in 1908, several new storage facilities were added, including a lacquer tank. As automobiles became popular, service stations and automotive repair facilities opened with accompanying storage and use of petrochemicals. Agricultural supply warehouses have continued to operate and the Western Farm Center is still operating on 7th street. Other industries have occupied the larger parcels in undesirable areas such as next to Highway 12 and the railroad tracks. Industrial parcels include wrecking yards, cement factories and various corporate yards. Much recent contamination is associated with leaking underground fuel tanks, especially older tanks placed in the 1970’s and 1980’s, while remnant contamination from old lead paint or asbestos containing building materials persists in many older structures.

2. Hazardous Materials Records Review

An Environmental Data Resources (EDR) report was obtained for the area within one-mile radius of the proposed railroad station between 4th and 5th street, including the entire Specific Plan Area. Federal databases that reported sites within the Specific Plan Area are CERCLIS, CERCLIS-NFRAP and
RCRA. State and local databases include REF, CORTESE, LUST, CA FID, CA SLIC, UST, HIST UST, SWEEPS and NOTIFY 65. Many sites are reported in multiple databases.12

a. Federal Review
   CERCLIS, the Comprehensive Environmental Response, Compensation and Liability Information System, contains sites proposed or on the National Priorities List. These sites have been reported to the federal Environmental Protection Agency (EPA). Only one site was documented to be on the list and likely require further remediation. That site is called C&D Batteries, a division of Electra Corporation at 265 Roberts Avenue. Another site, the PG&E Gas Plant at 5th and Mendocino is listed in the CERCLIS-NFRAP database (no further remedial action planned). C&D Batteries is reported for lead contaminated soil and generating aqueous solution with less than 10 percent organic residue.

   Resource conservation and recovery act (RCRA) sites transport, store, treat and/or dispose of significant volumes of hazardous waste. Reported sites are Westside Foreign Auto at 12 West 3rd Street, Burt Olhiser Painting at 206 West 6th Street and De Paz Autobody at 77 West 3rd Street. Westside Foreign Auto is reported for leaking waste oil, storing aqueous solution with less than 10 percent total organic residues and oil/water separation sludge. The other businesses are small quantity waste generators with no reported violations.13

b. Local Review
   The distribution of hazardous materials sites is controlled by zoning and proximity to transportation corridors. Residential areas have few sites, while

---

there are many sites along the railroad corridor near Downtown Santa Rosa. There is also a concentration of sites east of Santa Rosa Plaza in the area between Mendocino Avenue and B Street. Older service stations and other businesses with fuel storage tanks occasionally leaked petroleum hydrocarbons such as gasoline or diesel fuel from underground tanks. Other businesses with contaminant issues are automotive repair sites or maintenance yards, which have a high risk from leaking petrochemicals, solvents and other hazardous materials. Other types of businesses found through the environmental database search include utility plants, cement factories and even restaurants that may maintain significant volumes of oil and grease considered hazardous.

Due to the close proximity of sites, there may be an area-wide contamination issue, rather than that constrained to individual sites. The primary factor controlling the spread of subsurface contamination is shallow groundwater and groundwater flow. The flow of groundwater may be constrained through the network of monitoring wells often constructed about sites with contaminated groundwater. The “geotracker” database maintained by the State of California includes this information, some of which was included in the EDR report. The EDR report also summarized some basic information about groundwater. According to their map, groundwater flow in the area is generally westerly, except near Santa Rosa Creek, where subsurface flow is influenced by seepage into the creek and is therefore southwesterly north of the creek and northwesterly north of the creek. The depth to groundwater in the area is recorded at between 7 and 25 feet below the ground surface, but mainly between 9 and 15 feet in depth.

While there may be general low-level contamination of groundwater due to industrial history within the Specific Plan Area this could be difficult to trace to one source. Remediation will likely be completed on a site-specific basis in accordance with general protection for the underlying aquifer and well protection. Moreover, there would be future enhancement of the underlying aquifer if industrial areas prone to pollution were replaced with environment-
tally engineered parking and housing structures designed to protect underly-
ing groundwater.

3. Sub-Area Hazardous Material Summary
The Specific Plan Area is divided into Sub-Areas with specific land use planning designations. These are described below in terms of the known potential environmental hazards. A majority of the identified hazards are from fuel leaks of gasoline or diesel oil. Most of these sites were cleaned up to a level satisfactory to Sonoma County and/or the Regional Water Quality Control Board. Other sites present a hazard due to storage of materials such as fertilizer, muriatic acid, or other products that are potentially hazardous. There are several concrete yards and warehouses. The Specific Plan calls for many of these areas to be redeveloped for residential and mixed use to promote local economic growth and create a base population that will commute via the proposed transit system. These sites are listed in Table 4.6-1 identified by location on Figure 4.6-1.

a. Courthouse Square
The Courthouse Square Sub-Area is one of the largest and includes several sites with a history of fuel leaks, notably the old hospital site on A Street in the western portion, where an underground storage tank released diesel fuel in 1991. Subsequently, contaminated soils were excavated and disposed of and the case was closed on August 11, 1998.

Another site is the Greyhound bus depot at 416 B Street, which was reported for a minor leak of diesel requiring no further remedial action. AT&T communications at 520 East 3rd Street was reported for a minor leak of gasoline with no further action required. Aside from these sites the most serious inci-
dents reported in any database were a minor leak of gasoline in 1990 north of National Bank of the Redwoods and a diesel leak at 90 Santa Rosa Avenue, where contaminated soil was excavated and disposed of.
### Table 4.6-1 Location of Hazardous Material Sites by Sub-Area

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Hazardous Material Site</th>
<th>Site Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courthouse Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 1</td>
<td>Old Hospital Site</td>
<td>437 A Street</td>
</tr>
<tr>
<td>CS 2</td>
<td>Greyhound Bus Depot (former)</td>
<td>416 B Street</td>
</tr>
<tr>
<td>CS 3</td>
<td>AT&amp;T Communications</td>
<td>520 East 3rd Street</td>
</tr>
<tr>
<td>CS 4</td>
<td>National Bank of the Redwoods</td>
<td>90 Santa Rosa Avenue</td>
</tr>
<tr>
<td>Railroad Square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS 1</td>
<td>N.W.R.R</td>
<td>20 West 6th Street</td>
</tr>
<tr>
<td>RS 2</td>
<td>Occhipinti One Step Service Center</td>
<td>210 Fifth Street</td>
</tr>
<tr>
<td>RS 3</td>
<td>Shell Gas Station</td>
<td>200 Fourth Street</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RC 1</td>
<td>Chevron Chemical, Purity Products</td>
<td>1005 Cleveland Avenue</td>
</tr>
<tr>
<td>RC 2</td>
<td>Kaiser Sand and Gravel Company</td>
<td>1060 Maxwell Drive</td>
</tr>
<tr>
<td>RC 3</td>
<td>Purity Products #</td>
<td>4 Maxwell Court</td>
</tr>
<tr>
<td>RC 4</td>
<td>City of Santa Rosa Corporate Yard</td>
<td>819 Donahue Street</td>
</tr>
<tr>
<td>RC 5</td>
<td>Santa Rosa Ice and Cold Storage</td>
<td>806 Donahue Street</td>
</tr>
<tr>
<td>RC 6</td>
<td>Grace Property</td>
<td>802 and 803 Donahue Street</td>
</tr>
<tr>
<td>RC 7</td>
<td>Westside Engine &amp; Machine / Westside Foreign Auto</td>
<td>12 W 3rd Street</td>
</tr>
<tr>
<td>RC 8</td>
<td>Mead Clark Lumber Supply</td>
<td>175 Railroad Street</td>
</tr>
<tr>
<td>RC 9</td>
<td>Yellow and Roadway Freight</td>
<td>270 Dutton Avenue</td>
</tr>
<tr>
<td>RC 10</td>
<td>Shell Gas Station</td>
<td>255 Dutton Avenue</td>
</tr>
<tr>
<td>RC 11</td>
<td>DZ Inc, Shell Bulk Plant</td>
<td>257 Dutton Avenue</td>
</tr>
</tbody>
</table>
### Table 4.6-1: Location of Hazardous Material Sites by Sub-Area (Continued)

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Hazardous Material Site</th>
<th>Site Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 12</td>
<td>McGowan Auto Wrecking Yard</td>
<td>112 Holbrook Street</td>
</tr>
<tr>
<td>RC 13</td>
<td>C&amp;D Batteries</td>
<td>265 Roberts Ave</td>
</tr>
<tr>
<td>RC 14</td>
<td>Allefax</td>
<td>1 Sebastopol Road</td>
</tr>
<tr>
<td>RC 15</td>
<td>Pt. St. George Fisheries</td>
<td>8 Sebastopol Avenue</td>
</tr>
</tbody>
</table>

#### Historical Residential

| HR 1      | Sonoma County Water Agency        | 330 Hewett Street    |

#### Residential Areas

| RA 1      | 10th Street Partnership           | 24 Tenth Street      |

Note: For a complete list of hazardous material sites and hazardous material site descriptions see Appendix E.

* This site was identified during a site visit by Questa Engineering Corporation and is not identified in the Environmental Data Resources Report.

Source: Environmental Data Resources, Inc., 2006.

---

b. Railroad Square

The Railroad Square Sub-Area includes a visitor’s center and railroad museum housed in the old station building. East of the tracks are coffee shops and small retail shops. N.W.R.R. is a nearby site reported in the databases searched in this area. The N.W.R.R. site is located at 20 West 6th Street, was reported for an active underground storage tank.

The eastern portion includes a Shell gas station and the Occhipinti One Step Service Center that was reported for a leaking underground storage tank with release of MTBE, as well as for use, storage and disposal of common chemicals at automotive sites such as waste oil and aqueous solution with less than 10 percent total organic residue and hydrocarbon solvents like benzene.
FIGURE 4.6-1
HAZARDOUS MATERIALS SITES
c. Railroad Corridor

The railroad corridor includes several former and existing industrial and commercial warehouse sites, as well as several automotive repair businesses. The auto repair businesses store and use various common petrochemicals, including gasoline, motor oil, hydraulic oil and waste oil. In addition to these businesses with registered potentially hazardous materials there are several larger installations, including the Chevron Chemical and Purity Products at 1005 Cleveland Avenue and the Kaiser Sand and Gravel Company at 1060 Maxwell. Both Chevron Chemical and the Kaiser Sand and Gravel Company were reported in the Notify 65 database, but are not reported for any particular contaminant. Kaiser Sand and Gravel was reported in the Cortese database, but with no apparent violation. Not included in any database was Purity Products at 4 Maxwell Court. During the inspection on January 17, 2006, this company was observed to be storing hazardous chemicals, including muriatic acid, within 100 feet of the railroad track in closed drums and polycarbonate containers on a concrete slab next to the building.14

The largest industrial parcel located immediately northwest of the Railroad Square Sub-Area is occupied by the Western farm center, which retails and wholesales feed and supplies for pets and livestock. Sites with potentially hazardous materials in the immediate vicinity include an old city corporate yard at 819 Donahue Street, the Grace property at 802 and 803 Donahue Street and Santa Rosa Ice and Cold Storage at 806 Donahue Street. The Grace property was reported to the regional water quality control board, but the problem was not indicated. Santa Rosa ice and cold storage was reported for unspecified oil containing waste and historic underground diesel tanks. A leak of gasoline in 1987 from the corporate yard was remedied through excavation and removal of contaminated soil and use of biodegradation.

South of the Railroad Square Sub-Area and north of Highway 12 are the Westside Engine and Machine and Westside Foreign Auto. Westside Engine

---

14 Questa Engineering Corporation, 2006, Observations during site reconnaissance.
and Machine at 12 West 3rd Street has an inactive underground fuel tank. Westside Foreign Auto at 12 West 3rd Street was listed for waste oil, oil/water separation sludge and aqueous solution with less than 10 percent total organic residues.

An environmental impact report (EIR) for the entire proposed Sonoma Marin Area Rail Transit (SMART) system from Healdsburg to Larkspur was certified in July of 2006. The report includes a discussion of hazardous materials along the Santa Rosa segment. Identified sites in the Specific Plan Area included the former Mead Clark lumberyard at 175 Railroad Avenue and multiple facilities in the 100-300 block of West 3rd Street. These sites were listed for possible contamination of soils and groundwater with petroleum hydrocarbons and solvents with low potential to affect the Specific Plan.

Potential impacts during construction that were identified were exposure to phenol, creosol or aerial deposited lead. These compounds may be contained in railroad timbers and could have leached into soils near road grade crossings and other areas where track improvements would be needed, or other grading planned. These represent an exposure risk from possible inhalation.

Southwest of the Highway 12 and Highway 101 Intersection is the McMinn Avenue State Superfund Site Area, with a history of mixed industrial uses centered on Sebastopol Avenue. Businesses with reported environmental contamination include Allefax, Point St. George Fisheries, Yellow and Roadway Freight, C&D Batteries, and the former McGowan Auto Wrecking yard. C&D Batteries is listed in the federal EPA database for lead contamination, while another site, Yellow Roadway Freight, had a sample of drinking well water taken in 1993 that was found to contain carbon tetrachloride and chloroform. The DZ Inc., Shell Bulk Paint, located at 257 Dutton Avenue is contained in the NOTIFY 65 Emissions database for emissions of organic hydrocarbon and reactive organic gases, each reported to be emitted at a rate of 2 tons per year in 1987 and 6 tons per year in 1990. Continuing emissions

---

15 http://www.sctainfo.org/smart.htm
could pose a significant environmental concern. Several vehicle service stations are also present or were recently operating, including franchises owned by Shell among other gas station retailers. The primary hazard from these businesses is of a leak from an underground storage tank spreading gasoline and the gasoline additive methyl-tertiary butyl ether (MTBE), or diesel fuel into soil and groundwater.

Contamination in the area is well documented through a series of remediation and cleanup efforts starting in the 1980s and continuing today with ongoing monitoring of groundwater and soil. These cases were summarized in a status report by the Sonoma County Environmental Health Department, Santa Rosa Division, in 2001. According to the report, the Regional Water Board is continuing to collect samples throughout the McMinn Avenue State Superfund Site Area to assess the health threat from exposure to groundwater to residents with domestic wells, and determine the extent and potential remaining sources of volatile organic compound (VOC) and methyl-tertiary butyl ether (MTBE) contamination in groundwater.

d. Park and Gardens
The Park and Gardens Sub-Area at the southeast edge of the Specific Plan Area is the only Sub-Area with no reported environmental sites probably due to its small area and lack of historical industry or fuel tanks.

e. Historic Residential
The Sonoma County Water Agency yard at 330 Hewett Street, was reported for an underground fuel tank that leaked.

f. Residential Areas
There are several industrial sites and gas stations where new residential areas are proposed in the Specific Plan. This includes the 10th Street Partnership, which was reported for another leak of gasoline with MTBE detected. Con-

---

16 County of Sonoma Environmental Health Department, City of Santa Rosa Unit, January 11, 2001, Summary and Status Report on Implementation of the Roseland Plan of Action and Cleanup Actions in the McMinn Avenue Superfund Site.
taminated soil from this site was also excavated and removed. In the residential area proposed northeast of the intersection of Highway 101 and Highway 12 is a reported dry cleaner with air emissions and a few other gasoline and diesel leaks.

g. Imwalle Gardens
No sites were identified within this Sub-Area.

4. Wildfire Hazards
The Specific Plan Area is within and surrounded by a highly urbanized area and is not perceived to be threatened by possible wildfires.

5. Airport Hazards
The nearest airport, Sonoma County airport at 2200 Airport Boulevard, is located 6.5 miles northwest of the Specific Plan Area. The comprehensive Airport Land Use Plan for Sonoma County indicates the Outer Safety Zone (OSZ) ends at Guerneville Road, north of the Specific Plan Area.¹⁷

C. Standards of Significance

The Specific Plan would have a significant impact regarding hazards and hazardous materials if it would:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

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.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. Be 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 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.

D. Impact Discussion

This section discusses potential impacts that could occur regarding hazards and hazardous materials. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. An impact could result if development causes hazardous materials transport, use and storage to occur in close proximity to residences, commercial business or other population centers and endanger the public. An impact could also
occur if development creates an environment where hazardous materials could easily contaminate surrounding soil, water and air. The most likely scenarios would be from rainwater runoff spreading contaminated waste, leaking tanks or drums, or from an industrial accident causing a fire or explosion.

Proposed residential and commercial or retail usage includes storage, use and disposal of potentially hazardous materials, but not in sufficient quantities to pose a significant hazard to the public or environment. The risk from reasonably foreseeable upset or accident conditions involving the release of hazardous materials is discussed below.

Since the Specific Plan calls for a reduction in industrial zoning there should be a decreased risk from an industrial accident, chemical spill, or other such accident most foreseeable on an industrial site. Under the Specific Plan the greatest increase in land use will be residential and to a lesser extent, commercial/retail. As a result, the existing General Plan policies are considered adequate to mitigate for this risk to a less-than-significant impact.

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.

While significant new routine, use, storage and disposal of hazardous materials would not occur under the Specific Plan, there will be a significant increase in population and greater usage of common and potentially hazardous household cleaners, use of pesticides and herbicides to maintain landscape and control pests and a greater need for vehicle maintenance, railroad maintenance, etc.

The Specific Plan calls for a reduction of heavy industry with a general increase in moderate to high-density residential units and mixed commercial and retail use. As a result, there will be an overall reduction in the risk of industrial accidents endangering the surrounding community and environment. However, there will be an increased population and development of
potentially hazardous infrastructure such as natural gas pipelines, storage of potentially hazardous chemicals in a commercial or retail setting, additional use of landscaping and cleaning chemicals and increased population requiring basic garbage or litter disposal, as well as special disposal of used motor oil, antifreeze, paint, batteries, etc.

Existing General Plan Policies NS-E-1 through NS-E-6 are already aimed at reducing the risk from accidental release of chemicals, waste or other hazardous materials. Policies NS-E-4, NS-E-5 and NS-E-6 specifically address the accidental release of hazardous materials. Implementation of these measures will be critical to reducing the risk from a hazardous materials spill. Particularly pertinent is reduction and cleanup of spills of normal household hazardous wastes as this is the biggest growth area proposed in the Specific Plan. However, since the Specific Plan would result in a projected increase of 3,250 residential units and employment uses, the increased risk from an accidental spill, fire, or other accident associated with the increase in development is considered a significant impact.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Schools already exist within the Specific Plan Area. Therefore, any hazardous emissions or handling of hazardous waste in the Specific Plan Area would be considered a potentially significant impact. However, the Specific Plan does not include development of factories or other major emitters, and the Specific Plan would reduce industry most likely to involve the handling of large volumes of hazardous materials. General Plan policies and other existing restrictions are considered adequate mitigation. The impact is considered less than significant.

d. Be 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 it create a significant hazard to the public or the environment.
There are several environmentally sensitive sites with a history of contamination in the Specific Plan Area. There are also industrial sites that have not yet been evaluated, but are considered likely to have some remnant contamination of soil and underlying groundwater. These sites pose an existing threat to soil and groundwater, a threat to workers during construction from exposure and to a lesser extent to future occupants and visitors to the site. Post development impacts depend upon the nature of the new development. Replacement of industrial areas with environmentally engineered commercial and residential development is expected to lower public risk from hazardous materials exposure.

The general exposure risk to future railroad users, residents and visitors within the plan area from hazardous materials is expected to be negligible since the railroad is not proposed for hazardous material freight and new development is not expected to permit use of hazardous materials. The greatest exposure risk is likely to occur during site redevelopment, when excavation or construction may expose and potentially spread contaminated soil and debris from impacted areas. Contamination would most likely be spread through surface runoff, wind blown dust, or groundwater seepage.

Identified construction and demolition hazards include inhalation of possible asbestos, lead and creosote associate with old structures and railroad ties; and general exposure associated with site redevelopment, including remediation. Certain sites will require closure of existing hazardous material storage facilities. These sites may contain lingering contamination that will need remediation.

In order to protect worker safety on these sites a health and safety plan will need to be developed including provisions for personal protective equipment such as respirators, impermeable clothing and gloves. Other sites that have had leaks or documented contamination that have been remedied to no further action levels may require reevaluation when redeveloped. This will require some oversight, where applicable, by the Santa Rosa Fire Department, Department of Toxic Substances Control, Regional Water Quality Control...
Board, or another jurisdiction, to determine if the remediation is adequate for the proposed land use (such as changes in land use from industrial to residential). The level of exposure risk on these sites would be variable. Finally, sites with no hazards or hazardous materials outside of normal construction related risks would have a low exposure risk. Development of sites on hazardous materials lists is considered a significant impact.

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.
An impact would occur should development interfere with air traffic and increase the risk of a crash by impinging upon airspace. This is most likely to occur should high-rise development alter takeoff and landing routes. However, the nearest airport is located six to seven miles northwest of the Specific Plan Area. Given the distance from the Specific Plan Area, the impact to and from public aviation is considered less than significant.

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.
An impact would occur should development increase the risk of a private aircraft crashing and therefore endanger both passengers and those on the ground. This risk is often more difficult to predict than the risk from large commercial aircraft due to the variability in flight paths and range of pilot experience. Private aircraft also tend to fly nearer the ground where there is an increased risk from collision. However, as there are no private airstrips in close proximity and considering building height restrictions, the impact is considered less than significant.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
An impact would occur should development not include adequate emergency access and evacuation plans. In the event of a fire, explosion, earthquake, or
even a terrorist attack, an emergency response and evacuation plan is used to coordinate the response from firefighters, police and other personnel who have the job of saving lives and reducing casualties. Lack of a plan could be disastrous by hindering response time and critical access and evacuation routes.

Currently, Santa Rosa is developing a plan with the Sonoma County Office of Emergency Services. This plan is always being updated to address changing land use and development needs. The dynamic plan requires open access and traffic controls on the major roads, building plans in accordance with the fire code and use of a sophisticated communications network between responders.

Policy NS-A-1 under the General Plan requires the City to maintain the Emergency Operations Plan as the City’s disaster response plan and to work with Sonoma County to update joint-emergency response and disaster response plans, as needed. Furthermore, Policy NS-A-3 requires the establishment of a community program to train volunteers to assist police, fire, and civil defense personnel during and after disasters.

While taken together, these existing goals, policies and guidelines would reduce the environmental impact of interference with an emergency access or evacuation plan; however, the scope of new development and potential for interference is such as to still represent a significant impact.

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.

There would be an impact if there is a risk from a wildland fire spreading to neighboring development. Such a conflagration could cause severe damage, injury and loss of life. However, since the Specific Plan Area is urbanized and does not border wildlands this is considered to have no impact.
2. Cumulative Impacts

Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to hazards and hazardous materials. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to result in a hazards-related impact would be reduced to a less than significant level. Because neither the Specific Plan nor any of the reasonably foreseeable development would involve the transport, use or disposal of significant amounts of hazardous materials that would not be closely monitored and regulated, they would not cumulatively result in hazardous environmental impacts.

The Specific Plan focuses on redevelopment and proposes less industrial area, where hazardous materials are permitted, in exchange for more residential and mixed commercial area where they are not expected to have an impact from hazardous materials. Remaining uses that utilized hazardous materials, are allowed under the terms of the Hazardous Materials Business Plan Program and other related programs. Provided these programs and other Certified Unified Program Agencies designed to regulate the storage, use and disposal of hazardous materials related with the Specific Plan would not contribute to a significant cumulative impact.

E. Impacts and Mitigation Measures

Impact HAZ-1: The increased risk from an accidental spill, fire, or other accident associated with the increase in development is considered a significant impact.

Mitigation Measure HAZ-1a: Each sub-development in the Specific Plan area shall be required to prepare and implement a post development Stormwater Pollution Prevention Plan (SWPPP) to prevent runoff from dumpsters, maintenance areas and other areas where potentially hazardous or hazardous materials are stored or used from discharging into site
waterways and into Santa Rosa Creek. This plan shall be approved by the City in conjunction with design approval for the project. The SWPPP plan shall include, but not be limited to the following:

1. Location of dumpsters and the location of hazardous and potentially hazardous materials storage, including paints, cleaning agents, petrochemicals, and any other potentially hazardous materials storage facilities. The plan shall include details showing coverings and berms to prevent intrusion of rainwater and prevent escape of runoff. Location of signs prohibiting littering and illegal dumping, as well as signs detailing garbage collection services and emergency contacts in the event of a spill.

2. Maintenance and cleanup schedule. This shall include procedures and schedules for sweeping, protecting storm drain inlets from contaminated runoff, cleaning up spills, and eliminating the majority of litter and debris washing into storm drains that may enter local waterways. Regular sweeping is a simple and effective BMP aimed at reducing the amount of litter in storm drain inlets (to prevent clogging) and public waterways (for water quality). The project applicant shall enter into an agreement with the City of Santa Rosa to ensure this maintenance is completed.

Mitigation Measure HAZ-1b: Registration and compliance with the Hazardous Materials Business Plan (HMBP), Hazardous Waste Generator Program and Accidental Release Program, wherever applicable, is required for businesses with the following quantities of hazardous materials: at least 55 gallons (liquids), 500 pounds (solids) or 200 cubic feet (gases).

Significance After Mitigations: Less than significant.

Impact HAZ-2: Development of sites on hazardous materials lists is considered a significant impact.
Mitigation Measure HAZ-2a: Developers shall be required to complete a Phase 1 environmental site assessment for each property to be redeveloped. Should the Phase 1 ESA determine a need for additional sampling and testing to determine the extent of any contamination then a Phase 2 shall be completed with sampling and testing of soil and groundwater if applicable. Should contamination be found at potentially harmful levels the developer shall complete site remediation in accordance with Mitigation Measure HAZ-2B.

Mitigation Measure HAZ-2b: Developers shall complete site remediation in accordance with OSHA Standards, Santa Rosa Fire Department, Sonoma County Environmental Health Department and State Water Resources Control Board Guidelines. The Department of Toxic Substances Control (DTSC) may become involved wherever toxic levels of contamination are found that pose an immediate hazard. Remediation shall reduce human exposure risk and environmental hazards both during and after construction. The remediation plan shall be prepared in accordance with recommendations of the environmental consultant and established procedures for safe remediation. Specific mitigation measures designed to protect human health and the environment will be provided in the plan. Requirements shall include, but not be limited to the following:

1. Documentation of the extent of previous environmental investigation and remediation at the site, including closure reports for Underground Storage Tanks (UST’s) and contaminant concentrations.

2. A site specific Health and Safety Plan (HASP) to be prepared by all contractors at the project site, where applicable. This includes a HASP for all demolition, grading and excavation on the site, as well as for future subsurface maintenance work. The HASP shall include appropriate training, any required personal protective equipment, and monitoring of contaminants to determine exposure. The HASP will be reviewed and approved by a Certified Industrial Hygienist.

3. Description of protocols for the investigation and evaluation of previously unidentified hazardous materials that could be encountered
during project development, including engineering controls that may be required to reduce exposure to construction workers and future users of the site.

4. Requirements for site-specific construction techniques that would minimize exposure to any subsurface contamination, where applicable. This shall include treatment and disposal measures for any contaminated groundwater removed from excavations, trenches, and dewatering systems in accordance with local and Regional Water Quality Control Board guidelines.

5. Sampling and testing plan for excavated soils to determine suitability for reuse or acceptability for disposal at a State licensed landfill facility.

6. Restrictions limiting future excavation or development of the subsurface by residents and visitors to the proposed development, and prohibition of groundwater development should it be determined from test results.

7. Completion of an approved remediation plan should land use restrictions be insufficient to allow development to proceed safely. Remediation measures may include excavation and replacement of contaminated soil with clean fill, pumping and treatment of groundwater, thermal treatment, etc.

Significance After Mitigations: Less than significant.

Impact HAZ-3: Environmental impact of potential interference with an emergency access or evacuation plan is considered a significant impact.

Mitigation Measure HAZ-3a: The Fire Department shall review construction plans for roadway modifications, and establish temporary alternative emergency routes necessary for the duration of the construction project. During design review the City shall ensure that roads and driveways are established that meet ordinance and uniform building code requirements for emergency access. The Fire Department shall also re-
view building plans for compliance with the Fire Code and establish future inspection schedule for continuing compliance.

Mitigation Measure HAZ-3b: The City shall revise the current City of Sonoma and County Emergency Services Plan to reflect new development. It is recommended that any adopted emergency response or evacuation plan include training provisions such as those adopted through the Community Emergency Response Team (CERT) program.

Significance After Mitigations: Less than significant.
This section characterizes the hydrologic setting of the Specific Plan Area and provides an evaluation of the effects the Specific Plan would have on water resources, flooding and water quality.

A. Regulatory Framework

This section summarizes key federal, State and city statutes, regulations and policies that would apply to the Specific Plan.

1. Federal Laws and Regulations

a. Federal Emergency Management Agency
The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA, with the minimum level of flood protection for new development determined to be the 1-in-100 annual exceedence probability (AEP) (i.e. the 100-year flood event). FEMA maps have been prepared for the Specific Plan Area.1

b. Federal Clean Water Act
The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA as well as the states. Various elements of the CWA address water quality. These are discussed below. Wetland protection elements administered by the U.S. Army Corps of Engineers (USACE) under

Section 404 of the CWA, including permits to dredge or fill wetlands, are discussed in Section 4.7, Biological Resources.

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State’s water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to the nine regional water quality control boards (RWQCBs).

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point-source dischargers (municipalities and industries), Section 303(d) requires that the State develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The TMDL prepared by the State must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows the linkage between loading reductions and the attainment of water quality objectives. The EPA must either approve a TMDL prepared by the State or, if it disapproves the State’s TMDL, issue its own. National Pollutant Discharge Elimination System (NPDES) permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL. After implementation of the TMDL, it is anticipated that the problems that led to placement of a given pollutant on the Section 303(d) list would be remediated.

Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of
the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the EPA has designated the SWRCB and its RWQCBs with authority to identify beneficial uses and adopt applicable water quality objectives.

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring and other activities.

In November 1990, the EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase 1 of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. Phase 1 also applied to stormwater discharges from a large variety of industrial activities, including general construction activity if the project would disturb more than five acres. Phase 2 of the NPDES stormwater permit regulations, which became effective in March 2003, required that NPDES permits be issued for construction activity for projects that disturb between one and five acres. Phase 2 of the municipal permit system (known as the NPDES General Permit for Small MS4s) required small municipal areas of less than 100,000 persons to develop stormwater management programs. The RWQCBs in Cali-
fornia are responsible for implementing the NPDES permit system (see additional information below).

2. State Laws and Regulations
a. Water Quality
In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking water regulations), the California Department of Pesticide Regulation, the California Department of Fish and Game (CDFG) and the Office of Environmental Health and Hazard Assessment.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Specific Plan Area is within the jurisdiction of the North Coast RWQCB.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) of 1969 is California’s statutory authority for the protection of water quality. Under the act, the State must adopt water quality policies, plans, and objectives that protect the State’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (Basin Plans). Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives and implementation programs are established for each of the nine regions in California. The Santa Rosa area falls under the Water Quality Control Plan (Basin Plan) for the North Coast Basin. The act also requires waste dischargers to notify

---

2 North Coast Regional Water Quality Control Board, 1995, Water Quality Control Plan (Basin Plan) for the North Coast Basin.
the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWD) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals.

b. Waterways
CDFG requires a Streambed Alteration Agreement prior to any construction activity occurring within the bed, channel or banks of any California river, stream or lake (see Fish and Game Code, Section 1601-1603).

3. Local Programs and Regulations
a. Relevant City of Santa Rosa General Plan Goals and Policies
The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to hydrologic or water quality and flooding issues.

i. Public Services and Facilities Element
Goal PSF-I: Manage, maintain and improve stormwater drainage and capacity.

♦ Policy PSF-I-1: Require dedication, improvement and maintenance of stormwater flow and retention areas as a condition of approval.

♦ Policy PSF-I-2: Require developers to cover the costs of drainage facilities needed for surface runoff generated as a result of new development.

♦ Policy PSF-I-3: Require erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.

♦ Policy PSF-I-4: Require measures to maintain and improve the storm drainage system, consistent with goals of the Santa Rosa Waterways Plan, to preserve natural conditions of waterways and minimize paving of creek channels.

♦ Policy PSF-I-5: Cooperate with the Sonoma County Water Agency and the Northern California Regional Water Quality Control Board to con-
duct regular assessment of stormwater drainage facilities, to ensure that adequate drainage capacity is maintained throughout the system to accommodate increases in residential and commercial development.

♦ Policy PSF-I-6: Require implementation of Best Management Practices to reduce stormwater discharge of non-point source pollutants originating from streets, parking lots, residential areas, businesses, industrial operations and those open space areas involved with pesticide application.

♦ Policy PSF-I-7: Prepare and distribute information to increase awareness of businesses and residents about the need to reduce drainage system discharge of non-point source pollutants.

♦ Policy PSF-I-8: Develop a Standard Urban Stormwater Mitigation Plan (SUSMP) to reduce pollutants and runoff flows from new development and significant redevelopment projects.

♦ Policy PSF-I-9: Consider installation of creekside pathways, consistent with the City’s Bicycle and Pedestrian Master Plan, when possible as part of stormwater improvement projects along the City’s creek corridors.

ii. Noise and Safety Element
NS-C Prohibit development in high-risk geologic and seismic hazard areas to avoid exposure to seismic and geologic hazards.

♦ Policy NS-C-7: Require inspection for structural integrity of water storage facilities, water conveyance facilities, electricity transmission lines, roadways, water detention facilities, levees, and other utilities after a major seismic event, especially on the San Andreas or Rodgers Creek faults.

Goal NS-D: Minimize hazards associated with storm flooding.

♦ Policy NS-D-1: Ensure flood plain protection by retaining existing open areas and creating new open areas needed to retain stormwater, recharge aquifers and prevent flooding.

♦ Policy NS-D-2: Maintain current flood hazard data and coordinate with the Army Corps of Engineers, FEMA, Sonoma County Water Agency
and other responsible agencies to coordinate flood hazard analysis and management activities.

♦ Policy NS-D-3: Require that new development incorporate features into site drainage plans that would reduce impermeable surface area, increase surface water infiltration and minimize surface water runoff during storm events. Such features may include:
  • Additional landscape areas,
  • Parking lots with bio-infiltration systems,
  • Permeable paving designs, and
  • Stormwater detention basins.

♦ Policy NS-D-4: Incorporate features and appropriate standards that reduce flooding hazards, as described in Policy NS-D-3, into the City’s design standards.

b. Santa Rosa Storm Water Management Plan

In 1997, Santa Rosa was issued a joint NPDES permit with the County of Sonoma and Sonoma County Water Agency (SCWA) by the RWQCB. The NPDES permit identifies the Storm Water Management Plan (SWMP) implemented by the City to control and eliminate stormwater pollution discharge. The City must comply with the provisions of the permit by ensuring that new development and redevelopment mitigate water quality impacts to storm water runoff both during construction and operation periods of projects.

Under direction from the SWRCB, the City prepared a Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP was developed in 2003 as a part of the NPDES permit for the City of Santa Rosa, the County of Sonoma and the SCWA. The purpose of the SUSMP is to manage the quality and quantity of storm water runoff in the Santa Rosa area and to aid in the conservation of natural areas in the region. The SUSMP describes and evaluates various “Best Management Practices” (BMPs) for storm water management and outlines procedures for BMP maintenance and inspection. Both private-sponsored and public capital improvement projects in the Santa Rosa area are governed by SUSMP requirements.
Additionally, a Notice of Intent (NOI) with the RWQCB is required to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. A developer must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the general permit. A SWPPP should include SUSMP BMPs designed to reduce potential impacts to surface water quality during construction of the project.3

c. Flood Control
The Flood Damage Prevention Ordinance (Chapter 7B) of the Sonoma County Code sets measures for the construction, location, alteration, conversion, or alteration of any structures or land contained within FEMA designated flood hazard zones in the county. A permit is required for development within a flood zone, and the development must adhere to the standards for fill placement and construction elevation set forth in the Ordinance.

In addition, the SCWA has adopted Flood Control Design Criteria for the design and construction of drainage structures and facilities within the county. Proposed projects are subject to review by SCWA; alternatives to the Flood Control Design Criteria must be approved prior to construction.4

B. Existing Conditions

This section discusses the existing hydrology and water quality setting of the Specific Plan Area.


1. Climate and Topography

The Specific Plan Area is located in Downtown Santa Rosa, near the juncture of Highway 101 and Highway 12. The topography of the area is generally flat and slopes gently toward the southwest. Ground elevations range from approximately 140 feet above mean sea level (msl) at the western boundary of the Specific Plan Area to 165 feet above msl at the eastern boundary.

The regional climate is characterized as Mediterranean, with dry, mild summers and moist, cool winters. About 80 percent of the total annual precipitation occurs during the months of November through March, with an average annual precipitation of 30 inches. Average monthly temperatures range from a high of 83 degrees Fahrenheit in the summer to a low of 37 degrees Fahrenheit in the winter.¹

2. Regional Hydrology

The Specific Plan Area is contained within the Santa Rosa Creek and Laguna de Santa Rosa sub-watersheds of the greater Russian River watershed (USGS Hydrologic Unit 18010110). Santa Rosa Creek, which passes through the southern portion of the Specific Plan Area, flows into the Laguna de Santa Rosa, which flows into the Russian River and ultimately drains into the Pacific Ocean near the town of Jenner on the Sonoma Coast. Together, the Santa Rosa Creek and Laguna de Santa Rosa sub-watersheds cover approximately 170 square miles in eastern and central Sonoma County.

Both the Santa Rosa Creek and Laguna de Santa Rosa sub-watersheds provide habitat for a number of rare, threatened and endangered species. The Laguna de Santa Rosa is the second largest freshwater wetland complex in Northern California and is an important migratory stopover for over 200 species of birds along the Pacific Flyway. Both the Laguna and Santa Rosa Creek are passageways for Coho salmon, Chinook salmon and steelhead. However, agricultural and urban developments over the past 150 years have significantly degraded the environmental quality of the major waterways of the region.

¹ Western Regional Climate Center, 2006, Period of Monthly Climate Summary for Santa Rosa, California (047965). (http://www.wrcc.dri.edu)
Santa Rosa Creek and the Laguna de Santa Rosa are currently listed on the Clean Water Act Section 303(d) List of Impaired Waterbodies. Impairments for Santa Rosa Creek are indicated to be pathogens, sedimentation-siltation, and elevated water temperature and impairments for Laguna de Santa Rosa are indicated to be excessive sedimentation-siltation, phosphorous, nitrogen, mercury, low dissolved oxygen and elevated water temperatures.\(^6\)

3. **Specific Plan Area Drainage**

Santa Rosa Creek runs from east to west through the southern portion of the Specific Plan Area. Throughout the Specific Plan Area and larger Downtown area, the creek is contained in a trapezoidal channel for flood control purposes. The City is currently in the process of “naturalizing” Santa Rosa Creek in the Downtown area, including removing hardscape elements and providing habitat enhancement. Runoff from the paved surfaces of the Specific Plan Area is collected in curbside gutters and storm drain inlets and routed through the City’s subterranean storm drain system to various outlets along the creek.

In the vicinity of the proposed SMART rail station and in most areas south of the station site, the land within the existing railway easement (approximately 25 to 30 feet on either side of the railroad tracks) is unpaved. There are no storm drain inlets in these areas; surface runoff ponds on top of the soil and gravel beside the railroad tracks and eventually infiltrates into the sub-surface.

4. **Groundwater**

The California Department of Water Resources (DWR) defines State groundwater basins based on geologic and hydrogeologic conditions. According to the DWR, the Specific Plan Area is located in the Santa Rosa Plain Sub-basin of the greater Santa Rosa Valley Groundwater Basin. The primary water-bearing unit of the Santa Rosa Plain Sub-basin is the Merced Formation, a Pliocene marine deposit of fine sand and sandstone with thin interbeds of clay

\(^6\) California State Water Resources Control Board, 2006, Proposed 2006 CWA Section 303 (d), List of Water Quality Limited Segments, SWRCB Draft 303 (d) list release, dated September 15, 2006.
and silty-clay, some lenses of gravel and localized fossils.\textsuperscript{7} Lower water-bearing units in the Santa Rosa Plain Sub-basin include the Glen Ellen Formation and Alluvium.

The City maintains a total of six municipal groundwater wells within the Santa Rosa Plain Sub-basin of the Santa Rosa Valley Groundwater Basin. Two wells are operated primarily to provide some landscape irrigation, and these wells are also permitted by the California Department of Health Services (DHS) to operate during an emergency outage condition; the status of two wells (Farmers Lane Wells No. 1 and 2) were recently changed from emergency to active status (by DHS on July 20, 2005); one well is operated to provide minor amounts of landscape irrigation water supply only; and one well only provides water during an emergency outage condition. Since 2000, the City has only pumped an estimated 161 acre-feet of groundwater from these wells, which averages approximately 27 acre-feet per year (afy) for the last six years. Based on projected future use of the converted Farmers Lane wells, projected City groundwater pumpage is anticipated to be up to 2,300 afy, about 6.6 percent of the City’s projected total water supply, by the year 2020.\textsuperscript{8}

According to a 1982 DWR study,\textsuperscript{9} groundwater quality in the sub-basin is generally in compliance with drinking water quality standards; most groundwater problems in the basin are aesthetic issues associated with high hardness or high concentrations of iron and manganese.\textsuperscript{10} However, low-level contamination of groundwater exists within the Specific Plan Area due to the industrial history of the area. Groundwater quality within the Specific Plan


\textsuperscript{8} City of Santa Rosa, December 12, 2006, \textit{Water Supply Assessment for Downtown Station Area Specific Plan}, page 13.


Area is described in greater detail in Section 4.9, Hazardous Materials, of this EIR.

According to well log data maintained by the DWR, depth to groundwater in the Specific Plan Area ranges between seven and 25 feet below ground surface (bgs), with most groundwater located between nine and 15 feet bgs. Groundwater flow in the area is generally westerly.11 However, based on the relatively shallow depth to groundwater and the depth of the creek channel, some local groundwater is assumed to flow into Santa Rosa Creek on a seasonal basis.

According to the DWR Bulletin 118, a groundwater model for the Santa Rosa Plain Sub-basin was prepared by the DWR in 1982. The 15-year period from 1960-61 through 1974-75 was selected as the study period for the Santa Rosa Plain Sub-basin because it contained a mixture of wet and dry years approximating long-term climatic conditions. Average annual natural recharge for the period 1960 to 1975 was estimated to be about 29,300 af. Average annual pumping during the same time period was estimated to be approximately 29,700 af, indicating that the annual natural recharge and the annual pumping within the sub-basin were essentially in balance.12

5. Flooding

The Specific Plan Area is not located within a flood hazard zone as delineated by the FEMA. No FIRM has been generated for the downtown Santa Rosa area (FEMA Community Panel Numbers 060381-0005, 0006, 0010, and 0011) because the area is considered to be of minimal flood concern.13

C. Standards of Significance

The Specific Plan would have a significant impact regarding hydrology, drainage or water quality if it would:

a. Violate any water quality standards or waste discharge requirements.

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).

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.

d. Create or contribute runoff water, polluted runoff or degrade water quality that would include the following:

   ◆ 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.

   ◆ 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.

   ◆ Otherwise substantially degrade water quality.

e. Create a change in flood potential that would include the following:

   ◆ Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

   ◆ Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
♦ 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.

D. Impact Discussion

This section discusses potential impacts that could occur regarding hydrology, groundwater resources and water quality. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts

a. Violate any water quality standards or waste discharge requirements.

During construction of proposed projects under the Specific Plan, especially during site grading activities, storm water runoff could remove sediment from exposed soil areas, creating an increase in the chance of runoff or wind mobilization, thereby causing increases in sediment loads in nearby stormdrain systems and downstream waterways. Additionally, the grading process uses heavy construction equipment powered with diesel fuel or gasoline, and also requiring motor oil, hydraulic oils, and other potential contaminants. A leak, most common during refueling, could contaminate vicinity waterways. A release of construction materials such as concrete, asphalitic emulsion, or paint could also affect downstream water quality through surface runoff or groundwater seepage. The potential for violation of water quality standards and waste discharge requirements represents a significant impact both during and following construction.

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.

The developments within the Specific Plan Area would utilize municipal water sources, which would include the use of some groundwater. As discussed in more detail in Section 4.13, Utilities, of this EIR, according to the Water
Supply Assessment completed for the Specific Plan, the City will be able to support the growth that would result from the Specific Plan, in combination with existing demands and planned future demands.\textsuperscript{14} In addition, the Water Supply Assessment determined that the groundwater supply would be adequate to support the projected amount of groundwater (2,300 acre-feet per year) anticipated to be pumped as a share of the potable water supply needed to support future growth within Santa Rosa, including the Specific Plan.\textsuperscript{15} As a result, the Specific Plan would not substantially deplete groundwater supplies since it would not result in the need to pump more water than can be supported by the locate groundwater basin.

The areas of development and redevelopment within the Specific Plan Area are previously developed sites, and redevelopment would not significantly alter the area available for recharge of the groundwater aquifer. Since the Specific Plan would not significantly alter groundwater recharge there is a less than significant impact to the groundwater of the area.

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. None of the projects anticipated under the Specific Plan are likely to require substantial alteration of existing drainage patterns that would cause substantial erosion or siltation. Development would occur on a nearly level terrace with minimal required grading and few channels. The only work near major drainage channels would occur adjacent to Santa Rosa Creek or within the Laguna De Santa Rosa Watershed, possibly requiring some bank stabilization or the installation or reconstruction of new stormdrain outfalls. While none of these projects are planned to substantially alter the course of the adjacent waterways, unforeseen circumstances such as uncontrolled grading or place-

\textsuperscript{14} City of Santa Rosa, December 12, 2006, Water Supply Assessment for Downtown Station Area Specific Plan, page 39.

\textsuperscript{15} City of Santa Rosa, December 12, 2006, Water Supply Assessment for Downtown Station Area Specific Plan, pages 32-3.
ment of fill, and unregulated discharge of water, may alter drainage patterns sufficiently to contribute to substantial erosion or siltation.

However, development of sites adjacent to Santa Rosa Creek and Laguna de Santa Rosa Watershed will require permitting with the California Department of Fish and Game and the Sonoma County Water Agency, where applicable. The following describes the potential permits that may be required:

♦ **Streambed Alteration Agreement.** Any portions of the proposed project occurring along the banks of Santa Rosa Creek would be subject to the requirements for a CDFG Streambed Alteration Agreement. Restoration and enhancement of bank areas covered by concrete slabs and rip-rap would be included as part of any project located adjacent to the creek.

♦ **Sonoma County Water Agency Review.** Individual project applicants would be required to submit drainage design plans for review and approval by SCWA for any portions of the project occurring along the banks of Santa Rosa Creek. Applicants would be required to obtain a Revocable License from SCWA prior to construction within the Agency’s property.

In addition, proposed projects under the Specific Plan would be required to comply with existing creek management plans and the City’s General Plan Goals. These require the City to manage, maintain and improve stormwater drainage and capacity. Two policies most pertinent under this Goal are General Plan Policy PSF-I-1 and Policy PSF-I-9. These policies require dedication, improvement and maintenance of stormwater flow and retention areas as a condition of approval.

By complying with existing regulations and permitting processes, the potential impact related to altering drainage patterns and increases in siltation and/or erosion would be reduced to a *less than significant* level.
d. Create or contribute runoff water, polluted runoff or degrade water quality.

Non-point source pollutants (NPS) are washed by rainwater from roofs, landscape areas and streets and parking areas into the drainage network. Development and redevelopment in the Specific Plan Area could increase the levels of NPS pollutants and litter entering Santa Rosa Creek. An increase in NPS pollutants could have adverse effects on wildlife, vegetation and human health. NPS pollutants could also infiltrate into groundwater and degrade the quality of potential groundwater drinking sources.

Pollutant concentrations in site runoff are dependent on a number of factors, including: a) land use conditions; b) site drainage conditions; c) intensity and duration of rainfall; d) the climatic conditions preceding the rainfall event; and d) implementation of water quality BMPs. Due to the variability of urban runoff characteristics, it is difficult to estimate pollutant loads for NPS pollutants. Increases in the levels of oil, grease, petroleum hydrocarbons, organics and toxicants, metals and possibly nutrients are likely. This represents a significant impact.

e. Create a change in flood potential.

Since the Specific Plan Area is not within a designated FEMA flood plain, there is little or no increased risk of exposure of people or structures to flooding or danger of redirecting flood flows. However, development in the Specific Plan Area may result in increased runoff and flows to the municipal storm drain system due to new paving or surfacing, the addition or removal of storm drain inlets, or other changes to the existing storm drain system. Flows contributed by the Specific Plan may have an adverse impact on the capacity of storm drain conveyance within the municipal system, ultimately affecting Santa Rosa Creek and Laguna de Santa Rosa Watershed.

Policy NS-D-3 under the General Plan requires that new development incorporate features into site drainage plans that would reduce impermeable surface area, increase surface water infiltration and minimize surface water runoff during storm events. Furthermore, Policy NS-C-7 under the General Plan
requires inspection of water storage facilities and water conveyance facilities to minimize the possibility of dam failure.

While the existing General Plan policies help to minimize changes to flooding potential, this is considered a significant impact.

2. Cumulative Impacts

Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to hydrology and water quality. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to result in a hydrology or water quality-related impact would be reduced to a less-than-significant level. The Specific Plan would be subject to the same General Plan policies, as well as the mitigation measure identified in this section. Therefore, the development of the lands within the Specific Plan Area is not expected to contribute to a cumulative hydrologic impact to the City of Santa Rosa area.

The Specific Plan calls for increased residential and mixed residential and commercial development. This will require the loss of some current open space consisting mainly of empty industrial tracts and yards. Peak runoff is likely to increase gradually, due to increased impervious surface area, as development proceeds. However, these impacts will be reduced through improvements to the storm drain network identified in Section 4.13 and mitigation measures included in this section, and will not contribute to the cumulative stormwater capacity. Additionally, Policy NS-D-3 under the General Plan requires that new development incorporate features into site drainage plans that would reduce impermeable surface area, increase surface water infiltration and minimize surface water runoff during storm events.

The impact to water quality depends almost entirely upon the effectiveness of best management practices and engineering controls to prevent contaminated runoff, leaks, or spills from entering the storm drain system and area waterways, especially Santa Rosa Creek. Adherence to the City’s existing SWMP
and SUSMP policies of developing a SWPPP based on current BMP’s will not result in a cumulative impact that would reduce water quality. Additionally, industrial areas, which are considered most likely to contain harmful pollutants, will be reduced and replaced with residential and mixed commercial, further reducing the possible impact to water quality.

The developments within the Specific Plan Area and the City of Santa Rosa would utilize municipal water sources, which include the use of some groundwater to supplement potable water sources. As discussed above, according to the 2006 Water Supply Assessment for the Downtown Station Area Specific Plan, the planned municipal supply is adequate to handle the projected cumulative water demand increase resulting from growth within Santa Rosa as well as the Specific Plan Area, and no depletion of the groundwater aquifer is anticipated. Therefore the Specific Plan would not contribute to a cumulative impact to ground water resources.

Taken together, the existing General Plan Policies, and requirements, along with the mitigation measures detailed below reduce the project’s potential to contribute to a cumulative hydrologic and water quality impacts of Specific Plan area development to a level that is less than significant.

**E. Impacts and Mitigation Measures**

**Impact HYDRO-1:** Demolition and construction for future development and redevelopment proposed in the Specific Plan could potentially violate water quality standards or waste discharge requirements. This would be a significant impact.

**Mitigation Measure HYDRO-1:** Pursuant to the City of Santa Rosa Stormwater Management Plan (SWMP); grading, erosion control and stormwater ordinances; and National Pollutant Discharge Elimination System (NPDES) requirements, each developer shall develop and implement a Storm Water Pollution Prevention Plan(s) (SWPPP) for each in-
individual development or redevelopment project site to protect water quality during and after construction. The Project SWPPP shall include the following mitigation measures for the construction period:

♦ Erosion control/soil stabilization techniques such as straw mulching, erosion control blankets, erosion control matting, and hydro-seeding, shall be utilized, in accordance with the regulations and recommendations outlined in the Santa Rosa Area Standard Urban Storm Water Mitigation Plan (SUSMP) adopted by the City of Santa Rosa, Sonoma County, and the Sonoma County Water Agency. Silt fences used in combination with fiber rolls shall be installed down slope of all graded slopes. Fiber rolls shall be installed in the flow path of graded areas receiving concentrated flows and around storm drain inlets.

♦ “Best management practices” (BMPs) shall be implemented for preventing the discharge of other construction-related NPDES pollutants beside sediment (i.e. paint, concrete, etc) to downstream waters.

♦ After construction is completed, all drainage facilities shall be inspected for accumulated sediment, and these drainage structures shall be cleared of debris and sediment.

Long-term mitigation measures to be included in the Project SWPPP shall include, but are not limited to, the following:

♦ Description of potential sources of erosion and sediment at the proposed project site. Industrial activities and significant materials and chemicals that could be used at the project site should be described. This will include a thorough assessment of existing and potential pollutant sources.

♦ Identification of BMPs to be implemented at the project site based on identified industrial activities and potential pollutant sources. Emphasis shall be placed on source control BMPs, with treatment controls used as needed.

♦ Development of a monitoring and implementation plan. Maintenance requirements and frequency shall be carefully described including vec-
tor control, clearing of clogged or obstructed inlet or outlet structures, vegetation/landscape maintenance, replacement of media filters, regular sweeping of parking lots and other paced areas, etc. Wastes removed from BMPs may be hazardous, therefore, maintenance costs should be budgeted to include disposal at a proper site. Parking lot areas shall be cleared of debris that may enter the storm drain system on a daily basis.

- The monitoring and maintenance program shall be conducted at the frequency agreed upon by the RWQCB and/or City of Santa Rosa. Monitoring and maintenance shall be recorded and submitted annually to the SWRCB. The SWPPP shall be adjusted, as necessary, to address any inadequacies of the BMPs.

- The applicant shall prepare informational literature and guidance on industrial and commercial BMPs to minimize pollutant contributions from the proposed development. This information shall be distributed to all employees at the project site. At a minimum the information shall cover: a) proper disposal of commercial cleaning chemicals; b) proper use of landscaping chemicals; c) clean-up and appropriate disposal of hazardous materials and chemicals; and d) prohibition of any washing and dumping of materials and chemicals into storm drains.

Significance After Mitigation: Less than significant.

Impact HYDRO-2: Increased levels of non-point source pollutants may enter the storm drains of the area and ultimately enter Santa Rosa Creek if not controlled through proper Stormwater Pollution Prevention. This would be a significant impact.

Mitigation Measure HYDRO-2: Developers will be required to preparation and implement a Specific Plan Area Storm Water Pollution Prevention Program (SWPPP), pursuant to NPDES requirements, as detailed in Mitigation Measure HYDRO-1.

Significance After Mitigation: Less than significant.
Impact HYDRO-3: Development in the Specific Plan area may create an increase in flood potential in downstream waters by increasing runoff levels. This would be a significant impact.

Mitigation Measure HYDRO-3: In accordance with the Santa Rosa Area Standard Urban Storm Water Mitigation Plan (SUSMP) and Sonoma County Water Agency flood control criteria, developers shall develop a Storm Drain Master Plan for individual projects that includes design drawings and calculations of the capacity of the proposed storm drain system for the project. SUSMP-recommended BMPs such as on-site storm water detention, storm drain line upgrades, or infiltration areas shall be incorporated into the project design, as well as storm water treatment controls such as catch basins, storm water separators, and or/other SUSMP-recommended treatment BMPs. The Storm Drain Plan shall also include a hydraulic analysis prepared consistent with Sonoma County Water Agency flood control design criteria to establish whether the existing municipal system has capacity to accommodate any increased flows resulting from the proposed project. The analysis shall include Rational Method calculations of pre- and post-development 10-year peak flows and shall take into account drainpipe slope and elevations, drainpipe size(s), and system head losses. The Storm Drain Plan shall be submitted to the City of Santa Rosa and the Sonoma County Water Agency for review prior to approval.

The Storm Drain Plan should be consistent with the City’s SUSMP, SCWA flood control criteria, and General Plan Policies.

Significance After Mitigation: Less than significant.
This chapter describes the existing land use setting of the Specific Plan Area and evaluates the potential land use impacts associated with the Specific Plan.

A. Regulatory Framework

This section summarizes the City of Santa Rosa most relevant policy documents and regulations that would apply to the Specific Plan. Specifically, this section summarizes Santa Rosa’s General Plan and Zoning Ordinance. Additionally, this section summarizes related planning efforts and proposed developments in the Specific Plan Area.

1. City of Santa Rosa General Plan

The following lists applicable General Plan goals and policies most pertinent to the Specific Plan.

a. Land Use and Livability Element

Goal LUL-A: Foster a compact rather than a scattered development pattern.

♦ Policy LUL-A-1: As part of Plan implementation — including development review, capital improvements programming and preparation of detailed area plans — foster close land use/transportation relationships to promote use of alternative transportation modes and discourage travel by automobile.

♦ Policy LUL-A-3: Annex unincorporated land adjacent to City limits and within the Urban Growth Boundary, when the proposal is timely and only if adequate services are available. Ensure that lands proposed for annexation provide a rational expansion and are contiguous to existing urban development.

♦ Policy LUL-A-5: Review the policy of providing City services to County areas prior to annexation. Evaluate the following:
  • Annexation prior to allowing development
  • City and County development standards
- Payment of development impact fees
- Agreements with County for provision of services

Goal LUL-D: Foster compact, vibrant, and continuous retail at the core of downtown.

♦ Policy LUL-D-1: Require that the first floor of downtown buildings house activity generating uses such as retailing, entertainment and dining establishments, theaters and galleries. Upper floors of downtown buildings may also contain such uses.

♦ Policy LUL-D-2: Require that uses such as parking garages and theaters provide ground-level uses that generate activity or provide visual interest, and are compatible with surrounding ground-level uses.

Goal LUL-E: Promote livable neighborhoods. Ensure that everyday shopping, park and recreation facilities and schools are within easy walking distance of most residents.

♦ Policy LUL-E-1: Provide new neighborhood parks and recreation facilities, elementary schools and convenience shopping in accordance with the General Plan Land Use Diagram.

♦ Policy LUL-E-2: As part of planning and development review activities, ensure that projects, subdivisions and neighborhoods are designed to foster livability. Utilize the City’s Design Guidelines as reference when evaluating the following neighborhood components:
  - Streets - Street design, traffic calming and landscaping can make great contributions to the creation of successful neighborhoods. Neighborhood streets should be quiet and safe, and accommodate pedestrians and bicyclists.
  - Connections - Neighborhoods should be well connected by streets, pathways and transit to local shops and services, public spaces, downtown, schools and recreation.
  - Public Spaces - Downtown serves as the most important public place in the City. Developments in the area should further this by
incorporating natural features and bicycle/pedestrian connections, to encourage use and social interaction.

- **Neighborhood Character** - Each neighborhood should maintain a distinct identity, such as the historic preservation districts featuring Victorian cottages and California bungalows.

- **Diversity and Choice** - Neighborhoods should provide choices for residents with different values. Different housing types and locations within the City accommodate a diverse range of needs.

- **Policy LUL-E-6**: Allow residential or mixed use development in the Retail and Business Services or Office designations.

**Goal LUL-F**: Maintain a diversity of neighborhoods and varied housing stock to satisfy a wide range of needs.

- **Policy LUL-F-1**: Do not allow development at less than the minimum density prescribed by each residential land use classification.

- **Policy LUL-F-3**: Maintain a balance of various housing types in each neighborhood and ensure that new development does not result in undue concentration of a single housing type in any one neighborhood. Downtown is excepted.

**Goal LUL-G**: Promote mixed use sites and centers.

- **Policy LUL-G-2**: Require design of mixed use projects to focus residential uses in the upper stories or toward the back of parcels, with retail and office activities fronting the regional/arterial street. Site design with residential uses at the rear is intended to reduce potential for housing units to exceed maximum noise levels along a regional/arterial street.

- **Policy LUL-G-3**: Prepare and implement mixed-use zoning district(s) that provide development standards for mixed use sites and centers. District regulations should address:
  - Minimum density and intensity requirements
  - Allowable uses
• Building heights
• Shared parking standards
• Prohibition of new auto-oriented and drive-through establishments

b. Urban Design Element

Goal UD-A: Preserve and enhance Santa Rosa’s scenic character, including its natural waterways, hillsides and distinctive districts.

♦ Policy UD-A-2: Strengthen and emphasize community focal points, visual landmarks and features that contribute to the identity of Santa Rosa using design concepts and standards implemented through the Zoning Code, Design Review Guidelines, City Entries Policy, Preservation District Plans, Scenic Roads policies and Area Plans.

Goal UD-B: Preserve and strengthen downtown as a vital and attractive place.

♦ Policy UD-B-2: Encourage, promote and assist in the development of housing units within downtown for a mix of income levels and housing types, including integrating housing into existing buildings as mixed use.

♦ Policy UD-B-3: Maintain Old Courthouse Square as the major downtown focal point and gathering place by not creating other large new public spaces that would detract from it, and by programming it with public activities throughout the year.

♦ Policy UD-B-5: Promote street life in the downtown through attractive building designs with street level activity and façade windows, public art, trees, fountains and other landscaping elements that are pedestrian friendly. Discourage blank parking garage or office block frontage. Implement this policy through development review and the City’s Capital Improvement Program.

♦ Policy UD-B-8: Orient buildings along Santa Rosa Creek within downtown toward the creek to enhance pedestrian and bicycle activity.
Goal UD-E: Create a framework of public spaces at the neighborhood, city and regional scale.

♦ Policy UD-E-4: Enhance pedestrian activity and safety by designing streets, buildings, pathways and trails to provide a visual connection with public spaces such as parks and Santa Rosa Creek. Review and revise the Zoning Code and Subdivision Guidelines to support this policy.

Goal UD-G: Design residential neighborhoods to be safe, human-scaled and livable.

♦ Policy UD-G-2: Locate higher density residential uses adjacent to transit facilities, shopping and employment centers, and link these areas with bicycle and pedestrian paths.

c. Housing Element

Goal H-A: Meet the housing needs of all Santa Rosa residents.

♦ Policy H-A-3: Improve community acceptance of higher density housing through community based outreach, recognition of existing livable neighborhoods and assurance of well-designed high density projects.

♦ Policy H-A-5: Promote conservation and rehabilitation of the existing housing stock and discourage intrusion of non-compatible uses into residential neighborhoods, which would erode the character of established neighborhoods or lead to use conflicts.

Goal H-C: Expand the supply of housing available to lower income households.

♦ Policy H-C-7: Encourage production of residential units downtown. Residential uses are allowed in any land use category downtown.

d. Transportation Element

Goal T-I: Support implementation of rail service along the Northwest Pacific Railroad.
Policy T-I-2: Preserve options for future rail stations along the NWPRR corridor by zoning land in proximity to the potential station sites for higher residential densities and/or mixed use development.

Goal T-K: Develop a safe, convenient and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas and employment centers.

♦ Policy T-K-1: Link the various citywide pedestrian paths, including street sidewalks, downtown walkways, pedestrian areas in shopping centers and work complexes, park pathways and other creekside and open space pathways.

♦ Policy T-K-3: Orient building plans to allow for easy pedestrian access from street sidewalks, transit stops and other pedestrian facilities, in addition to access from parking lots.

♦ Policy T-K-4: Require construction of attractive pedestrian walkways and areas in new residential, commercial, office and industrial developments. Provide landscaping or other appropriate buffers between sidewalks and heavily traveled vehicular traffic lanes, as well as through and to parking lots.

♦ Policy T-K-5: Ensure provision of safe pedestrian access for students of new and existing school sites throughout the City.

♦ Policy T-K-6: Integrate multi-use paths into all creek corridors, railroad rights-of-way and park designs.

2. City of Santa Rosa City Code
Nonconforming Uses Ordinance, Chapter 20-61.020
This ordinance regulates the status of nonconforming uses when they are continued, transferred or sold, as well as when such uses are replaced with similar uses. Additionally, the ordinance regulates when and how nonconforming
uses may be allowed to enlarge or expand. Finally, it also regulates when and how nonconforming uses can maintain their legality status.¹

3. City of Santa Rosa Land Use Designations
There are several land use designations under the City’s General Plan, of which twelve are within the Specific Plan Area. Figure 4.8-1 shows the existing Santa Rosa General Plan land use designations for the Specific Plan Area. Table 4.8-1 lists the densities permitted with the applicable designations by the Santa Rosa General Plan. Each of the designations within the Specific Plan Area are discussed below.

a. Low Density Residential
Single family residential development at a density of 2.0 to 8.0 units per gross acre. This classification is mainly intended for detached single-family dwellings, but attached single-family and multi-family units may be permitted.

b. Medium Density Residential
Housing at densities from 8.0 to 18.0 units per gross acre. This designation permits a range of housing types, including single-family attached and multi-family developments, and is intended for specific areas where higher density is appropriate. Single-family detached housing is not permitted.

c. Mixed-Use (LtInd/LtInd Residential, Office/Med Residential, Retail/Med Residential and Downtown Mix)
Mixed-use development is planned downtown and in specified neighborhood and community shopping centers. In downtown, sites identified for mixed-use development are designated with the Mixed-Use land use designation. Neighborhood and community shopping centers designated for a mix of retail and medium density residential land uses are identified with a different designation than that of the Downtown Mixed-Use.

FIGURE 4.8-1
EXISTING CITY
LAND USE DESIGNATION
### Table 4.8-1  Santa Rosa General Plan Land Use Designations and Permitted Densities/Intensities

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Residential Density (housing units per gross acre)</th>
<th>Residential Mid-Point (housing units per gross acre)</th>
<th>Square Feet per Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density</td>
<td>2.0-8.0</td>
<td>5.0</td>
<td>-</td>
</tr>
<tr>
<td>Medium Density</td>
<td>8.0-18.0</td>
<td>13.0</td>
<td>-</td>
</tr>
<tr>
<td>Medium High Density</td>
<td>18.0-30.0</td>
<td>24.0</td>
<td>-</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>50.0</td>
<td>-</td>
<td>300</td>
</tr>
<tr>
<td>Commercial Retail &amp; Business Services</td>
<td>-</td>
<td>-</td>
<td>300</td>
</tr>
<tr>
<td>Office</td>
<td>-</td>
<td>-</td>
<td>250</td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Industry</td>
<td>-</td>
<td>-</td>
<td>400</td>
</tr>
<tr>
<td>General Industry</td>
<td>-</td>
<td>-</td>
<td>400</td>
</tr>
<tr>
<td>Public/Institutional</td>
<td>-</td>
<td>-</td>
<td>300</td>
</tr>
</tbody>
</table>

*a  Density bonuses granted for provision of affordable housing or public amenities, up to 25 percent greater than maximum.

*b  Density/Intensity standards not included for Parks and Recreation, Open Space, and Agriculture land use classifications.

Source: Santa Rosa 2020: General Plan.

Multiple uses in a single structure or physically integrated structures with significant emphasis on residential uses, combined with commercial, public, entertainment and/or office uses where the ground floor uses are predominantly nonresidential with the purpose of creating pedestrian activity. Single use buildings, such as public facilities and retail activities serving a regional clientele, may be allowed by exception of the Planning Commission.
d. Retail/Business Services
Allows retail and service enterprises, offices and restaurants. Regional centers, which are large complexes of retail and service enterprises anchored by one or more full line department stores, and destination centers, which are retail centers anchored by discount or warehouse stores, are allowed. Supermarkets and/or drugstores are permitted in Community Shopping Centers only.

e. Office
Provides sites for administrative, financial, business, professional, medical and public offices.

f. Public and Institutional
An area or cluster of governmental or semi-public facilities, such as hospitals, utility facilities, government office centers, etc. Minor governmental offices located in a private building, places of religious assembly not occupying extensive land areas, and similar facilities are not shown on the General Plan Diagram. New facilities may be appropriate in any land use category based on need and subject to environmental review.

g. General Industry
Provides areas for manufacturing and distribution activities with potential for creating nuisances, along with accessory offices and retailing. Unrelated retail and service commercial uses that could be more appropriately located elsewhere in the city are not permitted. Uses may generate truck traffic and operate 24 hours a day.

h. Light Industry
Accommodates light industrial, warehousing and heavy commercial uses. Uses appropriate to this land use category include auto repair, bulk or warehoused goods, general warehousing, manufacturing/assembly with minor nuisances, home improvement retail, landscape materials retail, freight or bus terminals, research oriented industrial, accessory offices, employee-serving
commercial uses and services with large space needs, such as health clubs. Professional office buildings are not permitted.

i. Parks and Recreation
Neighborhood and community parks, recreation complexes, golf courses and creekways. Existing and proposed park sites are identified on the Land Use Diagram. The “R” symbol on the Land Use Diagram indicates a resort facility.

4. City of Santa Rosa Zoning Designations
City zoning designations for the Specific Plan Area are shown in Figure 4.8-2. Table 4.8-2 and the following discussion provides more detail about each zoning district including its relationship to the Santa Rosa General Plan Land Use Designations.

a. RR (Rural Residential) District
The RR zoning district is applied to areas of the City intended to accommodate residential neighborhoods with compatible agricultural uses, but where the primary uses are residential, and compatible accessory uses. The maximum allowable density ranges from 0.2 to two dwellings per acre, with the specific allowable density for each parcel shown on the zoning map by a numerical suffix to the RR map symbol (see Section 20-22.040). The RR zoning district implements and is consistent with the Residential – Very Low Density land use classification of the General Plan.

b. R-1 (Single-Family Residential) District
The R-1 zoning district is applied to areas of the City intended to be maintained as residential neighborhoods comprised of detached and attached single-family houses, clustered residential hillside projects and small multi-family projects, together with compatible accessory uses. The maximum allowable density ranges from two to 13 dwellings per acre, with the specific allowable density for each parcel shown on the zoning map by a numerical suffix to the R-1 map symbol (see Section 20-22.040). The R-1 zoning district implements and is consistent with the Residential – Very Low Density (where residential
### TABLE 4.8-2  SANTA ROSA ZONING DESIGNATIONS

<table>
<thead>
<tr>
<th>Zoning District Symbol</th>
<th>Name of Zoning District</th>
<th>General Plan Land Use Classification Implemented by Zoning District</th>
</tr>
</thead>
<tbody>
<tr>
<td>RR</td>
<td>Rural Residential</td>
<td>Residential - Very Low Density</td>
</tr>
<tr>
<td>R-1</td>
<td>Single-Family Residential</td>
<td>Residential - Low Density/Open Space, Low Density, Medium Low Density</td>
</tr>
<tr>
<td>R-2</td>
<td>Medium Density Multi-Family Residential</td>
<td>Residential - Medium Density, Medium High Density</td>
</tr>
<tr>
<td>R-3</td>
<td>Multi-Family Residential</td>
<td>Residential - Medium Density, Medium High Density</td>
</tr>
<tr>
<td>CN</td>
<td>Neighborhood Commercial</td>
<td>Mixed Use, Neighborhood Shopping Center</td>
</tr>
<tr>
<td>CG</td>
<td>General Commercial</td>
<td>Retail and Business Services</td>
</tr>
<tr>
<td>CD</td>
<td>Downtown Commercial</td>
<td>Mixed Use, Retail and Business Services</td>
</tr>
<tr>
<td>IL</td>
<td>Light Industrial</td>
<td>Light Industry, Retail and Business Services</td>
</tr>
<tr>
<td>IG</td>
<td>General Industrial</td>
<td>General Industry</td>
</tr>
<tr>
<td>OSR</td>
<td>Open Space – Recreation</td>
<td>Open Space</td>
</tr>
<tr>
<td>PI</td>
<td>Public/Institutional</td>
<td>Public/Institutional</td>
</tr>
<tr>
<td>PD</td>
<td>Planned Development</td>
<td>All</td>
</tr>
</tbody>
</table>

clustered on hillsides is desirable), Low Density/Open Space, Low Density and Medium Low Density land use classifications of the General Plan.

c.  R-2 (Medium Density Multi-Family Residential) and R-3 (Multi-Family Residential) District
The R-2 and R-3 zoning districts are applied to areas of the City appropriate for residential neighborhoods with medium and higher residential densities, to provide home rental and ownership opportunities and to provide a full range of choices in housing types to improve access to affordable housing. The maximum allowable density ranges from eight to 30 dwellings per acre, with the specific allowable density for each parcel shown on the zoning map by a numerical suffix to the R-3 map symbol (see Section 20-22.040). Densities of more than 30 dwellings per acre may be allowed within the Mixed Use land use designation of the General Plan. The R-2 and R-3 zoning districts implement and are consistent with the Residential - Medium Density and Medium High Density land use classifications of the General Plan.

d.  CN (Neighborhood Commercial) District
The CN zoning district is applied to areas within and adjacent to residential neighborhoods appropriate for limited retail and service centers for convenience shopping. Uses in these centers are intended to provide for the day-to-day needs of local neighborhoods and workplaces, but not to be of such scope and variety as to attract substantial traffic volumes from outside the neighborhood. New development is required to include both a residential and non-residential component as noted by Section 20-23.030 (Commercial Land Uses and Permit Requirements). The CN zoning district is consistent with and implements the Neighborhood Shopping Center land use classification of the General Plan.

e.  CG (General Commercial) District
The CG zoning district is applied to areas appropriate for a range of retail and service land uses that primarily serve residents and businesses throughout the City, including: shops, restaurants and personal and business services. Residential uses may be accommodated as part of mixed use projects and inde-
ependent residential developments. The CG zoning district is consistent with the Retail and Business Services land use classification of the General Plan.

f. CD (Downtown Commercial) District
The CD zoning district is applied to the Santa Rosa downtown, to provide for a mixture of ground-floor pedestrian-oriented shops, personal and business services, restaurants and other office and commercial uses that serve the entire City and/or neighborhoods surrounding the downtown. Residential units may be developed in either a free-standing project, or incorporated into a mixed use project. The CD zoning district is consistent with and implements the Mixed Use, and Retail and Business Services land use classifications of the General Plan.

g. IL (Light Industrial) District
The IL zoning district is applied to areas appropriate for some light industrial uses, as well as commercial service uses and activities that may be incompatible with residential, retail, and/or office uses. Residential uses may also be accommodated as part of work/live projects. The IL zoning district is consistent with the Light Industry land use classification of the General Plan.

h. IG (General Industrial) District
The IG zoning district is applied to areas appropriate for industrial and manufacturing activities, warehousing, wholesaling and distribution uses. Uses may generate truck traffic and operate 24 hours. Retail and business service uses that could be more appropriately in another zone are not permitted. Land uses allowed in the IG zoning district have the potential for creating objectionable noise, smoke, odor, dust, noxious gases, glare, heat, vibration, or industrial wastes. The IG zoning district is consistent with the General Industry land use classification of the General Plan.

i. OSR (Open Space - Recreation) District
The OSR zoning district is applied to public park and recreation sites and areas within the City. The OSR zoning district is consistent with and implements the Parks & Recreation land use classification of the General Plan.
j. PI (Public and Institutional) District
The PI zoning district is applied to areas appropriate for public facilities, utilities and public assembly facilities including: public schools, libraries, government offices, etc. The PI zoning district is consistent with and implements the Public/Institutional land use designation of the General Plan.

k. PD (Planned Development) District
The PD district is intended to recognize the advantage that integrated community offers over conventional zoning techniques in implementing General Plan goals through specific site developments. The PD district is specifically envisioned as a mechanism to preserve and/or create distinctive, high quality, single or mixed use developments that meet or exceed the goals of the General Plan. The requirements of this district are intended to encourage preservation of existing amenities and creation of new amenities; provide for a variety of housing types and densities; and achieve superior relationships among uses, both within and surrounding the district. The PD district is intended to be used only where the other zoning districts established by this Zoning Code cannot achieve these goals.

5. County of Sonoma Land Use Designations
As discussed in the Project Description, Chapter 3, there are small pockets of unincorporated areas within the Specific Plan Area. As discussed later in this chapter, these unincorporated areas are required to be annexed into the City of Santa Rosa prior to any development or redevelopment associated with the Specific Plan. Figure 4.8-3 depicts the County General Plan land uses that apply to the unincorporated portions of the Specific Plan Area. Within these pockets, there are four general plan designations, which are discussed below.

a. General Commercial
This category provides sites for intense commercial uses which serve a mix of business activities and the residential and business community as a whole rather than a local neighborhood. These uses provide for comparison shopping and services which are ordinarily obtained on an occasional rather than
daily basis. This category is also intended to provide opportunities for a mix of residential and commercial use in urban service areas.

b. General Industrial
This category provides sites for industrial activities and employment which require urban services and which primarily serve an urban population. The intent of the category is to assure that industrial development is compatible with adjacent land uses, infrastructure and environmental quality.

c. Urban Residential
This category includes land planned for a full range of urban services for residential development. It accommodates a variety of housing types, such as stick-built and manufactured homes, and all tenure types, depending upon the density assigned on the land use maps.

d. Right-of-Way (County Water Agency)
This category provides sites which serve the community or public need and are owned or operated by government agencies, non profit entities, or public utilities.

6. County of Sonoma Zoning Designations
As with the County’s General Plan, there are numerous County zoning designations, of which eight are within the Specific Plan Area. As these unincorporated areas are annexed into the City of Santa Rosa the zoning designation for these parcels will be updated to conform to the new land use designations identified in the Specific Plan. Figure 4.8-4 shows the County zoning designations that apply to the unincorporated portions of the Specific Plan Area. Each of these designations are discussed below.

a. RR (Rural Residential) District
The RR zoning district is applied to unincorporated areas to preserve the rural character and amenities of those lands best utilized for low density residential development pursuant to Section 2.2.2 of the County’s General Plan. Rural residential uses are intended to take precedence over permitted agricul-
Figure 4.8-4

Existing County Zoning Designations

- Specific Plan Area
- Santa Rosa City Limit
- Railroad
- Rural Residential
- Low Density Residential
- Medium Density Residential
- Administrative/Professional Office
- Agricultural & Residential
- Limited Urban Industrial
- Heavy Industrial
- Scenic Resources Combining District
- Railroad
- Rural Residential
tural uses, but the district does not allow agricultural service uses. The RR district may also be applied to lands in other land use categories where it is desirable to use zoning to limit development.

b. R1 (Low Density Residential) District
The R1 zoning district is applied to unincorporated areas to stabilize and protect the residential characteristics of the district and to promote and encourage a suitable environment for family life. The R1 district is intended for single-family homes in low density residential areas, as provided in Section 2.2.1 of the County’s General Plan, which are compatible with existing neighborhood character. It is also intended to implement the residential objective of adopted redevelopment plans where applicable.

c. R2 (Medium Density Residential) District
The R2 zoning district is applied to unincorporated areas to preserve as many of the desirable characteristics of one-family residential districts as possible while permitting higher densities, and to implement the provisions for medium density residential development in Section 2.2.1 of the County’s General Plan. To implement the residential objectives of adopted redevelopment plans, where applicable.

d. AR (Agriculture and Residential) District
The AR zoning district is applied to unincorporated areas to provide lands for raising crops and farm animals in areas designated primarily for rural residential use pursuant to Section 2.2.2 of the County’s General Plan.

e. CO (Administrative and Professional Office) District
The CO zoning district is applied to unincorporated areas to implement Section 2.3 of the County’s General Plan by providing appropriately located areas for the development of administrative and professional office space together with proper design, landscaping and off-street parking facilities in locations within urban service areas designated in the General Plan to be harmonious with adjacent residential uses.
f. M1 (Limited Urban Industrial) District
The M1 zoning district is applied to unincorporated areas to implement the provisions of Section 2.4 of the County’s General Plan by providing areas for land extensive industrial development or industrial development within designated urban service areas which is limited in scale by such factors as incompatible adjacent land use, or adverse environmental impacts.

g. M2 (Heavy Industrial) District
The M2 zoning district is applied to unincorporated areas to implement the provisions of Section 2.4.1 of the County’s General Plan by providing areas within urban service areas which permit a wide range of industrial uses.

h. SR (Scenic Resources Combining) District
The SR zoning district is applied to unincorporated areas to preserve the visual character and scenic resources of lands in the county and to implement the provisions of Sections 2.1, 2.2 and 2.3 of the County’s General Plan Open Space Element.

7. Related Planning Efforts and Proposed Development in the Specific Plan Area
There are many proposed, ongoing or recently-completed projects within the Specific Plan Area. These were considered during the drafting of the Specific Plan and are listed below.

a. Courthouse Square Reunification
A land use and circulation feasibility study on reunifying Courthouse Square was completed and accepted by the City Council in 2004. As discussed in the Project Description, Chapter 3, the Specific Plan includes certain reunification concepts presented in the Courthouse Square study. The City intends to hold a competition for design and improvement of Courthouse Square based on the work completed by the Courthouse Square Steering
Committee, which was established in 2006 by the City Council to provide direction on the reunification project.2

b. Mid-Rise Policy
A zoning amendment was adopted in Fall 2005, which allows for five-, seven- and ten-story buildings in specific locations around the city, with a raised maximum height of 150 feet. In conjunction with adoption of the Mid-Rise Policy, the City also adopted a set of design guidelines specific to the Downtown area.

c. Highway 101 Widening
Caltrans is widening Highway 101 from the Highway 12 interchange north to Steele Lane. An overpass structure will be built over Sixth Street as part of the widening project, allowing for future connection of Sixth Street underneath the highway. The City has received a Transportation for Livable Communities Grant from the Metropolitan Transportation Commission to develop a corridor improvement plan for the Sixth Street underpass.

d. Downtown Building Height General Plan Amendment
A study was undertaken to consider whether an increase in allowed height of buildings in the downtown should be allowed under the General Plan. The study also explored whether or not increased building height would be beneficial to the city and its skyline and what building heights are needed to accommodate future demand. The following two studies were used to assist in evaluating the General Plan Amendment:

- **Downtown Absorption Study.** This economic study evaluates the demand for office, housing and retail in downtown over the next ten years.

- **Downtown Visual Computer Modeling.** To assist the City in its consideration of increasing building heights, the City has commissioned development of a visual computer model for sections of the downtown area.

---

At the conclusion of the study, the City Council decided not to amend the current General Plan policy on building heights.

e. Sonoma-Marin Area Retail Transit District (SMART) Joint Development Project
SMART is working with its selected developer to jointly develop the 5.68-acre site SMART owns on the west side of the railroad across from the historic depot station. Potential programming elements include a food and wine center, neighborhood serving retail uses, specialty retail uses, housing, community uses and public open space.

f. Northern Downtown Pedestrian Linkages Study
The Northern Downtown Pedestrian Linkages project is a study of the Sixth and Seventh Street corridor between Pierson Street and E Street. Improvements proposed in the final plan further a number of important objectives. First is the inclusion of design features that will distinguish the corridor as a connecting route between destination areas on the east and west sides of downtown. Second is improvement of the feel, comfort and safety of the corridor through streetscaping enhancements and land use changes that will encourage development of activity-generating uses along the street front. Last, but not least, is an effort to move towards a more balanced distribution of right-of-way space for automotive, pedestrian and bicycle travel.

B. Existing Conditions

The first section below describes the existing land uses which pertain to the Specific Plan Area.

1. Land Use and Public Policy
In contrast to the single-use land use patterns that characterize the majority of the City, the Specific Plan Area contains a rich mix of land uses at varying levels of development intensity. Although the Specific Plan Area exhibits the highest building densities in the City, many parcels in the Specific Plan Area,
particularly in the industrial areas and around the railroad, are vacant. This section provides an overview of the existing land uses found within the Specific Plan Area. For purposes of organization, the Specific Plan Area has been divided into six Sub-Areas. Additionally, for a full inventory of parks and recreation areas within the Plan Area and their acreages, please review the Public Services and Recreation chapter, 4.11, of this EIR.

a. Courthouse Square Sub-Area
The Courthouse Square Sub-Area is primarily made up of retail and office uses, with scattered parking throughout. Courthouse Square is the “town center” of Santa Rosa and is the focal point of the downtown area. Currently, the Square consists of landscaped spaces and plaza areas provide for a range of activities, performances and entertainment right in the heart of downtown. Courthouse Square has changed significantly since its founding. The decentralization of commercial services, relocation of the County Courthouse outside of the downtown, destruction caused by earthquakes in 1906 and 1969 and the construction of Highway 101, which divided downtown, have all affected the evolution of Santa Rosa’s core. Today, the Courthouse Square Sub-Area remains one of the city’s main activity areas. It encompasses Courthouse Square, the Santa Rosa Plaza shopping mall and City, State and federal government buildings. It is home to major financial institutions, numerous offices and other businesses and retail shops and is surrounded by some of the city’s earliest developments, including Railroad Square and the Cherry Street and St. Rose historic neighborhoods.

♦ Retail. Courthouse Square is a regional commercial destination, containing a mix of both large and small retail uses. Fourth Street is the main shopping street in the Courthouse Square Sub-Area, featuring a number of restaurants, bookstores, coffee shops, salons and other specialty retail shops. Most businesses along the Fourth Street corridor are independent retailers. However, there has been a recent increase in the number of chain stores locating downtown, including: Barnes and Noble, Peet’s Coffee, Starbucks Coffee, Quizno’s, Fleet Feet and a Vespa dealership.
At the west end of Fourth Street is Santa Rosa Plaza, an enclosed 700,000 square foot shopping mall. Businesses inside Santa Rosa Plaza are predominantly nationwide retailers and department stores.

Santa Rosa and Mendocino Avenues, Fifth Street and Seventh Streets contain a mix of retail, service commercial and office development.

♦ Office. Major office uses in the Courthouse Square Sub-Area are concentrated around the Courthouse Square area; along First Street, west of Santa Rosa Avenue; and on the east side of B Street, south of Third Street. Office uses also exist above the retail on Fourth Street and along the E Street corridor.

♦ Public/Institutional. The main offices for city, State and federal governments are located along D Street between Second Street and Sonoma Avenue. The County of Sonoma has offices located on Fifth Street and on Tenth Street between Mendocino and Healdsburg Avenues. The main post office is also located downtown on Second Street.

The Courthouse Square Sub-Area also includes the central branch of the Sonoma County Library, located in the downtown on E Street, and a satellite branch of the University of San Francisco, located on B Street.

A public transit mall is located on Second Street between B Street and Santa Rosa Avenue, offering local and regional bus service through Santa Rosa CityBus, Sonoma County Transit, Golden Gate Transit and Mendocino Transit Authority, which operates one line to Santa Rosa.

♦ Residential. Residential development within the Courthouse Square Sub-Area includes the Beaver Street Apartments on the corner of Seventh and Beaver Streets; single- and multi-family development along Humboldt and Orchard Streets, north of Fifth Street; multi-family housing units in the historic Rosenberg building at the corner of Fourth Street and Mendocino Avenue; and a mix of single- and multi-family residential units on the north side of Sonoma Avenue west of Santa Rosa Avenue.
b. Railroad Square Sub-Area

Railroad Square Historical District is Santa Rosa’s specialty shopping and dining district, and is listed on the National Register of Historic Places. It is bound by Third Street to the south, Davis Street to the east, Sixth Street to the north, and Santa Rosa Creek to the west. The district includes the 1904 Railroad Depot, commercial buildings on Fourth Street built between 1915 and 1925, and warehouses dating from 1888 to 1914 along the railroad. The commercial masonry buildings are among the few remaining in Santa Rosa, the others having been destroyed by the earthquakes of 1906 and 1969.

♦ Retail. Primarily clustered on Fourth Street between Wilson and Davis Streets is an eclectic collection of shops, cafes and restaurants. The stores include antiques, home furnishings and other specialty items. The historic scale and qualities of the area and a concentration of more upscale restaurants serve as a major draw to the area, particularly for visitors staying at the Hyatt Vineyard Creek Hotel and Courtyard Marriott.

♦ Office. A number of smaller-scale office uses exist in the historic brick and masonry buildings between Third and Fourth Streets immediately east of the railroad. More modern office space exists in the recently constructed office building located at the corner of Fourth and Davis Streets.

♦ Residential and Mixed-Use Development. Until recently there had been very little residential development within this Sub-Area. A new mixed-use project, Railroad Square Terraces, was constructed between Fourth and Fifth Streets in the core of Railroad Square. This development consists of 29 residential units above retail/commercial space that fronts on Fourth Street. Residential redevelopment of the Canners site, which is located on the north side of West Third Street adjacent to Santa Rosa Creek, is underway. When completed, the project will feature 80 single-family units and provide for public access to and from the creek into the Railroad Square Sub-Area. A recently completed four-story building at the corner of Davis and Fourth Streets has
unoccupied retail space on the ground floor and offices in the upper floors.

♦ Hotel. The Vineyard Creek Hotel and Conference Center is located in the southern portion of the sub-area and is set back from Third Street. The hotel’s property abuts the Prince Memorial Greenway. A number of pathways allow guests to directly access the greenway from the hotel grounds. A Courtyard Marriott Hotel is located immediately west of the Vineyard Creek Hotel, on the other side of Railroad Street.

Within the Sub-Area and across the street from the Depot is the four-story masonry Hotel La Rose, which was built in 1907. A newer addition to the hotel has been constructed on the northeast corner of Wilson and Fifth Streets.

♦ Public/Institutional. The California Welcome Center and the Santa Rosa Convention & Visitors Bureau are currently located in the historic railroad station, which was purchased by the City in 1993 after 15 years of vacancy. The building now also houses the Northwestern Pacific Railroad Historical Society and a gallery of railroad displays and historical exhibits.

There are two facilities in the northern section of the Railroad Square Sub-Area serving the homeless population of Santa Rosa. The Redwood Gospel Mission of Santa Rosa, located at 101 Sixth Street, and the St. Vincent de Paul Society soup kitchen, at 610 Wilson Street, serve prepared meals out of their facilities.

c. Historic Districts Sub-Areas
Santa Rosa has a rich historical heritage and many historic buildings and neighborhoods still remain intact in and around the Downtown area. A number of preservation districts have been established to protect the City’s heritage. Preservation districts located within or adjacent to the Specific Plan Area include: Historic Railroad Square, St. Rose, Cherry Street, West End, Olive Park and Burbank Gardens. These historic districts add to the character and quality of the downtown area by providing distinctive architecture and a glimpse into Santa Rosa’s history.
d. Residential Sub-Areas
There are three additional older neighborhoods within the Specific Plan Area that are not designated as preservation districts, but which contribute to the character of Downtown Santa Rosa. The first one includes the area east of the railroad up to Highway 101, and between College Avenue on the north and Sixth Street on the south. The second area is the Juilliard Park neighborhood, which is between Santa Rosa Avenue and Highway 101, and between the Santa Rosa Creek on the north and Highway 12 on the south. The third area is between North Dutton Avenue and Pierson Street, and between the Santa Rosa Creek on the north and Highway 12 on the south. In addition to residential uses, there are scattered commercial uses, especially along Wilson Street and at A Street and Mill Street.

e. Railroad Corridor Sub-Area
The Railroad Corridor Sub-Area contains a mixture of light industrial and commercial uses that extend from north to south across the site along the railroad corridor. The northwestern section of the Specific Plan Area, extending north and south of Maxwell Court and between the railroad and North Dutton Avenue, is primarily heavy and light industrial, with retail along the major roads and railroad. Some residences are mixed with commercial, office and industrial uses.

f. Imwalle Gardens Sub-Area
Imwalle Gardens Sub-Area contains the last larger-scale farm operation within the City’s Urban Boundary and is surrounded by residential subdivisions. Although there is currently no large-scale agriculture production occurring in the Imwalle Gardens Sub-Area, a small portion of the site is used for limited agriculture production in association with the small retail/distribution store location on the property. The remaining gardens are organic, so pesticides and other harmful chemicals are not used. The three parcels that make up the Imwalle Gardens Sub-Area contain the only designated farmland located in Specific Plan Area, and is currently considered to be Prime Farmland by the Farmland Mapping and Monitoring Program by the California Resources Agency. The designated farmland consists of two large parcels north of West
3rd Street that produces field crops. The third, smaller parcel south of West 3rd Street, is an orchard. The City’s General Plan acknowledges the role of the Sub-Area as an Urban Area, and contains policies supporting city-centered growth and land use intensification.

C. Standards of Significance

The Specific Plan would have a significant impact with regard to land use if it would:

a. Physically divide an established community.

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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

c. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

d. Conflict with existing zoning for agricultural use, or a Williamson Act contract.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

D. Impact Discussion

This section discusses the impacts of the Specific Plan on land use issues of the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.
1. Project Impacts

   a. Physically divide an established community

The Specific Plan Area currently consists of an area with three large physical structures and a natural feature that currently divide the established community. These physical features include Highway 101 and the railroad tracks running north-south, and Highway 12 and the Santa Rosa Creek running west-east. Currently, Caltrans is in the process of widening Highway 101 throughout the Specific Plan Area.

Acknowledging the diverse and unique neighborhoods that make up the Specific Plan Area, the Specific Plan is divided into seven distinct Sub-Areas: Courthouse Square, Park and Gardens, Railroad Square, Railroad Corridor, Historic Residential, Residential and Imwalle Gardens. All of the Sub-Areas abut at least one of the highways, railroad tracks and/or creek.

Implementation of the Specific Plan would not add any further physical structures or features that would further divide an established community. On the contrary, the Specific Plan contains comprehensive land use and circulation plan, which seek to protect existing communities within the Specific Plan Area. These plans are strengthened by policies and regulations within the Specific Plan, along with existing goals, policies and regulations established by the City of Santa Rosa.

For example, the City’s General Plan’s Policy UD-B-7 seeks to strengthen and enhance transportation linkages in downtown, particularly the 4th Street link between Old Courthouse Square and Railroad Square. Additionally, Policy T-J-3 of the General Plan requires the City to strengthen and expand east-west linkages across the Highway 101 corridor. Goal T-K of the General Plan seeks to develop a safe, convenient and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas and employment centers. This goal is supported by Policy T-K-6, which requires the integration of multi-use paths into all creek corridors, railroad rights-of-way and park designs. Furthermore, Policy T-L-4 of the General Plan requires the identification of specific east-west and north-south bicy-
cle routes through the Downtown area as part of the Specific Plan planning process.

In collaboration with and an extension of these existing goals and policies, the Specific Plan contains a diverse mix of land uses, development intensities, building heights and circulation patterns in the effort to preserve and enhance the character of each Sub-Area, while improving the connectivity between them. Specific Plan Policy SP-LU-5.1 would require new development to reinforce and enhance the distinctive and unique qualities of the Sub-Area it is located within. Additionally, Specific Plan Policy SP-LU-1.2 would provide improvements to pedestrian, bicycle and bus transit connections from surrounding areas to the SMART station site as well as between neighborhoods surrounding the SMART station site. The Specific Plan has a comprehensive framework of vehicular, transit, bicycle and pedestrian circulation improvements. Such improvements include a regional dedicated bicycle/pedestrian corridor along SMART right-of-way, running north-south through the Specific Plan Area; a new connection through the Santa Rosa Plaza mall to allow twenty-four hour unrestricted travel from Fourth Street in Courthouse Square to Fourth Street in Railroad Square; a wide, comfortable at-grade pedestrian crossing of Fourth Street across the SMART railroad line; and supporting the joint effort by the City and Caltrans for the new connection under Highway 101 at Sixth Street, which would provide a link between the Railroad Square and the Courthouse Square Sub-Areas.

In summary, the Specific Plan would not physically divide an established community, instead would have a positive impact in this regard. The Specific Plan would seek to improve connectivity within the Specific Plan Area, knitting together the urban fabric through promotion of infill development on underutilized and vacant sites, promotion of successful pedestrian bicycle, transit and vehicle circulation pattern and introduction of new population to the center of the City. Therefore, the adoption of the Specific Plan, in conjunction with the other existing goals, policies and regulations mentioned above, would have a less-than-significant impact in regards to physically dividing an established community.
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

Implementation of the Specific Plan would affect land uses within the Specific Plan Area by necessitating a General Plan Amendment to the 2002 Santa Rosa General Plan, as described in the Project Description, Chapter 3. The City would need to adopt these amendments to ensure consistency between the Specific Plan and the existing General Plan, as is required by State law.

While the Specific Plan would require some General Plan Amendments to bring it into full compliance, overall the Specific Plan is consistent with the intent of the City’s General Plan. Included in the Specific Plan is a group of new Land Use Policies (SP-LU-1.1 through SP-LU-6.12) that are designed to parallel and ensure conformity to the General Plan. The General Plan’s vision for its Land Use Element seeks to have growth be compact and contained within the City’s Urban Growth Boundary (UGB); retail and multi-family development to occur along regional/arterial corridors; neighborhood serving retail interspersed throughout the city to provide residents easy access to daily shopping needs; residential development to provide a variety of housing types to accommodate the housing needs of all Santa Rosa residents; the Downtown become a vital neighborhood encompassing residents, workers and visitors, extending the activity in the area well into the evenings and weekends; older industrial buildings along the railroad corridor to be converted to live/work lofts; major corridors leading into downtown be developed into “boulevards,” with rows of trees, landscaped medians, bicycle lanes and sidewalks; and for Santa Rosa Avenue to feature regional shopping destinations accessible by automobile, transit or bicycle.

The General Plan’s intent would be executed by the Specific Plan with the collaboration of existing policies and regulations along with new ones included within the Specific Plan. For example, Goal LUL-A under the General Plan encourages a compact rather than a scattered development pattern. Supporting this Goal under the General Plan is Policy LUL-A-1, which fosters close land use/transportation relationships to promote use of alternative
transportation modes and discourage travel by automobile. Further strengthening this Goal, the Specific Plan Policy SP-LU-1.1 would establish appropriate land use designations and development standards which will result in a substantial number of new housing units within walking distance to the Downtown SMART Station site.

Moreover, Goal LUL-D under the General Plan encourages compact, vibrant and continuous retail at the core of Downtown. Supporting this goal is Policy LUL-D-1, which requires that the first floor of downtown buildings house activity generating uses such as retailing, entertainment and dining establishments, theaters and galleries. Specific Plan Policy SP-LU-1.4 would require mixed-use redevelopment, as part of new development and/or major renovation, of the existing parking structures and provision of activity-generating uses at the street level along all street frontages. Furthermore, the Specific Plan Policy SP-LU-5.5 would attract a grocery store to the downtown area.

Additionally, Goal LUL-F under the General Plan requires the City to maintain a diversity of neighborhoods and varied housing stock to satisfy a wide range of needs. Supporting this goal is Policy LUL-F-3 under the General Plan, which seeks to maintain a balance of various housing types in each neighborhood and ensure that new development does not result in undue concentration of a single housing type in any one neighborhood – downtown is excepted. In conjunction with this goal, the Specific Plan Policy SP-LU-6.9 would encourage the development of neighborhood serving retail uses in areas adjacent and accessible to residential neighborhoods. These retail uses should be compatible with the character of the immediately surrounding area and include “mom and pop” pedestrian-oriented stores. Larger scale, auto-oriented enterprises are discouraged.

Furthermore, Goal LUL-G under the General Plan promotes mixed-use sites and centers. In support of this Goal, Policy LUL-G-3 under the General Plan requires the City to prepare and implement mixed-use zoning district(s) that provide development standards for mixed-use sites and centers. Such regulations should address minimum density and intensity requirements, allowable
uses, building heights, shared parking standards and prohibition of new auto-oriented and drive-through establishments. Following through with this policy, the Specific Plan includes Development Guidelines and Streetscape Standards. These guidelines and standards are intended to supplement the City of Santa Rosa’s existing Zoning Code and Design Guidelines to ensure that new development and streetscape improvements along key corridors promotes vibrant and attractive streets, as well as improves connectivity within the Specific Plan Area. Additionally, the Specific Plan includes a Land Use plan that sets development regulations for each of the Sub-Areas. These regulations specify the type, intensity and distribution of land uses permitted within each Sub-Area.

Therefore, while the Specific Plan would require some General Plan Amendment’s, as are included in the Project Description, to bring the General Plan and Specific Plan into complete conformance, the Specific Plan has been developed to comply and implement the intent of the General Plan, as discussed above. As a result, the Specific Plan would result in a less-than-significant impact related to consistency with adopted plans.

c. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

The only existing farmland located in Specific Plan Area is the three parcels that make up the Imwalle Gardens Sub-Area, which are considered to be Prime Farmland by the Farmland Mapping and Monitoring Program by the California Resources Agency. These parcels currently have a land use designation of medium density residential by the City of Santa Rosa and urban residential by Sonoma County. Additionally, Sonoma County has zoned the two main parcels north of West 3rd Street as Agricultural and Residential.

Of these two large parcels, the western parcel is fallow, while the eastern parcel is farmed for limited agriculture production in association with the small retail/distribution store location on the property. The Specific Plan proposes
that the eastern parcel north of West Third Street and the parcel south of West Third Street be preserved for limited agricultural uses and limited residential development. However, the fallow western parcel north of West 3rd Street will remain with its current land use designation of medium-low density residential. Since this parcel is already designated for residential use and the Specific Plan would not change this designation, it would result in the conversion of Prime Farmland with or without the Specific Plan. As a result, this conversion is not considered a significant impact associated with the Specific Plan and the Specific Plan would result in a *less-than-significant* impact associated with the conversion of Prime Farmland to urban use.

d. Conflict with existing zoning for agricultural use, or a Williamson Act contract.
As discussed above, Sonoma County has zoned the two main parcels north of West 3rd Street as Agricultural and Residential. However, the City of Santa Rosa has already applied residential zoning designations to these parcels in the past. The Specific Plan will not be changing the existing City land use designation on the western parcel, and the change identified to the eastern parcel would preserve the parcel for continued limited agricultural use. Additionally, neither of these parcels are currently under contract as Williamson Act lands. Thus, there would be a *less-than-significant impact* on existing land zoned for agricultural use or subject to a Williamson Act contract.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.
Continued development under the Specific Plan would result in the western portion of the Imwalle Gardens Sub-Area to convert from fallow use to residential uses, consistent with the City’s existing General Plan. As discussed above, while this land is officially identified as Prime Farmland by the State’s FMMP program, the conversion of this parcel to urban uses would not be a result of the Specific Plan since the Specific Plan would not change the current designation of the property, so no direct impact would occur related to the conversion of farmland to non-agricultural uses. In addition, the Specific
Plan would result in the increase of densities within the City’s urban core. By removing some of the pressure to build on the edge of the City by allowing more growth in the center, the Specific Plan could have a positive impact related to the conversion of agricultural lands by slowing the conversion of edge lands adjacent to or on agricultural lands. As a result, the Specific Plan would have a less-than-significant impact related to the direct and indirect conversion of farmland.

2. Cumulative Impacts
Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to land use and agricultural resources. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for development under the General Plan to result in a cumulative impact related to land use and agricultural resources would be reduced to a less-than-significant level with the included General Plan policies. All of the reasonably foreseeable development in the Specific Plan Area is in keeping with the overall intent of the General Plan and is subject to General Plan policies. The proposed General Plan Amendments and Specific Plan policies regarding land use are designed to help the City better anticipate patterns of growth and focus development in the Downtown area, consistent with the 2002 General Plan. In addition, the 2002 General Plan analysis included the eventual conversion of the Imwalle Gardens Sub-Area to urban uses, so this would not be a new impact related to the Specific Plan. Thus, the Specific Plan would not contribute to a significant cumulative impact related to land use and agricultural resources.

E. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to land use, no mitigation measures are required.
This section describes the existing ambient noise conditions of the Specific Plan Area and evaluates the potential noise impacts associated with the Specific Plan. Noise levels were measured in locations where future development of noise sensitive land uses would occur or where future development would border existing noise sensitive land uses.

A. Regulatory Framework

Fundamental concepts of environmental acoustics vibration begin the discussion of this section. Following these fundamental concepts is a summary of federal, State and local laws, policies and regulations that apply to the noise analyses.

1. Fundamental Concepts of Environmental Acoustics and Vibration

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound can 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 that 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 4.9-1.

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 4.9-2. 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 Leq. The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

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 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Day/Night Average Sound Level (Ldn or DNL), is essentially the same as CNEL, with the exception that the
### Table 4.9-1 Definitions of Acoustical Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decibel, dB</td>
<td>A unit describing the amplitude of sound.</td>
</tr>
<tr>
<td>Frequency, Hz</td>
<td>The number of complete pressure fluctuations per second above and below atmospheric pressure.</td>
</tr>
<tr>
<td>A-Weighted Sound Level, dBA</td>
<td>Decibel level as measured using the A-weighting filter network which 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 correlating well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.</td>
</tr>
<tr>
<td>L_{10}, L_{10}, L_{50}, L_{90}</td>
<td>The A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.</td>
</tr>
<tr>
<td>Equivalent Noise Level, L_{eq}</td>
<td>The average A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>Community Noise Equivalent Level, CNEL</td>
<td>The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to sound levels measured from 7:00 p.m. to 10:00 p.m. and 10 decibels to sound levels measured between 10:00 p.m. and 7:00 a.m.</td>
</tr>
<tr>
<td>Day/Night Noise Level, L_{dn} or DNL</td>
<td>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 p.m. and 7:00 a.m.</td>
</tr>
<tr>
<td>L_{max}, L_{min}</td>
<td>The maximum and minimum A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>Ambient Noise Level</td>
<td>The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.</td>
</tr>
<tr>
<td>Intrusive</td>
<td>Noise which intrudes over and above the existing ambient noise at a given location. Relative intrusiveness depends on amplitude, duration, frequency, time of occurrence and tonal or informational content as well as the prevailing ambient noise level.</td>
</tr>
</tbody>
</table>
### Table 4.9-2  **Typical Sound Levels**

<table>
<thead>
<tr>
<th>Outdoor Sound (distance from source)</th>
<th>DBA</th>
<th>Indoor Sound</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil Defense Siren (100’)</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jet Takeoff (200’)</td>
<td>120</td>
<td>Pain Threshold</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel Pile Driver (100’)</td>
<td>100</td>
<td>Rock Music Concert</td>
<td>Very Loud</td>
</tr>
<tr>
<td>Freeway (100’)</td>
<td>90</td>
<td>Boiler Room</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Printing Press Plant</td>
<td></td>
</tr>
<tr>
<td>Freight Cars (50’)</td>
<td>80</td>
<td>In Kitchen With Garbage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Running</td>
<td>Moderately Loud</td>
</tr>
<tr>
<td>Freeway (100’)</td>
<td>70</td>
<td>Data Processing Center</td>
<td></td>
</tr>
<tr>
<td>Vacuum Cleaner (10’)</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Traffic (100’)</td>
<td>50</td>
<td>Department Store</td>
<td></td>
</tr>
<tr>
<td>Large Transformer (200’)</td>
<td>40</td>
<td>Private Business Office</td>
<td></td>
</tr>
<tr>
<td>Soft Whisper (5’)</td>
<td>30</td>
<td>Quiet Bedroom</td>
<td>Quiet</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Recording Studio</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>Threshold of Hearing</td>
<td></td>
</tr>
</tbody>
</table>

Evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

The thresholds for speech interference indoors are about 45 dBA if the noise is steady, and above 55 dBA if the noise is fluctuating. Outdoors, the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35
dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA Ldn. Typically, the highest steady traffic noise level during the daytime is about equal to the Ldn, and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection, and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 15 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 60 dBA Ldn with open windows and 65-70 dBA Ldn if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to have closable windows, and bedrooms facing major roadways and freeways typically need special glass windows.

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. Previous attitude surveys have determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The Ldn as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. There continues to be disagreement about the relative annoyance of noise caused by aircraft and ground transportation. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA Ldn. At an Ldn of about 60 dBA, approximately 2 percent of the population is highly annoyed. When the Ldn increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about 1 percent per dBA between an Ldn of 60-70 dBA. Between an Ldn of 70-80 dBA, each decibel increases percentage of the population highly annoyed by about 2 percent.
People appear to respond more adversely to aircraft noise. When the Ldn is 60 dBA, approximately 10 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 2 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 3 percent increase in the percentage of the population highly annoyed.

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several methods are typically used to quantify the amplitude of vibration including Peak Particle Velocity (PPV) and Root Mean Square (RMS) velocity. PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. RMS velocity is defined as the average of the squared amplitude of the signal. PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 4.9-3 displays continuous vibration impacts on human annoyance and on buildings. As discussed previously, annoyance is a subjective measure and vibrations may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.
### Table 4.9-3 Reaction of People and Damage to Buildings for Continuous Vibration Levels

<table>
<thead>
<tr>
<th>Velocity Level, PPV (in/sec)</th>
<th>Human Reaction</th>
<th>Effect on Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.006-0.019</td>
<td>Threshold of perception: Possibility of intrusion</td>
<td>Vibration unlikely to cause damage of any type</td>
</tr>
<tr>
<td>0.08</td>
<td>Vibrations readily perceptible</td>
<td>Recommended upper level of the vibration to which ruins and ancient monuments should be subjected</td>
</tr>
<tr>
<td>0.10</td>
<td>Level at which continuous vibrations begin to annoy people</td>
<td>Virtually no risk of “architectural” damage to normal buildings</td>
</tr>
<tr>
<td>0.20</td>
<td>Vibrations annoying to people in buildings</td>
<td>Threshold at which there is a risk of “architectural” damage to normal dwellings such as plastered walls or ceilings.</td>
</tr>
<tr>
<td>0.50</td>
<td>Vibrations considered unpleasant by people subjected to continuous vibrations</td>
<td>Vibration at this level would cause “architectural” damage and possibly minor structural damage.</td>
</tr>
</tbody>
</table>

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generate the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the peak particle velocity descriptor has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.006 to 0.09 inches/sec, PPV. Human perception to vibration varies with the individual and is a function of
physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is already at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

Railroad train vibration is an example of a vibration that can be annoying to people. People’s response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is $1 \times 10^{-6}$ in./sec. RMS, which equals 0 VdB, and 1 in./sec. equals 120 VdB. Although not a universally accepted notation, the abbreviation “VdB” is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences.

One of the problems with developing suitable criteria for groundborne vibration is the limited research into human response to vibration and more importantly human annoyance inside buildings. However, experience with rapid transit systems over the last few decades has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are primarily based on experience with passenger train operations, such as rapid transit and commuter rail systems. The main
difference between passenger and freight operations is the time duration of individual events; a passenger train lasts few seconds whereas a long freight train may last several minutes, depending on speed and length. Although these criteria are based on shorter duration events reflected by passenger trains, they are also used in this assessment to evaluate the potential of vibration annoyance on the site due to large freight trains.

The City of Santa Rosa has not identified quantifiable vibration limits that can be used to evaluate the compatibility of land uses with the expected vibration environment. Although there are no local standards that control the allowable vibration in a new residential development, the U.S. Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The Federal Transit Administration (FTA) has proposed vibration impact criteria, based on maximum overall levels for a single event. The impact criteria for ground-borne vibration are shown in Table 4.9-5. Note that there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

2. State Laws and Regulations
   a. California Building Code
      New multi-family housing in the State of California is subject to the environmental noise limits set forth in Appendix Chapter 1208A.8.4 of the California Building Code. The noise limit is a maximum interior noise level of 45 dBA DNL. Where exterior noise levels exceed dBA 60 dBA DNL, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the interior noise limit.
**TABLE 4.9-5 RAILROAD TRAIN GROUNDBORNE VIBRATION IMPACT CRITERIA**

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Groundborne Vibration Impact Levels (VdB re 1 μinch/sec, RMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequent Events⁴</td>
</tr>
<tr>
<td>Category 1:</td>
<td>65 VdB⁴</td>
</tr>
<tr>
<td>Buildings where vibration would interfere with interior operations</td>
<td></td>
</tr>
<tr>
<td>Category 2:</td>
<td>72 VdB</td>
</tr>
<tr>
<td>Residences and buildings where people normally sleep</td>
<td></td>
</tr>
<tr>
<td>Category 3:</td>
<td>75 VdB</td>
</tr>
<tr>
<td>Institutional land uses with primarily daytime use</td>
<td></td>
</tr>
</tbody>
</table>

*Note, Existing Conditions*  

⁴ “Frequent Events” is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall in this category.  

⁵ “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day.  

⁶ “Infrequent Events” is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.  

d This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.  


3. **Local Laws and Regulations**

a. City of Santa Rosa General Plan Noise and Safety Element

- Policy NS-B-1. Do not locate noise-sensitive uses in proximity to major noise sources.

- Policy NS-B-2. Encourage residential developers to provide buffers other than sound walls, where practical. Allow sound walls only when projected (2020) noise levels at a site exceed land use compatibility standards in Figure 4.9-1.
### Noise Land Use Compatibility Guidelines

#### Legend:

- **Normal Acceptable**
  - Specified land use is satisfactory, based upon the assumption that any building involved is 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, 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.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>55</th>
<th>60</th>
<th>65</th>
<th>70</th>
<th>75</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential - Low Density Single Family, Duplex, Mobile Homes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential - Multi-family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transient Lodging - Motels, Hotels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditorium, Concert Halls, Amphitheaters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Arena, Outdoor Spectators, Spectators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water Recreation, Cemeteries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Buildings, Business Commercial and Professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial, Manufacturing Utilities, Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
♦ Policy NS-B-3. Prevent new stationary and transportation noise sources from creating a nuisance in existing developed areas. Use a comprehensive program of noise prevention through planning and mitigation, and consider noise impacts as a crucial factor in project approval.

♦ Policy NS-B-4. Require new projects in the following categories to submit an acoustical study, prepared by a qualified acoustical consultant:

• All new projects proposed for areas with existing noise above 60dBA DNL. Mitigation shall be sufficient to reduce noise levels below 45 dBA DNL in habitable rooms and 60dBA DNL in private and shared recreational facilities. Additions to existing housing units are exempt.

• All new projects that could generate noise whose impacts on other existing uses would be greater than those normally acceptable (as specified in the Land Use Compatibility Standards).

♦ Policy NS-B-5. Pursue measures to reduce noise impacts primarily through site planning. Engineering solutions for noise mitigation, such as sound walls, are the least desirable alternative.

♦ Policy NS-B-8. Adopt mitigations, including reduced speed limits, improved paving texture, and traffic controls, to reduce noise to normally acceptable levels in areas where noise standards may be exceeded (e.g., where homes front regional/arterial streets and in areas of mixed use development).

♦ Policy NS-B-9. Encourage developers to incorporate acoustical site planning into their projects. Recommended measures include:

• Incorporating buffers and/or landscaped earth berms;
• Orienting windows and outdoor living areas away from unacceptable noise exposure;
• Using reduced-noise pavement (rubberized-asphalt);
• Incorporating traffic calming measures, alternative intersection designs, and lower speed limits; and
• Incorporating state-of-the-art structural sound attenuation and setbacks.
Policy NS-B-10. Work with private enterprises to reduce or eliminate nuisance noise from industrial and commercial sources that impact nearby residential areas. If progress is not made within a reasonable time, the City shall issue abatement orders or take other legal measures.

Policy NS-B-14. Discourage new projects that have potential to create ambient noise levels more than 5 dBA DNL above existing background, within 250 feet of sensitive receptors.

b. Santa Rosa Municipal Code Noise Ordinance
The Santa Rosa Municipal Code regulates and controls the adverse effects of noise on citizens. The following provisions apply to the Specific Plan:

17-16.030 Ambient Base Noise Level Criteria. The following criteria will be used as a base (ambient noise level) from which noise levels can be compared.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Time</th>
<th>Sound Level A (decibels)</th>
<th>Community Environment Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1 and R2</td>
<td>10 p.m. to 7 a.m.</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>R1 and R2</td>
<td>7 p.m. to 10 p.m.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>R1 and R2</td>
<td>7 a.m. to 7 p.m.</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Multi-family</td>
<td>10 p.m. to 7 a.m.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Multi-family</td>
<td>7 a.m. to 10 p.m.</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Office &amp; Commercial</td>
<td>10 p.m. to 7 a.m.</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Office &amp; Commercial</td>
<td>7 a.m. to 10 p.m.</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Intensive Commercial</td>
<td>10 p.m. to 7 a.m.</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Intensive Commercial</td>
<td>7 a.m. to 10 p.m.</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>Anytime</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>
B. Existing Conditions

Illingworth & Rodkin, Inc. measured noise levels from February 6 to 8, 2006 at locations where noise sensitive uses may be developed or where development may impact existing noise sensitive land uses. Seven long-term (LT) and nine short-term (ST) measurements were made within the project area. Noise measurement locations (LT & ST) are shown on Figure 4.9-2. Noise measurements were made using a Larson Davis Model 820 sound level meters fitted with precision microphones. The sound level measuring assemblies were calibrated prior to and immediately after the noise measurement and were found to be within 0.1 dBA.

Long-term measurements were made along each of the major transportation routes, including U.S. Highway 101, State Route 12, and representative arterial roadways. From these data, one determines the hour-by-hour distribution of noise levels, allowing the 24-hour day/night average noise level to be estimated from short-term measurements made at satellite locations. The measurement sites were picked to provide information on the noise levels at key locations identified within the Specific Plan Area.

The primary noise source within the Specific Plan Area is traffic along the arterial roadways and highways. Noise produced by stationary industrial sources was audible in the vicinity of existing industrial uses. The following is a description of the noise measurements.
FIGURE 4.9-2

NOISE MEASUREMENT LOCATIONS

Specific Plan Area

+++ Railroad

Blue Circle = Long-term Site

Green Circle = Short-term Site
1. Long-Term Noise Measurements

Long-term measurement one (LT-1) was made from February 6th to 7th, 2006, and was located in Railroad Square, about 260 feet from Wilson Street and 280 feet from West Sixth Street. The primary noise source at this location was Wilson Street with steady background noise from Highway 101. The microphone was positioned at a height of approximately 12 feet above the surrounding ground. Hourly Leq noise levels ranged from about 54 dBA to 60 dBA. The calculated day-night average noise level was 63 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-3.

Long-term measurement two (LT-2) was made from February 6 to 7, 2006, and was about 40 feet from the centerline of Cleveland Avenue, near 10th Street. The primary noise source at this location was Cleveland Avenue with intermittent industrial noise. Steady background noise from Highway 101 was also present. The microphone was positioned at a height of approximately 10 feet above the surrounding ground. Hourly Leq noise levels ranged from about 52 dBA to 67 dBA. The calculated day-night average noise level was 67 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-4.

Long-term measurement three (LT-3) was made from February 6 to 7, 2006, and was located on the north side of Highway 12 near the eastern border of the project boundary. The measurement was made about 110 feet from the centerline of Highway 12. The primary noise source at this location was Highway 12. The microphone was positioned at a height of approximately 12 feet above the surrounding ground. Daytime Hourly Leq noise levels ranged from about 70 dBA to 75 dBA and nighttime Leq noise levels ranged from 62 dBA to 70 dBA. The calculated day-night average noise level was 75 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-5.

Long-term measurement four (LT-4) was made from February 7 to 8, 2006, and was located on the south side of Highway 12, at the end of Roberts Avenue. The measurement was about 140 feet from the Highway 12 centerline.
Noise Levels at LT-1
260 Feet From the Centerline of Wilson Street at Rail Road Square
February 6 & 7, 2006

Ldn = 63 dBA

Source: Illungworth & Rodkin, Inc.
Noise Levels at LT-2
40 Feet From the Centerline of Cleveland Avenue Near Tenth Street
February 6 & 7, 2006

Source: Illungworth & Rodkin, Inc.
Noise Levels at LT-3
110 Feet North of the Centerline of State Route 12
February 6 & 7, 2006

Source: Illungworth & Rodkin, Inc.
The primary noise source at this location was Highway 12 with nearby industrial noise. The microphone was positioned at a height of approximately 12 feet above the surrounding ground. There was significant acoustic shielding from Highway 12, because the highway is about 30 feet above ground from this development area. Hourly Leq noise levels ranged from about 53 dBA to 67 dBA. The calculated day-night average noise level was 67 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-6.

Long-term measurement five (LT-5) was made from February 7 to 8, 2006, and was located about 160 feet from the centerline of Highway 101. The primary noise source at this location was Highway 101 with occasional passbys on Morgan Street. The microphone was positioned with a clear, unobstructed view of the freeway. Hourly Leq noise levels ranged from about 62 dBA to 72 dBA. The calculated day-night average noise level was 74 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-7.

Long-term measurement six (LT-6) was made from February 7 to 8, 2006, and was located about 43 feet from the centerline of B Street. The primary noise source at this location was B Street with occasional parking lot traffic. The microphone was positioned at a height of approximately 10 feet above the surrounding ground. Hourly Leq noise levels ranged from about 53 dBA to 67 dBA. The calculated day-night average noise level was 68 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-8.

Long-term measurement seven (LT-7) was made from February 7 to 8, 2006, and was located about 30 feet from the centerline of 3rd Street. The primary noise source at this location was 3rd Street with occasional parking lot noise. The microphone was positioned at a height of approximately 10 feet above the surrounding ground. Hourly Leq noise levels ranged from about 54 dBA to 68 dBA. The calculated day-night average noise level was 69 dBA Ldn. The daily trend in noise levels at the long-term location is shown in Figure 4.9-9.
Noise Levels at LT-4
70 Feet From the Shoulder & 140 Feet to the Centerline of State Route 12
February 7 & 8, 2006

FIGURE 4.9-6
DAILY TREND IN NOISE LEVELS AT LT-4

Source: Illungworth & Rodkin, Inc.
FIGURE 4.9-7

DAILY TREND IN NOISE LEVELS AT LT-5

Source: Illungworth & Rodkin, Inc.
Noise Levels at LT-6
43 Feet From the Centerline of B Street Near Sixth Street
February 7 & 8, 2006

Leq(hr)
Lmax
L(1)
L(10)
L(50)
L(90)
Lmin

Ldn = 68 dBA

Source: Illungworth & Rodkin, Inc.
Noise Levels at LT-7
30 Feet From the Centerline of 3rd Street Near E Street
February 6 & 7, 2006

Source: Illungworth & Rodkin, Inc.
2. Short-Term Noise Measurements

Short-term noise measurements were made at additional representative locations. At Locations ST-2 through ST-5, the DNL at each location was estimated by correlating the short-term measurement to a corresponding long-term site. At the other sites, the DNL could not be derived from a long-term site so a range of levels is presented.

Short-term measurement one (ST-1) was made on February 6, 2006, and was located at the southeast corner of the intersection of North Dutton Avenue and College Avenue, at a distance of about 30 feet from the centerline of each roadway and at a height of about 5 feet above the ground. The primary noise source at this location was traffic noise along both roadways as well as construction noise that was located about 300 feet from the measurement.

The 10-minute equivalent noise level (Leq) was 72 dBA. This measurement does not correlate to any long-term measurement site. Based on typical daily noise level distributions, the day/night average noise level is estimated to be 65-70 dBA DNL. A summary of the data measured at the short term locations are shown in Table 4.9-4.

Short-term measurement two (ST-2) was made on February 6, 2006, was located in the railway corridor between 8th and 9th Streets. The noise sources at this location include occasional traffic along 8th Street, distant traffic noise from Highway 101 and industrial activity in an adjacent lot to the east. The 10-minute equivalent noise level (Leq) was 49 dBA. The estimated Ldn noise level for this measurement was 54 dBA.

Short-term measurement three (ST-3) was made on February 6, 2006, was located on the creek trail between Stony Point Road and Dutton Avenue. The noise sources at this location include birds that reside along the creek and distant traffic along West 3rd Street and Highway 12. The background noise level from Highway 12 was about 49 dBA, about 25 decibels down from concurrent noise level at LT-3. The 10-minute equivalent noise level (Leq) was 49
Table 4.9-4  **Summary of Short-Term Noise Levels Measured**

<table>
<thead>
<tr>
<th>Site</th>
<th>Date /Time</th>
<th>$L_{eq}$</th>
<th>$L_{10}$</th>
<th>$L_{50}$</th>
<th>$L_{90}$</th>
<th>Est. LDN</th>
<th>Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-1</td>
<td>2-6-05 14:35-14:45</td>
<td>72</td>
<td>74</td>
<td>69</td>
<td>66</td>
<td>65-70</td>
<td>Traffic Noise &amp; Construction Noise</td>
</tr>
<tr>
<td>ST-2</td>
<td>2-6-05 15:05-15:15</td>
<td>49</td>
<td>52</td>
<td>47</td>
<td>45</td>
<td>54</td>
<td>Traffic Noise &amp; Industrial Noise</td>
</tr>
<tr>
<td>ST-3</td>
<td>2-6-05 15:50-16:00</td>
<td>49</td>
<td>50</td>
<td>49</td>
<td>48</td>
<td>50</td>
<td>Chirping Birds &amp; Distant Traffic</td>
</tr>
<tr>
<td>ST-4</td>
<td>2-7-06 11:50-12:00</td>
<td>61</td>
<td>62</td>
<td>60</td>
<td>59</td>
<td>62</td>
<td>Traffic on Highway 101 &amp; Highway 12</td>
</tr>
<tr>
<td>ST-5</td>
<td>2-7-06 14:50-15:00</td>
<td>63</td>
<td>65</td>
<td>62</td>
<td>60</td>
<td>68</td>
<td>Nearby &amp; Distant Traffic</td>
</tr>
<tr>
<td>ST-6</td>
<td>2-7-06 15:05-15:15</td>
<td>65</td>
<td>69</td>
<td>62</td>
<td>53</td>
<td>N/A65-70</td>
<td>Secondary Street Traffic</td>
</tr>
<tr>
<td>ST-7</td>
<td>2-7-06 14:45-14:55</td>
<td>68</td>
<td>71</td>
<td>66</td>
<td>61</td>
<td>N/A65-70</td>
<td>Arterial Traffic</td>
</tr>
<tr>
<td>ST-8</td>
<td>2-7-06 15:05-15:15</td>
<td>68</td>
<td>71</td>
<td>64</td>
<td>51</td>
<td>N/A65-70</td>
<td>Arterial Traffic</td>
</tr>
<tr>
<td>ST-9</td>
<td>2-7-06 15:35-15:45</td>
<td>69</td>
<td>71</td>
<td>66</td>
<td>64</td>
<td>N/A65-70</td>
<td>Idling Traffic &amp; Bus Station</td>
</tr>
</tbody>
</table>

The estimated $L_{dn}$ noise level resulting from traffic noise for this measurement was less than 50 dBA.

Short-term measurement four (ST-4) was made on February 7, 2006, and was located at the southwest corner of the intersection of Orange Street and Laurel Street, in the Olive Park Neighborhood, at a height of about 5 feet above the ground. The primary noise source at this location was traffic noise along both Highway 101 and Highway 12. The measurement was located about 440 feet from the centerline of Highway 101 and about 400 feet from the centerline of Highway 12. Noise from a ramp serving the intersection, which was about 280 feet from the noise measurement, at times exceeded the ambient...
noise level generated by the highways. The 10-minute equivalent noise level (Leq) was 61 dBA. The estimated Ldn noise level for this measurement was 62 dBA.

Short-term measurement five (ST-5) was made on February 7, 2006, and was located about 30 feet from the centerline of A Street. The primary noise source at this location was traffic noise along Highway 101. The measurement was located about 520 feet from the centerline of Highway 101. Noise from A Street occasionally exceeded the background noise level generated by the highways. The 10-minute equivalent noise level (Leq) was 63 dBA, 5 decibels down from the concurrent noise measured at LT-5. The estimated Ldn noise level for this measurement was 68 dBA.

Short-term measurement six (ST-6) was made on February 7, 2006, and was located about 30 feet from the centerline of B Street. The primary noise source at this location was traffic noise along B Street with a steady background noise from Highway 101. The 10-minute equivalent noise level (Leq) was 65 dBA, and was about the same noise measured concurrently at LT-6, which was also located on B Street. The estimated Ldn noise level for this measurement was not calculated because the traffic flow at the measurement location does not correlate to LT-6. Based on typical daily noise level distributions, the day/night average noise level is estimated to be 65-70 dBA DNL.

Short-term measurement seven (ST-7) was made on February 7, 2006, and was located about 35 feet from the centerline of Mendocino Avenue. The primary noise source at this location was vehicular traffic along Mendocino Avenue. The 10-minute equivalent noise level (Leq) was 68 dBA. The estimated Ldn noise level for this measurement was not calculated because it does not correlate to any long-term measurement. Based on typical daily noise level distributions, the day/night average noise level is estimated to be 65-70 dBA DNL.

Short-term measurement eight (ST-8) was made on February 7, 2006, and was located about 40 feet from the centerline of 4th Street and about 150 feet from the centerline of Mendocino Avenue. The primary noise source at this loca-
tion was vehicle traffic noise along 4th Street. Noise from Mendocino Avenue occasionally was audible, as well as voices in the downtown square area. The 10-minute equivalent noise level (Leq) was 68 dBA. The estimated Ldn noise level for this measurement was not calculated because it does not correlate to any long-term measurement. Based on typical daily noise level distributions, the day/night average noise level is estimated to be 65-70 dBA DNL.

Short-term measurement nine (ST-9) was made on February 7, 2006, and was located about 35 feet from the centerline of B Street, about 150 feet south of 3rd Street, in front of Traverso’s Italian market. The primary noise source at this location was traffic noise from idling buses and cars queued to enter the intersection of B and 3rd Streets. In addition to B Street, the bus station was a major contributor to noise levels, with idling buses and many people waiting for their bus. The 10-minute equivalent noise level (Leq) was 69 dBA, and was about 3 decibels louder than noise measured concurrently at LT-6, which was also located on B Street. The estimated Ldn noise level for this measurement was not calculated because it does not correlate to any long-term measurement. Based on typical daily noise level distributions, the day/night average noise level is estimated to be 65-70 dBA DNL.

C. **Standards of Significance**

The Specific Plan would have a significant impact with respect to noise or vibration if implementation of the Specific Plan 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.

a. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

b. A permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
c. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

The Specific Plan Area is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. There will be no further analysis of aircraft noise issues.

**D. Impact Discussion**

This section describes the potential noise impacts on the Specific Plan Area, as well as potential impacts of environmental noise on the Specific Plan.

1. **Project Impacts**
   a. **Construction Noise**
   
   Residences and businesses are located throughout the Specific Plan Area, and would be affected by construction noise during build-out of the Specific Plan. 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. Major noise generating construction activities would include removal of existing pavement and structures, site grading and excavation, building framing, paving and landscaping. For most areas that may be developed under the Specific Plan Area, the distance from these activities to noise-sensitive receptors would be less than 100 feet.

   The highest construction noise levels would be generated during grading excavation and foundation work, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA measured at a distance of 50 feet from the site during busy construction periods. In addition, pile driving may occur at
some of the potential project sites. This type of construction activity can produce very high noise levels of approximately 105 dBA at 50 feet, which are difficult to control. The noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures would also result in lower noise levels.

Although construction noise would be localized to the individual sites during construction, businesses and residences throughout the Specific Plan Area would be intermittently exposed to high levels of noise throughout the years of construction. However, General Plan Policy NS-B-2 and NS-B-3 would require that construction sites provide noise buffers and prevent new stationary and transportation noise sources from creating a nuisance to the community. Construction workers are also required to adhere to appropriate equipment noise controls set forth in the Santa Rosa Municipal Code Noise Ordinance.

Although construction noise would be localized to the individual sites during construction, businesses and residences throughout the Specific Plan Area would be intermittently exposed to high levels of noise throughout the years of construction. Construction would elevate noise levels at adjacent businesses and residences by as much as 15 to 20 dBA. Such a large increase in the noise level, although short-term in duration, would be a significant impact.

b. Noise and Land Use Compatibility
   i. Specific Plan Area Impact
   The Specific Plan proposes to develop noise sensitive residential uses Downtown, along major and local roadways and along the railroad corridor in the Specific Plan Area. The majority of the development in the Specific Plan would include retail or commercial uses on the ground floor with residences located on the upper stories. These residential units could be exposed to traffic or railroad train noise. The majority of the proposed residential uses developed in the Specific Plan Area would not be expected to include private outdoor yards, and small decks and entry porches would not be required to meet the exterior guidelines. Outdoor common use areas located in noise
environments exceeding 60 dBA L_{dn} would require noise mitigation, such as proper site planning or sound barriers, to achieve the compatibility guideline.

The existing noise environment throughout the Specific Plan Area is in the range of 60 to 70 dBA L_{dn} along the surface streets and about 75 dBA L_{dn} along Highway 101 and Highway 12. Noise levels along many Specific Plan roadways would, therefore, exceed those considered normally compatible with exterior residential uses (60 dBA L_{dn}).

Where exterior noise levels exceed 60 dBA L_{dn}, interior noise levels may also exceed the interior 45 dBA L_{dn} standard established in the City’s Noise Element and the State Building Code. Typical California construction provides approximately 15 dBA of noise reduction from exterior noise sources with windows partially open, and approximately 20 to 25 dBA of noise reduction with windows kept closed. Where exterior noise levels do not exceed 65 to 70 dBA L_{dn}, interior noise can be mitigated with standard wall and window construction and the inclusion of mechanical forced air ventilation, acceptable to the City of Santa Rosa, to allow occupants the option of maintaining windows closed to control noise. Where exterior noise levels exceed 65 to 70 dBA L_{dn}, residential units would not normally be able to meet the 45 dBA L_{dn} interior standard simply through typical construction methods. This would be a significant impact.

The Specific Plan would implement development of new residential uses adjacent to or sometimes within the same building as noise-generating commercial and retail uses. Noise levels resulting from heating, ventilating, air conditioning equipment, entertainment, etc., could exceed the noise ordinance limits. However, enforcement of General Plan Policy NS-B-9 would require developers to incorporate acoustical site planning into their projects. Construction workers are also required to adhere to appropriate equipment noise controls set forth in the Santa Rosa Municipal Code Noise Ordinance, as well as hours of operation. Proper enforcement of these policies would reduce this impact to a less-than-significant level.
ii. Northwestern Pacific Railroad Corridor Impact

The Northwestern Pacific Railroad (NWPR) corridor has been proposed as a rail transit corridor by the Sonoma-Marin Area Rail Transit (SMART). SMART proposes to operate trains consisting of diesel-powered, self-propelled vehicles called Diesel Multiple Unit (DMU) vehicles. Information regarding noise levels from the proposed SMART project is set forth in the Sonoma-Marin Area Rail Transit DEIR (November 2005) and FEIR (June 2006). SMART proposes 12 passenger train movements in each direction between 5:00 a.m. and 8:00 p.m. Noise from train operations includes noise from the engines and wheel-rail interaction. In addition, the sound of railroad train warning horns is a dominant source within approximately one-quarter mile of grade crossings. Data presented in Table 3.7-5 of the FEIR indicate that the 60 dBA L_{dn} noise exposure level is predicted to be at a distance of 25 feet from the tracks in areas where there are not at-grade crossings requiring the sounding of train horns. Train horns would be expected to be prominent during passages through the Specific Plan Area. The instantaneous maximum noise level from a train horn is about 105 dBA at 70 feet. At a distance of 40 feet, the nearest typical building setbacks from the railroad tracks, the maximum instantaneous noise level is calculated to be about 108 dBA. Day/night average noise levels were not presented in the SMART documents for areas near at-grade crossings. The analysis focused on maximum instantaneous noise levels in these areas. The L_{dn} can be calculated if certain assumptions are made. In this instance, it is assumed that there would be two train passages during the early morning hours when train movements might occur (5:00 a.m. to 7:00 a.m.) and the balance of train movements would be during daytime hours (7:00 a.m. – 8:00 p.m.). Given this assumption and the assumption that the sound of a horn at the maximum amplitude of 108 dBA would be sustained for one second adjacent to a given unit, the calculated 24-hour average noise level is 75 dBA L_{dn} at 40 feet. This is a reasonable estimate for noise exposure at the properties adjoining the NWPR. Noise levels inside housing adjoining the tracks could exceed 45 dBA L_{dn}, which would be significant.
Furthermore, consideration should be given to controlling the maximum instantaneous noise levels of the train horn to acceptable levels inside the units. It is recommended that the maximum instantaneous noise levels from the train horns not exceed 55 dBA inside bedrooms and other habitable rooms. The SMART FEIR identified that the sound of train horns could cause a significant environmental impact upon existing housing. The EIR outlined the methods by which communities could obtain Quiet Zone applications from the Federal Railroad Administration (FRA). SMART has committed to work with any local jurisdictions wishing to be designated Quiet Zones to cooperatively meet the requirements for designation and budget needs for supplementary safety measures for Quiet Zones.\(^1\) The FRA has final jurisdiction over Quiet Zones. Because it is not known whether or not the Quiet Zone designation would be granted, the impact of a “single event” noise from train horns is considered to be significant.

Retail units developed under the Specific Plan along most of the area roadways would meet the exterior commercial land use compatibility guideline of 70 dBA Ldn established in the Noise Element. However, exterior noise levels would exceed 70 dBA Ldn along Highway 101 and Highway 12. This would be a significant impact.

c. Increased Traffic Noise
The implementation of the Specific Plan would result in an increase in traffic and traffic noise in the Specific Plan Area and surrounding neighborhoods. The increase in traffic noise is calculated by comparing existing traffic volume on the street network to future traffic volumes that are projected if the Specific Plan is implemented. Traffic noise increases were calculated for the 21 intersections analyzed in the traffic report. Measurable increases ranging from less than 1 dBA to up to about 2 dBA DNL are predicted to occur along most of the streets throughout the Specific Plan Area. Noise levels along Third Street are calculated to increase about 3 dBA DNL. A short segment of B Street north of Third Street and First Street east and west of Santa Rosa

\(^1\) SMART FEIR, page 4-55, June 2006.
Avenue are predicted to have noise level increases of 3 to 4 dBA DNL. Policy NS-B-14 of the Noise Element of the City General Plan proposes to “discourage new projects that have potential to create ambient noise levels more than 5 dBA DNL above existing background, within 250 feet of sensitive receptors.” The implementation of the Specific Plan is not calculated to result in an increase of 5 dBA DNL as a result of increased project traffic at any sensitive receptors adjoining roadways in the Specific Plan Area or surrounding neighborhoods. This is a less-than-significant impact.

d. Groundborne Vibration

i. Construction

Construction of projects under the Specific Plan would be located adjacent to existing structures. Construction activities may include demolition of existing structures, site preparation work, excavation of below grade levels, foundation work, pile driving, and framing. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels would also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

Pile driving has the potential to generate the highest ground vibration levels and is of primary concern to structural damage, particularly when it occurs within 100 feet of structures. Vibration levels generated by pile driving activities would vary depending on project conditions such as soil conditions, construction methods, and equipment used. Past studies have established a peak vertical particle velocity of 0.2 in./sec PPV as the limit which could potentially cause cosmetic damage. Other project construction activities, such as caisson drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may also potentially generate substantial vibration in the immediate vicinity.

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings and the methods of con-
struction used, vibration levels caused by pile driving or other impact work may be high enough to damage existing structures. Construction workers are also required to adhere to appropriate equipment noise controls set forth in the Santa Rosa Municipal Code Noise Ordinance, which will help reduce the potential impact. However, this would remain a significant impact.

As with any type of construction, vibration levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual project site. By use of administrative controls such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect nearby businesses, perceptible vibration can be kept to a minimum and as such would result in a less-than-significant impact with respect to perception.

ii. Railroad Operations
Railroad operations are potential sources of ground vibration depending on distance to the receptor, the type and the speed of trains, and the type of railroad track.

Ground-borne vibration levels from railroad train operations were discussed in the SMART DEIR (page 3-132). The 80 VdB FTA threshold for infrequent events is applicable because fewer than 30 events per day are projected. Ground-borne vibration levels are projected to be below 0.01 inches per second rms vibration velocity (80 VdB re micro inch per second) at distances greater than 20 feet from the tracks. This is consistent with ground vibration from low speed train movements in other areas. The nearest residential buildings are likely to be proposed at a distance of at least 40 feet from the tracks. Because ground vibration levels would be less than the FTA impact significance criteria, this is a less-than-significant impact.
2. Cumulative Impacts
Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to noise sources. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for noise disturbance under the General Plan to result in a cumulative impact related to noise would be reduced to a less-than-significant level with the included General Plan policies. All of the reasonably foreseeable development in the Specific Plan Area is in keeping with the overall intent of the General Plan and is subject to General Plan policies. The Specific Plan policies regarding noise are designed to help the City better reduce noise impacts, consistent with the 2002 General Plan. Additionally, the future traffic projections used for the noise analysis were generated by a traffic model that considered the cumulative growth for the entire City of Santa Rosa in conjunction with the Specific Plan (see Chapter 4.12, Traffic). No significant impact associated with increased traffic noise was identified and therefore there would not be a cumulative traffic noise-related impact. For these reasons, the Specific Plan would not result in a significant cumulative impact on noise.

E. Impacts and Mitigation Measures

Impact NOI-1: Although construction noise would be localized to the individual construction sites, businesses and residences throughout the Specific Plan Area would be intermittently exposed to high levels of noise throughout the construction period. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or more. This would be a significant impact.

Mitigation Measure NOI-1: Developers shall ensure that construction equipment be well maintained and used judiciously to be as quiet as practical. The following measures, when applicable, will be required from developers to reduce noise from construction activities:
• Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.

• Utilize “quiet” models of air compressors and other stationary noise sources where technology exists.

• Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.

• Prohibit unnecessary idling of internal combustion engines.

• Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.

• Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.

• A temporary noise control blanket barrier shall be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.

• Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.

• Ensure that construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 a.m. to 7:00 p.m.

• Businesses, residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a “construction liaison” that will be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

Significance After Mitigation: Less than significant.
Impact NOI-2: The future residential units in the Specific Plan would be exposed to outdoor noise levels in excess of 60 Ldn and indoor levels in excess of 45 Ldn. Future commercial uses along Highway 101, Highway 12 and major arterial roadways would be exposed to outdoor noise levels in excess of 70 Ldn. These noise levels would exceed the City and State established land use compatibility thresholds. This would be a significant impact.

Mitigation Measure NOI-2a: In areas where new residential development would be exposed to an L_{dn} of greater than 60 dB, site-specific noise studies shall be conducted to determine the area of impact and to present appropriate mitigation measures to reduce noise levels to within established allowable levels, which may include the following:

- Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible.

- Mechanical ventilation satisfactory to the City of Santa Rosa should be provided in all units so that windows can remain closed at the choice of the occupants to maintain interior noise levels below 45 dBA L_{dn}.

- Sound rated windows and construction methods necessary to provide the requisite noise control for residential units proposed along Highway 101, Highway 12 and NWPR tracks where noise levels could exceed 70 dBA L_{dn}.

- Adopt a policy to limit typical instantaneous maximum noise levels caused by railroad trains to 55 dBA L_{max} inside new housing units proposed along the NWPR tracks.

- New development shall incorporate the identified mitigation measures contained in the noise study, as approved by the City.
Mitigation Measure NOISE-2b: Avoid locating noise sensitive outdoor commercial areas (i.e., outdoor dining, childcare facilities, etc.) adjacent to Highway 101, Highway 12 or major arterial roadways unless they are shielded by sound barriers or structures. Mechanical ventilation should be provided in all noise sensitive commercial uses (i.e., offices, childcare, art galleries, libraries, etc) adjoining Highway 101, Highway 12 or major arterial roadways. Sound rated windows and construction methods may also be necessary.

Significance After Mitigation: Less than significant.

IMPACT NOI-3: Structures in the vicinity of development allowed in the Specific Plan Area could be exposed to construction-related vibration during the excavation and foundation work associated with projects implementing the Specific Plan. This would be a significant impact.

Mitigation Measure NOI-3a: Developers shall reduce vibration from construction activities by implementing the following during construction:

♦ Avoid impact pile driving where possible and use drilled piles when possible since drilled piles causes lower vibration levels where geological conditions permit their use.

♦ Avoid using vibratory rollers and tampers near sensitive areas.

Mitigation Measure NOI-3b: In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:

♦ Identification of sites which would include vibration compaction activities, such as pile driving, and have the potential to generate groundborne vibration, while considering the sensitivity of nearby structures to groundborne vibration. Vibration limits shall be applied
to all vibration-sensitive structures located within 200 feet of the project. This task shall be conducted by a qualified structural engineer.

♦ Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits and address the need to conduct photo, elevation and crack surveys to document before and after construction conditions. Construction contingencies would be identified for when vibration levels approached the limits.

♦ At a minimum, vibration monitoring shall be conducted during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.

♦ When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.

♦ Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Appropriate mitigation shall be approved and required by the City prior to commencement of construction.

**Significance After Mitigation:** Less than significant.
This chapter describes potential impacts from the Specific Plan on population, employment and housing, and includes a description of the relevant regulatory framework and existing population and housing data.

A. Regulatory Framework

This section provides a general summary of the current regulations addressing population and housing within Santa Rosa. It is worth noting that Santa Rosa voters approved a five-year Urban Growth Boundary (UGB) in 1990 and a 20-year UGB measure in 1996, assuring that the current UGB will not be significantly changed at least until 2016. The UGB encompasses 45 square miles.

1. City of Santa Rosa 2020: General Plan
The primary regulatory document addressing population and housing in Santa Rosa is the General Plan. The most relevant policies are discussed below.

a. Land Use and Livability Element

Goal LUL-C: Maintain Downtown as the major regional office, financial, civic and cultural center in the North Bay, and a vital mixed-use center.

♦ Policy LUL-C-9: Preserve and protect the character of older established residential neighborhoods within and adjacent to Downtown. Promote the retention of existing housing units when possible, especially those located in structures of architectural or historic interest and significance through a “no net housing loss policy.” Permit developments that will result in net loss of housing units only with findings that such loss would be unavoidable and that new development would provide greater public benefits.
Goal LUL-F: Maintain a diversity of neighborhoods and varied housing stock to satisfy a wide range of needs.

♦ Policy LUL-F-1: Do not allow development at less than the minimum density prescribed by each residential land use classification.

♦ Policy LUL-F-3: Maintain a balance of various housing types in each neighborhood and ensure that new development does not result in undue concentration of a single housing type in any one neighborhood. Downtown is excepted.

b. Urban Design Element

Goal UD-B: Preserve and strengthen Downtown as a vital and attractive place.

♦ Policy UD-B-2: Encourage, promote and assist in the development of housing units within Downtown for a mix of income levels and housing types, including integrating housing into existing buildings as mixed-use.

Goal UD-G: Design residential neighborhoods to be safe, human-scaled and livable.

♦ Policy UD-G-2: Locate higher density residential uses adjacent to transit facilities, shopping and employment centers, and link these areas with bicycle and pedestrian paths.

c. Housing Element

Goal H-A: Meet the housing needs of all Santa Rosa residents.

♦ Policy H-A-1: Ensure adequate sites are available for development of a variety of housing types for all income levels, including single and multi-family units, mobile homes, transitional housing and homeless shelters.

♦ Policy H-A-4: Pursue the goal of meeting Santa Rosa’s housing needs through increased densities, when consistent with preservation of existing neighborhoods. Higher density sites are illustrated on the General Plan Land Use Diagram, which will allow the development of dwellings for 264 very low and 125 low income households annually.
♦ **Policy H-A-5:** Promote conservation and rehabilitation of the existing housing stock and discourage intrusion of non-compatible uses into residential neighborhoods, which would erode the character of established neighborhoods or lead to use conflicts.

**Goal H-C:** Expand the supply of housing available to lower-income households.

♦ **Policy H-C-1:** Implement the Housing Allocation Plan, the City’s inclusionary program, to increase the number of affordable units in Santa Rosa, both on-site through new developments of 15 or more acres and through collection of in lieu fees and subsequent development of affordable units.

♦ **Policy H-C-2:** Amend the Housing Allocation Plan to ensure it is a mechanism, in concert with the City’s other housing programs, to meet ABAG’s Regional Housing Needs Determination.

♦ **Policy H-C-3:** Utilize fees generated through the Housing Allocation Plan for the development of housing units affordable to Very Low and Low Income households.

♦ **Policy H-C-7:** Encourage production of residential units Downtown.

d. **Growth Management Element**

**Goal GM-A:** Prevent urban sprawl by focusing growth within the Urban Growth Boundary.

♦ **Policy GM-A-1:** Contain urban development in the Santa Rosa area within the City’s Urban Growth Boundary.

**Goal GM-B:** Program infrastructure improvements to keep pace with new residential growth, and ensure that such growth incorporates affordable housing provisions and is balanced with conservation of resources.

♦ **Policy GM-B-1:** Limit the number of new housing units constructed per year.
Policy GM-B-2: Ensure that the City’s Growth Management Ordinance continues to be a mechanism to achieve the community’s housing goals.

2. City of Santa Rosa Growth Management Ordinance: Title 21 Chapter 21-03

The City’s Growth Management Ordinance was adopted in 1992 to implement the General Plan policies of the Growth Management Element. The Ordinance limits the number of residential units that can be approved each year. The Ordinance is intended to moderate the growth rate in order to ensure the City is able protect and promote public health, safety and welfare while maintaining sufficient support for a healthy business economy. The Ordinance details the total number of new entitlements that shall be made available each calendar year and can be seen below in Table 4.10-1. Under the Ordinance, development projects are able to receive an “allotment” that can later be used to obtain a building permit. Because of carryovers from previous years allowed by the Ordinance, the number of permits issued in any one year can be higher than the maximum entitlement.

3. Redevelopment Areas

a. Gateway Redevelopment District

The Redevelopment Agency of the City of Santa Rosa prepared a Redevelopment Plan for the Gateways Redevelopment Project Area (Redevelopment Plan). The Redevelopment Plan encompasses 1,335 acres located alongside Highway 101 for over two and a half miles and extends outward from the highway just over a mile at its widest point. The area primarily includes older residential and commercial areas as well as active and former industrial lands. The City’s Planning Commission adopted the project area and approved a Preliminary Plan on April 28, 2005, and modified the project area.

---

TABLE 4.10-1  ENTITLEMENTS ALLOWED BY THE GROWTH MANAGEMENT ORDINANCE

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Maximum Housing Units/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2005</td>
<td>950</td>
</tr>
<tr>
<td>2006-2010</td>
<td>900</td>
</tr>
<tr>
<td>2011-2015</td>
<td>850</td>
</tr>
<tr>
<td>2016-2020</td>
<td>800</td>
</tr>
</tbody>
</table>

The Redevelopment Plan is intended to serve as a catalyst for development and redevelopment consistent with land uses and policies of the General Plan, Zoning Code, Design Guidelines and other regulatory documents of the City of Santa Rosa. The Redevelopment Plan focuses on revitalizing areas of Santa Rosa by eliminating economic and physical blighting influences, assembling parcels suitable for development, redesigning and developing areas which are stagnant or improperly utilized and provide for social and economic gain.

The estimated number of future jobs and dwelling units anticipated to occur in the Gateway Redevelopment Plan Area during the planning horizon of the Redevelopment Plan includes 1,084 residential dwelling units and 1,584 industrial jobs. Implementation of the proposed Specific Plan would eliminate these forecasted industrial jobs, as the Specific Plan calls for the re-designation of the industrial lanes. This is further detailed in Section 4.8, Land Use.

b. Transit-Oriented Redevelopment Project Area (TORPA)
The TORPA is 11.5 acres bounded by West Sixth Street on the north, Santa Rosa Creek on the west and south and the Northern Pacific Railroad right-of-
way on the east. A majority of the project area is within the boundaries of the Railroad Square Historic District.

The Redevelopment Plan does not present a precise plan for the redevelopment, rehabilitation and revitalization of the project area. Rather, the Redevelopment Plan represents a process and a basic framework within which specific projects can be established to achieve solutions that will eliminate blight. Buildout of the Redevelopment project area per the Redevelopment Plan has been defined as the maximum that would be allowed under the General Plan designation of Retail & Business Service. A mixed use development scenario that supports public transit use of the SMART parcel is envisioned for the redevelopment project. A development scenario that includes up to 280 residential units and up to 230,000 gross square feet of commercial space together with the necessary parking, circulation and public landscape/open space features are currently being considered.

c. Santa Rosa Center Redevelopment District

The Santa Rosa Center Redevelopment project was adopted in 1961, making it the city’s first redevelopment area. Located in the city’s core, Santa Rosa Center represents over 40 years of redevelopment history, fulfilling a long term vision for Santa Rosa as the commercial, cultural, governmental and service center for the region.

During the 1960s, the Downtown area of Santa Rosa was badly deteriorating. Streets and buildings were substandard, many buildings were vacant and boarded up, and lower-income senior citizens occupied older, unsafe, single-room occupancy hotels. Property values in the area were depressed due to the age of the structures, incompatible land uses and inadequate infrastructure. The 1969 earthquake caused additional severe damage to a majority of older buildings, furthering the need for rehabilitation and new construction in the Downtown area.

From the mid-1960s to the present, due to the Santa Rosa Center Redevelopment project more than 70 buildings have been constructed or substantially
rehabilitated; over 5,000 permanent jobs and 3,000 construction related jobs were created in Downtown Santa Rosa; and more than 800 affordable housing units citywide have been constructed or rehabilitated with the assistance of redevelopment low and moderate income housing funds.

Current redevelopment-related activities in Santa Rosa Center include the Downtown Promotion Program, including holiday promotions and downtown parking signs; funding for Courthouse Square Unification Study; coordination with developers interested in building in Downtown; the Downtown Linkages Program; and support of the Santa Rosa Main Street program.

In 1994, the Santa Rosa Center and Grace Brothers Redevelopment project areas were merged. This means that funds can be shared between the two redevelopment areas.

d. Grace Brothers Redevelopment District
The City Council adopted the Grace Brothers Redevelopment District in 1984. This district is comprised of 8 acres located between Santa Rosa’s Historic Railroad Square District and Santa Rosa Creek. Much of the site contained hazardous waste contamination contributed by past uses, making it unattractive for development by the private sector. The Redevelopment Agency financed and executed a significant toxic remediation effort on the site in order to prepare it for re-use. Cleanup of the site included excavation of petroleum hydrocarbon, lead and gasoline contamination, and removal of underground storage tanks.

The City’s objective was to revitalize the Grace Brothers site and to fill a need in Santa Rosa for a conference center and hotel facility. The Agency issued a Request for Proposals in 1985 but due to a lag in the hospitality industry it was not until 1995 that Innkeepers Associates proposed developing the site as Vineyard Creek, LLC. The Vineyard Creek Hotel, Spa and Conference Center opened for business in June 2002, including a 155-room boutique-style hotel, a day spa, a seafood bistro restaurant, a 21,000-square foot conference
center and landscaped gardens adjoining the Prince Memorial Greenway (a creek restoration and bicycle/pedestrian path).

e. Roseland Redevelopment District
The Roseland Redevelopment District is administered by the County of Sonoma. It was adopted in 1984 and includes the commercial and residential areas along Sebastopol Road from Highways 12 and 101 to Stony Point Road.2

B. Existing Conditions3

This section describes the current conditions with regard to population, employment and housing within the Specific Plan Area.

1. Population
a. City of Santa Rosa
Santa Rosa is not only the Sonoma County seat, but also the center of trade, government, commerce and medical facilities for the North Bay area. It is the largest city of the nine incorporated cities within the County with an estimated 2000 population of 158,600 in the UGB. The City of Santa Rosa experienced substantial growth between 1980 and 2000. As shown in Table 4.10-2, the City’s population in the UGB grew from 101,700 to 158,600 in that time period. This represents an average annual increase of 2.8 percent (total 56,900 residents) between 1980 and 2000. A lower rate of growth is projected for the City by 2020, with population projected to increase by about 1.2 percent annually between 2000 and 2020, for a total population of 195,300 in the UGB.


3 Unless otherwise specified, information for this section is derived from the Santa Rosa 2020: General Plan.
The number of households within Santa Rosa increased from 40,400 in 1980, to 56,000 in the year 2000, or about 2.4 percent annually. Even with this modest household growth, the rate of population growth in Santa Rosa exceeded housing and household growth between 1990 and 2000, which resulted in the City’s average household size to increase from 2.47 to 2.57 persons per household. This compares to an average household size of 2.6 in the County and 2.87 in the State. Table 4.10-3 shows household trends in Santa Rosa UGB.

The 2000 Census also shows that Santa Rosa had a smaller percentage of family households compared to Sonoma County and California, which were 62.7, 65.2 and 68.9 percent, respectively. The remaining households were those that either the householder lived alone or was 65 years and over, 27.8 percent and 11.9 percent, respectively. As there is a large percentage of households composed of single individuals, such phenomenon explains the difference between the average family size of 3.14 persons per family, compared to the average household size of 2.57 persons per household.5

---

### Table 4.10-3: Household Trends in Santa Rosa Urban Growth Boundary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Households 40,430 53,500 56,000 68,830 78,000 2.4% 1.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual Growth 1980-2000 n/a 3.2% 1.2% 1.5% 1.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Average Household Size 2.48 2.47 2.57 2.54 2.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Source: Santa Rosa 2020: General Plan.</td>
</tr>
</tbody>
</table>

#### 2. Housing

Between 1990 and 2000, the number of housing units in Santa Rosa increased from 47,726 to 57,578, or about an average of 2.1 percent increase per year, within the city limits (not the UGB). The Association of Bay Area Governments (ABAG) 2005 Projections estimate that the City of Santa Rosa will add approximately 15,700 housing units between 2000 and 2025. This translates into approximately 630 new houses per year for the 25 year period.6

According to the City, in 2005, there were an estimated 2,045 existing homes within the Specific Plan Area, of which approximately, 739 were detached units, 1,230 were attached units, and 76 were senior units.

##### a. Tenure

As of 2000, Santa Rosa had a comparable proportion of homeowners to the State, about 59 percent and 57 percent, respectively. Sonoma County house-

---

6 ABAG 2005 Projections
holds, though, surpassed both Santa Rosa and the State with 64 percent of homeowners.

b. Affordability
While household incomes have risen steadily over the last 20 years, incomes have not kept pace with the rapidly escalating costs of housing. Federal regulations and guidelines define the maximum annual amount that each household can feasibly spend on housing costs (i.e. mortgage, rent, utilities, etc.) as 30 percent of gross household annual income.

As shown in Table 4.10-4, there are a large number of households in Santa Rosa overpaying for housing costs. About 30 percent of homeowners are paying over the 30 percent gross household annual income mark defined by federal regulations, as mentioned above, while 43 percent of renters are doing the same. The majority of these are paying above 35 percent of their gross household annual income, 21.0 and 33.6 percent of the total for owners and renters, respectively.

C. Standards of Significance

A population and housing impact would occur if the Specific Plan would:

a. Induce substantial negative 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.
D. Impact Discussion

This section discusses the potential impacts from the implementation of the Specific Plan on population and housing in the Specific Plan Area. This section is organized by and responds to each of the potential impacts identified in the previous section, Standards of Significance.

1. Project Impacts

a. Induce substantial negative population growth in an area, either directly or indirectly

Implementation of the Specific Plan would add 3,250 additional residential units over the life span of the Specific Plan. Additionally, the Specific Plan would add close to 300,000 square feet of commercial/retail space, just over 56,000 square feet of office space and about 141,000 square feet of public/institutional space, while decreasing about 8,600 square feet of heavy in-

TABLE 4.10-4 **Housing Affordability in Santa Rosa, 2000**

<table>
<thead>
<tr>
<th>Number</th>
<th>Percent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15%</td>
<td>8,257</td>
<td>29.1%</td>
<td>2,993</td>
</tr>
<tr>
<td>15 to 19%</td>
<td>4,365</td>
<td>15.4%</td>
<td>3,101</td>
</tr>
<tr>
<td>20 to 24%</td>
<td>3,888</td>
<td>13.7%</td>
<td>3,225</td>
</tr>
<tr>
<td>25 to 29%</td>
<td>3,351</td>
<td>11.8%</td>
<td>3,075</td>
</tr>
<tr>
<td>30 to 34%</td>
<td>2,441</td>
<td>8.6%</td>
<td>2,256</td>
</tr>
<tr>
<td>35% or more</td>
<td>5,965</td>
<td>21.0%</td>
<td>7,836</td>
</tr>
<tr>
<td>Not Computed</td>
<td>103</td>
<td>0.4%</td>
<td>822</td>
</tr>
</tbody>
</table>

Industrial space and just over 691,000 square feet of light industrial space. Much of the substantial addition of housing would result from the replacement of both light and heavy industrial space as mentioned in Chapter 3, Project Description, of this EIR. In addition, the Specific Plan would extend or improve infrastructure services and add road facilities where needed, particularly in the west end of the Specific Plan Area.

This increase of housing would translate to an increase of roughly 8,125 new residents, assuming the average household size of 2.5 anticipated for Santa Rosa in 2020, which would result in a direct increase in population for the Specific Plan Area. Furthermore, the addition of commercial/retail and office space could also indirectly increase the demand for housing not only within the Specific Plan Area but throughout Santa Rosa by increasing the number of employees in the area that may want to live near to work. This growth exceeds the City’s General Plan buildout projections for the Specific Plan Area by 2,349 housing units, about 7,100 square feet of commercial/retail and about 103,200 square feet of public/institutional space. Overall, the Specific Plan’s projected buildout would increase the allowable potential for development to occur within the Plan Area at buildout.

While the Specific Plan would result in an increase in the population of the Specific Plan at build out, the overall rate of residential growth for Santa Rosa will continue to be controlled by the City’s Growth Management Ordinance.

While allowing for the ultimate increase of population in the Specific Plan Area, the Specific Plan is designed to help the City of Santa Rosa address ongoing demand for housing within Santa Rosa in an environmentally sensitive manner. This is accomplished, in part, by providing additional opportunities to minimize the development of agricultural land or open space (i.e. green fields) on the edges of Santa Rosa by focusing on redevelopment of land that has already been developed with urban uses (brown fields) and other redevelopment opportunities.
Additionally, the City’s goal is to prevent urban sprawl by focusing growth within the UGB (Goal GM-A of the General Plan), while meeting the housing needs of all Santa Rosa residents (Goal H-A of the General Plan) and expanding the supply of housing available to broad range of income levels (Goal H-C of the General Plan). The Specific Plan directly addresses these issues and Specific Plan Policy SP-LU-2.1 would provide a variety of housing types and densities in the Specific Plan Area to attract a broad cross-section of new residents. Additionally, Specific Plan Policy SP-LU-2.3 would utilize existing City programs an policies to encourage and facilitate development of affordable housing within the Specific Plan Area. These policies are important in order for the City to provide a balance of housing and employment opportunities.

Actual population growth rates would depend on a variety of factors including the City’s Growth Management Ordinance and market conditions that could cause growth to occur at a faster or slower rate. However, the Specific Plan includes policies, in conjunction with the City’s General Plan, to regulate future growth that would be allowed under the Specific Plan in an orderly and planned manner. Such policies will diminish the pressure to develop the open space and fertile agricultural lands beyond the City’s UGB, utilize the City’s existing infrastructure more efficiently, provide a wider range of housing types, along with meeting its projected population growth within the life span of the Specific Plan. Therefore, because the rate of residential growth will be controlled by the City’s Growth Management Ordinance and the Specific Plan would reduce pressures to develop on the edge of the City, the Specific Plan would result in a less-than-significant impact in regards to inducing substantial negative population growth in an area, either directly or indirectly.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Although the majority of development proposed by the Specific Plan would either occur in infill locations that do not have existing residential units or on undeveloped parcels, there is the potential to displace existing housing, par-
particularly through large scale redevelopment of already developed land and buildings throughout the Specific Plan Area. However, all redevelopment of parcels will be voluntary in nature, so housing would not be displaced without permission of the owners of the homes.

The Specific Plan is closely aligned with the intent and policies of the City’s General Plan. Specially, the Specific Plan would enforce a “no net housing loss policy” as detailed under Policy LUL-C-9 of the General Plan. Additionally, the Specific Plan would maintain a balance of various housing types in each neighborhood and ensure that new development does not result in undue concentration of a single type in any one neighborhood, with the Downtown being excepted (Policy LUL-F-3 under the General Plan). The Specific Plan seeks to locate higher density residential uses adjacent to transit facilities, shopping and employment centers, and link these areas with bicycle and pedestrian paths (Policy UD-G-2 under the General Plan). Furthermore, Policy UD-B-2 under the General Plan, which encourages the promotion and assistance in the development of housing units within Downtown for a mix of income levels and housing types, would also be prominent within the Specific Plan Area.

Table 4.10-5 summarizes the Specific Plan buildout for each Sub-Area. The overwhelming majority, 98.5 percent, of residential development that is projected to occur under the Specific Plan would occur outside of both the Historic Residential and the Residential Sub-Areas, where the majority of the existing housing units within the Specific Plan Area are located. About 41 percent (1,316 units) of development would occur within the Railroad Corridor Sub-Area, which is predominantly characterized as holding light industrial buildings and facilities. Another 39 percent (1,274 units) of development would occur within the Courthouse Square Sub-Area, which is predominantly characterized as holding office and commercial uses. The same holds true for the proposed retail/commercial development. About 55 percent (about 164,100 square feet) of retail/commercial development would occur within the Courthouse Square Sub-Area, with another 32 percent (about
TABLE 4.10-5  ESTIMATED SPECIFIC PLAN RESIDENTIAL DEVELOPMENT

<table>
<thead>
<tr>
<th>Sub-Area</th>
<th>Residential</th>
<th>Office/Public Institution</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courthouse Square</td>
<td>1,273 units</td>
<td>147,500 sq. ft.</td>
<td>164,090 sq. ft.</td>
</tr>
<tr>
<td>Railroad Square</td>
<td>344 units</td>
<td>50,000 sq. ft.</td>
<td>94,960 sq. ft.</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>1,316 units</td>
<td></td>
<td>9,450 sq. ft.</td>
</tr>
<tr>
<td>Park and Gardens</td>
<td>146 units</td>
<td></td>
<td>27,500 sq. ft.</td>
</tr>
<tr>
<td>Residential</td>
<td>50 units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imwalle Garden</td>
<td>120 units</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,249</strong></td>
<td><strong>197,500</strong></td>
<td><strong>296,000 sq. ft.</strong></td>
</tr>
</tbody>
</table>

95,000 square feet) within the Railroad Square Sub-Area, which is predominantly characterized as holding a mixed-use of retail/commercial and office uses.

Such policies would lessen the potential impacts of displacement of existing housing by protecting existing residential neighborhoods and allowing for greater residential development to ensure a no net decrease in housing within the Specific Plan Area necessitating the need to relocate housing outside of the Specific Plan Area. Therefore, the Specific Plan would result in a less-than-significant impact in regards to the displacement of substantial number of existing housing.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere

Although the majority of development proposed by the Specific Plan would either occur in infill locations or on undeveloped parcels, there is the potential to displace existing residents, particularly through large scale redevelop-
ment of already developed land and buildings throughout the Specific Plan Area.

The Specific Plan is closely aligned with the intent and policies of the City’s General Plan. Specially, the Specific Plan would enforce a “no net housing loss policy” as detailed under Policy LUL-C-9 of the General Plan. Additionally, the Specific Plan would ensure that adequate sites are available for development of a variety of housing types for all income levels, including single- and multi-family units, transitional housing and homeless shelters (Policy H-A-1 under the General Plan). The Specific Plan would promote the conservation and rehabilitation of the existing housing stock and discourage intrusion of non-compatible uses into residential neighborhoods, which would erode the character of established neighborhoods or lead to use conflicts (Policy H-A-5 under the General Plan). Furthermore, Policy UD-B-2 under the General Plan, which encourages the promotion and assistance in the development of housing units within Downtown for a mix of income levels and housing types, would also be prominent within the Specific Plan.

As noted in Table 4.10-5 the overwhelming majority, 94 percent, of residential development that is projected to occur under the Specific Plan would occur outside of both the Historic Residential and the Residential Sub-Areas. The same holds true for the proposed retail/commercial development with 87 percent of development occurring in the Courthouse Square and Railroad Square Sub-Areas. The mixture of proposed development combined with the planned transition of underutilized/vacant industrial lands to more intensive residential uses will help to promote a balanced jobs/housing ratio in Santa Rosa.

Such policies would lessen the potential impacts of displacement of existing residents by protecting existing residential neighborhoods and allowing for greater residential development to ensure a no net decrease in housing within the Specific Plan Area necessitating the need to relocate residents outside of the Specific Plan Area. Therefore, the Specific Plan would result in a less-than-
significant impact in regards to the displacement of substantial number of people.

2. Cumulative Impacts
Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to population and housing. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for housing demand under the General Plan to result in a cumulative impact related to population and housing would be reduced to a less-than-significant level with the included General Plan policies. All of the reasonably foreseeable development in the Specific Plan Area is in keeping with the overall intent of the General Plan and is subject to General Plan policies. The proposed General Plan Amendments and Specific Plan policies regarding population and housing are designed to help the City better anticipate patterns of growth and focus development in the Downtown area, consistent with the 2002 General Plan. In addition, the 2002 General Plan analysis concluded that based on the job/housing balance additional housing units would be required to meet housing demand. The Specific Plan is intended to help the City meet this housing demand through focused development of urban development. Thus, the Specific Plan would not contribute to a significant cumulative impact related to population and housing.

E. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to population and housing, no mitigation measures are required.
This chapter provides a discussion of the existing conditions and potential impacts relating to police, fire, schools, libraries and park and recreation services in the Specific Plan.

A. Police

The following describes current conditions and potential impacts of the Specific Plan with regard to police services in Santa Rosa.

1. Regulatory Framework

a. Relevant City of Santa Rosa 2020 General Plan Goals and Policies

The following lists applicable General Plan goals and policies most pertinent to the Specific Plan with regards to police services.

Goal PSF-E: Provide fire and police services that ensure the safety of the community.

♦ Policy PSF-E-1: Provide for citizen safety through expedient response to emergency calls. The fire response goal is 4 minutes to 80 percent of emergency calls, 5 minutes to 90 percent of emergency calls and 6 minutes or less to all emergency calls. The police response goal is 6 minutes for emergency calls, 14 minutes for urgent calls and 32 minutes for routine calls.

♦ Policy PSF-E-2: Provide for the safety of Santa Rosa citizens by maintaining efficient, well-trained and adequately equipped police and fire personnel.

♦ Policy PSF-E-3: Collaborate with other local jurisdictions in the provision of some police and fire services, if such collaboration can improve service levels and is cost effective.

♦ Policy PSF-E-5: Assist neighborhoods and increase community contact through the Neighborhood Oriented Policing Program.
b. Measure O (Ordinance 3680)¹
On August 3, 2004, the Council adopted Ordinance 3680 which imposed a special transactions and use tax to generate revenues to be utilized for specific police, fire and gang prevention and intervention programs, as set forth in the Ordinance. The special tax ballot measure, known as Measure O, was approved by over two-thirds of the voters and the election results certified on December 7, 2004.

The ordinance sets forth permissible uses for the revenue generated, and allocates proceeds from the tax in the following manner: Police (40%), Fire (40%), and Neighborhood Safety/Gang Prevention (20%).

The Police Department’s Measure O funds are designated for specific uses and purposes that enhance and expand the department’s mission. These uses include, among other programs, traffic enforcement, patrol expansion, gang enforcement, school resource services, downtown enforcement and replacement of the patrol fleet. During the 2005/06 fiscal year the Police Department utilized Measure O funds to order six patrol cars, hire two Field and Evidence Technicians, a Police Lieutenant, a Police Technician and a Communications Supervisor. During the 2006/07 fiscal year, the Department assigned a sergeant to the downtown area utilizing Measure O funds and is in the process of housing its Downtown Team in the Courthouse Square area.

2. Existing Conditions
The Santa Rosa Police Department (SRPD) is the main provider of police services within the Specific Plan Area, but on the highways and within the unincorporated areas, the County Sheriff handles criminal law enforcement and the California Highway Patrol assists with traffic enforcement.

Mutual aid between neighboring law enforcement agencies is provided on an as-needed basis. The SRPD is made up of three divisions, each with two

bureaus: Field Services (Patrol and Traffic Bureaus), Special Services (Investigations and Support Bureaus) and Technical Services (Communications and Records Bureaus). As of January 2006, there was a total of 184 sworn personnel, including 17 officers and three management vacancies and 89 civilian staff in the SRPD.\textsuperscript{2} The City’s standard for police service requires the SRPD to provide for citizen safety through an expedient response to emergency calls, requiring response standards at 6 minutes for emergency calls, 14 minutes for urgent calls and 32 minutes for routine calls. The nearest police station to the Specific Plan Area is located at 965 Sonoma Avenue. Additionally, the SRPD recently opened a new sub-station facility within the Specific Plan Area at 19 Old Courthouse Square.

According to data collected from 2005, the average response time to Priority I calls took an extra 0.37 minutes over the City’s goal, but average response times to Priority II calls took 2.03 minutes fewer and Priority III calls took 5.65 minutes fewer than the goals set by the General Plan.\textsuperscript{3}

3. Standards of Significance
The Specific Plan would have a significant impact with regard to police services if it would:

♦ Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable police service ratios and response times.

\textsuperscript{2} Close, Colin. Research and Program Coordinator, Special Services Division, Santa Rosa Police Department. Personal e-mail communication with Ken MacNab, City of Santa Rosa, January 25, 2006.

\textsuperscript{3} Santa Rosa Police Department, 2005, \textit{Staff Activity Report}, Santa Rosa: City of Santa Rosa.
4. Impact Discussion

a. Project Impacts

An increase in population under the Specific Plan could have the potential to increase the demand for police services within the Specific Plan Area. Development under the Specific Plan would intensify the density of development within the Specific Plan Area, adding approximately 3,250 new residential units with an estimated population of 8,125 people\(^4\), along with about 198,000 square feet of office/public space and about 296,000 square feet of retail space, over the next 20 years. This increase in population and development could adversely affect the provision of police services by the SRPD.

The SRPD stated the Specific Plan would require more sworn personnel and civilian staff to meet the growing demands derived from the development under the Specific Plan. However, the SRPD recently opened a new substation facility within the Specific Plan Area at 19 Old Courthouse Square. As discussed below, there would not be a need for any additional facilities.\(^5\)

The City does not have an established standard for the ratio of police officers per thousand residents. However, the SRPD’s goal is to maintain the current ratio of officers to residents and to increase this ratio over time as budget constraints allow.\(^6\) The current ratio of sworn personnel to 1,000 residents is 1.17 and 0.57 civilian staff per 1,000 residents.\(^7\) Based on these ratios and projected growth from the Specific Plan, it is estimated a need increase of at least

\(^4\) Estimated buildout population assumes an average household size of 2.5 people for the City of Santa Rosa.

\(^5\) Weeks, Karen. Administrative Services Officer, Santa Rosa Police Department, City of Santa Rosa. Personal communication with Chad Markell, DC&E. November 6, 2006.

\(^6\) Close, Colin. Research and Program Coordinator, Santa Rosa Police Department, City of Santa Rosa. Personal e-mail communication with José Moreno, DC&E, November 14, 2006.

\(^7\) These calculations use the estimated January 1, 2006 Santa Rosa population of 157,145 by the California Department of Finance (http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E1/documents/E1table.xls)
ten sworn personnel, five civilian staff and equipment to maintain or exceed current service levels. The opening of a new sub-station in the Courthouse Square Sub-Area, as mentioned above, will accommodate police facility needs in the Specific Plan Area for the foreseeable future.

Moreover, the SRPD will utilize Measure O funds, as mentioned above, to provide additional staff and vehicles, as well as additional support, traffic, a downtown sub-station and patrol services. However, Measure O funds are not anticipated to fully cover the cost of providing adequate police services to the community in accordance with General Plan response time goals. To that end, the Specific Plan includes a Goal and supporting Policies to provide funding for public services and utilities in the Plan Area (Goal SP-UPS-1). Specific Plan Policy SP-UPS-1.1 would ensure that private development provides its fair share of funding for necessary improvements to public services and utilities in the Plan Area. Additionally, Specific Plan Policy SP-UPS-1.2 would use the City’s Capital Improvement Program, Park and Utility Fees, redevelopment program funds, federal and State grant funds and other funding sources to implement area-wide improvements that cannot be conditioned as part of private development projects.

The SRPD expressed particular concern in the potential impact of the SMART commuter rail station on calls for service, criminal offense rates and quality of life issues. However, the potential impacts of the SMART commuter rail station are outside the scope of this EIR and are analyzed in a separate EIR. It is anticipated that these concerns regarding development of the SMART site will be addressed through Crime Prevention Through Environmental Design (CPTED).\(^8\) Proper design and effective use of the built envi-

\(^8\) Most implementations of CPTED are based solely upon the theory that the proper design and effective use of the built environment can reduce crime, reduce the fear of crime and improve the quality of life. Built environment implementations of CPTED seek to dissuade offenders from committing crimes by manipulating the built environment in which those crimes proceed from or occur. The three most common built environment strategies are natural surveillance, natural access control and natural territorial reinforcement.
ronment reduces crime, reduces the fear of crime and improves the quality of life by enhancing the needs of bona fide users of the space.\footnote{Close, Colin. Research and Program Coordinator, Santa Rosa Police Department, City of Santa Rosa. Personal e-mail communication with José Moreno, DC&E, November 14, 2006.}

Although implementation of the Specific Plan would require additional personnel, the expansion of personnel, and the need to improve existing facilities is part of an existing plan to increase police to meet the demand in the community. Therefore, implementation of the Specific Plan policies discussed above, this impact is considered less than significant.

b. Cumulative Impacts

Cumulatively, in conjunction with the anticipated buildout of the 2002 General Plan, the Specific Plan may require increased police staffing, as implementation of the Specific Plan will result in an increase in residents, customers and employees, resulting in the need to increase the number of full-time equivalent police necessary for adequate staffing ratios and patrol coverage. However, the Specific Plan would not contribute to a significant cumulative impact related the creation or expansion of physical police facilities since it would not result in the need for additional facilities other than those already planned.

5. Impacts and Mitigation Measures

Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to police services, no mitigation measures are required.
B. Fire

The following describes current conditions and potential impacts of the proposed project with regard to fire services in City of Santa Rosa. Wildfire hazards and emergency evacuation are addressed in the Hazards and Hazardous Materials chapter (4.6) of this EIR.

1. Regulatory Framework

a. Relevant City of Santa Rosa 2020 General Plan Goals and Policies

The following lists applicable General Plan goals and policies most pertinent to the Specific Plan with regards to police services.

Goal PSF-E: Provide fire and police services that ensure the safety of the community.

♦ Policy PSF-E-1: Provide for citizen safety through expedient response to emergency calls. The fire response goal is 4 minutes to 80 percent of emergency calls, 5 minutes to 90 percent of emergency calls and 6 minutes or less to all emergency calls. The police response goal is 6 minutes for emergency calls, 14 minutes for urgent calls and 32 minutes for routine calls.

♦ Policy PSF-E-2: Provide for the safety of Santa Rosa citizens by maintaining efficient, well-trained and adequately equipped police and fire personnel.

♦ Policy PSF-E-3: Collaborate with other local jurisdictions in the provision of some police and fire services, if such collaboration can improve service levels and is cost effective.

♦ Policy PSF-E-4: Require implementation of fire protection measures, such as non-combustible roofing materials and fire sprinklers in areas of high fire hazard.

♦ Policy PSF-E-6: Develop three new fire stations, one in northeast, one in southwest and one in southeast Santa Rosa.
b. Measure O (Ordinance 3680)\textsuperscript{10}

As discussed previously, the Council adopted Ordinance 3680 which imposed a special transactions and use tax to generate revenues to be utilized for specific Police, Fire and gang prevention and intervention programs, as set forth in the Ordinance. The special tax ballot measure, known as Measure O, was approved by over two-thirds of the voters and the election results certified on December 7, 2004.

The approval of Measure O by Santa Rosa voters had an immediate effect in the Fire Department, providing funding to maintain Engine 26 and Truck 2 that had been scheduled for a service level reduction due to budget constraints in the FY 2004/2005 budget year. Additionally, a site search for the new Southwest fire station (Station 10) was completed with the purchase of a building at 2373 Circadian Way. The construction of interim Fire Station 10 was completed and opened in March of 2006 in a portion of the building. Additional Fire Station development funded by Measure O continued in FY 2005/06. This included the search for an interim fire station site in the Mendocino/Steele Lane area, the planning for the relocation of existing Fire Station 5 to City owned property at Newgate and Fountaingrove Parkway, and the preliminary planning for the addition of a new station at Kawana Springs and Franz Kafka Avenue. All are part of a multi-year Measure O funded Fire Station expansion plan.

2. Existing Conditions\textsuperscript{11}

Fire protection and emergency services in the Specific Plan Area are primarily the responsibility of the Santa Rosa Fire Department (SRFD). The SRFD serves the City of Santa Rosa as well as the Roseland Fire Protection District through a contractual agreement, for a total population served of approximately 158,000 within an area of approximately 43 square miles. The SRFD is staffed by 128 sworn and seven civilian employees, including one fire


The SRFD is organized into three Divisions: Administration, Fire Operations and Fire Prevention. The Administration Division provides for the overall management of the SRFD by the development of new programs, the promotion of life safety and environmental protection, the provision of administrative support for SRFD personnel and the administration of the Roseland Fire District contract. The Fire Operations Division is responsible for responding to emergency incidents, including fires of all types, medical emergencies and hazardous material incidents.

Each fire station houses an Engine Company and is staffed 24 hours per day. Each of the nine engine companies is staffed with a captain and two firefighters. Additionally, Headquarters and Station 3 each house two ladder trucks with three firefighters and a captain. Fire stations located closest to the project site and responsible for first response to any emergency, are Headquarters/Fire Station 1 (955 Sonoma Avenue in the Downtown area) and Fire Station 8 (830 Burbank Avenue in the Roseland/Southwest area).

Between the years 2002 and 2004, the SRFD responded to an annual average of 16,784 calls from within the City of Santa Rosa and the Roseland Fire Protection District, of which 68 percent were for emergency medical attention or rescue operations. In 2005 alone, the SRFD responded to about 18,000 calls. Over the last twenty years there has been a 220 percent increase

---

12 City of Santa Rosa Fire Department, 2005, Protecting Santa Rosa: A Strategic Plan for the Santa Rosa Fire Department, Santa Rosa: City of Santa Rosa, page 4.
in the numbers of calls for service. The last time a fire station was added in Santa Rosa was in 1983, when the SRFD answered about 5,300 calls for service.\footnote{City of Santa Rosa Fire Department, 2005, Protecting Santa Rosa: A Strategic Plan for the Santa Rosa Fire Department, Santa Rosa: City of Santa Rosa, page 4.}

The City’s SRFD response standards are at 4 minutes to 80 percent of emergency calls, 5 minutes to 90 percent of emergency calls and 6 minutes or less to all emergency calls. Based upon SRFD’s 2003 call volume the SRFD was named in Firehouse Magazine’s 2004 list of 150 busiest fire departments. Response time standards for the SRFD established in the City’s General Plan are not in line with current national standards and the SRFD has never been able to meet the achievement rate.\footnote{City of Santa Rosa Fire Department, 2005, Protecting Santa Rosa: A Strategic Plan for the Santa Rosa Fire Department, Santa Rosa: City of Santa Rosa, page 6.} For example, in 2004, the overall performance of the SRFD for all emergencies was 21 percent within 4 minutes or less, 55 percent within 5 minutes and 76 percent within 6 minutes.\footnote{LSA Associates, Inc., 2005, Gateways Redevelopment Project Area EIR, Santa Rosa: City of Santa Rosa, page 129.}

The General Plan set forth Policy PSF-E-6, calling on the SRFD to develop two new fire stations, one in southwest and one in southeast Santa Rosa. The General Plan states that the City has sites for these stations at 1955 Northpoint Parkway and on the south side of Kawana Springs Road just east of Petaluma Hill Road. Since certification of the General Plan EIR, the SRFD has conducted a deployment analysis, identifying improvements needed in SRFD infrastructure and response configuration. The SRFD’s Strategic Plan, completed in October 2005, recommends that the City reevaluate the SRFD’s objective and standards.

To improve the SRFD fire and emergency response resources and capabilities, the City participates in a Countywide mutual aid system. SFRD has entered into mutual aid agreements with the Rincon Valley Fire Protection District,
California Department of Forestry and Fire Protection, as well as the neighboring jurisdictions of Bennett Valley, Gold Ridge and Sebastopol. Additional resources provided by these agreements include engines, water tender, air tankers, a helicopter, a bulldozer and a battalion chief in urban areas.

3. **Standards of Significance**
The Specific Plan would have a significant impact with regard to fire services if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable fire service ratios and response times.

4. **Impact Discussion**

a. **Project Impacts**
An increase in population under the Specific Plan could have the potential to increase the demand for fire services within the Specific Plan Area. Development under the Specific Plan would intensify the density of development within the Specific Plan Area, adding approximately 3,250 new residential units with an estimated population of 8,125 people, along with about 198,000 square feet of office/public space and about 296,000 square feet of retail space, over the next 20 years. This increase in population and development could adversely affect the provision of fire and emergency medical services by the SRFD.

The SRFD estimates that the implementation of the Specific Plan would require the addition of another half of company of fire fighters to be hired to maintain current performance levels and response times. These additional

---

16 Verner, Bruce (Fire Chief) and Mark McCormick (Deputy Chief Fire Marshal), Fire Department, City of Santa Rosa. Personal communication with Chad Markell, DC&E, November 1, 2006.
firefighters would not constitute the need for an additional facility as the SRFD has already planned to develop a new fire station with sufficient capacity to incorporate the extra personnel.\(^\text{17}\) As part of the SRFD’s Strategic Plan, Measure O funding, and General Plan Policy PSF-E-6, the City is moving forward in developing new fire stations as well as reevaluating the Department’s response time standards. Individual environmental review would be required for each of these new fire facilities. In addition, the City’s participation in a Countywide mutual aid system, as mentioned above, assists in improving the SRFD’s fire and emergency response capabilities and response standards.

The Specific Plan contains a series of policies aimed at addressing the need for fire services. For example, Specific Plan Policy SP-UPS-7.1 would require developers to be in compliance with the Fire Department’s High-Rise Requirements. Additionally, Specific Plan Policy SP-UPS-7.2 would relocate Engine Company No. 8 to a new site in the vicinity of Sebastopol Road. This same policy would also explore the feasibility of acquiring the historic Fitzgerald Building site on Roberts Avenue as a multi-use site for both a Fire Station and neighborhood community facility. Moreover, Specific Plan Policy SP-UPS-7.3 would require new development along the SMART rail corridor to comply with Fire Department requirements for equipment access and circulation.

Furthermore, the SRFD will utilize Measure O funds, as mentioned above, to construct new fire stations and provide for new equipment, fire engines and firefighter positions. However, Measure O funds are not anticipated to fully cover the cost of providing adequate fire services to the community in accordance with General Plan response time goals. To that end, the Specific Plan includes a goal and supporting policies to provide funding for public services and utilities in the Plan Area (Goal SP-UPS-1). Specific Plan Policy SP-UPS-1.1 would ensure that private development provides its fair share of funding.

\(^{17}\) Verner, Bruce (Fire Chief) and Mark McCormick (Deputy Chief Fire Marshal), Fire Department, City of Santa Rosa. Personal communication with Chad Markell, DC&E, November 1, 2006.
for necessary improvements to public services and utilities in the Plan Area. Additionally, Specific Plan Policy SP-UPS-1.2 would use the City’s Capital Improvement Program, Park and Utility Fees, redevelopment program funds, federal and State grant funds and other funding sources to implement area-wide improvements that cannot be conditioned as part of private development projects.

Although implementation of the Specific Plan would require additional personnel, the expansion of personnel, and the need to improve existing facilities is part of an existing plan to increase police to meet the demand in the community. Therefore, implementation of the Specific Plan policies discussed above, this impact is considered less than significant.

b. Cumulative Impacts
Cumulatively, in conjunction with the anticipated buildout of the 2002 General Plan, the Specific Plan may require increased fire staffing and equipment, as implementation of the Specific Plan will result in an increase in residents, customers and employees, resulting in the need to increase the number of full-time equivalent fire staff necessary for adequate staffing ratios and fire protection coverage. However, the Specific Plan would not contribute to a significant cumulative impact related the creation or expansion of physical fire protection facilities since it would not result in the need for additional facilities other than those already planned by the General Plan and SRFD’s Strategic Plan.

5. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to fire services, no mitigation measures are required.
C. Schools

The following describes current conditions and potential impacts of the Specific Plan with regard to schools in the City of Santa Rosa.

1. Regulatory Framework

Relevant State and City goals and policies in regards to schools are listed in this section. The majority of the Specific Plan Area is under the Santa Rosa School District, but a few parcels in the southwestern quadrant are under the Roseland School District.

a. Senate Bill 50

The regulatory framework for schools is determined at the school district and State level. Senate Bill 50 (SB 50), which is funded by Proposition 1A and approved in 1998, limits the power of cities and counties to require fiscal mitigation of school facilities impacts on home developers as a condition of approving new development and provides for a standardized developer fee. The SB 50 generally provides for a 50/50 State and local school facilities funding match, with a $9.2 billion bond authorized to fund the State portion.\(^\text{18}\)

SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, the school district is eligible for State funding and the school district meets certain additional criteria involving bonding capacity, year round school and the percentage of moveable classrooms in use.

b. Relevant City of Santa Rosa 2020 General Plan Goals and Policies

The following lists applicable General Plan goals and policies most pertinent to the Specific Plan with regards to school facilities and services, including child care and youth-oriented facilities.

Goal PSF-C: Provide superior educational opportunities for children and all members of the community.

i. Public Services and Facilities Element

♦ Policy PSF-C-2: Maintain good communication with area school districts on all matters pertaining to the need for and the provision of school sites and facilities. Integrate the planning efforts of the City and the school districts by: locating school facilities that allow safe pedestrian and bicycle access, as well as ensuring construction of traffic calming measures in the vicinity; and designing attractive facilities that contribute to neighborhood identity and pride.

ii. Youth and Family Element

Goal YF-A: Create an environment where children can grow and develop in secure and supportive families and neighborhoods.

♦ Policy YF-A-1: Work with project applicants to identify sites (in areas slated for new development or reuse) that would be suitable for child care or youth-oriented facilities. Promote this type of development in areas where such facilities are lacking.

♦ Policy YF-A-3: Promote development of multi-use buildings and/or community centers that can be utilized for youth and teen activities and child care.

Goal YF-B: Expand child care services to meet the existing and future needs of Santa Rosa.

♦ Policy YF-B-1: Endorse the development of new child care facilities in all areas of the city, including residential neighborhoods, employment centers and school sites. Promote development of new child care facilities during review of development projects at sites designated Community Shopping Center on the Land Use Diagram.
2. **Existing Conditions**

a. **School Enrollment**

   As of 2000, there were 40,052 students enrolled within Santa Rosa. The majority of these students are from the elementary school level, grades 1 through 8, at 40.3 percent. The next biggest group is that of college or graduate school level, consisting of 26.7 percent, followed by the high school level, grades 9 through 12, at 22 percent. Table 4.11-1 shows the student population for each of the educational levels.

b. **School Districts**

   The majority of the Specific Plan Area is within the Santa Rosa City Schools District, which is comprised of the Santa Rosa Elementary School District and Santa Rosa High School District. The portion of the Specific Plan Area west of the railroad right-of-way and south of Santa Rosa Creek is within the Roseland School District. These School Districts are shown in Figure 4.11-1 along with local school in or adjacent to the Specific Plan Area.

   The only public school within the Specific Plan Area is the Luther Burbank Elementary School located on A Street, northeast of the Highway 101 and Highway 12 interchange. Elementary school students within the Specific Plan Area attend the following elementary schools:\footnote{City of Santa Rosa, on-line GIS data, http://imaps.ci.santa-rosa.ca.us, accessed March 1, 2006.}

   - Roseland Elementary School (Roseland School District)
   - Lincoln Elementary School (Santa Rosa City Schools)
   - Fremont Elementary School (Santa Rosa City Schools)
   - Luther Burbank Elementary School (Santa Rosa City Schools)
   - Doyle Part Elementary School (Santa Rosa City Schools)
TABLE 4.11-1  SCHOOL ENROLLMENT IN SANTA ROSA, 2000

<table>
<thead>
<tr>
<th>Student Population</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery School/Preschool</td>
<td>2,215</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>2,205</td>
</tr>
<tr>
<td>Elementary School (grades 1st-8th)</td>
<td>16,130</td>
</tr>
<tr>
<td>High School (grades 9th-12th)</td>
<td>8,809</td>
</tr>
<tr>
<td>College or Graduate School</td>
<td>10,693</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>40,052</td>
</tr>
</tbody>
</table>


The following Santa Rosa City Schools middle and high schools serve the Specific Plan Area:

- Santa Rosa Middle School
- Laurence Cook Middle School
- Herbert Slater Middle School
- Santa Rosa High School
- Elsie Allen High School
- Montgomery High School

The Roseland School District offers two charter schools for middle and high school education, the Roseland Accelerated Middle and Roseland University Prep schools.

---


According to the City’s General Plan, many Santa Rosa City schools are at or near capacity and district boundaries are adjusted periodically based on shifts in the school-age population. As of January 2006, there were approximately 18,500 students within the Santa Rosa School District. The number of students enrolled in Santa Rosa schools is expected to increase over the next decades, primarily at the middle school and elementary school levels based on a generation factor of 0.4 students per housing unit. In response to projected demand for schools during the next 20 years, the City has identified potential sites for two middle schools and seven elementary schools. Of these potential but non-specifically identified schools, all but two of the elementary schools are within three miles of the Specific Plan Area.

3. Standards of Significance

The Specific Plan would have a significant impact with regard to schools if it would:

♦ Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable student-teacher ratios.

4. Impact Discussion

a. Project Impacts

An increase in population under the Specific Plan could have the potential to increase the demand on schools serving the Specific Plan Area. Development under the Specific Plan would add approximately 3,250 new residential units with an estimated buildout population of 8,125 people over the next 20 years. The estimated population increase would produce an estimated 1,300 students, given the Santa Rosa School District’s generation factor of 0.4 students

---


23 City of Santa Rosa, 2002, Santa Rosa 2020: General Plan, Santa Rosa: City of Santa Rosa, Figure 6-2.
per housing unit.24 These students would be spread across the various schools operated by the Roseland School District (RSD), receiving approximately 350 students, and the Santa Rosa School District (SRSD), receiving approximately 950 students, within and adjacent to the Specific Plan Area. This increase in population could adversely affect the provision of educational services and school facilities.

The RSD is currently developing an independent EIR for a new elementary school in the RSD. The new elementary school is expected to be built and ready to serve the community by 2010 at the latest. With the development of this new elementary school and recent addition of charter schools, which have undergone their own environmental analysis, within the RSD. Given this proposed facility, the RSD does not expect the Specific Plan to require the construction of any new facilities. Therefore, a less-than-significant impact from the implementation of the Specific Plan.25

Public school facilities and services are supported through the assessment of development fees in addition to funds from the State and local school districts. All new development in the Specific Plan Area will be required to pay impact fees to off-set the impact of new development on the school system. These fees will be assessed in accordance with provisions detailed under SB50.

The SRSD expects the elementary student population to increase over the next decades, current estimates show the elementary school population is stabilizing. Additionally, the middle school and high school populations are projected to decline two to three percent per year based on the expectation of no new growth. A slowing growth rate in student population over the next decades in addition to the City’s already identified potential sites for two middle schools and seven elementary schools would provide adequate capacity for the student population expected to accompany development of the


Specific Plan. Given the expected student generation to result from the Specific Plan would develop over the next 20 years and would be supported in already planned educational facilities, the Specific Plan would not result in the need for new, unplanned facilities; therefore, the Specific Plan would result in a less-than-significant impact.

b. Cumulative Impacts
Cumulatively, in conjunction with the anticipated buildout of the 2002 General Plan, the Specific Plan may require increased teachers and support staffing, as implementation of the Specific Plan will result in an increase in residents, resulting in the need to increase the number of full-time equivalent teachers and support staff necessary for adequate staffing ratios. However, the Specific Plan would not contribute to a significant cumulative impact related the creation or expansion of physical educational facilities since it would not result in the creation or expansion of physical facilities other than those already planned within the school districts.

5. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the proposed Specific Plan in regards to schools, no mitigation measures are required.

D. Library

The following describes current conditions and potential impacts of the Specific Plan with regard to libraries in Santa Rosa.

1. Regulatory Framework
The following lists applicable City of Santa Rosa 2020 General Plan Goals and Policies most pertinent to the Specific Plan with regards to libraries.
a. Public Services and Facilities Element

Goal PSF-D: Provide library facilities necessary to meet the needs of the community.

♦ Policy PSF-D-3: Require community shopping centers and other major developments to consider incorporating sites and/or building spaces for branch facilities, when the locations coincide with the library administration's Master Plan.

b. Art and Culture Element

Goal AC-A: Develop places for art.

♦ Policy AC-A-1: Support the development of centrally located multipurpose facilities to house visual and performing arts activities, such as exhibition, studio/class, performance and theater/lecture space.

♦ Policy AC-A-2: Develop outdoor locations that encourage cultural events for the enjoyment of the citizens as well as attract tourism.

♦ Policy AC-A-4: Increase public art throughout Santa Rosa. Encourage the placement of art in locations that are interactive and accessible to the public and entryways into the City.

2. Existing Conditions

Public library services in Santa Rosa are provided by the County. There are three libraries serving Santa Rosa:

♦ Central Santa Rosa Library Branch is located at Third and E Streets (211 E Street) within the Specific Plan Area. It is approximately 67,200 square feet, which makes it the biggest library branch in the County, has a collection of 216,630 volumes and is currently serving a population of 85,132 people.\(^\text{26}\)

Northwest Branch is located at 150 Coddington Center (at the intersection of Guerneville Road and W. Steele Lane). It is approximately 7,840 square feet, has a collection of 39,450 volumes and is currently serving a population of 61,186 people.27

Rincon Valley Branch is located at 6959 Montecito Boulevard (at the Rincon Valley Park). It is approximately 15,000 square feet, has a collection of 51,700 volumes and is currently serving a population of 35,000 people.28

According to the Sonoma County Library Facilities Master Plan the Central Library was recently renovated and expanded. However, it still has a shortage of space for books, computers, seating and parking. The building needs to be retrofitted to be seismically safe, but the architecture of the structure makes that impractical. As a result, there is a need for a replacement facility in the Downtown. According to the Library, the eventual new Central Branch facility in the Downtown area should be designed as part of collaborative planning process to possibly include the library with a cultural and performing arts center. The facility would ultimately have multi-use and meeting room spaces available.29 The Branch currently benefits from its proximity to the Downtown and public transportation, with 63 percent of patrons reporting that they usually walk to the facility.30

29 Cooper, Sandra. Director, Sonoma County Library. Personal communication with Chad Markell, DC&E. October 20, 2006.
Individual branch deficiencies are partially offset by the fact that Santa Rosa residents are able to patronize other Sonoma County Library branches with their assigned library cards. This is a result of the Library’s systems Joint Partnership Agreement (JPA) with the County and all nine cities in the County. Per the JPA, cities are required to build new library facilities as needed. The Library is funded through a Special Tax District.\(^{31}\)

The Library’s countywide service level guidelines establish a standard of 0.55 to 0.63 square feet of library area per capita.\(^{32}\) Currently, the three branches mentioned above have a combined square footage of 90,040 square feet. Compared with the current estimated population of Santa Rosa of approximately 158,000,\(^{33}\) City residents experience a 0.57 square feet of library area per capita, which is within the Library’s established service standards.

To maintain these standards based on anticipated growth, the Library plans to replace the Northwest Branch, complete extensive additions to the other two Santa Rosa branches and to construct a new library in southwestern Santa Rosa. If all planned improvements are completed, Santa Rosa libraries would provide a combined 0.59 to 0.68 square feet of library area per capita.\(^{34}\)

---

\(^{31}\) Cooper, Sandra. Director, Sonoma County Library. Personal communication with Chad Markell, DC&E. October 20, 2006.


\(^{33}\) The California Department of Finance estimates as of January 1, 2006 that Santa Rosa’s population is 157,145. (http://www.dof.ca.gov/HTML/DEMO-GRAP/ReportsPapers/Estimates/E1/documents/E1table.xls)

3. Standards of Significance
The proposed project would have a significant impact with regard to library services if it would:

♦ Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable library services.

4. Impact Discussion
a. Project Impacts
An increase in population under the Specific Plan could have the potential to increase the demand on libraries serving the Specific Plan Area. Development under the Specific Plan would add approximately 3,250 new residential units with an estimated buildout population of 8,125 people over the next 20 years. This increase in population could adversely affect the provision of library facilities.

The estimated population increase resulting from the implementation of the Specific Plan would decrease the City’s existing square feet of library area per capita from 0.57 to 0.54 based on the Library’s countywide service standards. This is the equivalent to 4,594 to 5,262 square feet of current library space. Although such a population increase would push the City’s library service standard below the Library’s countywide service standards, the Library is already planning the addition of a new Central Library Branch after the replacement of the Northwest Branch and the expansion of the Rincon Valley Branch, independent of the status of this Specific Plan. The City of Santa Rosa is currently aware of these planning efforts and is required to assist in these library improvements. Additionally, each of these facilities will undergo independent environmental analysis.

In addition, the Specific Plan contains policies addressing the need to maintain and improve adequate library services. Specific Plan Policy SP-UPS-8.1 would collaborate with the Sonoma County Library in their planning efforts.
to either renovate the Central Library branch in its current location or develop a new facility at an alternative site within the downtown area. Funding for the Library will continue through the existing Special Tax District already established.

Since the Specific Plan would not result in the need for additional library facilities in excess of what is already planned, potential impacts related to the implementation of the Specific Plan would be less than significant.

b. Cumulative Impacts
Cumulatively, the Specific Plan may require increased library staffing, as implementation of the Specific Plan will result in an increase in resident, resulting in the need to increase the number of full-time equivalent librarians necessary for adequate staffing ratios. However, the Specific Plan would not contribute to a significant cumulative impact related the creation or expansion of physical library facilities since it would not result in the creation or expansion of physical library facilities, other than already planned.

5. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to libraries, no mitigation measures are required.

E. Parks and Recreation

The following describes current conditions and potential impacts of the Specific Plan with regard to park and recreation facilities in Santa Rosa.

1. Regulatory Framework
The following lists applicable State and City laws and regulations most pertinent to the Specific Plan with regards to parks and recreation.
4.11-27

CITY OF SANTA ROSA
DOWNTOWN STATION AREA SPECIFIC PLAN EIR
PUBLIC SERVICES AND RECREATION

4.11-27

a. State Laws and Regulations

i. The Quimby Act

Cities and counties have been authorized since the passage of the 1975 Quimby Act (California Government Code §66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.35 A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to five acres per thousand persons for new development. Cities with a lower current ratio can only require the provision of up to three acres of park space per thousand population. The calculation of a City’s park space to population ratio is based on a comparison of the population count of the last federal census to the amount of City-owned parkland. Santa Rosa has a standard of six acres of parkland per thousand inhabitants (see General Plan Policy PSF-A-2 below), of which 3.5 would be required under the Quimby Act.

b. Local Laws and Regulations

i. Santa Rosa City Code: Chapter 19-70 Park and Recreation Land and Fees

Santa Rosa City Code Chapter 19-70 require that six acres of property for each 1,000 persons residing within this City be devoted to local park and recreational purposes. The six acre requirement can be satisfied by a combination of park land and park development dedications, open space and school recreational land. The acreage of each park type per 1,000 residents is determined by the City Council by resolution. Additionally, park land and park development standard are required to meet the minimum ratio of park land to residents, as set forth in the Quimby Act.

ii. City of Santa Rosa 2020 General Plan Policies
The following lists applicable General Plan goals and policies most pertinent to the Specific Plan with regards to park and recreation facilities.

a) Land Use Element
Goal LUL-E: Promote livable neighborhoods. Ensure that everyday shopping, schools and park and recreation facilities are within easy walking distance of most residents.

♦ Policy LUL-E-1: Provide new neighborhood parks and recreation facilities, elementary schools and convenience shopping in accordance with the General Plan Land Use Diagram.

b) Urban Design Element
♦ Policy UD-B-9: Seek opportunities to develop small public spaces throughout Downtown that will provide for the comfort of pedestrians, enhance street life and provide protection from sun and rain.

Goal UD-E: Create a framework of public spaces at the neighborhood, city and regional scale.

♦ Policy UD-E-1: Provide for new open space opportunities throughout the city, especially in neighborhoods that have less access to open spaces. This includes exploring potential for creek corridors, bicycle and pedestrian ways, as well as new pocket parks and conservation areas.

♦ Policy UD-E-4: Enhance pedestrian activity and safety by designing street, buildings, pathways and trails to provide a visual connection with public spaces such as parks and Santa Rosa Creek. Review and revise the Zoning Code and Subdivision Guidelines to support this policy.

Goal UD-G: Design residential neighborhoods to be safe, human-scaled and livable.
♦ Policy UD-G-1: Establish a defined center – such as a park, school, neighborhood shopping center, or transit stop – at the core of large residential projects.

c) Public Services and Facilities Element

Goal PSF-A: Provide recreational facilities and parks for all sectors of the community.

♦ Policy PSF-A-2: Acquire and develop new park facilities to achieve a citywide standard (including school parks and non-City public open space) of 6 acres of parkland per thousand residents.

♦ Policy PSF-A-5: Design new parks so that they are highly visible from adjacent streets and neighborhoods to increase safety and enhance visual quality.

♦ Policy PSF-A-7: Acquire park sites adjacent to existing and proposed schools, where possible, and develop these sites as joint use facilities.

♦ Policy PSF-A-13: Require the provision of private play space for children in small lot subdivisions and multifamily developments, on each lot or in common open space areas as part of the development project.

♦ Policy PSF-A-14: Pursue dedication of small pocket parks featuring tot lots and resting areas, during review of residential subdivisions for those situations where provision of a neighborhood park is not feasible or practical for the area. Parkland dedication fees may serve as a revenue source for acquisition and development of pocket parks.

♦ Policy PSF-A-15: Develop community centers in the southwest and southeast areas of Santa Rosa.

♦ Policy PSF-A-19: Provide recreational opportunities and establish bike and pedestrian paths along Santa Rosa Creek through implementation of the Santa Rosa Creek Master Plan.
d) Art and Culture Element

Goal AC-A: Develop places for art.

- **Policy AC-A-1**: Support the development of centrally located multipurpose facilities to house visual and performing arts activities, such as exhibition, studio/class, performance and theater/lecture space.

- **Policy AC-A-2**: Develop outdoor locations that encourage cultural events for the enjoyment of the citizens as well as attract tourism.

- **Policy AC-A-4**: Increase public art throughout Santa Rosa. Encourage the placement of art in locations that are interactive and accessible to the public and entryways into the City.

2. Existing Conditions

The City of Santa Rosa’s Recreation and Parks Department (SRRPD) maintains, promotes and administers 57 neighborhood and community parks, totaling 514 acres, 222 acres of undeveloped parkland and 12 additional community and/or recreation facilities and programs. Neighborhood parks are generally located within one-half mile of the residents they serve. Community parks serve residents throughout the City but are generally within one mile of their users. The community parks often contain specialized recreational facilities, such as sports fields and tennis courts. The City currently meets its standard of 6 acres of parkland per 1,000 residents, of which 1.1 acres are dedicated for open space, 1.4 acres for school related activities and 3.5 acres for parks.

Park and recreation facilities within or near the Specific Plan Area and most accessible to residents within the Specific Plan Area are shown on Figure 4.11-2 and Table 4.11-2 provides the acreages for each of the existing parks.

---


37 Richardson, Marc. Parks Director, Recreation and Parks Department, City of Santa Rosa. Personal communication with Chad Markell, DC&E. October 17, 2006.
### Table 4.11-2 Existing Parks within the Specific Plan Area

<table>
<thead>
<tr>
<th>Existing Parks</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeTurk Round Barn Park</td>
<td>1.0</td>
</tr>
<tr>
<td>DeMeo Park</td>
<td>1.0</td>
</tr>
<tr>
<td>Olive Park</td>
<td>1.0</td>
</tr>
<tr>
<td>Courthouse Square</td>
<td>2.0</td>
</tr>
<tr>
<td>Julliard Park</td>
<td>9.0</td>
</tr>
<tr>
<td>Burbank Home and Gardens</td>
<td>1.5</td>
</tr>
<tr>
<td>Prince Memorial Greenway</td>
<td>2.0</td>
</tr>
<tr>
<td>Railroad Depot Park</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>18.0</strong></td>
</tr>
</tbody>
</table>

within the Specific Plan Area. The following provides a description of each of the existing parks within the Specific Plan Area:

- **DeTurk Round Barn Park.** This park is located at 819 Donahue Street and includes a dog park area, picnic area and the historic round barn from around 1880.

- **DeMeo Park.** Located at 610 Polk Street, this one-acre neighborhood park includes picnic areas, basketball hoop, play equipment and bocce ball courts.

- **Olive Park.** Located at 105 Orange Street, this one-acre neighborhood park includes picnic area, barbeques, children’s playground structure and access to the Prince Memorial Greenway.

- **Courthouse Square.** Courthouse Square is located in the center of Downtown between Third and Fourth Streets and provides passive
recreational space for Downtown residents, employees and visitors. Courthouse Square is bisected by Santa Rosa Avenue. Each half of the square offers a distinct environment. The eastern half of the Square has a more intimate park-like setting, with meandering pathways, small grass hills, tall redwood trees, park benches and a small courtyard with a round reflecting pool. The western half provides a more formalized setting, featuring a large sunken plaza that is complemented by water features and an elevated gazebo-like stage area. The City is in the process of reunifying the park and redirecting traffic around Third and Fourth Streets.

♦ **Juilliard Park.** Located at 227 Santa Rosa Avenue, across Santa Rosa Avenue from the Burbank Home and Gardens Park, these nine acres were once the showplace home and gardens of C. F. Juilliard, a cousin of the Juilliard family of the famous Juilliard Music Academy in New York. Today, the park includes the children’s Burbank Playground, the “Church of the One Tree” and hosts community festivals and events.

♦ **Burbank Home and Gardens.** Located at Santa Rosa Avenue at Sonoma Avenue. The grounds were home to Luther Burbank from 1884 to 1906 and include a Greek Revival house, a carriage house (which now houses a museum and a gift shop), a greenhouse and over an acre of gardens. The gardens include medicinal herbs, cutting flowers, wildlife habitats and ornamental grasses, many originally planted by Burbank himself.

♦ **Prince Memorial Greenway.** Located along the Santa Rosa Creek, through the southern portion of the Specific Plan Area, the Prince Memorial Greenway project began in the late 1980’s with the vision of a handful of people interested in restoring Santa Rosa Creek. This creek restoration project stretches from Santa Rosa City Hall to Railroad Square. The primary goal of the project was to recreate the creek for public use and benefit. Today, the enhanced creek and trail system makes it possible to observe and learn about nature in the heart of urban Santa Rosa and provides a connection to walk, bike or jog safely from one side of the city to another..
4.11-34

♦ Railroad Depot Park. Located at 9 West Fourth Street, this ½-acre neighborhood park includes turf area and a bronze statue of "Charlie Brown" and "Snoopy," the cartoon characters created by famed Santa Rosa resident Charles Shultz.

The Sonoma County Agricultural Preservation and Open Space District has recently acquired Taylor Mountain, adding approximately 1,000 acres of land that will be developed for open space and parks. Additionally, there are two nearby regional parks, Spring Lake County Park (320 acres, including the 72-acre lake) and Annadel State Park (5,000 acres). Although these parks are not operated by the City, they do enhance and complement recreational opportunities available to city residents.

The SRRPD is also responsible for maintaining the City’s cultural facilities. To this end, the SRRPD is estimating to spend $2.5 million for renovations to the Deturk Round Barn located at 819 Donahue St.; $1.5 million for renovation to the Church of One Tree located at Sonoma/Santa Rosa Avenue; and ½ million for renovation to the Burbank Home & Garden.

3. Standards of Significance
The Specific Plan would have a significant impact with regard to parks and recreation if it would:

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered park and recreational facilities, need for new or physically altered park and recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios.

ii. 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.

4. Impact Discussion
a. Project Impacts
An increase in population under the Specific Plan could have the potential to increase the demand on park and recreational facilities serving the Specific
Plan Area. Buildout under the Specific Plan would add approximately 3,250 new residential units with an estimated buildout population of 8,125 people over the next 20 years. This increase in population could affect the provision of park and recreational facilities.

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered park and recreational facilities, need for new or physically altered park and recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios.

On a programmatic level, the Specific Plan calls for the provision of several new parks within the Specific Plan Area, for a total of 4.5 acres of new parkland. The exact location of these parks has not been determined, but their physical impacts resulting from their construction are evaluated as part of the Specific Plan as a whole in this EIR since new parks are included in the Specific Plan. Thus, the construction of new parks within the Specific Plan would not result in additional significant impacts not otherwise identified in the other sections of this EIR. Impacts and mitigation measures identified in the other sections of this EIR for general development within the Specific Plan Area would also apply to the construction of parks.

ii. 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.

Based on the expected growth from the implementation of the Specific Plan and on the City’s park standard, an additional 48 acres of parks and open space would be needed to be constructed to maintain current service levels. As mentioned above, the Specific Plan proposes several new parks within the Specific Plan Area that would result in the development of 4.5 acres of new parking. Since the majority of the Specific Plan Area is already developed, the remainder of the necessary parkland would most likely be developed outside of the Specific Plan Area or would be provided through the improve-

---

38 \((8,125 / 1,000) \times 6 = 48.75\) acres. Note: 8,125 are the expected new residents; and 6 acres/1,000 residents is the City’s park standard.
ment of existing facilities within the Specific Plan Area using fees collected from new development pursuant to the City Code Chapter 19-70, as allowed by the Quimby Act. These fees would be collected in compliance with the City’s Park Development Fees ordinance, under Chapter 19-70 (Park and Recreation Land and Fees) of the City Code, as mentioned above. Full compensation of such fees is considered in full compliance by developers with the provision of adequate park space under State law.

Recognizing that parkland fees may be used to improve existing facilities within the Specific Plan Area, the Specific Plan includes Specific Plan Policy SP-UPS-6.1, which would allow Park Fees paid on new residential units within the Specific Plan Area to be used for development and improvement of cultural facilities in the downtown area. This policy would allow the City to more appropriately focus suitable resources within the Specific Plan Area.

Given these existing and proposed policies and regulations, which will ensure that new development and the City provide adequate new recreational opportunities to avoid overusing existing facilities, a less-than-significant impact in regards to parks and recreation facilities are anticipated from implementation of the proposed Specific Plan.

b. Cumulative Impacts
Development within the Santa Rosa Urban Growth Boundary has the potential to result in a cumulative impact related to parks and recreational facilities. However, the 2002 General Plan EIR identified that with the policies included in the General Plan, that the potential for growth under the General Plan to result in a significant impact related to parks and recreational services would be reduced to a less-than-significant level. The Specific Plan would comply with these same policies and has included several park sites within the Specific Plan area. As a result, the Specific Plan would not contribute to a significant cumulative impact related to parks and recreational facilities.
5. Impacts and Mitigation Measures
Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to park and recreational facilities, no mitigation measures are required.
4.12 Transportation and Circulation

This chapter provides an analysis of the potential transportation and circulation impacts associated with traffic generated by the buildout of the Specific Plan Area. The section describes the existing local transportation system used by automobile drivers, transit users, bicyclists, and pedestrians; the Specific Plan impacts on that system; and the measures necessary to reduce identified impacts on circulation and safety to acceptable levels. This analysis has been prepared for three scenarios, including:

- Existing (2005)
- Future without Specific Plan (Year 2025)
- Future plus Specific Plan (Year 2025)

The weekday PM peak hour was chosen for analysis of potential future transportation impacts as it both captures worst-case existing traffic operation and represents the highest vehicle traffic generation period for potential uses included in the Specific Plan.

A. Regulatory Framework

This section summarizes key State and City statutes, regulations and policies that would apply to the Specific Plan.

1. State Laws and Regulations
   a. Caltrans Regulations and Policies
   The California Department of Transportation (Caltrans) maintains a target Level of Service1 (LOS) at the transition between LOS C and LOS D for freeway facilities, which translates to a service flow rate of approximately 1,680 passenger cars per mile per lane. Where an existing freeway is operating at less than the LOS C/D threshold the existing measure of effectiveness should be maintained.

---

1 LOS is explained in the Existing Conditions section of this chapter.
2. Local Regulations and Policies
   a. City of Santa Rosa Transportation Regulations and Policies
      The City of Santa Rosa’s adopted LOS Standard is contained in Santa Rosa General Plan. Standard TD-1 states that the City will try to maintain a LOS D or better along all major corridors. LOS is determined for the highest 60-minute traffic volume period. Exceptions to meeting this standard are allowed:
      - Within the downtown area shown in Figure 2-3 of the General Plan;
      - Where attainment would result in significant environmental degradation;
      - Where topography or environmental impact makes the improvement impossible; or
      - Where attainment would ensure loss of an area’s unique character.
      Although the City’s standard does not specify criteria for intersections, for the purposes of this analysis a minimum operation of LOS D was assumed for all signalized intersections outside of the downtown area. This includes the nine study intersections on College and Dutton Avenues. While City policy exempts LOS standards in the downtown area, a minimum operation of LOS E was applied for study purposes because adverse safety conditions and impacts to emergency response can result when multiple intersections are operating at high delays indicative of LOS F conditions. Traffic improvements, such as additional lanes or changes to phasing, were therefore evaluated if intersection operation dropped below LOS D outside of the Downtown area and below LOS E within the Downtown area.

   b. Relevant City of Santa Rosa General Plan Goals and Policies
      i. Urban Design Element
      **Goal UD-B: Preserve and strengthen downtown as a vital and attractive place.**
      - **Policy UD-B-7:** Strengthen and enhance transportation linkages in downtown, particularly the 4th Street link between Old Courthouse Square and Railroad Square.
ii.  Transportation Element

Goal T-A: Provide a safe and sustainable transportation system.

♦ Policy T-A-4: Pursue cooperation between local and regional transportation agencies to coordinate multi-modal connections throughout the City.

Goal T-F: Develop a viable solution for regional through traffic on north-south and east-west corridors.

♦ Policy T-F-3: Explore alternative circulation network improvements to accommodate regional through-traffic, focusing on regional/arterial street circulation and regional transportation routes.

Goal T-H: Expand the existing transit network to provide convenient and efficient public transportation to workplaces, shopping and other destinations.

♦ Policy T-H-3: Require new development to provide transit improvements, where a rough proportionality to demand from the project is established. Transit improvements may include:
  - Direct and paved pedestrian access to transit stops;
  - Bus turnouts and shelters; and
  - Lane width to accommodate buses.

Goal T-I: Support implementation of rail service along the Northwest Pacific Railroad.

♦ Policy T-I-1: Support efforts to implement rail service along the NWPRR.

♦ Policy T-I-2: Preserve options for future rail stations along the NWPRR corridor by zoning land in proximity to the potential station sites for higher residential densities and/or mixed use development.

Goal T-J: Provide attractive and safe streets for pedestrians and bicyclists.
Policy TJ-3: Strengthen and expand east-west linkages across the Highway 101 corridor.

Policy TJ-4: Provide street trees to enhance the City’s livability and to provide identity to neighborhoods and districts.

Goal TK: Develop a safe, convenient and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas and employment centers.

Policy TK-2: Allow the sharing or parallel development of pedestrian walkways with bicycle paths, where this can be safely done, in order to maximize the use of public rights-of-way.

Goal TL: Develop a citywide system of designated bikeways that serves both experienced and casual bicyclists and which maximizes bicycle use for commuting, recreation and local transportation.

Policy TL-4: Identify specific east-west and north-south bicycle routes through the downtown area as part of the downtown planning process.

Policy TL-9: Require new development to dedicate land and/or construct/install bicycle facilities for project users, where a rough proportionality to demand from the project is established.

Policy TL-10: Maintain and update, as appropriate, the pedestrian and bicycle network facilities map for Santa Rosa and the surrounding area.

c. City of Santa Rosa Parking Requirements

In adopting the 2004 City of Santa Rosa Zoning Code, the City established different residential parking requirements in the Downtown area versus other areas of the City. Whereas multi-family units outside of the downtown area are required to provide 1.5 to 2.5 spaces per unit, similar units within the CD zone in Downtown Santa Rosa are required to provide only 1.0 space per unit. In terms of relevance to the parking analysis, the CD zone incorporates the entire Courthouse Square and Railroad Square Sub-Areas.
The City of Santa Rosa also has an existing parking assessment district in the Courthouse Square Sub-Area roughly bounded by (streets listed in a counter-clockwise direction): College Avenue, Healdsburg Avenue, Eighth Street, Morgan Street, Sonoma Avenue, E Street, Seventh Street, and Mendocino Avenue. Within the parking assessment district, new retail and office developments are required to provide no onsite parking; instead an assessment is paid to utilize City-owned garage facilities.

Outside of the CD zone, multi-family residential uses are required to provide 1.0 covered space plus ½ a visitor space per studio or 1-bedroom unit. Units with 2.0 or more bedrooms are required to provide 1.0 covered space plus 1.5 visitor spaces per unit. On-street spaces fronting the development may be counted toward the supply of visitor spaces. Outside of the Downtown parking assessment district, general retail and general office uses are required to provide 1.0 parking space per 250 square feet of building space.

B. *Existing Conditions*

This section describes the existing traffic and circulation conditions within the Specific Plan Area.

1. **Methodology**
   a. Traffic Level of Service Methodology
   LOS is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. This analysis was based on methodologies from the 2000 Highway Capacity Manual (HCM), Transportation Research Board, 2000.

   i. **Analysis of Signalized Intersections**
      The signalized methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coor-
4.12-6

dinated, truck traffic, and pedestrian activity. Average stopped delay in seconds per vehicle is used as the basis for evaluation in this LOS methodology.

The ranges of delay associated with the various LOS for intersections are indicated in Table 4.12-1.

ii. Analysis of Unsignalized Intersection
The unsignalized methodology determines a level of service for each minor turning movement by estimating the level of delay in average seconds per vehicle. The movement with the highest level of delay is presented as the Worst Case LOS. The through movements on the main street are assumed to operate at free flow. The point at which signalization could be considered as mitigation at a poorly-operating unsignalized intersection was based on information contained in the Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, 2003. Warrant #3, referred to as “Peak Hour,” is often the first warrant to be met and so was chosen for the analysis.

iii. Analysis of Arterial Roadway Segments
The roadway segment LOS methodology found in Chapter 11, “Urban and Suburban Arterials,” of the HCM was used for analysis of the study roadway segments. This method does not address the capacity of a facility, but rather determines a LOS based on average through-vehicle travel speed. In essence, congestion occurs as traffic volumes increase, and the overall travel speed is reduced due to increased delay. Slower speeds translate to lower LOS.

As described in the HCM, there are various arterial classifications with different free flow travel speeds and, hence, different LOS speeds. All three study segments would be considered Class IV arterials within the Specific Plan Area. The relationship between arterial classification and LOS speed is presented in Table 4.12-2.

Corridor speeds and LOS were determined using the SYNCHRO and SIMTRAFFIC analysis software applications, which produce output based on the
### Table 4.12-1 INTERSECTION LOS CRITERIA

<table>
<thead>
<tr>
<th>LOS</th>
<th>Signalized Intersections</th>
<th>Unsignalized Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.</td>
<td>Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.</td>
</tr>
<tr>
<td>B</td>
<td>Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.</td>
<td>Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.</td>
</tr>
<tr>
<td>C</td>
<td>Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.</td>
<td>Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.</td>
</tr>
<tr>
<td>D</td>
<td>Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.</td>
<td>Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.</td>
</tr>
<tr>
<td>E</td>
<td>Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.</td>
<td>Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.</td>
</tr>
<tr>
<td>F</td>
<td>Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.</td>
<td>Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.</td>
</tr>
</tbody>
</table>


Input traffic volumes and the existing geometry and operation of the street network. Geometric data includes variables such as the number of travel lanes, spacing of signalized intersections, and turn pocket lengths.

Operational data includes variables such as traffic signal timing, phasing, and coordination information.
### Table 4.12-2  **Arterial LOS Criteria**

<table>
<thead>
<tr>
<th>Arterial Class</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Free Flow Speeds (mph)</td>
<td>30</td>
</tr>
<tr>
<td>Level of Service</td>
<td>Average Travel Speed (mph)</td>
</tr>
<tr>
<td>A</td>
<td>≥25</td>
</tr>
<tr>
<td>B</td>
<td>≥19</td>
</tr>
<tr>
<td>C</td>
<td>≥13</td>
</tr>
<tr>
<td>D</td>
<td>≥9</td>
</tr>
<tr>
<td>E</td>
<td>≥7</td>
</tr>
<tr>
<td>F</td>
<td>&lt;7</td>
</tr>
</tbody>
</table>


#### iv. Freeway Analysis

The freeway analysis methodology contained in Chapter 23 of the HCM, “Basic Freeway Segments,” was used to determine levels of service on Highway 101. The method uses variables such as traffic volumes, geometric configuration of the freeway (i.e., number of lanes, widths of lanes and shoulders), topography, the percentage of heavy vehicles, and free-flow speeds to determine LOS criteria including the “service flow rate.” Service flow rates are indicative of the travel demand on a freeway facility and are measured in the number of passenger cars per hour per lane. The ranges of service flow rates associated with the various LOS are indicated in Table 4.12-3.

The Caltrans target of operation at the LOS C/D threshold for freeway facilities translates to a service flow rate of approximately 1,680 passenger cars per mile per lane. In determining whether a project would create an adverse impact to a freeway facility already operating at LOS E or F, the forecast service
flow rate was compared to ideal freeway capacity to establish a theoretical volume-to-capacity (v/c) ratio. The v/c ratio is calculated using projected flow rates and an ideal capacity of 2,300 vehicles per hour per lane.

b. Residential Trip Generation Methodology
When determining the potential amount of vehicle traffic generated by future development, transportation planners and engineers typically refer to Trip Generation, 7th Edition, by the Institute of Transportation Engineers (ITE). This publication is a standard reference used by jurisdictions throughout the country, and is based on actual trip generation studies performed at numerous locations in areas of various populations.

Because Trip Generation includes limited information on how to quantify automobile, versus transit and pedestrian trips, in an urban mixed-use environment, it was determined that additional trip estimation resources would be needed for analysis of Specific Plan traffic impacts. The effects of higher residential densities, diverse land uses, proximity to employment centers,
transit accessibility, and an interconnected pedestrian and roadway network all result in lower per-unit trip generation in Downtown areas like the Specific Plan Area compared to suburban locations.

The URBEMIS2002 software application (referred to as URBEMIS), developed by Jones & Stokes Associates, is used by various air districts in California to determine air emission estimates for land use development projects. The production of air emissions is largely influenced by vehicle traffic. The software includes methodologies that quantify the changes to vehicle trip generation that are attributable to the type and location of new development. All trip generation rate information originates from the published ITE rates, and is then adjusted to reflect local conditions in the immediate area (within a ¼- to ½-mile “walkable” distance). Key factors used in the adjustment process include the jobs-housing balance, transit service information, and an evaluation of street connectivity. Residential density also has a strong influence on the projected trip generation. URBEMIS utilizes the findings of research conducted over the past decade by analysts, including John Holtzclaw and Robert Cervero, much of which was conducted in the San Francisco Bay Area.

The Specific Plan includes a mix of new uses, though new residential development represents the largest component of change. Traffic generated by residential uses is also the most influenced by location. For these reasons, URBEMIS was used to develop Specific Plan Area residential trip generation while standard ITE rates and methodologies were used for non-residential uses.

There will be trip-reduction benefits associated with increased housing in the Specific Plan Area. A better jobs-housing balance will be created than currently exists. The City’s Department of Community Development assembled Downtown data for the year 2004 that includes an estimate on the number of jobs and indicates that approximately 11,200 people are employed Downtown. For the purposes of establishing jobs-housing balance information within URBEMIS it was conservatively assumed that employment
would remain unchanged into the future. The applied analysis may therefore slightly overstate residential trip generation rates in 2025, since the full benefits of a strong jobs-housing balance were not credited in URBEMIS, though the rates would effectively project trip generation in interim years before buildout. The total reduction in trip generation rates associated with the applied employment assumptions and mix of uses is 2.46 percent, as shown in Table 4.12-4.

URBEMIS includes a trip rate adjustment of 2.0 percent for residential uses that are within walking distance of local-serving retail uses. Most of the proposed residential uses in the Specific Plan Area are already within walking distance of retail uses, and upon buildout of the Specific Plan, all residential units are expected to be proximate to local-serving retail.

Transit accessibility varies according to the number of buses that stop within \(\frac{1}{4}\)-mile of the Specific Plan Area. Nearly all of the highest-density development, assumed for this analysis to be 40 units/acre or greater, would be located within \(\frac{1}{4}\)-mile of the transit mall. Approximately 415 buses per weekday stop at the transit mall including 325 stops by CityBus, 56 stops by Sonoma County Transit, and 34 Golden Gate Transit stops. URBEMIS projects a 5.24 percent deduction in trip generation to account for transit usage at these upper-density range residential projects. Most of the areas with proposed densities lower than 40 units/acre are beyond one-quarter mile of the downtown transit mall but proximate to at least one Santa Rosa CityBus line. In these areas it was assumed that only one bus line operates within one-quarter mile of the development, or approximately 36 buses per day. URBEMIS projects a 0.44 percent deduction in vehicle trip generation rates for these mid-range density projects. Note that no deductions were applied in the analysis for potential SMART rail service, since at the time of this analysis the rail system remains unfunded. The transit accessibility trip adjustment factors are shown in Table 4.12-4.
TABLE 4.12-4  URBEMIS LOCATION ADJUSTMENTS

<table>
<thead>
<tr>
<th>Trip Reduction Type</th>
<th>Mid-Range Densities (8-39 units/acre)</th>
<th>Upper-Range Densities (40+ units/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix of Uses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumes an employment level of 11,200 jobs</td>
<td>-2.46%</td>
<td>-2.46%</td>
</tr>
<tr>
<td>Presence of Local-Serving Retail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumes that retail uses serving residents are available within walking distance</td>
<td>-2.00%</td>
<td>-2.00%</td>
</tr>
<tr>
<td>Transit Accessibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumes 36 buses/day within quarter mile of medium-density areas, and 400 buses/day in high-density areas near downtown transit mall</td>
<td>-0.44%</td>
<td>-5.24%</td>
</tr>
<tr>
<td>Pedestrian Friendliness/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street Connectivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All streets include sidewalks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium density areas have fair street grid connectivity and high density areas have good street grid connectivity</td>
<td>-4.23%</td>
<td>-5.16%</td>
</tr>
</tbody>
</table>


Street connectivity is calculated based on a comparison to an optimal network, in which all blocks are 300 feet long and all intersections have four legs. The optimal “score” of 1,300 is the sum of the total intersection legs within a square mile area. A pedestrian-friendly design is characterized by a highly interconnected network that minimizes the walking distances between any two points. Downtown Santa Rosa currently has good connectivity, though there are some longer block lengths and several barriers to pedestrian circula-
tion. This area is estimated to have a score of approximately 1,000 out of a possible 1,300, which translates to a 5.16 percent deduction in trip generation rates. Areas outside the Courthouse Square area, such as Sebastopol Road and North Wilson Street, tend to have longer block lengths and more barriers including freeways, large parcels, and the railroad. The score for these areas was assumed to be approximately 600 out of a possible 1,300, which URBE-MIS projects would result in a 4.23 percent deduction in trip generation.

Table 4.12-4 shows the location-based deductions to residential trip generation rates that are customized to the Specific Plan Area. The resulting applied residential rates, which take these deductions as well as residential density into account, are shown in Table 4.12-5.

c. Parking Analysis Methodology

i. Background on Traditional Parking Demand Methods

Parking demand for new development is typically projected using empirically-derived rates developed by sources including the ITE and Urban Land Institute (ULI). In many cases parking demand studies are not conducted, with parking adequacy instead being gauged solely on whether or not the project meets the supply required by the jurisdiction’s zoning code.

There can be several major shortfalls to relying on standardized rates without consideration of the surrounding built environment. First, standardized parking demand rates have typically been developed based on studies of sites in suburban areas. The problem with using such data is that the resulting rates tend to reflect a very auto-dependent condition in which there is a lack of travel made by transit use, bicycling, or walking. Suburban sites also have very limited potential for uses with “captive” trips where a driver parks once but visits more than one use.

A second shortfall of using standardized, single-use parking demand rates is that the potential of “shared parking” is not considered. The concept of shared parking is based on the fact that different land uses often experience peak parking demand at different times, whether it be time of day or even
TABLE 4.12-5  **URBEMIS ADJUSTED RESIDENTIAL TRIP RATES**

<table>
<thead>
<tr>
<th>Residential Unit Type</th>
<th>AM Rate</th>
<th>PM Rate</th>
<th>Daily Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ITE Single-Family Housing Base Rates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 units/acre</td>
<td>0.75</td>
<td>1.01</td>
<td>9.57</td>
</tr>
<tr>
<td><strong>URBEMIS Adjusted Rates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-19 units/acre</td>
<td>0.56</td>
<td>0.75</td>
<td>7.14</td>
</tr>
<tr>
<td>20-29 units/acre</td>
<td>0.45</td>
<td>0.60</td>
<td>5.70</td>
</tr>
<tr>
<td>30-39 units/acre</td>
<td>0.41</td>
<td>0.55</td>
<td>5.17</td>
</tr>
<tr>
<td>40-49 units/acre</td>
<td>0.34</td>
<td>0.45</td>
<td>4.29</td>
</tr>
<tr>
<td>50-69 units/acre</td>
<td>0.32</td>
<td>0.43</td>
<td>4.06</td>
</tr>
<tr>
<td>70+ units/acre</td>
<td>0.29</td>
<td>0.40</td>
<td>3.76</td>
</tr>
</tbody>
</table>


month of the year. Focusing on a shared parking approach when considering future development projects, whether they are mixed-use or located in a diverse urban environment, can substantially improve the efficiency and cost effectiveness of the project. Shared parking can also be used to manage the overall supply of parking and lessen the potential for an oversupply to occur. An oversupply of parking decreases the likelihood of trips being made by non-automobile modes including transit.

Third, the use of traditional parking demand rates and/or suburban-oriented parking requirements can adversely affect other goals of the community including the creation of transit-oriented development, development patterns that support other non-automobile modes like bicycling and walking, improved housing affordability, and a more efficient use of urban land that focuses on urban infill rather than suburban expansion.
ii. **Shared Parking Methodology**

A parking demand methodology that considers “shared parking” principles can significantly improve the efficiency of providing parking in an urban mixed-use environment, and help to ensure that an unnecessary oversupply of parking is avoided. The ULI publication Shared Parking, Second Edition, 2006, includes state-of-the-practice methodologies for determining parking demand in a mixed-use environment. The ULI methodology focuses heavily on temporal data, determining when the overall peak demand for various land uses would occur, including what time of day, whether it is a weekday or weekend, and what month of the year. The recommended parking supply is then tied to that maximum demand period.

The base input data in the Shared Parking model includes the proposed mix of land uses, including quantities of each type of use. If reserved (non-shared) parking spaces are to be included for any of the land use types, those values are also inputted. The methodology then requires the input of “mode adjustment” and “non-captive ratio” values. Mode adjustments are used to adjust the default parking demand ratios, which are based on auto-oriented suburban developments, to reflect conditions where auto ownership is expected to be lower, transit usage higher, and other non-automobile modes of travel such as walking and bicycling higher.

For the Specific Plan Area parking analysis, shared parking methodologies were applied in the Courthouse Square and Railroad Square Sub-Areas when determining the potential parking demand created by potential development. This added demand was then “layered” on top of the existing hourly parking demand trends on weekdays and weekends in each of the Specific Plan Areas, extending the shared parking concept to forecast how buildout of the Specific Plan could affect current conditions.

For residential uses in the Courthouse Square and Railroad Square areas it was assumed that the City’s parking requirement of one space per unit would remain intact. This single space per unit is assumed to be reserved (i.e., not available as a shared parking space). Any parking demand generated by resi-
dential developments beyond the one reserved space per unit would be accommodated in the surrounding area, and is included in the shared parking analysis conducted for each area.

2. Roadway Network and Specific Plan Area

The local circulation system serving the Specific Plan Area is shown in Figure 4.12-1. Regional access to Downtown Santa Rosa is provided by Highway 101, a freeway facility that serves as the primary link between the San Francisco Bay Area and Santa Rosa, extending northward to Eureka and the California North Coast and Oregon. East-west regional access is provided primarily by State Highway 12, which is a freeway facility within the Specific Plan Area, extending as a 2-lane highway to the Pacific Ocean to the west and the Interstate 80 corridor to the east.

There are several major arterial corridors that connect Downtown Santa Rosa and the Specific Plan Area to the Highway 101 and Highway 12 freeways. The Santa Rosa Avenue-Mendocino Avenue corridor extends the length of the City, running parallel and to the east of Highway 101. Dutton Avenue is a north-south corridor paralleling the east side of Highway 101 within the Specific Plan Area, with a freeway interchange at Highway 12. Third Street serves as the primary east-west corridor in the Specific Plan Area. The Highway 101 freeway interchange at Third Street provides primary access to Downtown Santa Rosa and Railroad Square. College Avenue also provides east-west access to the Specific Plan Area, running along the northern boundary of the Specific Plan Area and including a freeway interchange at Highway 101.

A total of 21 intersections were chosen for analysis in this study. All of the study intersections are controlled by traffic signals, with the exception of Sixth Street/Wilson Street, which is controlled by stop signs on the Sixth Street approaches. The selection of these study intersections was based on input from City staff and the judgment of the traffic consultants (W-Trans) based upon previous work conducted for other projects in the City of Santa Rosa. In choosing the study intersections, consideration was also given to the
potential shifts in traffic that could occur upon reunification of Courthouse Square, which is a component of the Specific Plan. The list of study intersections was also expanded during development of the Specific Plan as the potential development areas (where potential impacts could occur) became better defined. The study intersections are listed below and shown in Figure 4.12-1.

1. College Avenue/Dutton Avenue
2. College Avenue/Cleveland Avenue
3. College Avenue/Highway 101 Southbound Ramps
4. College Avenue/Highway 101 Northbound Ramps
5. College Avenue/Mendocino Avenue
6. Seventh Street/B Street
7. Seventh Street/Mendocino Avenue
8. Sixth Street/Wilson Street (all-way stop-controlled)
9. Fifth Street/Davis Street
10. Sixth Street/Morgan Street - Highway 101 North Onramp
11. Third Street/Dutton Avenue
12. Third Street/Wilson Street-Railroad Street
13. Third Street/Davis Street Highway 101 South On-Ramp
14. Third Street/Morgan Street - Highway 101 North Off-Ramp
15. Third Street/B Street
16. Third Street/Santa Rosa Avenue
17. Third Street/E Street
18. Dutton Avenue/Highway 12 Westbound Ramps
19. Dutton Avenue/Highway 12 Eastbound Ramps
20. Dutton Avenue/Sebastopol Road
21. Santa Rosa Avenue/First Street

In addition to analysis of the 21 intersections, corridor analyses were conducted for the three major corridors that connect the Specific Plan Area to the regional roadway network. The study road segments include:

1. College Avenue – Dutton Avenue to Mendocino Avenue
2. Third Street – Dutton Avenue to E Street
3. Dutton Avenue – Sebastopol Road to West Third Street
An analysis of peak-hour traffic conditions on mainline Highway 101 was also conducted for the following segments:

1. Highway 101 – Hearn Avenue to Third Street
2. Highway 101 – Third Street to Steele Lane

3. Existing Traffic Conditions
   a. Traffic Counts
   Intersection turning movement counts used in the analysis were obtained both from the City of Santa Rosa and by field-collection of new data. Count dates range from 2003 to 2006. All traffic volumes collected in 2003-2005 were factored to represent 2006 conditions using a comparison of historical and recent counts for calibration on an intersection-by-intersection basis. All traffic data was collected prior to commencement of roadway closures associated with the current Highway 101 freeway widening project.

   Traffic volumes for Highway 101 were obtained from the Caltrans “Traffic and Vehicle Data Systems Unit” internet site, and reflect 2005 conditions.

   The existing traffic volumes used in the analysis are shown in Figure 4.12-2. The study intersection lane configurations are shown in Figure 4.12-3.

   b. Existing Levels of Service
   All of the study intersections are currently operating at acceptable levels of service during both the AM and PM peak hours. Delays during the PM peak hour are greater than the AM peak hour at nearly all locations. The three study corridors are also all operating acceptably at LOS D or better.

   The two study segments of Highway 101 within the Specific Plan Area are currently operating unacceptably at LOS F in the northbound direction during the PM peak hour. The study segment of Highway 12 is operating acceptably at LOS C in the eastbound direction and unacceptably at LOS D in the westbound direction during the PM peak hour.
FIGURE 4.12-2
EXISTING TRAFFIC VOLUMES

1. College Ave/Dutton Ave
   AM Peak Hour Volume: 330(198), 333(742), 93(171)
   PM Peak Hour Volume: 223(88), 289(152), 69(30)

2. College Ave/Cleveland Ave
   AM Peak Hour Volume: 115(151), 142(633), 49(49)
   PM Peak Hour Volume: 94(20), 107(27), 6(1)

3. College Ave/US 101 EB Ramps
   AM Peak Hour Volume: 165(153), 921(1021), 49(49)
   PM Peak Hour Volume: 383(208), 231(379), 82(20)

4. College Ave 101 NB Ramps
   AM Peak Hour Volume: 124(157), 373(469), 0(0)
   PM Peak Hour Volume: 245(408), 1006(1555), 311(371)

5. College Ave/Mendocino Ave
   AM Peak Hour Volume: 145(164), 138(695), 31(15)
   PM Peak Hour Volume: 72(209), 72(206), 13(12)

6. 7th St/S 8th St
   AM Peak Hour Volume: 8(12), 76(148), 11(32)
   PM Peak Hour Volume: 13(16), 8(12), 76(148)

7. 7th St/Mendocino Ave
   AM Peak Hour Volume: 13(16), 8(12), 76(148)
   PM Peak Hour Volume: 13(16), 8(12), 76(148)

8. 3rd St/Davies St
   AM Peak Hour Volume: 55(62), 112(194), 16(15)
   PM Peak Hour Volume: 35(43), 131(163), 66(30)

9. 3rd St/Davies St
   AM Peak Hour Volume: 35(43), 131(163), 66(30)
   PM Peak Hour Volume: 35(43), 131(163), 66(30)

10. 3rd St/Morgan St (US 101 NB On-Ramp)
    AM Peak Hour Volume: 23(23), 197(433), 5(26)
    PM Peak Hour Volume: 10(16), 9(9), 52(26)

11. 3rd St/Davies St (US 101 SB On-Ramp)
    AM Peak Hour Volume: 55(130), 226(556), 139(227)
    PM Peak Hour Volume: 55(130), 226(556), 139(227)

12. 3rd St/Davies St (US 101 SB On-Ramp)
    AM Peak Hour Volume: 55(130), 226(556), 139(227)
    PM Peak Hour Volume: 55(130), 226(556), 139(227)

13. 3rd St/Davies St (US 101 SB On-Ramp)
    AM Peak Hour Volume: 55(130), 226(556), 139(227)
    PM Peak Hour Volume: 55(130), 226(556), 139(227)

14. 3rd St/Davies St (US 101 SB On-Ramp)
    AM Peak Hour Volume: 55(130), 226(556), 139(227)
    PM Peak Hour Volume: 55(130), 226(556), 139(227)

15. 3rd St/Davies St (US 101 SB On-Ramp)
    AM Peak Hour Volume: 55(130), 226(556), 139(227)
    PM Peak Hour Volume: 55(130), 226(556), 139(227)

16. 2nd St/Davies St
    AM Peak Hour Volume: 25(47), 318(562), 24(36)
    PM Peak Hour Volume: 35(76), 326(46), 11(22)

17. 3rd St/Davies St
    AM Peak Hour Volume: 118(141), 210(267), 56(85)
    PM Peak Hour Volume: 22(22), 206(267), 56(85)

18. 3rd St/Davies St
    AM Peak Hour Volume: 468(433), 0(0), 380(365)
    PM Peak Hour Volume: 69(65), 335(375), 82(20)

19. 3rd St/Davies St
    AM Peak Hour Volume: 181(193), 106(161), 31(35)
    PM Peak Hour Volume: 181(193), 106(161), 31(35)

20. 3rd St/Davies St
    AM Peak Hour Volume: 132(208), 130(229), 21(59)
    PM Peak Hour Volume: 132(208), 130(229), 21(59)

21. 3rd St/Davies St
    AM Peak Hour Volume: 26(59), 108(127), 20(39)
    PM Peak Hour Volume: 26(59), 108(127), 20(39)

Source: w-trans

Study Intersection
XX AM Peak Hour Volume
(XX) PM Peak Hour Volume

CITY OF SANTA ROSA
DOWNTOWN STATION AREA SPECIFIC PLAN EIR

NORTH
FIGURE 4.12-3

STUDY INTERSECTION LANE CONFIGURATIONS

Study Intersection

Source: w-trans
The existing LOS for each of the 21 study intersections are summarized in Table 4.12-6. The roadway levels of service for the study corridors and freeway segments are summarized in Tables 4.12-7 and 4.12-8, respectively.

4. Future Baseline (No Project) Traffic Conditions

a. Traffic Model Background

Projections obtained from the City of Santa Rosa’s General Plan traffic model were used to develop future background traffic volumes. The traffic model reflects anticipated future citywide development as envisioned in the 2002 General Plan. The model includes year 2000 “base year” and year 2020 “future year” traffic projections. Future model projections include completion of the high-occupancy vehicle lanes currently under construction through Downtown Santa Rosa. The traffic model projections also assume that parcels within the Specific Plan Area will build out under their existing General Plan land use designations.

W-Trans used the City traffic model output to develop future traffic volumes that reflect a 20-year time horizon, approximating the year 2025. The increment of new traffic projected by subtracting the City traffic model’s 2000 data from 2020 data was added to the 2005 counts used in the Existing Conditions scenario. In some instances, the model projected a traffic volume decrease. Decreases are attributable to assumed infrastructure improvements and forecast changes in demographic data throughout the region. Rather than assume volume decreases, W-Trans chose to maintain existing counts as a “floor.” This is a common technique used to ensure that the future projections are conservative. The Future Baseline traffic volumes, which again represent buildout of the current General Plan without the Specific Plan or projects such as the reunification of Courthouse Square, are shown in Figure 4.12-4.
Study Intersection PM Peak Hour Volume

Source: w-trans

(XX) PM Peak Hour Volume

FIGURE 4.12-4

FUTURE BASELINE TRAFFIC VOLUMES
### Table 4.12-6 Existing Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control Type</th>
<th>AM Peak</th>
<th></th>
<th>PM Peak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. College Avenue/Dutton Avenue</td>
<td>Signal</td>
<td>28.4</td>
<td>C</td>
<td>42.9</td>
<td>D</td>
</tr>
<tr>
<td>2. College Avenue/Cleveland Avenue</td>
<td>Signal</td>
<td>20.9</td>
<td>C</td>
<td>40.1</td>
<td>D</td>
</tr>
<tr>
<td>3. College Avenue/Highway 101 SB Ramps</td>
<td>Signal</td>
<td>17.3</td>
<td>B</td>
<td>15.2</td>
<td>B</td>
</tr>
<tr>
<td>4. College Avenue/Highway 101 NB Ramps</td>
<td>Signal</td>
<td>21.8</td>
<td>C</td>
<td>42.9</td>
<td>D</td>
</tr>
<tr>
<td>5. College Avenue/Mendocino Avenue</td>
<td>Signal</td>
<td>26.1</td>
<td>C</td>
<td>37.9</td>
<td>D</td>
</tr>
<tr>
<td>6. Seventh Street/B Street</td>
<td>Signal</td>
<td>9.5</td>
<td>A</td>
<td>10.4</td>
<td>B</td>
</tr>
<tr>
<td>7. Seventh Street/Mendocino Avenue</td>
<td>Signal</td>
<td>8.9</td>
<td>A</td>
<td>17.8</td>
<td>B</td>
</tr>
<tr>
<td>8. Sixth Street/Wilson Street</td>
<td>TWSC</td>
<td>11.2</td>
<td>B</td>
<td>16.5</td>
<td>C</td>
</tr>
<tr>
<td>9. Fifth Street/Davis Street</td>
<td>Signal</td>
<td>8.6</td>
<td>A</td>
<td>13.7</td>
<td>B</td>
</tr>
<tr>
<td>10. Sixth Street/Morgan Street-Highway 101 NB On</td>
<td>Signal</td>
<td>5.9</td>
<td>A</td>
<td>10.9</td>
<td>B</td>
</tr>
<tr>
<td>11. Third Street/Dutton Avenue</td>
<td>Signal</td>
<td>19.0</td>
<td>B</td>
<td>31.1</td>
<td>C</td>
</tr>
<tr>
<td>12. Third Street/Wilson Street-Railroad Street</td>
<td>Signal</td>
<td>25.3</td>
<td>C</td>
<td>28.9</td>
<td>C</td>
</tr>
<tr>
<td>13. Third Street/Davis Street-Highway 101 SB On</td>
<td>Signal</td>
<td>23.8</td>
<td>C</td>
<td>26.0</td>
<td>C</td>
</tr>
<tr>
<td>14. Third Street/Morgan Street-Highway 101 NB Off</td>
<td>Signal</td>
<td>22.5</td>
<td>C</td>
<td>18.3</td>
<td>B</td>
</tr>
<tr>
<td>15. Third Street/B Street</td>
<td>Signal</td>
<td>19.9</td>
<td>B</td>
<td>34.8</td>
<td>C</td>
</tr>
<tr>
<td>16. Third Street/Santa Rosa Avenue</td>
<td>Signal</td>
<td>19.5</td>
<td>B</td>
<td>28.6</td>
<td>C</td>
</tr>
<tr>
<td>17. Third Street/E Street</td>
<td>Signal</td>
<td>9.8</td>
<td>A</td>
<td>18.2</td>
<td>B</td>
</tr>
<tr>
<td>18. Dutton Avenue/Highway 12 WB Ramps</td>
<td>Signal</td>
<td>17.3</td>
<td>B</td>
<td>23.4</td>
<td>C</td>
</tr>
<tr>
<td>19. Dutton Avenue/Highway 12 EB Ramps</td>
<td>Signal</td>
<td>12.9</td>
<td>B</td>
<td>17.8</td>
<td>B</td>
</tr>
<tr>
<td>20. Dutton Avenue/Sebastopol Road</td>
<td>Signal</td>
<td>20.7</td>
<td>C</td>
<td>35.3</td>
<td>D</td>
</tr>
<tr>
<td>21. Santa Rosa Avenue/First Street</td>
<td>Signal</td>
<td>19.8</td>
<td>B</td>
<td>20.8</td>
<td>C</td>
</tr>
</tbody>
</table>

**Notes:** TWSC = Two-way Stop-controlled (Delay is reported for worst-case approach)
NB = northbound; SB = southbound; EB = eastbound; WB = westbound
TABLE 4.12-7  EXISTING PM PEAK HOUR CORRIDOR LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>Speed</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Avenue – Dutton Ave. to Mendocino Ave.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>10 mph</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>9 mph</td>
<td>D</td>
</tr>
<tr>
<td>Third Street – Dutton Ave. to E St.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>15 mph</td>
<td>C</td>
</tr>
<tr>
<td>Westbound</td>
<td>13 mph</td>
<td>C</td>
</tr>
<tr>
<td>Dutton Avenue – Sebastopol Rd. to West Third St.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>9 mph</td>
<td>D</td>
</tr>
<tr>
<td>Southbound</td>
<td>11 mph</td>
<td>D</td>
</tr>
</tbody>
</table>


TABLE 4.12-8  EXISTING PM PEAK HOUR FREEWAY LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>Freeway Segment</th>
<th>Vp</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 101 – Baker Avenue to Highway 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,466</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>1,899</td>
<td>D</td>
</tr>
<tr>
<td>Highway 101 – Third Street to College Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,771</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>2,134</td>
<td>E</td>
</tr>
<tr>
<td>Highway 12 – Dutton Avenue to Highway 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>1,416</td>
<td>C</td>
</tr>
<tr>
<td>Westbound</td>
<td>1,748</td>
<td>D</td>
</tr>
</tbody>
</table>

Note: Vp = service flow rate, measured in passenger cars per hour per mixed-flow lane

b. Future Levels of Service
Under Future Conditions with the current General Plan land use designations and without adoption of the Specific Plan, all 21 study intersections are projected to operate at acceptable levels. It should be noted that the intersections on Third Street at B Street and Mendocino Avenue would be expected to op-
erate at LOS E, but that this is considered acceptable for Downtown intersec-
tions according to General Plan policy and criteria set forth in this environ-
mental analysis. A summary of the PM peak hour intersection LOS calcula-
tions is shown in Table 4.12-9.

The College Avenue and Third Street study corridors are projected to operate acceptably at LOS D or better under Future Conditions. The Dutton Ave-
nue corridor, however, is expected to experience unacceptable LOS E condi-
tions in the northbound direction. The projected corridor speeds and levels of service are shown in Table 4.12-10.

The two study segments of Highway 101 within the Specific Plan Area are projected to continue operating unacceptably at LOS F during the PM peak hour, even with the completion of continuous carpool lanes through Santa Rosa. The study segment of Highway 12 is projected to operate unacceptably at LOS D in the eastbound direction LOS E in the westbound direction during the PM peak hour. The projected future freeway levels of service are summarized in Table 4.12-11.

5. Existing Pedestrian and Bicycle Facilities

All areas of the Specific Plan have existing pedestrian and bicycle traffic, though the highest levels of activity currently occur in the Courthouse Square and Railroad Square Sub-Areas. Pedestrian and bicyclist volumes were ob-
tained during the afternoon PM peak hour at several key intersections in these areas, and are shown in Figure 4.12-5.

a. Existing Bicycle and Trail Facilities

There is a developing bicycle network in the Specific Plan Area. An expand-
ing network of Class I (bike path), Class II (on-street bicycle lane), and Class III (signed route) bikeways facilitate north-south and east-west travel for transportation and recreation. The following bikeways currently serve the Specific Plan Area.
### Table 4.12-9  **Future PM Peak Hour Intersection Levels of Service**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Delay</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. College Avenue/Dutton Avenue</td>
<td>52.9</td>
<td>D</td>
</tr>
<tr>
<td>2. College Avenue/Cleveland Avenue</td>
<td>48.0</td>
<td>D</td>
</tr>
<tr>
<td>3. College Avenue/ Highway 101 SB Ramps</td>
<td>15.4</td>
<td>B</td>
</tr>
<tr>
<td>4. College Avenue/ Highway 101 NB Ramps</td>
<td>52.2</td>
<td>D</td>
</tr>
<tr>
<td>5. College Avenue/Mendocino Avenue</td>
<td>39.6</td>
<td>D</td>
</tr>
<tr>
<td>6. Seventh Street/B Street</td>
<td>12.2</td>
<td>B</td>
</tr>
<tr>
<td>7. Seventh Street/Mendocino Avenue</td>
<td>19.8</td>
<td>B</td>
</tr>
<tr>
<td>8. Sixth Street/Wilson Street</td>
<td>19.6</td>
<td>C</td>
</tr>
<tr>
<td>9. Fifth Street/Davis Street</td>
<td>13.9</td>
<td>B</td>
</tr>
<tr>
<td>10. Sixth Street/Morgan Street- Highway 101 NB On</td>
<td>14.2</td>
<td>B</td>
</tr>
<tr>
<td>11. Third Street/Dutton Avenue</td>
<td>36.2</td>
<td>D</td>
</tr>
<tr>
<td>12. Third Street/Wilson Street-Railroad Street</td>
<td>33.6</td>
<td>C</td>
</tr>
<tr>
<td>13. Third Street/Davis Street- Highway 101 SB On</td>
<td>30.8</td>
<td>C</td>
</tr>
<tr>
<td>14. Third Street/Morgan Street- Highway 101 NB Off</td>
<td>30.6</td>
<td>C</td>
</tr>
<tr>
<td>15. Third Street/B Street</td>
<td>70.9</td>
<td>E</td>
</tr>
<tr>
<td>16. Third Street/Santa Rosa Avenue</td>
<td>69.0</td>
<td>E</td>
</tr>
<tr>
<td>17. Third Street/E Street</td>
<td>21.3</td>
<td>C</td>
</tr>
<tr>
<td>18. Dutton Avenue/Highway 12 WB Ramps</td>
<td>25.3</td>
<td>C</td>
</tr>
<tr>
<td>19. Dutton Avenue/Highway 12 EB Ramps</td>
<td>19.5</td>
<td>B</td>
</tr>
<tr>
<td>20. Dutton Avenue/Sebastopol Road</td>
<td>48.7</td>
<td>D</td>
</tr>
<tr>
<td>21. Santa Rosa Avenue/First Street</td>
<td>25.2</td>
<td>C</td>
</tr>
</tbody>
</table>

**Notes:**  
NB = northbound; SB = southbound; EB = eastbound; WB = westbound  
Sources: Highway Capacity Manual 2000, Transportation Research Board, W-Trans
### Table 4.12-10 Future PM Peak Hour Corridor Levels of Service

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>Speed</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Avenue – Dutton Ave. to Mendocino Ave.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>10</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>9</td>
<td>D</td>
</tr>
<tr>
<td>Third Street – Dutton Ave. to E St.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>12</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>11</td>
<td>D</td>
</tr>
<tr>
<td>Dutton Avenue – Sebastopol Rd. to West Third St.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>8</td>
<td>E</td>
</tr>
<tr>
<td>Southbound</td>
<td>9</td>
<td>D</td>
</tr>
</tbody>
</table>

Note: “Shaded” areas = unacceptable LOS.  

### Table 4.12-11 Future PM Peak Hour Freeway Levels of Service

<table>
<thead>
<tr>
<th>Freeway Segment</th>
<th>Vp</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 101 – Baker Avenue to Highway 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,676</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>2,758</td>
<td>F</td>
</tr>
<tr>
<td>Highway 101 – Third Street to College Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,689</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>2,647</td>
<td>F</td>
</tr>
<tr>
<td>Highway 12 – Dutton Avenue to U.S. 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>1,808</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>2,161</td>
<td>E</td>
</tr>
</tbody>
</table>

Note: Vp = service flow rate, measured in passenger cars per hour per mixed-flow lane.  
FIGURE 4.12-5

PEDESTRIAN AND BICYCLIST VOLUMES

Source: w-trans

XX Pedestrian Volumes
XX Bicycle Volumes
i.  *Prince Memorial Greenway and Santa Rosa Creek Path (Class I)*

The Greenway runs along Santa Rosa Creek, serving as a linear park and providing an important linkage between Sub-Areas located east and west of Highway 101. The Greenway includes a multi-use pathway on top of the north bank of the creek for bicyclists and pedestrians. Additional pathways are provided along the creek’s lower banks on the south side for pedestrians and creek exploration. The Greenway connects to the Santa Rosa Creek Path, which extends west from Pierson Street in the Railroad Square Sub-Area to residential areas in western Santa Rosa and beyond to the Laguna de Santa Rosa. The Greenway also connects via a recently-completed County connection to the Joe Rodota/West County Trail.

ii.  *Joe Rodota/West County Trail (Class I)*

The Joe Rodota/West County Trail is a regional east-west Class I bikeway that extends approximately 13 miles from Roseland to the western Sonoma County communities of Sebastopol, Graton, and Forestville. Connecting the Joe Rodota/West County Trail into the Courthouse Square Sub-Area has been a longstanding priority. A signalized path crossing at Dutton Avenue was completed in 2005. An extension of the trail from Roseland to the Prince Memorial Greenway is scheduled for completion within the next year.

iii.  *On-Street Bicycle Lanes (Class II)*

The following roadways within the Specific Plan Area have Class II bike lanes.

- Sebastopol Road – west of Dutton Avenue
- Third Street – Wilson Street to Davis Street
- Morgan Street – Third Street to Ninth Street
- West Ninth Street – Wilson Street to Stony Point Road

iv.  *Bicycle Routes (Class III)*

The following roadways within the Specific Plan Area are signed as Class III bike facilities:

- West Third Street – west of Dutton Avenue
- Sonoma Avenue – Santa Rosa Avenue to Summerfield Road
Santa Rosa Avenue – Sonoma Avenue to Todd Road
♦ Dutton Avenue – Sebastopol Road to Guerneville Road
♦ Ninth Street – Dutton Avenue to A Street
♦ A Street – Ninth Street to Seventh Street
♦ Seventh Street – A Street to Humboldt Street

b. Existing Pedestrian Facilities
Sidewalk coverage on public streets is provided for the majority of the Specific Plan Area. Sidewalks generally range from 4 to 6 feet wide, with the widest sidewalks of up to 20 feet wide located along the main pedestrian corridors in Courthouse Square and the Railroad Square Sub-Area. Continuous sidewalks exist throughout the majority of the Specific Plan Area. The most notable gaps in the pedestrian network exist near the Transit Oriented Redevelopment Project Area (TORPA) site in Railroad Square, in the Sebastopol Road area and in some portions of the West End neighborhood. Pedestrian connectivity is also lacking between the Courthouse Square and Railroad Square Sub-Areas, with Santa Rosa Plaza and Highway 101 creating barriers between the two activity areas.

The primary existing off-street pedestrian-bicycle facility in the Courthouse Sub-Area is the Prince Memorial Greenway, which runs along Santa Rosa Creek and provides an important link under Highway 101.

c. Planned Bicycle and Pedestrian Facilities
The Santa Rosa General Plan calls for a citywide system of designated bike-ways to serve commuter, recreational, and local trips, as well as interagency cooperation and phased implementation of the plan tied to available funding. The 2001 Update to the Bicycle and Pedestrian Plan, by Wilbur Smith Associates, also includes several planned facilities that will improve bicycle circulation in the Specific Plan Area.

i. Northern Downtown Pedestrian Linkages Study
The Northern Downtown Pedestrian Linkages Study is a focused transportation and land use study of the Sixth and Seventh Street corridor between Pier-
son and E Streets. The purpose of the study is to develop strategies to improve the physical appearance of the corridor and examine ways to better integrate the corridor into the fabric of the area. Specific objectives include: development of a safe and attractive passage between the eastern and western areas of downtown; removal of barriers to non-motorized forms of transportation; and improvement of linkages to destination points and existing and future transit facilities.

**ii. SMART Path**

The SMART Path is a proposed 70-mile Class I bikeway that will extend through Sonoma and Marin Counties within and/or adjacent to the SMART rail corridor. For years, the Specific Plan Area has been planned as the primary north-south bikeway in central Santa Rosa and Sonoma County’s regional non-motorized transportation network. No north-south bicycle facilities currently exist within the Courthouse Square Sub-Area. Funding for the first three phases of the SMART pathway through the Courthouse Square Sub-Area has been secured. The SMART Path will be constructed in phases from Seventh Street north to Guerneville Road beginning in 2007-08.

**iii. City of Santa Rosa Capital Improvement Projects (CIP)**

A traffic signal was recently installed at the Joe Rodota-West County Trail crossing of Dutton Avenue, between the Highway 101 interchange and Sebastopol Road, as part of the City’s CIP. The CIP list indicates that an additional project will include linking the Joe Rodota-West County Trail with the Prince Memorial Greenway path along Santa Rosa Creek, between Sebastopol Road and West Third Street. This connection will need to be coordinated with SMART and future development on the TORPA Site. Finally, the CIP indicates that a traffic signal will be installed in the future at the intersection of Fourth Street/Davis Street to improve pedestrian crossing conditions.

**6. Existing Transit Facilities**

Public transportation within the Specific Area is offered by both the City and the County, as listed below.
a. Santa Rosa CityBus
Santa Rosa CityBus is the primary transit provider in Santa Rosa. CityBus operates 17 regularly scheduled routes throughout the City, with typical operation from 6:00 a.m. to 8:00 p.m. on weekdays and Saturdays and from 10:00 a.m. to 5:00 p.m. on Sundays. Typically, CityBus routes run on a 30-minute schedule during the week and a 60-minute schedule on the weekend. The primary hub in the Specific Plan Area is at the Transit Mall on Second Street between Santa Rosa Avenue and B Street. The CityBus routes that operate within the Specific Plan Area are shown in Figure 4.12-6.

CityBus Routes 3, 6, 9, 12, and 17 all pass within a reasonable distance of the proposed SMART station and would be potential candidates for re-routing in the future. Santa Rosa CityBus Route 3 runs almost exclusively within the area of the Specific Plan, traveling in a loop from the Transit Mall through Railroad Square to Ninth Street, then to College Avenue via Stony Point Road and back to the Transit Mall. This route may be adjusted to better interface with the Downtown Santa Rosa SMART station once service becomes operational.

A trip purpose survey conducted by Nelson\Nygaard Associates for Santa Rosa CityBus found that 26 percent of trips are between home and work, 24 percent are between home and school, and 12 percent are between home and shopping. Approximately 57 percent of customers walk to and from the bus, 35 percent transfer within CityBus or via another agency, and 8 percent use other modes such as bicycling or getting a ride. The top three origin and destination locations at CityBus are the Downtown Transit Mall (about 20 percent), Coddington Mall (about 7 percent), and Santa Rosa Junior College (about 4 percent).
b. Paratransit
The City of Santa Rosa currently contracts out for paratransit service that provides curb-to-curb transportation for disabled riders within the city limits and the Roseland area. Service hours are Monday through Saturday from 6:00 a.m. to 8:00 p.m. and Sunday from 9:00 a.m. to 4:00 p.m. Currently there are about 2,200 people in the City’s paratransit database, combining for a total of 44,405 rides in 2004.

c. Sonoma County Transit and Golden Gate Transit
Sonoma County Transit and Golden Gate Transit also provide regular service into and around the City of Santa Rosa and the Specific Plan Area. Sonoma County Transit has indicated that route diversions to serve SMART commuters may be considered for Routes 20 and 60 in the future. Sonoma County Transit currently has seven routes that serve the Transit Mall and typically run on a one to two hour schedule on weekdays and two to three hour schedule on weekends, with the most frequent service provided during work commute periods. Golden Gate Transit has four routes that serve the Transit Mall, three of which are commuter lines and only run southbound in the morning and northbound in the evenings on weekdays. Golden Gate Transit Route 80 runs at approximately one-hour headways on weekdays, and between one to two hour headways on weekends, providing service to communities on the Highway 101 corridor south to Downtown San Francisco.

7. Existing Parking Conditions
W-Trans, prepared a parking analysis for the Specific Plan Area in October, 2006. Data and results from the analysis are summarized herein for the purposes of the environmental impact analysis. The complete parking study is provided in Appendix F. Parking conditions in the Courthouse Square and Railroad Square Sub-Areas of the Specific Plan Area are analyzed in the greatest detail, while a qualitative assessment of parking conditions in the Park & Gardens Sub-Area and Sebastopol Road area is also included.
a. Parking Counts and Usage Data

Parking demand and supply data was obtained from several sources. The City of Santa Rosa Parking System Financial Analysis, Walker Parking Consultants, January 2004, contains extensive data for the central downtown area of Santa Rosa, referred to in this analysis as the Courthouse Square Sub-Area. The parking data includes public spaces in City-owned garages and parking lots, as well as on-street supply and demand information. The Downtown Santa Rosa Parking District Parking Needs and Financing Study, Wilbur Smith Associates, September 2001, includes data for both the Courthouse Square and Railroad Square areas. Because the data in the Wilbur Smith study is several years old and focuses only on weekdays, W-Trans obtained new parking demand data for the Railroad Square Sub-Area area in July 2006. The Courthouse Square and Railroad Square Sub-Area evaluated in this analysis are shown in Figure 4.12-7.

The Santa Rosa Department of Transit and Parking supplied an extensive amount of data to W-Trans from the City’s parking garage facilities. The City garages are gated and monitored by computers that track the number of inbound and outbound vehicles, as well as the number of permit versus non-permit users. The system is also able to produce reports on the usage and occupancy of the facilities during any timeframe including by the hour, day, and month. This information was used to determine hourly parking demand trends in the Courthouse Square Sub-Area for both weekdays and weekends, as well as to develop adjustment factors that translate parking demand data to “peak month” conditions.

b. Existing Parking Supply and Demand

The existing parking supply in the Courthouse Square and Railroad Square Sub-Areas is shown in Table 4.12-12. Also shown in the table are anticipated future changes in the supply of public spaces, including a new parking structure at the “White House” site at the intersection of Third and E Streets and a new parking lot under Highway 101 in Railroad Square.
### Table 4.12-12 Existing Parking Supply

<table>
<thead>
<tr>
<th>Parking Type</th>
<th>Courthouse Square Sub-Area</th>
<th>Railroad Square Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Street Parking Spaces</td>
<td>713</td>
<td>296</td>
</tr>
<tr>
<td>City Parking Garage Spaces</td>
<td>2,773</td>
<td>0</td>
</tr>
<tr>
<td>City Parking Lot Spaces</td>
<td>468</td>
<td>119</td>
</tr>
<tr>
<td><strong>Total Existing Public Spaces</strong></td>
<td><strong>3,954</strong></td>
<td><strong>415</strong></td>
</tr>
<tr>
<td><strong>Future Parking Supply Changes</strong></td>
<td><strong>+429&lt;sup&gt;a&lt;/sup&gt;</strong></td>
<td><strong>+87&lt;sup&gt;b&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td><strong>Future Parking Supply</strong></td>
<td>4,383</td>
<td>502</td>
</tr>
</tbody>
</table>

<sup>a</sup> New public spaces in the “White House” garage, adjusted to account for loss of existing surface parking lot.  
<sup>b</sup> New public spaces under Highway 101; adjusted to reflect elimination of an existing temporary lot on the east side of Davis Street between Fourth and Fifth Streets.  

The Park & Gardens area is located along Santa Rosa Avenue, and is flanked by older residential neighborhoods both to the east and to the west, with relatively few vacant parking spaces in the neighborhoods during peak demand periods based on observations. A residential permit parking district exists in the Burbank Gardens neighborhood, just east of the Park & Gardens Sub-Area. On-street parking is generally available near businesses on Santa Rosa Avenue as well as on side streets within 250 feet of the arterial (the approximate distance where commercial uses transition to residential). About 172 on-street parking spaces exist along Santa Rosa Avenue and on commercial frontages of perpendicular side streets.

The Sebastopol Road area of the Specific Plan is expected to change substantially from its existing condition, and in terms of parking conditions, provides a good representation of the Railroad Corridor Sub-Area of the Specific Plan. Existing uses are envisioned to transition to a more intense mix of residential and commercial uses, and much of the current parking demand is associated...
with uses that would be eliminated when redevelopment occurs. The draft Sebastopol Road Corridor Plan also includes a reconfiguration of the street itself to accommodate a center turn lane and bicycle lanes, eliminating some of the existing on-street parking supply. Though the existing on-street parking supply is informal and generally unmarked, approximately 83 vehicles could park along Sebastopol Road within the area.

Existing peak month parking demand, or parking “occupancy,” was determined for the Courthouse Square and Railroad Square Sub-Areas. In the Courthouse Square Sub-Area, peak parking occupancy was determined to be 76 percent, occurring near 2:00 p.m. on a weekday afternoon. Parking occupancy within the City garages is relatively high between 9:00 a.m. and 5:00 p.m., while after 5:00 p.m. higher occupancies are found in surface parking areas (parking lots and on-street). In the Railroad Square Sub-Area, a peak parking occupancy of 80 percent occurs on weekdays around noon, while a weekend peak demand of 65 percent occurs between 6:00 and 7:00 p.m. in the evening. Based on this information it appears that the existing public parking supply is adequately meeting current demand. The existing parking occupancy demand trends for the Courthouse Square and Railroad Square Sub-Areas are shown in Figures 4.12-8 and 4.12-9, respectively.

8. Airspace Activity
The nearest airport to the Specific Plan is the Sonoma County Airport, located approximately 6.5 miles to the northwest. Commercial and private aircraft are typically at sufficient altitudes to avoid glare or any obstructions in the Specific Plan Area.

C. Standards of Significance

The applied standards of significance for impacts associated with the Specific Plan are based on those included in the Santa Rosa General Plan Policy T-D-1, the Caltrans Guide for the Preparation of Traffic Impact Studies, and standards contained in the CEQA Guidelines, Appendix G. The Specific
Figure 4.12-8  Existing Weekday Peak-Month Parking Occupancy in Courthouse Square Sub-Area

Figure 4.12-9  Existing Peak-Month Parking Occupancy in Railroad Square Sub-Area
Plan would have a significant impact with regards to traffic quality if it would:

a. Create a change in traffic conditions that would include the following:

- Failure to maintain LOS D operation for all arterial and collector roadway segments outside of the downtown area, including the Dutton Avenue and College Avenue corridors, as well as all study intersections along these two corridors.

- Failure to maintain acceptable levels of safety and vehicle queuing on downtown roadway segments and intersections that are not subject to the City’s LOS D criteria, including the Third Street corridor and remaining study intersections that are not on the Dutton Avenue or College Avenue corridors. Because LOS F operation is often indicative of adverse impacts to safety, queuing, and/or emergency response times, a significant impact is considered to occur at locations projected to operate at LOS F for the purposes of this environmental analysis.

- Failure to maintain operation on Highway 101 at or above the LOS C/D threshold, or in cases where the freeway is already projected to operate deficiently at LOS E or F without the project, failure to maintain the existing measure of effectiveness (MOE). For the purposes of this analysis, in such instances where the freeway is anticipated to operate at LOS E or F, the freeway volume-to-capacity (v/c) ratio is calculated and used as the MOE. A significant cumulative impact is considered to occur if a project would increase the freeway v/c ratio on a facility already operating at LOS E or F by 0.01 or more.

b. Create a change in alternative transportation modes that would include the following:

- Failure to provide sites and/or facilities for alternative transportation modes, such as rail transit, buses, bicycles, vanpools and walking.

- Conflict with adopted policies, plans, or programs supporting alternative transportation.
c. Result in inadequate parking capacity.

d. Create a change in circulation patterns that would include the following:

- Result in inadequate emergency access.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- 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. Impact Discussion

This section explains potential transportation and circulation impacts from implementation of the Specific Plan.

1. Project Impacts

a. Create a change in traffic conditions.

i. Project Assumptions

At buildout of the Specific Plan in 2025, an estimated 3,250 housing units would be allowed for development. Along with residential development, an additional 296,000 square feet of commercial/retail space, 56,000 square feet of office space and 141,000 square feet of public/institutional space are also projected for development within the life of the Specific Plan. A summary of the estimated Specific Plan development by Sub-Area is shown in Table 4.12-13.

ii. Courthouse Square Reunification

The Specific Plan includes reunification of Courthouse Square, with closure of the Mendocino Avenue-Santa Rosa Avenue linkage between Third and Fourth Streets. This circulation network change would substantially change traffic flow in the Downtown area. In order to develop future traffic projections that assume reunification to be complete, it was necessary to reassign
the City’s traffic model projections so that traffic no longer is assumed to flow through Courthouse Square. Reassigned traffic would use numerous alternate north-south routes including B Street, E Street, Highway 101, and existing segments of Mendocino Avenue and Santa Rosa Avenue reached by diverting around the square via Sonoma Avenue, Fourth Street, Fifth Street, Seventh Street, and College Avenue. The assumptions utilized to determine diverted traffic flows were developed in coordination with the City of Santa Rosa Traffic Engineering Division.

### Trip Generation

The total vehicular trip generation for the Specific Plan is based on a combination of the URBEMIS residential trip rates shown in Table 4.12-5 and standard ITE data for non-residential uses. Retail trips were estimated using the “Specialty Retail” land use (ITE #813). Office trip generation was estimated using “General Office” rates (ITE #710). Trip generation for the Performing Arts Center was determined using the “Live Theater” rates (ITE #441). Other
applied rates were obtained from the “Hotel” (ITE #310) and “Supermarket” (ITE #850) land uses.

Buildout of the Specific Plan is projected to add an estimated 2,264 vehicle trips to the Specific Plan Area during the AM peak hour, and an additional 3,202 vehicle trips during the PM peak hour. A summary of the total projected vehicular trips associated with Specific Plan uses is shown in Table 4.12-14. A breakdown of the projected trips by Specific Plan Sub-Area is shown in Table 4.12-15.

The Specific Plan would change the existing General Plan land use designations in several areas, in most cases resulting in intensification in density and/or conversion of lower-traffic generating uses such as light industrial and warehouse to residential and neighborhood retail. The future traffic projections for Specific Plan buildout include these adjustments.

Although the Specific Plan proposes redesignation of the Imwalle property to Urban Agriculture, the traffic analysis assumes development of the area with residential uses at 8 to 18 units per gross acre, which is consistent with the current General Plan land use designation. This assumption was made due to the uncertainty of whether efforts to secure the property for continued agriculture uses will ultimately be successful. As a result, the projected Specific Plan trip generation is slightly overstated, however, the incremental increase in traffic is relatively insignificant and in and of itself does not trigger or significantly contribute to the need for intersection and street improvements identified in the plan.

The additional traffic generation attributable to buildout of the Specific Plan was developed at a Sub-Area level (versus a parcel level). Specific Plan traffic was then “loaded” onto the surrounding street network at 20 geographically-dispersed locations.
## Table 4.12-14 Specific Plan Trip Generation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Quantity</th>
<th>Rate</th>
<th>Trips</th>
<th>AM Peak Hour</th>
<th>Rate</th>
<th>Trips</th>
<th>PM Peak Hour</th>
<th>Rate</th>
<th>Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential at 8 units/acre</td>
<td>267</td>
<td>7.14</td>
<td>1,906</td>
<td>0.56</td>
<td>150</td>
<td>0.75</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential at 20 units/acre</td>
<td>550</td>
<td>5.70</td>
<td>3,135</td>
<td>0.45</td>
<td>248</td>
<td>0.60</td>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential at 30 units/acre</td>
<td>1,024</td>
<td>5.17</td>
<td>5,294</td>
<td>0.41</td>
<td>420</td>
<td>0.55</td>
<td>563</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential at 40 units/acre</td>
<td>526</td>
<td>4.29</td>
<td>2,257</td>
<td>0.34</td>
<td>179</td>
<td>0.45</td>
<td>237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential at 50 units/acre</td>
<td>244</td>
<td>4.06</td>
<td>991</td>
<td>0.32</td>
<td>78</td>
<td>0.43</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential at 70+ units/acre</td>
<td>638</td>
<td>3.76</td>
<td>2,399</td>
<td>0.29</td>
<td>185</td>
<td>0.40</td>
<td>255</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Residential Trips</td>
<td>15,982</td>
<td></td>
<td>1,260</td>
<td>1,690</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Office (average rates)</td>
<td>197.5 ksf</td>
<td>21.71</td>
<td>4,287</td>
<td>3.07</td>
<td>607</td>
<td>1.49</td>
<td>507</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty Retail</td>
<td>266.0 ksf</td>
<td>44.32</td>
<td>11,789</td>
<td>1.03</td>
<td>274</td>
<td>2.71</td>
<td>721</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supermarket&lt;sup&gt;a&lt;/sup&gt;</td>
<td>30.0 ksf</td>
<td>61.34</td>
<td>1,840</td>
<td>1.95</td>
<td>59</td>
<td>6.27</td>
<td>188</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel</td>
<td>75 rooms</td>
<td>8.17</td>
<td>613</td>
<td>0.52</td>
<td>39</td>
<td>0.61</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live Theater</td>
<td>2,500 seats</td>
<td>0.20</td>
<td>500</td>
<td>0.01</td>
<td>25</td>
<td>0.02</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Non-Residential Trips</td>
<td>19,029</td>
<td>1,004</td>
<td>1,512</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Trip Generation</td>
<td>35,011</td>
<td>2,264</td>
<td>3,202</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: ksf = thousand square feet; <sup>a</sup> Supermarket rates reflect 40 percent deduction for pass-by and walking trips; total trips include both inbound and outbound vehicles.
4.12-46

<table>
<thead>
<tr>
<th>Specific Plan Sub-Area</th>
<th>Daily Trips</th>
<th>AM Peak Hour Trips</th>
<th>PM Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imwalle Gardens</td>
<td>857</td>
<td>67</td>
<td>90</td>
</tr>
<tr>
<td>Railroad Corridor</td>
<td>9,348</td>
<td>672</td>
<td>886</td>
</tr>
<tr>
<td>Railroad Square</td>
<td>6,314</td>
<td>310</td>
<td>472</td>
</tr>
<tr>
<td>Courthouse Square</td>
<td>16,084</td>
<td>1,102</td>
<td>1,554</td>
</tr>
<tr>
<td>Park &amp; Gardens</td>
<td>2,051</td>
<td>85</td>
<td>162</td>
</tr>
<tr>
<td>Residential Areas</td>
<td>357</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>35,011</td>
<td>2,264</td>
<td>3,202</td>
</tr>
</tbody>
</table>

Notes: Total trips include inbound and outbound vehicles.

iv. Trip Distribution
The applied trip generation estimates for the Specific Plan were distributed to the Specific Plan Area street network in the Future Conditions scenario. The traffic was distributed based on journey-to-work data from the 2000 U.S. Census, prior analyses conducted using the City of Santa Rosa and Sonoma County traffic models, current and anticipated traffic patterns, and knowledge of the Specific Plan Area. Traffic was distributed to streets throughout the Specific Plan Area using multiple driving paths, since the Downtown grid network in most circumstances allows varying travel routes. The overall trip distribution characteristics are summarized in Table 4.12-16.

The “Future plus Specific Plan” traffic volumes at the study intersections are shown in Figure 4.12-10.

v. Future Traffic Operation with Specific Plan
Upon buildout of Specific Plan uses in the future, 7 of the 21 study intersections would be expected to operate at unacceptable levels. These include Col-
Study Intersection
PM Peak Hour Volume

Source: w-trans

(XX) PM Peak Hour Volume

FIGURE 4.12-10
### Table 4.12-16 Specific Plan Trip Distribution

<table>
<thead>
<tr>
<th>Origin/Destination</th>
<th>Distribution Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 101 North</td>
<td>12.6</td>
</tr>
<tr>
<td>Highway 101 South</td>
<td>19.8</td>
</tr>
<tr>
<td>Highway 12 East</td>
<td>3.4</td>
</tr>
<tr>
<td>Highway 12 West</td>
<td>9.3</td>
</tr>
<tr>
<td>Santa Rosa internal – North of Specific Plan Area</td>
<td>14.6</td>
</tr>
<tr>
<td>Santa Rosa internal – South of Specific Plan Area</td>
<td>10.4</td>
</tr>
<tr>
<td>Santa Rosa internal – East of Specific Plan Area</td>
<td>8.6</td>
</tr>
<tr>
<td>Santa Rosa internal – West of Specific Plan Area</td>
<td>15.3</td>
</tr>
<tr>
<td>Santa Rosa internal – Within Specific Plan Area</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0 percent</strong></td>
</tr>
</tbody>
</table>


College Avenue/Dutton Avenue, College Avenue/Cleveland Avenue, College Avenue/Highway 101 North Ramps, Seventh Street/B Street, Sixth Street/Wilson Street, Third Street/B Street, and Dutton Avenue/Sebastopol Road. In addition, all three study corridors are projected to operate unacceptably at LOS E and F.

Summaries of the projected intersection and corridor LOS are provided in Tables 4.12-17 and 4.12-18, respectively. Traffic conditions are shown for Future conditions both with and without the Specific Plan (conditions without the Specific Plan reflect continued buildout of the 2002 General Plan). Improvements included in the Specific Plan to mitigate potential impacts are also shown with the resulting LOS.

Following is a description of areas where adverse operating conditions are projected to occur, as well as summaries of the traffic improvements in the Specific Plan that are required by Specific Plan Policy SP-T-1.1. The future
FIGURE 4.12-11
FUTURE LANE CONFIGURATIONS

Source: w-trans

Study Intersection
## Table 4.12-17  FUTURE PLUS SPECIFIC PLAN INTERSECTION LOS SUMMARY

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Plan</th>
<th>With Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. College Avenue/Dutton Avenue</td>
<td>Delay 52.9 D</td>
<td>Delay 67.6 E</td>
</tr>
<tr>
<td>Specific Plan Policy: Add NB right turn lane</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>2. College Avenue/Cleveland Avenue</td>
<td>Delay 48.0 D</td>
<td>Delay 59.1 E</td>
</tr>
<tr>
<td>Specific Plan Policy: Add NB right turn lane</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>3. College Avenue/Highway 101 SB Ramps</td>
<td>Delay 15.4 B</td>
<td>Delay 16.7 B</td>
</tr>
<tr>
<td>Specific Plan Policy: College Avenue widening</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>4. College Avenue/Highway 101 NB Ramps</td>
<td>Delay 52.2 D</td>
<td>Delay 78.9 E</td>
</tr>
<tr>
<td>Specific Plan Policy: College Avenue widening</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>5. College Avenue/Mendocino Avenue</td>
<td>Delay 39.6 D</td>
<td>Delay 42.1 D</td>
</tr>
<tr>
<td>Specific Plan Policy: College Avenue widening</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>6. Seventh Street/B Street</td>
<td>Delay 12.2 B</td>
<td>Delay 64.2 E</td>
</tr>
<tr>
<td>Specific Plan Policy: Reconfigure SB approach</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>7. Seventh Street/Mendocino Avenue</td>
<td>Delay 19.8 B</td>
<td>Delay 11.9 B</td>
</tr>
<tr>
<td>Specific Plan Policy: Reconfigure SB approach</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>8. Sixth Street/Wilson Street</td>
<td>Delay 19.6 C</td>
<td>Delay 36.2 E</td>
</tr>
<tr>
<td>Specific Plan Policy: Add EB right turn lane</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>9. Fifth Street/Davis Street</td>
<td>Delay 13.9 B</td>
<td>Delay 15.3 B</td>
</tr>
<tr>
<td>10. Sixth Street/Morgan Street–Highway 101 NB On</td>
<td>Delay 14.2 B</td>
<td>Delay 15.9 B</td>
</tr>
<tr>
<td>11. Third Street/Dutton Avenue</td>
<td>Delay 36.2 D</td>
<td>Delay 52.0 D</td>
</tr>
<tr>
<td>12. Third Street/Wilson Street–Railroad Street</td>
<td>Delay 33.6 C</td>
<td>Delay 53.4 D</td>
</tr>
<tr>
<td>13. Third Street/Davis Street–Highway 101 SB On</td>
<td>Delay 30.8 C</td>
<td>Delay 40.7 D</td>
</tr>
<tr>
<td>14. Third Street/Morgan Street–Highway 101 NB Off</td>
<td>Delay 30.6 C</td>
<td>Delay 41.2 D</td>
</tr>
<tr>
<td>15. Third Street/B Street</td>
<td>Delay 70.9 E</td>
<td>Delay 186.3 F</td>
</tr>
<tr>
<td>Specific Plan Policy: Add EB and SB right turn lanes; reconfigure WB lanes; prohibit WB left turn except to transit</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>16. Third Street/Santa Rosa Avenue</td>
<td>Delay 69.0 E</td>
<td>Delay 44.6 D</td>
</tr>
<tr>
<td>Specific Plan Policy: Reconfigure for square reunification</td>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

4.12-50
### TABLE 4.12-18  **FUTURE PM PEAK HOUR CORRIDOR LEVELS OF SERVICE**

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>Speed</th>
<th>LOS</th>
<th>Speed</th>
<th>LOS</th>
<th>Speed</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Avenue – Dutton to Mndocino</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>10</td>
<td>D</td>
<td>10</td>
<td>D</td>
<td>11</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>9</td>
<td>D</td>
<td>8</td>
<td>E</td>
<td>9</td>
<td>D</td>
</tr>
<tr>
<td>Third Street – Dutton to E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>12</td>
<td>D</td>
<td>8</td>
<td>E</td>
<td>10</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>11</td>
<td>D</td>
<td>7</td>
<td>E</td>
<td>9</td>
<td>D</td>
</tr>
<tr>
<td>Dutton Avenue – Sebastopol to W. Third</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>8</td>
<td>E</td>
<td>6</td>
<td>F</td>
<td>9</td>
<td>D</td>
</tr>
<tr>
<td>Southbound</td>
<td>9</td>
<td>D</td>
<td>9</td>
<td>D</td>
<td>11</td>
<td>D</td>
</tr>
</tbody>
</table>

Note: Speed measured in miles per hour.

“Shaded” areas = unacceptable LOS or LOS F indicative of adverse safety or queuing.

lane configurations, including improvements, are shown in Figure 4.12-11. Improvements discussed below are further discussed in more detail in Chapter 5, Section A.2 of the Specific Plan. As discussed below and shown in the previous tables with the improvements included in the Specific Plan, the intersections and roadways would all operate at acceptable LOS and the Specific Plan would result in a less than significant impact related to increases in traffic volumes.

a) College Avenue/Dutton Avenue
The intersection of College Avenue/Dutton Avenue is projected to experience unacceptable LOS E operation without improvements. However, acceptable LOS D operation would be achieved by constructing a new northbound right turn lane on Dutton Avenue providing at least 100 feet of storage, plus modification of the traffic signal to provide a right turn overlap, as identified in the Specific Plan. This modification would require right-of-way acquisition from the parcel on the southeast corner of the intersection.

b) College Avenue/Cleveland Avenue
College Avenue/Cleveland Avenue is projected to operate unacceptably at LOS E in the future with buildout of the Specific Plan. In order to alleviate these conditions, a northbound right turn lane providing at least 80 feet of storage would be added. This modification would require right-of-way acquisition from the parcel on the southeast corner of the intersection, as identified in the Specific Plan. Upon completion of the recommended modification, the intersection would operate acceptably at LOS D.

c) College Avenue/Highway 101 North and College Avenue Corridor
The intersection of College Avenue/Highway 101 North Ramps is projected to operate unacceptably at LOS E without improvements. In order to alleviate this adverse intersection operation as well as adverse congestion on the College Avenue corridor, it would be necessary to provide three through lanes in each direction between Cleveland Avenue and Morgan Street, as identified in the Specific Plan. This improvement is currently planned by the City of Santa Rosa to take place in 2009 although the planned improvement
remains unfunded. Space for the additional lanes between the two ramp intersections will be created through completion of the current Highway 101 widening project. Widening both to the east and west of Highway 101 will likely require additional right-of-way. Upon completion, this improvement is projected to result in acceptable LOS D operation at the Highway 101 North Ramps intersection, as well as acceptable LOS D operation in both the eastbound and westbound directions on the College Avenue corridor.

d) Seventh Street/B Street
The intersection at Seventh Street/B Street is projected to operate at LOS E with the Specific Plan. While current General Plan policy exempts this intersection from the LOS D standard, review of the projected LOS E operation indicates potentially-adverse queuing conditions and signal operation. Reunification of Courthouse Square is anticipated to substantially increase volumes at this intersection as drivers find alternate routes through downtown. In order to provide acceptable LOS D operation, the signal phasing would be modified to convert the existing permitted left turn phasing in the northbound and southbound directions to protected phasing. The southbound approach would also be reconfigured to provide an additional through lane, which could be accomplished within the existing street width by eliminating the existing loading zone on the west side of the street, and using a combination of 10 and 11 foot southbound lanes (plus a 12 foot accepting lane in the northbound direction). It should be noted that Sonoma County Museum is planning to expand and redevelop into the existing property on the northwest corner of this intersection, and that further opportunities to enhance the configuration of B Street may be possible at that time.

e) Sixth Street/Wilson Street
The intersection at Sixth Street/Wilson Street in the Railroad Square area is projected to experience LOS E conditions on the eastbound Sixth Street stop-controlled approach. Because peak hour signal warrants are not projected to be met at the intersection, the LOS E operation is not considered to be a direct adverse impact, as such operation is typical on stop-controlled approaches to major streets during peak hours. Of greater concern is vehicle queuing
between Wilson Street and the railroad tracks. In order to alleviate queuing concerns and improve intersection operation, an additional eastbound right turn lane providing at least 50 feet of storage would be provided on Sixth Street, as identified in the Specific Plan. This modification can be accommodated within the existing right-of-way though it would require sidewalk reconstruction. With the addition of a right turn lane, the approach would be expected to operate acceptably at LOS D, with substantially reduced potential for queuing to extend to the railroad.

Third Street/B Street and Third Street Corridor

The intersection of Third and B Streets is critical in the Downtown street network, as it serves as the primary distribution point for drivers traveling between Downtown and the interchange with Highway 101 to the west. The intersection would also experience a substantial increase in volumes and shift in traffic patterns upon reunification of Courthouse Square one block to the east. Under future conditions with the Specific Plan, which include reunification of Courthouse Square, the intersection is projected to operate with significant delays and at LOS F. The resulting delays experienced at this intersection would also be responsible for LOS E operation on the Third Street corridor. When considering potential improvements at this intersection, it is important to consider the potential impacts to pedestrian crossing distances in this Downtown environment, as well as potential impacts to transit given the one-block proximity to the Transit Mall.

Improvements for the intersection includes the addition of new turn lanes on both the southbound and eastbound approaches. Right of way for a new southbound right turn lane and required sidewalk relocation would need to be obtained from an existing landscaped area of the Santa Rosa Plaza mall. The lane configuration on the southbound approach would be modified to include left turn, through, through-right turn, and right turn lanes. An additional eastbound left turn lane would also be necessary, with widening taking place to the south into the landscaped frontage of the Sears surface parking lot, as identified in the Specific Plan. This modification would shift the existing right turn lane and sidewalk toward the Sears lot, though it would not
result in operational changes to the parking lot itself. The resulting lane configuration would include dual eastbound left turn lanes, dual through lanes, and a right turn lane.

Additional capacity for westbound right turns would be necessary at the intersection as well. Because existing structures restrict the potential for widening the west leg, the additional capacity needs to be obtained through reassigning the existing lanes. The most efficient way to do this is to prohibit left turns and reassign the existing left turn lane to a through lane. Volumes on the left turn movement are the lowest of all movements at the intersection, projected to be 39 vehicles if no restriction were in place. Prohibition of this movement would result in minimal driver inconvenience, as the same area can be reached within a similar distance via First Street. With these changes, the resulting lane configuration of westbound Third Street would be dual through lanes and a right turn lane with right turn overlap signal phasing, as identified in the Specific Plan. The two eastbound exiting lanes would be unchanged. It should be noted that this configuration would require both eastbound and westbound vehicles to make a lateral shift of 10-15 feet across the intersection since the through lanes on each side would not directly align. The use of “cat tracks” or lane markings through the intersection would help to address this condition.

The prohibited westbound left turn movement would potentially affect two Santa Rosa CityBus transit routes. Because re-routing these buses could potentially result in adverse impacts to transit operations, buses would be exempted from the recommended left turn prohibition. Signal modifications would be necessary in order to allow buses to make the movement safely and without significant delays. Potential signal modifications include special pre-emption equipment or transit vehicle detection that briefly holds opposing traffic and allows the transit vehicle to safely make the maneuver, as identified in the Specific Plan.

With the above-listed intersection modifications, the intersection would be expected to operate at LOS E in the future with the Specific Plan.
Plan policy considers this to be acceptable. While the anticipated LOS E operation indicates that peak-hour congestion would still occur, traffic flow should be maintained, averting the potential gridlock or breakdown conditions that could occur if no improvements were made. The modifications, in tandem with changes at the adjacent intersection of Third Street with Santa Rosa Avenue described below, would also improve operation of the Third Street corridor to an acceptable LOS D.

It must be noted that this recommended improvement is just one of many potential solutions to accommodate diverted traffic associated with the Courthouse Square reunification. The City of Santa Rosa Public Works department will be conducting additional traffic analysis prior to reunification, and may develop an alternate scheme that will work as well or better than that described above for Third Street/B Street, as identified in the Specific Plan.

\textbf{g) Third Street/Santa Rosa Avenue}

The intersection at Third Street/Santa Rosa Avenue would be reconfigured upon reunification of Courthouse Square. Traffic patterns would also change substantially. In order to maintain acceptable intersection operation as well as acceptable operation on the Third Street corridor, the intersection would be modified to include dual left turn lanes and a single right turn lane on the northbound approach, single through and right turn lanes on the eastbound approach, and single left turn and through lanes on the westbound approach. Right turn overlap signal phasing would also be included on the eastbound approach, as identified in the Specific Plan. With these modifications, the intersection is anticipated to operate acceptably at LOS D in the future with the Specific Plan.

\textbf{h) Dutton Avenue/Sebastopol Road and Dutton Corridor}

Both the intersection at Dutton Avenue/Sebastopol Road and the Dutton Avenue corridor are projected to operate unacceptably in the future. In order to improve both adverse conditions, the Dutton Avenue/Sebastopol Road intersection would be modified to include a second eastbound left turn lane.
Widening and right-of-way acquisition for this improvement would take place to the north along the landscaped frontage of a fast food restaurant. The existing dual westbound through lanes could be converted to a single 12-foot travel lane plus a bicycle lane, as the second westbound lane is not needed for capacity and already “drops” just to the west of the intersection. The existing dedicated right turn lane on the northbound approach of Dutton Avenue should also be converted to a through-right turn lane, as identified in the Specific Plan. With these modifications, the intersection is projected to operate acceptably at LOS D in the future with the Specific Plan. The Dutton Avenue corridor would also improve to acceptable LOS D operation.

vi. Future Freeway Operation with Specific Plan

The Specific Plan would add traffic to the Highway 101 and Highway 12 corridors, both of which are projected to operate at unacceptable levels in the future, even with completion of continuous carpool lanes on Highway 101. The trips projected to be added to the freeways by buildout of the Specific Plan are shown in Table 4.12-19.

The PM peak hour freeway service flow rates on Highway 101 and Highway 12 are shown in Table 4.12-20 for conditions both without and with the Specific Plan.

Unacceptable LOS F operating conditions are projected to occur on both northbound and southbound Highway 101 either with or without the Specific Plan. Unacceptable LOS E operating conditions are projected to occur on westbound Highway 12 with and without the project. The increases in the freeway volume to capacity ratios (v/c) associated with the Specific Plan are shown in Table 4.12-21.

Traffic associated with the Specific Plan would contribute to LOS F operating conditions on segments of Highway 101 within the City of Santa Rosa, as well as LOS E conditions on Highway 12. The Specific Plan would increase the volume-to-capacity ratio by greater than 0.01 on both freeways, representing a significant impact.
Table 4.12-19  **Specific Plan Added Trips to Freeway Segments**

<table>
<thead>
<tr>
<th>Freeway Segment</th>
<th>Northbound</th>
<th>Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 101 – Baker Avenue to Highway 12</td>
<td>357</td>
<td>260</td>
</tr>
<tr>
<td>Highway 101 – Third Street to College Avenue</td>
<td>320</td>
<td>211</td>
</tr>
<tr>
<td><strong>Eastbound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Westbound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway 12 – Dutton Avenue to Highway 101</td>
<td>77</td>
<td>106</td>
</tr>
</tbody>
</table>


Table 4.12-20  **Future PM Peak Hour Freeway Levels of Service**

<table>
<thead>
<tr>
<th>Freeway Segment</th>
<th>Future Without Plan</th>
<th>Future Plus Specific Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vp</td>
<td>LOS</td>
</tr>
<tr>
<td>U.S. 101 – Baker Avenue to Highway 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,676</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>2,758</td>
<td>F</td>
</tr>
<tr>
<td>U.S. 101 – Third Street to College Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>2,689</td>
<td>F</td>
</tr>
<tr>
<td>Southbound</td>
<td>2,647</td>
<td>F</td>
</tr>
<tr>
<td>Highway 12 – Dutton Avenue to U.S. 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>1,828</td>
<td>D</td>
</tr>
<tr>
<td>Westbound</td>
<td>2,161</td>
<td>E</td>
</tr>
</tbody>
</table>

Note: Vp = service flow rate, measured in passenger cars per hour per mixed-flow lane

The City of Santa Rosa, County of Sonoma, and Sonoma County Transportation Authority (SCTA) recognize that Highway 101 will experience congestion into the foreseeable future, and that major capacity enhancements such as expansions or new freeways are unlikely to be built. All three jurisdictions concur in various planning and policy documents that long-range solutions to regional mobility must focus on better land use planning that supports transit
and alternative transportation modes; stronger jobs-housing balances; and increased support of transportation demand measures. The Specific Plan emphasizes each of these goals. Because there are no known freeway capacity projects that would result in acceptable operation in the future, however, and subsequently no means for the Specific Plan to contribute a fair-share payment for impacts to Highway 101, the impact is considered significant and unavoidable.

vii. Local Access and Circulation
Local access to and circulation within individual projects that would be constructed as a result of Specific Plan adoption would be subject to City review, including assessment of proposed access points and changes to localized circu-

### TABLE 4.12-21 CHANGES TO FREEWAY V/C RATIOS WITH SPECIFIC PLAN

<table>
<thead>
<tr>
<th>Freeway Segment</th>
<th>Future Without Plan</th>
<th>Future Plus Specific Plan</th>
<th>Change to V/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. 101 – Baker Avenue to Highway 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>1.16</td>
<td>1.25</td>
<td>0.09</td>
</tr>
<tr>
<td>Southbound</td>
<td>1.20</td>
<td>1.26</td>
<td>0.06</td>
</tr>
<tr>
<td>U.S. 101 – Third Street to College Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound</td>
<td>1.17</td>
<td>1.24</td>
<td>0.07</td>
</tr>
<tr>
<td>Southbound</td>
<td>1.15</td>
<td>1.20</td>
<td>0.05</td>
</tr>
<tr>
<td>Highway 12 – Dutton Avenue to U.S. 101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound</td>
<td>0.79</td>
<td>0.80</td>
<td>0.01</td>
</tr>
<tr>
<td>Westbound</td>
<td>0.94</td>
<td>0.96</td>
<td>0.02</td>
</tr>
</tbody>
</table>

*Note:* $V_p$ = service flow rate, measured in passenger cars per hour per mixed-flow lane

*Bold* values represent significant impacts.

lation. In the larger Specific Plan context, it is known that a new street connection between Sixth Street and Third Street would be provided through the SMART joint development project. This connection is shown in the current development proposal for the site. Based on an analysis of anticipated traffic volumes at the site’s intersection on Third Street, in addition to an expected increase in pedestrian crossing activity, it has been determined that the intersection must be signalized. The new traffic signal must be interconnected with the adjacent railroad crossing gate system to ensure that adverse stacking or queuing across the tracks would not occur. An eastbound left turn lane on Third Street must also be provided at the intersection. This improvement is identified in the Specific Plan as Policy SP-T-1.2. The City of Santa Rosa Public Works Department would review and approve all plans for signalization and/or reconfiguration of the intersection. Assuming that the City identifies no design hazards or safety concerns with the new street and intersection, the potential access to the SMART site is expected to function acceptably and with less than significant impacts.

The Specific Plan also includes a minor street extension of Roberts Avenue between Sebastopol Road and Third Street, crossing under the Highway 12 freeway at an existing underpass adjacent to the SMART rail corridor. While the Roberts Avenue connection is likely to carry relatively low volumes of traffic, it would help to improve local access and connectivity. Designs for the Roberts Road extension would require review and approval by the City of Santa Rosa to ensure that no design hazards or safety concerns would be created. At the conceptual level presented in the Specific Plan, the new roadway is expected to create less than significant impacts.

viii. West End Neighborhood “Cut Through” Traffic
The West End neighborhood’s proximity to the potential SMART rail station makes it a location that is particularly susceptible to future “cut through” traffic. Some trips generated by the Specific Plan, and in particular uses on the SMART joint development site, may pass through the West End Neighborhood as drivers travel to and from Dutton Avenue, Ninth Street, and West Third Street. The traffic projections developed for the Specific Plan indicate
that approximately 10 eastbound and 10 westbound PM peak hour trips could
be expected to pass through the West End neighborhood, which translates to
approximately 200 vehicle trips per day. It should be noted that future traffic
projections for the Third Street corridor near the West End neighborhood do
not indicate congested conditions, and that most Specific Plan traffic passing
through the neighborhood would be comprised of drivers seeking a shorter
route, rather than attempting to avoid a parallel corridor.

Turning movement counts were obtained at the intersections of Sixth
Street/Pierson Street-Madison Street and Eighth Street/Madison Street-
Coulter Street for a four-day period in September, 2006. From this data, Av-
erage Daily Traffic volumes (ADT) were developed for seven street segments
in the West End Neighborhood, and used to measure how much of an impact
the Specific Plan could be expected to have on those streets.

The added Specific Plan volumes on each street segment were based on the
maximum potential use of each route, and reflect worst-case conditions. As
shown in Table 4.12-22, the segments with the highest potential for added
traffic associated with the Specific Plan are Madison Street, Sixth Street, and
Eighth Street west of Madison Street, with an estimated maximum of 200 ad-
ditional daily trips. Pierson Street and Eighth Street east of Madison Street
have a lower potential with a maximum of 40 trips, while Coulter Street
could experience a maximum increase of approximately 100 additional trips
per day.

While additional trips will likely result in perceptible increases in neighbor-
hood traffic, the total ADT anticipated on each street segment, including the
maximum potential increases attributable to the Specific Plan, is within the
1,000 ADT guideline for a “neighborhood street” outlined in the City of
Santa Rosa’s Design Guidelines. The projected daily traffic levels are also
within typical “livable streets” guidelines for two-lane, low-speed residential
streets. Traffic calming or design features such as the right-turn channeliza-
tion onto West Sixth Street from the proposed joint development site in Rail-
road Square will also help assure that cut-through traffic remains at low levels.
Based on this assessment it is anticipated that potential cut-through traffic issues in the West End neighborhood would create no traffic operation problems, design hazards or adverse impacts to alternative transportation, and would therefore be considered less than significant.

b. Create a change in alternative transportation modes.
   i. Pedestrian and Bicycle Circulation Impacts

The Specific Plan could lead to notable increases in the number of pedestrians and bicyclists in the Specific Plan Area, much of which already has a well-developed pedestrian and bicycle network. Planned projects such as the SMART multi-use path and improvements noted in the Northern Downtown Pedestrian Linkages Study will improve connectivity between the Courthouse Square and Railroad Square Sub-Areas. Completion of a potential pedestrian linkage of Fourth Street through Santa Rosa Plaza would further improve connectivity, and provide an attractive and convenient walking...
and bicycling alternative to Third Street between the Courthouse Square Sub-Area and the potential SMART rail station at Railroad Square.

The Specific Plan includes specifications for street amenities on numerous corridors throughout the Specific Plan Area. The specifications address pedestrian and bicyclist circulation, including details such as where enhancements like pedestrian-scale street lighting, bicycle lanes, street furnishings, and pedestrian crossing treatments (i.e. bulbouts) should occur. In all of the Specific Plan Sub-Areas the street specifications would result in moderately- to significantly-improved pedestrian and bicycle circulation. Some of the most beneficial enhancements would occur in areas where gaps currently exist in the pedestrian and bicycle network, such as the Sebastopol Road area and northern Railroad Corridor Sub-Area.

Overall the Specific Plan would substantially improve pedestrian and bicycle circulation and connectivity within the Specific Plan Area. The future circulation network is also expected to accommodate the increased number of pedestrians and bicyclist trips. No adverse impacts to alternative transportation modes are projected to occur. Potential impacts to pedestrians and bicyclists attributable to the Specific Plan are therefore deemed to be less than significant.

ii. Transit Impacts

Development of the Specific Plan would result in significantly more housing units in Downtown Santa Rosa. All new residents would have access to at least one transit line within one-quarter mile of their home, and most residents would be within walking distance of the Downtown transit mall, SMART station, or both. All residential development in the Specific Plan Area would be considered transit-supportive. Increases in ridership would be expected on Santa Rosa CityBus, Sonoma County Transit, and Golden Gate Transit. Additionally, Specific Plan Policy SP-T-2.1 requires the city to continue to coordinate with SMART and bus transit providers to ensure that development of the SMART site provides short- and/or long-term facilities for accommodating bus and shuttle transfers between rail and transit. Rider-
ship on the proposed SMART commuter rail system would also be expected to increase due to higher residential density attributable to buildout of the Specific Plan.

\(a\) CityBus and Sonoma County Transit

The URBEMIS software application used to adjust residential trip generation rates for the Specific Plan can also be used to estimate what proportion of new trips are likely to be made by transit. URBEMIS considers the density of new development, jobs-housing balance, transit frequency, and evaluation of street connectivity. Based on a review of transit service schedules and conversations with CityBus, it was determined that approximately 400 buses per day stop in the vicinity of the transit mall. URBEMIS estimates that, for new uses within one-quarter mile radius of the transit mall, approximately 5.24 percent of trips would be made by bus. For areas beyond a quarter-mile of the transit mall, an average of 36 buses per day was assumed. For these areas, which also have lower densities and less-connected pedestrian networks, URBEMIS estimates a transit mode share of approximately 0.44 percent.

Based on these estimates, it is projected that new development within the Courthouse Square Sub-Area of the Specific Plan would generate an additional 843 bus trips per day, including 81 during the PM peak hour. The remaining Sub-Areas are estimated to generate approximately 83 bus trips per day, including 7 during the PM peak hour. CityBus and Sonoma County Transit are expected to be able to accommodate the additional ridership demand, and have expressed support for the transit-oriented development nature of the Specific Plan.

There are several potential options for establishing links between bus and future SMART rail service. CityBus Routes 3, 6, 9, 12 and 17 all pass within a reasonable distance of the rail platform and would be potential candidates for re-routing. Sonoma County Transit has indicated that Routes 30 and 60 may also be considered for route diversions closer to the SMART station in the future. Current concept plans for the TORPA site to the west of the rail corridor include a new north-south street that would include transit stops and
passenger drop-off areas. Another potential alternative is to provide bus stops along Third Street adjacent to the station area. The City of Santa Rosa Community Development, Public Works, and Transit and Parking departments have been coordinating and will continue to coordinate with SMART, Sonoma County Transit, and potential developers of the TORPA site to ensure that transit connectivity is achieved optimally and safely.

\[ b \) SMART Ridership \]

The traffic and circulation analysis for the Specific Plan Area excludes vehicle trip deductions associated with implementation of SMART commuter rail, since at the time of analysis the SMART project remains unfunded. The potential for the Specific Plan to increase ridership on the proposed rail system is, however, discussed below.

The Sonoma-Marin Area Rail Transit Project Final Environmental Impact Report (referred to herein as the SMART FEIR), prepared by Aspen Environmental Group and Parsons Brinckerhoff in June 2006, includes revised ridership projections for the Downtown Santa Rosa SMART station. The report indicates that a total of 1,694 trips per day are anticipated to originate or end at the station in the year 2025. Of these trips, approximately 15 percent would be by vehicle drop-offs (kiss and ride), with the remaining 85 percent being by walking or bicycling modes. SMART’s operation plan does not include a dedicated shuttle at the Santa Rosa station, and the projections do not assume that existing transit operators such as CityBus and Sonoma County Transit would divert routes to the station area.

The SMART FEIR includes projections that are intended to quantify the potential ridership increases attributable to Transit-Oriented Development (TOD) within a half-mile radius of rail stations. For the Downtown Santa Rosa station, it was estimated that an increase of 1,389 residential units (obtained from ABAG projections) could result in an additional 69 trips on SMART per day. The Specific Plan, which emphasizes TOD, includes higher-density development than assumed in the SMART FEIR projections. Approximately 2,000 new residential units would exist within a ½-mile of the
station in 2025, resulting from the Specific Plan. This translates to a total of 99 additional trips on SMART per day attributable to new Downtown residential units, or an increase of 30 trips beyond what was described in the SMART FEIR.

The non-residential components of the Specific Plan would also generate passenger trips on SMART. Because the Specific Plan would not necessarily increase the density of non-residential and employment uses beyond ABAG projections (unlike the marked intensification of residential uses), it is likely that many of these riders are already included in the SMART FEIR projections of 1,694 trips per day. One possible exception would be the potential food and wine center and culinary arts educational program on the SMART joint development site, which could result in modest SMART ridership increases beyond current projections, though insufficient information and research exists to quantify ridership for these uses.

Both Santa Rosa CityBus and Sonoma County Transit have expressed an interest in providing direct connectivity to the SMART station area, with service levels contingent on long-term demand. It is likely that some of the 85 percent walking trips described in the SMART FEIR would become transit trips if transit service were instated. An additional increment of SMART ridership would also be likely via bus connections to areas beyond the downtown area, though it is impossible to quantify this component of ridership without knowing what service areas and frequencies would exist.

Based on this review of potential transit impacts, it appears that the Specific Plan would create a net benefit to both existing and potential future transit operations. Because the Specific Plan would both provide facilities that support transit-based alternative transportation modes as well as improve connectivity to transit facilities, the potential impacts are considered to be less than significant.
c. Result in inadequate parking capacity.

The Specific Plan would modify existing City parking standards in the Courthouse Square, Railroad Square, Railroad Corridor, and Park & Gardens Sub-Areas. The Parking Analysis for the Downtown Station Area Specific Plan, W-Trans, October 2006, includes detailed descriptions of the data collection and methodologies used to determine what types of parking reductions could be considered, and what the potential repercussions would be. In all cases it is assumed that at least one reserved (non-shared) parking space per residential unit would be provided. The complete parking study is included in Appendix F.

The total future parking demand for the Courthouse Square and Railroad Square Sub-Areas was projected using the ULI parking demand and shared parking methodologies. The added parking demand that is projected to be attributable to buildout of the Specific Plan was added to the existing parking demand and trends, which were considered to remain constant. Future parking demand in the Railroad Corridor and Park & Gardens Sub-Areas was also developed using shared parking methodologies, with background parking activity assessed on a more qualitative basis, since large portions of these areas would include a substantial change in uses and elimination of most existing parking demand.

i. Courthouse Square Sub-Area

Because of the unique characteristics associated with a large civic project such as a combined City Hall and performing arts center, in addition to the strong potential for shared parking between those two uses, it was determined that this potential facility should be analyzed separately from the rest of the Courthouse Square Sub-Area. Based on the ULI shared parking methodology, the facility would create a peak parking demand of 898 spaces on weekdays and 942 spaces on weekends. After iteratively testing several scenarios for parking supply at the City Hall-Performing Arts Center, it was determined that optimal efficiency would be achieved with a 600-space parking supply. When conducting the shared parking analysis for the surrounding Courthouse Square Sub-Area, it was assumed that any additional parking de-
mand from the City Hall-Performing Arts Center beyond the 600 spaces would spill over into surrounding facilities.

The parking demand profile for the combined City Hall-Performing Arts Center is shown in Figure 4.12-12.

The shared parking analysis indicates that the Courthouse Square Sub-Area is projected to create an area-wide parking demand of 4,287 spaces during the weekday peak period, and 3,395 spaces during the weekend peak period. The projected future public parking space supply would be 4,383 spaces. A parking surplus of 95 spaces is projected during the highest-demand peak hour. A summary of the parking supply and demand projections is shown in Table 4.12-23. The daily parking demand trend is shown in Figure 4.12-13.

The Specific Plan indicates that future residential development in the Courthouse Square Sub-Area should provide one parking space per unit. Non-residential uses would be exempt from providing on-site parking, but would be subject to paying the required Parking Assessment District fees. With this scheme, future parking demand would be met by the anticipated supply. Parking impacts in the Courthouse Square Sub-Area are therefore anticipated to be less than significant.

ii. Railroad Square Sub-Area
A current proposal for the SMART joint development site in Railroad Square, immediately west of the rail corridor, includes 250 for-sale residential units in addition to 83,200 square feet of non-residential uses. The Specific Plan would accommodate parking demand onsite in a garage that includes 686 parking spaces, and would also create on-street spaces along new streets within the development. For the purposes of this analysis, this potential project was evaluated separately from the rest of the Railroad Square Sub-Area, and determined to be “self-parked,” creating no additional parking demand in the surrounding area’s parking facilities. While the currently-proposed project is subject to change, it is assumed that any development on the site would include similar development and parking characteristics.
**Figure 4.12-12** Weekday Parking Demand for City Hall-Performing Arts Center

**Figure 4.12-13** Future Weekday Parking Demand in Courthouse Square Sub-Area
**TABLE 4.12-23  FUTURE COURTHOUSE SQUARE SUB-AREA PARKING DEMAND**

<table>
<thead>
<tr>
<th></th>
<th>Weekday 2:00 PM</th>
<th>Saturday 8:00 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parking Supply</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Public Parking Supply</td>
<td>3,954</td>
<td>3,954</td>
</tr>
<tr>
<td>Future Public Spaces in “White House” Garage</td>
<td>429</td>
<td>429</td>
</tr>
<tr>
<td>Total Future Parking Supply</td>
<td>4,383</td>
<td>4,383</td>
</tr>
<tr>
<td><strong>Parking Demand</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Shared Parking Demand</td>
<td>2,829</td>
<td>1,588</td>
</tr>
<tr>
<td>Specific Plan Shared Parking Demand</td>
<td>1,244</td>
<td>1,637</td>
</tr>
<tr>
<td>Total Future Parking Demand</td>
<td>4,073</td>
<td>3,225</td>
</tr>
<tr>
<td>Adjusted to Reflect 95% Occupancy</td>
<td>4,287</td>
<td>3,395</td>
</tr>
<tr>
<td>Parking Surplus</td>
<td>95</td>
<td>988</td>
</tr>
</tbody>
</table>

Note: Projections exclude the assumption of 1 reserved parking space per residential unit. Source: W-Trans.

The potential SMART rail stop at Railroad Square would provide no on-site parking. A large number of park-and-ride spaces would be provided at the Santa Rosa Jennings Avenue station to the north. The Jennings Avenue station is intended to serve these park-and-ride commuters and interface with an adjacent transit hub at Coddington Mall, while the Downtown Railroad Square station is expected to be an origin-destination station serving downtown residents and employees. Given this operational plan, the parking analysis assumes that no additional parking supply or demand will be created by the presence of the rail station itself.

Peak parking demand in the Railroad Square Sub-Area is projected to occur on weekday afternoons at about 1:00 p.m. The total parking demand would be approximately 564 spaces, again, excluding the supply and demand created on the SMART joint development site. Given these projections, the anticipated demand would exceed the 502-space supply by 62 spaces. A summary
of the parking supply and demand projections for the Railroad Square Sub-Area is shown in Table 4.12-24. The projected weekday parking demand trend is shown in Figure 4.12-14.

The Specific Plan recommends establishing a residential parking requirement of one reserved space per residential unit. The Plan recommends a non-residential parking requirement of one shared space per 500 square feet of building area. If these spaces were constructed with the potential 72,000 square feet of non-residential uses in Railroad Square, the resulting net increase in parking would be 144 spaces. These additional shared spaces could be located either on-site or in a common private or public parking facility. This increased supply would offset the potential parking shortfall shown above in Table 4.12-24, reducing potential parking impacts in Railroad Square to a level of less than significant.

iii. Park & Gardens Sub-Area
Based on the shared parking analysis, the Specific Plan would be expected to generate the need for 513 new parking spaces on weekdays and 484 spaces on Saturdays in the Park & Gardens Area. Much of this demand is projected to be accommodated on-street, though additional off-street parking would still be required. Because it is necessary to avoid creation of spillover parking demand into adjacent residential neighborhoods, the Specific Plan includes a set of recommended parking ratios that are not as liberal as those possible in the Courthouse Square and Railroad Square Sub-Areas. The City of Santa Rosa’s current residential parking requirement of 1.5 to 2.5 parking spaces per unit would be reduced to 1.5 spaces per unit. Retail and office use parking requirements would be reduced slightly from the City’s current requirements of one space per 250 square feet to one space per 300 square feet.

With the potential parking requirements described in the Specific Plan, and upon buildout of the Specific Plan, parking demand in the Park & Gardens Sub-Area is projected to be met by the available supply. Parking impacts in the area would be considered less than significant.
## TABLE 4.12-24  FUTURE RAILROAD SQUARE SUB-AREA PARKING DEMAND

<table>
<thead>
<tr>
<th></th>
<th>Weekday 1:00 PM</th>
<th>Weekend 8:00 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parking Supply</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Public Parking Supply</td>
<td>415</td>
<td>415</td>
</tr>
<tr>
<td>Added Public Parking Spaces</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Removed Temporary Parking Lot</td>
<td>-63</td>
<td>-63</td>
</tr>
<tr>
<td>Added On-Street Public Spaces within SMART site</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total Future Parking Supply</strong></td>
<td>502</td>
<td>502</td>
</tr>
<tr>
<td><strong>Parking Demand</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Shared Parking Demand</td>
<td>314</td>
<td>254</td>
</tr>
<tr>
<td>Specific Plan Shared Parking Demand</td>
<td>222</td>
<td>131</td>
</tr>
<tr>
<td><strong>Total Future Parking Demand</strong></td>
<td>536</td>
<td>385</td>
</tr>
<tr>
<td>Adjusted to Reflect 95% Occupancy</td>
<td>564</td>
<td>405</td>
</tr>
<tr>
<td><strong>Parking Surplus (Shortfall)</strong></td>
<td>(62)</td>
<td>97</td>
</tr>
</tbody>
</table>


## FIGURE 4.12-14  FUTURE WEEKDAY PARKING DEMAND IN RAILROAD SQUARE

![Graph showing future weekday parking demand in Railroad Square](image)
iv. Railroad Corridor Sub-Area
For the purposes of evaluating the potential impacts associated with changes in existing City parking requirements in the Railroad Corridor Sub-Area, an analysis of the Sebastopol Road area was conducted. The Sebastopol Road area of the Railroad Corridor has similar characteristics to other portions of the Sub-Area to the north of Railroad Square, in that existing light industrial and warehouse type uses would potentially be converted to residential mixed-use and live-work type development patterns.

Buildout of Specific Plan uses in the Sebastopol Road area are projected to create a demand for 926 parking spaces on weekdays and 940 spaces on weekends using the shared parking methodology. Parking demand would peak near 7:00 p.m. on both weekdays and weekends. Because the proposed development pattern emphasizes residential development, and unlike downtown would be located in an area where there is limited existing parking supply and less of a mix of uses, the benefits realized through provision of shared parking in this area would be limited. The Specific Plan would decrease the existing City requirements of 1.5 to 2.5 spaces per unit to a flat rate of 1.5 spaces per unit. Non-residential use parking requirements would be slightly reduced from one space per 250 square feet to one space per 300 square feet.

With implementation of the relaxed residential parking requirements, the parking study indicates that the projected parking demand in the Sebastopol Road area is expected to roughly equal the expected supply during peak activity periods. Similar conditions would be expected upon redevelopment of the northern portions of the Railroad Corridor Sub-Area. Parking impacts in this Sub-Area are therefore considered to be less than significant.

d. Create a change in circulation patterns.
i. Emergency Access
Future development that takes place as a result of the Specific Plan would be subject to applicable development standards, including provision for adequate emergency access. Streets within the Specific Plan Area are interconnected, providing multiple emergency response routes. The traffic analysis utilizes
LOS analyses to determine how well the streets and intersections potentially impacted by the Specific Plan and other growth would function into the future. The need to maintain acceptable circulation conditions includes the ability of emergency response providers to reach homes and businesses. The traffic improvements identified in the Specific Plan would ensure that traffic flow is maintained in the Specific Plan Area. Additionally, the existing OPTICOM system that allows emergency vehicles to preempt traffic signals would continue to be utilized in the future, facilitating emergency response times. The Specific Plan impacts to emergency access and response are considered to be less than significant.

ii. Design Hazards
The Specific Plan would incorporate streetscape improvements such as landscaped medians and bulb-outs. These elements have been incorporated into the Specific Plan with consideration of access and circulation needs. Prior to construction, any such street improvements would undergo a design and engineering process overseen by the City. The improvements would be designed to ensure that safety for drivers, pedestrians, and bicyclists would be maintained, if not improved.

Future development that takes place as a result of the Specific Plan would be subject to applicable development standards and the same entitlement review process that the City requires of other developments. Future projects would need to conform to City design standards and regulations.

The Specific Plan is expected to create less than significant impacts with regard to potential design hazards.

iii. Air Traffic
The Specific Plan would result in no changes to existing air traffic patterns. Commercial and private aircraft associated with the Sonoma County Airport, which is nearest to the Specific Plan Area and located approximately 6.5 miles to the north, would be at sufficient altitude to avoid any potential impacts associated with glare or obstructions. No other known potential impacts to
air traffic would occur. Potential impacts would therefore be considered less than significant.

2. Cumulative Impacts
The project-level analysis above also addresses cumulative impacts to the regional transportation system since the traffic model analyzed the cumulative impacts of regional traffic growth along with the proposed project. As discussed in the rest of this section, the Specific Plan would contribute to significant impacts to local intersections, as well as to Highway 101 and Highway 12. As discussed in detail below, while most of the potential impacts can be mitigated to a less than significant level, impacts to traffic conditions in both directions on Highway 101 and westbound on State Highway 12 would remain significant and unavoidable. Non-traffic related impacts would not contribute to a cumulative impact since they are site specific and would be mitigated by the Specific Plan within the region on a site specific basis. As a result, no additional cumulative impact, other than has already been identified above, would occur.

E. Impacts and Mitigation Measures

Impact TRANS-1: Buildout of the Specific Plan in the future would exacerbate unacceptable LOS F traffic conditions in both directions on Highway 101, and unacceptable LOS E conditions on westbound State Highway 12. This would be a significant impact.

Mitigation Measure TRANS-1: There are no known freeway capacity projects that would result in acceptable operation in the future, and correspondingly no means for fair-share payments for impacts to Highway 101 to be collected.

Significance after Mitigation: Significant and unavoidable.
This section describes the existing water, wastewater, stormwater and solid waste infrastructure and services in the Specific Plan Area and the potential environmental impacts from the implementation of the Specific Plan on these services. Storm drainage systems and groundwater are addressed below as well as in Section 4.7, Hydrology and Water Quality.

A. Water

The following describes current conditions and potential impacts of the Specific Plan with regard to water services in Specific Plan Area.

1. Regulatory Framework
   
   This section summarizes existing federal and local laws, policies and regulations that apply to water services being analyzed in this section.

   a. Federal and State Regulatory Agencies
      
      The Environmental Protection Agency (EPA) is the federal agency assigned to maintain safe air and water throughout the country. Santa Rosa is in EPA Region 9, which includes Arizona, California, Hawaii, Nevada, the Pacific Islands and over 140 Tribal Nations. The State Water Quality Control Board (SWQCB) works with the EPA to control and reduce pollutants from entering drinking water sources.

   b. Santa Rosa Municipal Service Review
      
      In accordance to the Cortese-Know-Hertzberg Local Government Reorganization Act of 2000 Municipal Service Reviews (MSRs) are required by Local Agency Formation Commissions (LAFCOs) on cities and service districts in conjunction with review and update of city and district spheres of influence (SOIs) every five years, according to Government Code Section 56425. Section 56430 requires MSRs to be conducted prior to or in conjunction with the sphere updates. MSRs must address at least the following nine factors: infrastructure needs or deficiencies; growth and population projections for the affected area; financing constraints and opportunities; cost avoidance oppor-
tunities; opportunities for rate restructuring; opportunities for shared facilities; government structure options, including advantages and disadvantages or consolidation or reorganization of service providers; evaluation of management efficiencies; and local accountability and governance.¹

c. City of Santa Rosa 2020 General Plan
The goals and policies in the City of Santa Rosa General Plan address utility services provided by the City of Santa Rosa to residents and businesses. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to water services.

i. Public Services and Facilities Element

Goal PSF-F: Ensure that adequate supply of water is available to serve existing and future needs of the City.

♦ Policy PSF-F-1: Utilize high quality water from the Sonoma County Water Agency (SCWA) aqueduct system as the primary water supply.

♦ Policy PSF-F-2: Ensure that water supply capacity and infrastructure are in place prior to occupancy of new development.

♦ Policy PSF-F-3: Develop available groundwater resources for the purpose of providing a supplemental source of water in the event of an emergency.

♦ Policy PSF-F-4: Maintain existing levels of water service by preserving and improving infrastructure, replacing water mains as necessary and improving water transmission facilities.

♦ Policy PSF-F-6: Evaluate the City’s long-term water supply strategies, including development of new sources of water supply, improved water conservation and re-use and implementation of appropriate growth control measures if necessary.

ii. Open Space and Conservation Element

Goal OSC-F: Conserve water and maintain water quality.

- **Policy OSC-F-1:** Maintain high levels of water quality for human consumption and for other life systems in the region by regularly monitoring water quality.
- **Policy OSC-F-4:** Consider water conservation measures in the review of new residential development projects.

d. Santa Rosa 2005 Urban Water Management Plan
Each urban water purveyor serving more than 3,000 connections or 3,000 acre-feet annually is required by the State of California Urban Water Management Planning Act to prepare and submit an Urban Water Management Plan (UWMP) every five years. The City’s 2005 UWMP has been prepared according to the requirements of the Urban Water Management Planning Act and includes details about Santa Rosa’s projected water supply and demand through 2030 during an average water year, a single dry year and multiple dry years; current and projected recycled water use; water conservation program details; and detailed information about our regional water supply. The City’s 2005 Plan also includes an update to the City’s Urban Water Shortage Contingency Plan.

e. Water Conservation Efforts
The City works with the SCWA to establish conservation measures. The present conservation efforts have returned a 15 percent reduction in water use. Currently, the City of Santa Rosa has Residential and Commercial Water Conservation Programs, which are listed below.

i. Residential Program
- Residential Clothes Washing Machine Rebates - Incentives toward the purchase of a qualifying water conserving high-efficiency washing machine.
♦ Turf Time - Current lawn watering requirements for the Santa Rosa area.
♦ Water Use Efficiency Calculator - Determine monthly water goals and compare them to water use for the past 24 months.
♦ Water Wise Gardening Tips - Tips, recommendations and more.
♦ Water Conservation Check Up Program – Review of indoor and outdoor water uses by expert staff and recommendations for improving water use efficiency
♦ Water Use Home Survey Kits – Home surveys to assist residents in identifying and fixing leaks, reviewing indoor and outdoor water use, and improving water use efficiency.

ii. Commercial Programs:
♦ Commercial Incentives - Programs to help businesses save water - rebates, free equipment, surveys and more.
♦ Commercial Toilet Replacement Program – Replacement of high flush volume toilets, and high flow showerheads and faucet aerators with ultra low flow models.
♦ Commercial Clothes Washing Machine Rebates - Incentives toward the purchase of a qualifying water conserving high-efficiency washing machine.
♦ Best Available Technologies Program – Demand fee reductions for new restaurants and Laundromats that install the best available technologies for water use efficiency.
♦ Landscape Water Conservation Programs - Landscape Surveys, Irrigation Efficiency Rebates, Service Split Incentive Rebates.

f. Santa Rosa Fire Flow Requirements
The City Standards provide a guide to required fire flow requirements for development within the urban boundary. In general, single- and two-family residential lots require 1,500 gallon per minute (gpm) of flow. Schools, com-
commercial, industrial, and multi-family residential (three or more units) typically require 2,500 gpm from two hydrants to conform to the City Fire Code. Mid-rise and high-rise structures require higher flows. In addition, all parcels located in the High Fire Severity Zone are required to have a fire flow of 2,500 gpm. All fire flows mentioned above must maintain a residual of 30 psi (pounds per inch) while providing the required flow. The fire flows requirements mentioned above are ultimately under the jurisdiction of the Santa Rosa Fire Department.

2. Existing Conditions
This section discussed the existing water supply conditions. Unless otherwise noted, the information presented in this section is summarized from the Water Supply Assessment (WSA) prepared for the Specific Plan that can be found in Appendix H.

a. Current Water Sources and Water Supplies
Santa Rosa currently receives all of its potable water supply from SCWA under the provisions of the Restructured Agreement for Water Supply, which was executed in June 2006. Approximately 95 percent of water delivered by SCWA is from surface water sources, primarily the Russian River, with the remainder from three deep groundwater wells. The wells are located near the Laguna de Santa Rosa Watershed and feed directly into SCWA’s Russian River-Cotati Intertie Pipeline. The SCWA draft 2005 Urban Water Management Plan, dated October 2006, estimates the production capacity of these wells at 3,870 acre-feet per year (AFY).

In addition to SCWA supply, in July 2005, the City received permission from the California Department of Health Services (DHS) to use two of its own groundwater wells for supply to meet future demands; this supply source has not yet been used, but is permitted to provide up to 2,300 AFY of local supply to the City. The City is also the owner and operator of the Subregional System, which produces recycled water for landscape irrigation and has capacity for up to 6,600 AFY.
In 2005, the City utilized 22,895 AF from the SCWA and is not utilizing any available groundwater. The City’s highest annual use was 23,993 AF in 2004.

b. Projected Water Supplies

i. Surface Water
SCWA holds appropriative water rights to Russian River and Dry Creek water by virtue of an assignment to SCWA of Sonoma County’s portion of the 1949 application to the State of California for the Coyote Valley Dam Project appropriative water rights, and SCWA’s 1960 application for the Warm Springs Dam Project appropriative water rights. The combined water supply storage from these two projects exceeds 300,000 AFY. The combined limit on SCWA’s annual Russian River diversions under its water rights permits (Permit Nos. 12947A, 12949, 12950, and 16596) is currently 75,000 AFY, with a maximum diversion rate of 180 cubic feet per second. In 2002, which was the last year SCWA formally reported to the State Water Resources Control Board (SWRCB) on these permits, approximately 64,000 AFY of demand was reported under these water rights permits. SCWA has submitted petitions to the SWRCB to increase its annual Russian River diversions from 75,000 AFY to 101,000 AFY.

In 1998, SCWA’s Board of Directors certified an EIR for the SCWA’s Water Supply and Transmission System Project (WSTSP) and approved the project. The objective of the WSTSP was to provide a safe, economical and reliable water supply to meet the defined future needs of SCWA’s service area, which includes providing for the future water supply needs of the City. The WSTSP was expected to increase the amount of water SCWA diverts from the Russian River to 101,000 AFY. In 1999, a lawsuit was filed challenging the WSTSP EIR. In 2000, the trial court found the EIR to be adequate. On May 16, 2003, however, the Court of Appeals reversed the trial court’s decision, concluding that the EIR was inadequate because it did not contain adequate cumulative impacts and alternatives analyses, and its description of the project’s environmental setting was deficient. On November 9, 2004, the SCWA adopted a resolution directing the preparation of a new EIR, the Water Supply, Transmission, and Reliability Project EIR (Water Project EIR) to
address the inadequacies of the WSTSP and to more closely reflect current water supply circumstances. The draft Water Project EIR is expected to be released for public review in June 2007.

ii. Groundwater
The City maintains a total of six municipal groundwater wells within the Santa Rosa Plain Sub-basin of the Santa Rosa Valley Groundwater Basin. Two wells are operated primarily to provide some landscape irrigation, and these wells are also permitted by DHS to operate during an emergency outage condition; the status of two wells (Farmers Lane Wells No. 1 and 2) were recently changed from emergency to active status; one well is operated to provide minor amounts of landscape irrigation water supply only; and one well only provides water during an emergency outage condition. Since 2000, the City has only pumped an estimated 161 acre-feet of groundwater from these wells, which averages approximately 27 AFY for the last six years. Based on projected future use of the converted Farmers Lane wells, projected City groundwater pumpage is anticipated to be up to 2,300 AFY, about 6.6 percent of the City’s projected total water supply, by the year 2020.

iii. Recycled Water
Because the City is the owner and operator of the Subregional System, the recycled water resources from the Subregional System are available within the City water utility service area to serve sites currently served by potable water. In 2001, the City undertook the Incremental Recycled Water Program (IRWP), which includes plans for recycled water urban reuse efforts. The IRWP outlines a water recycling alternative that can replace the City’s potable water sources (not including private groundwater supply sources) up to a maximum of 2,200 AFY upon implementation and 4,400 AFY by 2020. The total recycled water available in 2020 will be up to 6,600 AFY, which is greater than the potable offset demand for that year; the additional recycled water may be available to supply irrigation and industrial connections after 2020.
iv. Planned Water Conservation

The aggressive conservation efforts of the past 15 years in the City have resulted in a current annual savings of about 3,500 AFY. Without this effort, City water use would be 15 percent higher than current demand. This effort resulted in implementation of most Best Management Practices (BMPs) beyond the target established by the California Urban Water Conservation Council, and for some BMPs further sustainable savings cannot be achieved because participation levels have been so high.

Future conservation efforts will focus first on sustaining the savings already achieved, and secondly on achieving additional savings. By relying on emerging technologies such as high-efficiency toilets and “smart” irrigation controllers, the City expects to achieve additional sustainable savings of 900 to 1,100 AFY by 2020, and an additional 300 to 500 AFY by 2030.

c. Water System Improvements

For Santa Rosa, part of providing clean safe water means replacing broken water mains and upgrading existing reservoirs. Water mains were replaced in more than a dozen locations throughout the city in 2004. These existing improvements can be found in Appendix G.

Every ten years each reservoir is drained and inspected. All 20 of the current reservoirs are to be seismically retrofitted at a rate of three per year. Two additional 2.6 million gallon reservoirs are under construction on city property near the north end of Farmer’s Lane.

d. Water Storage and Distribution

Water for drinking is stored in varied facilities by both SCWA and Santa Rosa. SCWA has water rights permits to store up to 122,500 acre-feet annually in Lake Mendocino, and up to 245,000 acre-feet annually in Lake Sonoma. The combined current Russian River diversion rights of SCWA’s wa-

---

2 Jennifer Burke, City of Santa Rosa, email January, 2007.
3 City of Santa Rosa, 2005, 2005 Urban Water Management Plan, Santa Rosa: City of Santa Rosa, Section 2.3 and 2.4.
ter rights permits is up to 75,000 acre-feet annually at the Wohler/Mirabel site where 6 Ranney Collectors and a field of traditional groundwater wells divert the water from the underflow of the Russian River.

The main transmission facility for SCWA in the Santa Rosa area is the 15.6-mile Santa Rosa Aqueduct which transfers water from the Ranney Collectors to Santa Rosa. SCWA also maintains the Russian River Cotati Intertie Project, the Petaluma Aqueduct and the Sonoma Aqueduct. SCWA’s transmission system serves a number of customers in Sonoma and Marin Counties.

Santa Rosa maintains 22 reservoirs (tanks) with a capacity of nearly 23.1 million gallons of water. There are 19 pump stations to maintain over 51,000 connections. The City has a distribution system of nearly 617 miles of pipe to maintain supply to the nearly 170,000 individual customers in Santa Rosa and the unincorporated neighboring areas.

e. Water Demand
Table 4.13-1 compares projected supply during non-drought year conditions with projected demand. Based on this comparison, it is not anticipated that a shortage in supply, during non-drought conditions, is likely to occur in the next 20 years.

3. Standards of Significance
The Specific Plan would have a significant impact with regard to water services if it would:

i. **Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.**

ii. **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.**
Table 4.13-1  Santa Rosa Non-Drought Year Projected Supply and Demand (AFY)

<table>
<thead>
<tr>
<th>Water Supply or Demand</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply (Non-Drought Year)</td>
<td>26,235</td>
<td>29,428</td>
<td>32,469</td>
<td>34,992</td>
<td>37,033</td>
<td>38,486</td>
</tr>
<tr>
<td>Water Demand</td>
<td>26,235</td>
<td>30,200</td>
<td>32,400</td>
<td>34,300</td>
<td>36,700</td>
<td>37,750</td>
</tr>
</tbody>
</table>

* The actual demand in 2005 was 22,895 AF.

4. Impact Discussion

a. Project Impacts

This section discusses the impacts of the Specific Plan on water resources for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

i. Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

The water demand for the Specific Plan is projected to be a maximum of 975 AFY. This density and land use is consistent with the General Plan water supply projections through the 2026 analysis of the WSA. The following provides a summary of how the 975 AFY was calculated and is based on the findings from the WSA prepared by the City of Santa Rosa and contained in Appendix H.

The projected water demand for the Specific Plan is determined by using residential equivalency factors (REFs) consistent with the land use classifications of General Plan and zoning code, and with those set forth in SB 610. These classifications are: residential (attached and detached), retail (shopping center/business establishment), office (commercial office buildings), industrial (industrial park/processing plant/manufacturing), and public/institutional. Because the Specific Plan includes development of parks, a category for landscaped area is also used. Table 4.13-2 shows the number of REFs in each classification for the Specific Plan.
The City’s projected residential water use is 110,000 gallons per detached residential unit per year. Attached residential water use includes no landscape irrigation and averages two-thirds of the detached residential water use. This is based on an analysis of the past ten years of actual residential water use. The REFs for the non-residential use categories are based on land use categories and equivalent water use per Code section 10912(a).

Therefore, the water demand for the Specific Plan Area is 110,000 gallons per residential equivalency factor multiplied by 2,700 residential equivalency factors for the Specific Plan, or a total of 297 million gallons per year, or approximately 911 AFY. The total demand for the Specific Plan must also include the system standard for unaccounted for water. Unaccounted for water is the difference between water produced and water sold. Typically it is water that is used but unmetered, such as water for system maintenance, and leakage from the actual distribution system before the water meter. Based on the

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Area pre REF (SF)</th>
<th>Specific Plan Area (SF)</th>
<th>Residential Units</th>
<th>Residential Dwelling Units or REF’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential (Detached)</td>
<td>n/a</td>
<td>n/a</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Residential (Attached)</td>
<td>n/a</td>
<td>n/a</td>
<td>3,214</td>
<td>2,153</td>
</tr>
<tr>
<td>Mixed Use (Retail/Office)</td>
<td>500</td>
<td>352,677</td>
<td>n/a</td>
<td>705</td>
</tr>
<tr>
<td>Industrial</td>
<td>1,300</td>
<td>(699,903)</td>
<td>n/a</td>
<td>(538)</td>
</tr>
<tr>
<td>Public/Institutional</td>
<td>500</td>
<td>141,120</td>
<td>n/a</td>
<td>282</td>
</tr>
<tr>
<td>Park Landscape</td>
<td>2,819</td>
<td>174,240</td>
<td>n/a</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>(31,866)</td>
<td>3,250</td>
<td></td>
<td>2,700</td>
</tr>
</tbody>
</table>

SF = square foot.
UWMP, this factor is 7 percent for the Santa Rosa system. The addition of system unaccounted for water brings the total Specific Plan demand to 975 AFY. According to the WSA prepared for the Specific Plan, the City currently has adequate supply to meet existing demands and planned future demands plus the maximum anticipated demand associated with the Specific Plan.

In addition to ensuring adequate water supply, the Specific Plan is designed to minimize potential impacts to utilities in general and water services in particular. For example, Goal SP-UPS-1 under the Specific Plan would seek to provide funding for public services and utilities in the Specific Plan Area. Supporting this goal is Specific Plan Policy SP-UPS-1.1 which would ensure that private development provides its fair share of funding for necessary improvements to public services and utilities in the Specific Plan Area. Furthermore, Goal SP-UPS-2 under the Specific Plan would ensure the adequate water supply and water supply system improvements are available to serve existing and new development in the Specific Plan Area. Specific Plan Policy SP-UPS-2.1 supports this goal by ensuring that water supply capacity and infrastructure are in place prior to occupancy of new development in the Specific Plan Area. Additionally, Specific Plan Policy SP-UPS-2.2 and SP-UPS-2.4 would require new development and streetscape landscaping employ water conservation and re-use measures. These policies are designed to make certain that growth occurs only as appropriate water supplies are available.

Therefore, implementation of the Specific Plan would result in a less-than-significant impact in regards to water supplies.

ii. 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.

As discussed in the Project Description, the Specific Plan has identified specific improvements to the water supply system that would be required to transport water to the Specific Plan Area to support future development.
As the Sub Areas are developed as allowed under the Specific Plan, improvements will be required to provide water supply systems to serve new development as well as improvements to the existing system where deficiencies are caused by the development. Improvements must be consistent with the City’s utilities standards. Some existing pipe reaches may be near the end of their useful life and may need to be replaced prior to serving new development. Conveyance to the existing water pipe network will be a combination of CIP and private projects. Appendix G includes a detailed list of the improvements that would be required in each Sub Area to ensure that adequate water supply system would be provided to support the development that would occur under the Specific Plan.

The generalized, programmatic-level analysis of the potential physical impacts associated with the construction of the necessary water system improvements within the Specific Plan Area are analyzed throughout this EIR as part of the overall analysis since the water system improvements are included in Chapter 3, Project Description. As specific improvements are designed, additional project-level environmental review may be required, as is discussed in Chapter 1, Introduction of this EIR. Impacts identified in to other EIR sections would also apply to the construction of water system improvements within the Specific Plan Area.

There may also be the need to construct improvements to the regional water system to support the water demand of the Specific Plan at buildout. This could include new wells, recycled water infrastructure, or other distribution or treatment improvements. However, as this time, specific improvements have not been identified, so it would be speculative to attempt to analyze the improvements to the regional water system resulting from buildout of the Specific Plan area. As a result, this EIR does not attempt to analyze the unknown improvements to the regional system. Future improvements will be subject to their own environmental review process, as required by CEQA.
b. Cumulative Impacts
The potential cumulative impacts associated with the water supply are consistent with the findings of the WSA since the WSA took into consideration the cumulative growth anticipated for Santa Rosa when determining the project-level impact associated with water supply. As stated above, the WSA concludes that there would be adequate water supplies for both the Specific Plan, as well as cumulative growth in Santa Rosa. As a result, the proposed project would not contribute to a significant cumulative impact associated with water supply.

Additionally, the potential cumulative impacts related to water supply infrastructure within the Specific Plan Area necessary to supply the Specific Plan Area are analyzed under each of the other sections of this EIR since the construction of the water supply system is analyzed as part of the overall Specific Plan.

However, the nature and timing of future water infrastructure improvements required to support future cumulative growth in the Santa Rosa area have not been identified. Without additional information about specific improvement programs, analysis of possible impacts in this EIR would be speculative. Continued water infrastructure planning efforts by the SCWA and the City of Santa Rosa will require environmental review pursuant to CEQA, which will identify any potential future physical impacts and appropriate mitigation measures.

5. Impacts and Mitigation Measures
Since no new significant impacts, other than those identified throughout the remainder of this EIR or can be identified with the non-speculative information available, were identified resulting from the implementation of the Specific Plan in regards to water, no mitigation measures are required.
B. Wastewater

The following describes current conditions and potential impacts of the Specific Plan with regard to wastewater services in the Specific Plan Area.

1. Regulatory Framework

This section summarizes existing State and local laws, policies and regulations that apply to wastewater services being analyzed in this section.

a. North Coast Regional Water Quality Control Board

The North Coast Regional Water Quality Control Board (NCRWQCB) is the local division of the SWQCB. The SWQCB is a State department that provides a definitive program of actions designed to preserve and enhance water quality and to protect beneficial uses of water in California. The NCRWQCB issues National Pollutant Discharge Elimination System (NPDES) permits. NPDES permits allow the NCRWQCB information on where the waste is disposed, what type of wastes are being disposed of and the entity depositing the wastes.

b. Santa Rosa Sanitary Sewer System Master Plan – Draft March 2006

The purpose of this Sanitary Sewer System Master Plan (SSSMP) is to evaluate the adequacy of the City’s sewer collection system, identify system deficiencies both present and future and to develop prioritized lists of improvement projects that will be needed to meet the City’s collection system needs through the year 2020 based on the current 2002 General Plan buildout projections.4

c. Santa Rosa Municipal Service Review

In accordance to the Cortese-Know-Hertzberg Local Government Reorganization Act of 2000, MSRs are required by LAFCOs on cities and service districts in conjunction with review and update of city and district SOIs every five years, according to Government Code Section 56425. Section 56430 re-

4 Winzler & Kelly, 2006, City of Santa Rosa Sanitary Sewer System Master Plan, Santa Rosa: City of Santa Rosa, page ES-1.
quires MSRs to be conducted prior to or in conjunction with the sphere updates. MSRs must address at least the following nine factors: infrastructure needs or deficiencies; growth and population projections for the affected area; financing constraints and opportunities; cost avoidance opportunities; opportunities for rate restructuring; opportunities for shared facilities; government structure options, including advantages and disadvantages or consolidation or reorganization of service providers; evaluation of management efficiencies; and local accountability and governance.5

d. City of Santa Rosa 2020 General Plan
The goals and policies in the City of Santa Rosa General Plan address utility services provided by the City of Santa Rosa to residents and businesses. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to wastewater services.

i. Public Services and Facilities Element
Goal PSF-G: Ensure that adequate sewer capacity is available to serve existing and future needs of the City.

♦ Policy PSF-G-1: Continue to explore and develop new uses for treated wastewater, including expanding existing programs such as urban and agricultural irrigation, consistent with objectives adopted by the Board of Public Utilities and the City Council. Examples of urban reuse include park and landscaping irrigation.

♦ Policy PSF-G-2: Maintain existing levels of wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary.

♦ Policy PSF-G-3: Decline requests for extension of sewer services beyond the Urban Growth Boundary, except in cases of existing documented health hazards and in areas where the City has agreements to provide services.

2. Existing Conditions

a. Existing Sewer Collection System
The City of Santa Rosa is responsible for the collection of wastewater within the City and Specific Plan Area. There are approximately 581 miles of wastewater piping in the Santa Rosa wastewater system. The City of Santa Rosa generated approximately 12.4 mgd average dry weather flow (ADWF) of the total treated at the Subregional Reclamation System’s (Subregional System) Laguna Treatment Plant (Laguna Plant). The Specific Plan Area is currently served by an existing collection system, as shown in Map #2 of Appendix G.

b. Existing Water Treatment Facilities
The Laguna Plant is the primary site for wastewater treatment and disposal for the cities of Santa Rosa, Sebastopol, Cotati, Rohnert Park and the Sonoma County South Park Sanitation District. Of the five user agencies participating in the Laguna Plant, Santa Rosa is the owner and operator and is responsible for the operation, maintenance and regulatory compliance of the plant. The Laguna Plant is located southwest of Santa Rosa, in unincorporated Sonoma County, and provides tertiary treatment of wastewater from the five user agencies.

A portion of the water treated at the Laguna Plant is reused for urban and agricultural irrigation. Tertiary treatment employs an ultraviolet disinfection system instead of the standard chlorine gas disinfection method. The UV system eliminates the potential hazards associated with the transport of chlorine gas. Santa Rosa also operates the local Oakmont Treatment Plant, with an average flow of 0.5 mgd, serves the Oakmont community between April

---

6 Personal communication with Joe Schwall, Plant Superintendent, Laguna Subregional Wastewater Treatment Plant. December 1, 2006.
and October. Water treated at the Oakmont Plant is used to irrigate the Oakmont Golf Course.\(^8\)

The user agencies’ wastewater collection systems collects urban wastewater from over 225,000 people for treatment at these plants. The recycled water distribution system, which includes 45 pump stations, distributes recycled water to approximately 6,130 acres.\(^9\)

c. Geysers Recharge Project\(^10\)
The Santa Rosa Geysers Recharge Project, initiated in 1998, has provided an additional use for treated water. The Geysers steam field, operated by the Calpine Corporation, depends on an underground water source that has been gradually depleted in recent years. With the addition of 11 mgd of tertiary-treated recycled water, the steam field will be able to continue producing energy for at least the next 20 years. The $187 million Recharge project constructed a 41-mile underground pipeline from the Laguna Treatment Plant to the base of the Mayacamas Mountains, three large pump stations and a terminal storage tank, from which treated water is injected into the steam field’s underground wells.

d. Planned Collection System Improvements\(^11\)
Other plans for new and improved operations include the replacement of wastewater collection system lines to reduce inflow and infiltration and up-

---


grades to the sewer lift stations. The City also continuously conducts inspection and cleaning of wastewater lines and performs numerous repairs, provides replacements and completes equipment surveys.

e. Demand and Capacity
Currently, the Laguna Plant’s capacity rating is 21.3 mgd. This capacity is projected to be adequate to meet the City’s wastewater needs for the next six years.\textsuperscript{12} Current growth projections indicate that, based on the existing General Plan growth projections, Santa Rosa’s wastewater flow could increase to 18.8 mgd by the year 2020, with the total Subregional System flow reaching an estimated 25.9 mgd.\textsuperscript{13}

To plan for growing demand, the City and the Subregional Reclamation System have initiated the Incremental Recycled Water Program (IRWP), a Master Plan for a number of projects designed to increase capacity and accommodate projected growth as indicated in the General Plans of each Subregional System member jurisdiction. The IRWP describes several methods of flow reduction and disposal, including indoor water conservation, infiltration and inflow reduction, urban reuse, agricultural reuse, Geysers expansion and discharge to the Laguna de Santa Rosa or Russian River, while evaluating alternative programs combining selected methods. In 2004, the City identified a “Preferred Alternative” that includes all of the methods except for infiltration and inflow reduction, as well as Laguna Treatment Plant upgrades that will increase plant capacity from 21.3 mgd to 25.9 mgd ADWF.

\textsuperscript{12} Personal communication with Joe Schwall, Plant Superintendent, Laguna Subregional Wastewater Treatment Plant. December 1, 2006.
3. Standards of Significance

The Specific Plan would have a significant impact with regard to wastewater services if it would:

i. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

ii. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

iii. Require or result in the construction of wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4. Impact Discussion

This section discusses the impacts of the Specific Plan on wastewater services for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

a. Project Impacts

i. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Of the five user agencies served by the Subregional System, Santa Rosa is the owner and operator and is responsible for the operation, maintenance and regulatory compliance of the Laguna Plant. Discharges to the Russian River, and other water bodies, from the Laguna Plant are required to comply with NCRWQCB permitting requirements. It is assumed that, as long as the plant is adequately maintained and development does not occur at a rate that exceeds the plant’s capacity that it will continue to comply with permitting requirements.

While the Specific Plan would result in an increase in demand implementation of the Specific Plan would not exceed NCRWQCB water treatment requirements since, as discussed in detail in the following section, the General Plan and Specific Plan include goals and policies that ensure that development
will not occur that without adequate wastewater infrastructure in place. As a result, the Laguna Plant’s capacity would not exceed wastewater treatment standards since development would only occur when the plant had adequate capacity to appropriately treat the resulting wastewater. Therefore, this impact is considered less than significant.

\textit{\textbf{ii. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.}}

Currently, the Laguna wastewater treatment and disposal system is operating with an ADWF of 16.4 mgd, with the City of Santa Rosa contributing roughly 12.4 mgd. Based on the existing General Plan growth projections, Santa Rosa’s ADWF could increase to 18.8 mgd by the year 2020, with the total subregional ADWF reaching 25.9 mgd by 2020. According to the IRWP Master Plan, the Laguna Plant is expected to implement improvements that will expand overall capacity up to 25.9 mgd to meet the future 2020 demand. The needed capacity of 25.9 mgd for 2020 was based on the anticipated buildout of the area served by the plant as shown in the various General Plans.

Based on the table contained on Map #6 in Appendix G, it is estimated the Specific Plan would add approximately 1.4 mgd ADWF at buildout in the next 20 years to the existing demand, which is in excess of the 25.9 mgd ADWF planned for based on the existing General Plan. This number is conservative in that it uses 3.25 persons per household for calculation purposes for all new residential units. The result is a conservative estimation of the ultimate generation of additional sewer since a variety of densities are planned for these areas. In addition, the calculations did not net out all existing industrial land uses which would be eventually be replaced by the new infill development proposed by the Specific Plan. In general, there will be an increase of sewer generated with the implementation of the Specific Plan when compared with the existing General Plan assumptions for development within the Specific Plan Area.
Neither the IRWP nor the SSMP accounted for the proposed changes in density resulting from the implementation of the Specific Plan. As a result, development anticipated from the Specific Plan would exceed the planned expansion to the Laguna wastewater treatment plant and disposal system as previously identified. Since the original Master Plan is based on adopted General Plans, it cannot be updated to reflect the Specific Plan land uses until the City takes action to amend its General Plan to incorporate the Specific Plan.

Recognizing the need to plan for additional expansions/upgrades to the collection system and to the Laguna wastewater treatment plant and disposal system, the Specific Plan contains goals and policies designed to ensure that additional planning is completed for the additional growth allowed under the Specific Plan. Specifically, Specific Plan Policy SP-UPS-3.2 ensures that after the City amends its General Plan to incorporate the Specific Plan, that the City’s Utility Master Plan will be revised to include wastewater system improvements needs identified in the Specific Plan. In addition, this will initiate an update of the Laguna Subregional Water Reclamation System Master Plan for the Laguna System to reflect the changes to the General Plan growth projections.

In addition to updating the planning process for ensuring adequate future sewer service, the Specific Plan includes goals and policies to ensure that new development pays for improvements to the wastewater system. Specific Plan Goal SP-UPS-1 seeks to provide funding for public services and utilities in the Specific Plan Area. Supporting this goal is Policy SP-UPS-1.1, which would ensure that private development provides its fair share of funding for necessary improvements to public services and utilities in the Specific Plan Area. Additionally, Goal SP-UPS-3 would ensure sewer capacity is available to serve existing and new development in the Specific Plan Area. Policy SP-UPS-3.1 would add to this goal by requiring the maintenance of existing levels of wastewater service and provision for new development by preserving and improving infrastructure in the Specific Plan Area, including upgrading of trunk lines.
Therefore, while current planning for the Laguna wastewater treatment plant and disposal system does not take into consideration the additional growth allowed by the Specific Plan in excess of the existing General Plan, the goals and policies within the Specific Plan would ensure that additional planning occurs and development is required to pay for its share of the needed improvements so that there would adequate capacity of the Laguna wastewater treatment plant and disposal system at the time it is needed over the next 20 years. As a result, this impact is considered to be less than significant.

iii. 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.

As discussed above, the Specific Plan would result in the need to expand the Laguna wastewater treatment plant and disposal system in excess of what is currently planned. In addition, the Specific Plan would also result in the need to improve the local collection system for wastewater. The specific improvements to the local collection system are detailed in Appendix G, but mainly consist of upgrades to the pipe size for the Specific Plan.

As also discussed above, the Specific Plan includes goals and policies that would ensure that these improvements are made such that new development does not exceed the capacity of the regional and local system.

The generalized, programmatic-level analysis of the potential physical impacts associated with the construction of the necessary local wastewater system improvements within the Specific Plan, as described in Appendix G, are analyzed throughout this EIR since the wastewater system improvements are included in Chapter 3, Project Description. As specific improvements are designed, additional environmental review may be required, as is discussed in Chapter 1, Introduction of this EIR.

However, as this time, the specific improvements that would be necessary to the Laguna wastewater treatment plant and disposal system to support the Specific Plan have not been identified, so it would be speculative to attempt
to analyze the improvements to the regional wastewater system resulting from buildout of the Specific Plan Area. As a result, this EIR does not attempt to analyze the unknown improvements to the regional system. Future improvements will be subject to their own environmental review process, as required by CEQA.

b. Cumulative Impacts
Development within Sonoma County has the potential to result in a cumulative impact related to wastewater services. However, the 2002 General Plan EIR identified that with the policies included in the General Plan that the potential for development under the General Plan to result in a cumulative impact related to wastewater services would be reduced to a less-than-significant level with the included General Plan policies. All of the reasonably foreseeable development in the Specific Plan Area is in keeping with the overall intent of the General Plan and is subject to General Plan policies. The Specific Plan policies regarding wastewater are designed to ensure the City works with the Laguna wastewater treatment plant and disposal system to ensure adequate wastewater capacity is built in and accounted for in future planning efforts to avoid exceeding any regulations.

Additionally, the potential cumulative impacts related to wastewater infrastructure within the Specific Plan Area necessary to support the Specific Plan Area are analyzed under each of the other sections of this EIR since the construction of the wastewater collection system within the Specific Plan Area is analyzed as part of the overall Specific Plan.

However, the nature and timing of future regional infrastructure improvements required to support future cumulative growth in the Santa Rosa area in combination with the Specific Plan have not been identified. Without additional information about specific improvement programs, analysis of possible impacts in this EIR would be speculative. Continued wastewater infrastructure planning efforts by the Subregional Reclamation System and the City of Santa Rosa will require environmental review pursuant to CEQA,
which will identify any potential future physical impacts and appropriate mitigation measures.

5. Impacts and Mitigation Measures
Since no significant impacts, other than those identified throughout the remainder of this EIR or can be identified with the non-speculative information available, were identified resulting from the implementation of the Specific Plan in regards to wastewater services, no mitigation measures are required.

C. Stormwater

The following describes current conditions and potential impacts of the Specific Plan with regard to stormwater services in Specific Plan Area.

1. Regulatory Framework
This section summarizes existing local regulations and policies that apply to stormwater services being analyzed in this section.

a. Storm Water Management Plan
The EPA mandate of the federal Clean Water Act 1987 amendment has brought the City of Santa Rosa, the County of Sonoma and the SCWA together in 1997 to jointly obtain a NPDES Permit from the NCRWQCB. The NPDES permit number for Santa Rosa is CA0025054. As a permit prerequisite, the three agencies created a Storm Water Management Plan (SWMP) to lessen or remove the amount of pollutants entering the local waterways from the stormwater system. The SWMP defines the roles that the three agencies will partake to meet the NPDES. A Storm Water Utility, was established to fund actions for observance to the NPDES permit, provides public education, stormwater draining testing, system mapping and analysis and system cleaning.

As part of the Stormwater Management Plan, Sonoma County, the City of Santa Rosa and the Russian River Watershed Association joined efforts to
publish stormwater management guidelines.\textsuperscript{14} The guidelines were developed to implement the Santa Rosa Area Standard Urban Stormwater Mitigation Plan (SUSMP). The goal of the SUSMP is to reduce pollution and runoff flows to the best practicable extent for all new capital improvement program and development projects meeting the following criteria: \textsuperscript{15}

- Development of new projects that create one acre or more of new impervious surface. This applies to all public and private projects.

- Streets, roads, highways, and freeways projects creating one acre or more of new impervious surface. This class includes all surfaces used for transportation of pedestrians, bicycles, and motorized vehicles.

- Redevelopment of sites that result in the addition and/or reconstruction of one acre or more of new impervious surface. Areas exempted from this class include: interior remodels, routine maintenance or repair, including roof or exterior surface replacement and resurfacing.

- Capital improvement program, development, and redevelopment projects located directly adjacent to a natural waterway, modified waterway, or constructed channel, or that require a new storm drain outfall to such waterway, regardless of project size or impervious surface.

As new developments are planned, measures for treatment of erosion and stormwater are addressed at the source. As sites are developed each site must establish acceptable source control methods. Varied methods can be employed to satisfy the requirements set forth by the SWMP. The City of Santa Rosa works in conjunction with Sonoma County and SCWA to assure that the requirements are met.


\textsuperscript{15} http://ci.santa-rosa.ca.us/pworks/other/\textasciitilde/SRSWManualFinalDraft.pdf, pg 1-3, 1-4
b. City of Santa Rosa 2020 General Plan

The goals and policies in the City of Santa Rosa General Plan address utility services provided by the City of Santa Rosa to residents and businesses. The following lists applicable General Plan goals and policies most pertinent to the Specific Plan in regards to stormwater services.

i. Public Services and Facilities Element

Goal PSF-I: Manage, maintain and improve stormwater drainage and capacity.

♦ Policy PSF-I-1: Require dedication, improvement and maintenance of stormwater flow and retention areas as a condition of approval.

♦ Policy PSF-I-2: Require developers to cover the costs of drainage facilities needed for surface runoff generated as a result of new development.

♦ Policy PSF-I-3: Require erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.

♦ Policy PSF-I-4: Require measures to maintain and improve the storm drainage system, consistent with goals of the Santa Rosa Waterways Plan, to preserve natural conditions of waterways and minimize paving of creek channels.

♦ Policy PSF-I-6: Require implementation of Best Management Practices to reduce drainage system discharge of non-point source pollutants originating from streets, parking lots, residential areas, businesses, industrial operations and those open space areas involved with pesticide application.
ii. **Noise and Safety Element**

**Goal NS-D:** Minimize hazards associated with storm flooding.

♦ **Policy NS-D-3:** Require that new developments incorporate features into site drainage plans that would reduce impermeable surface area, increase surface water infiltration and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs and stormwater detention basins.

2. **Existing Conditions**
Within the City of Santa Rosa, the Public Works Department maintains 338 miles of underground stormwater pipes and 18,000 stormwater structures. The existing stormwater system in the Specific Plan Area is illustrated in Map #3 of Appendix G. Sheet flow is the predominant method of drainage within the Sub Areas. This method of drainage provides opportunity for flooding at intersections and other localized low spots. Once in the storm drain system, the drainage is conveyed to outlets along the Santa Rosa Creek. Specific detail on the existing stormwater control infrastructure for each Sub Area is provided in Appendix G.

3. **Standards of Significance**
The Specific Plan would have a significant impact with regard to stormwater services if it would:

♦ Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

---

4. Impact Discussion

This section discusses the impacts of the Specific Plan on stormwater for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

a. Project Impacts

As the Sub Areas are developed as allowed under the Specific Plan, improvements will be required to provide drainage systems to serve new development as well as improvements to the existing system where deficiencies are caused by the development. This could require the use of onsite detention structures to retain runoff such that there is no net increase in discharge to the existing storm drain pipe network. Improvements must be consistent with the City’s storm drain standards. Some existing pipe reaches may be near the end of their useful life and may need to be replaced prior to serving new development. Conveyance to the existing storm drain pipe network will be a combination of CIP and private projects. Appendix G includes a detailed list of the improvements that would be required in each Sub Area to ensure that adequate stormwater drainage would be provided to support the development that would occur under the Specific Plan.

As discussed in the Project Description for this EIR, the Specific Plan has incorporated these specific Sub Area improvements as part of the Specific Plan description. To ensure these improvements are made, Specific Plan Goal SP-UPS-5 requires that the Specific Plan Area’s stormwater drainage and capacity be managed, maintained and improved. Supporting this goal, Specific Plan Policy SP-UPS-5.2 requires upgrades to the storm drain pipes to be consistent with City standards. Specific Plan Policy SP-UPS-5.1 would require new pipes or easements to provide stormwater improvements to areas identified in the City’s SUSMP.

The generalized, programmatic-level analysis of the potential physical impacts associated with the construction of the necessary stormwater drainage improvements are analyzed throughout this EIR since the stormwater improvements are included in Chapter 3, Project Description. As specific im-
Improvements are designed, additional environmental review may be required, as is discussed in Chapter 1, Introduction of this EIR.

There may also be the need to construct improvements to the regional stormwater drainage system to support the stormwater demand of the Specific Plan at buildout. However, as this time, specific improvements have not been identified, so it would be speculative to attempt to analyze the improvements to the regional stormwater drainage system resulting from buildout of the Specific Plan Area. As a result, this EIR does not attempt to analyze the unknown improvements to the regional system. Future improvements will be subject to their own environmental review process, as required by CEQA.

b. Cumulative Impacts
The potential cumulative impacts associated with physical changes to the stormwater drainage system that would occur under the Specific Plan Area are discussed under each of the other sections of this EIR since the construction of the stormwater drainage system is analyzed as part of the overall Specific Plan.

The nature and timing of future stormwater drainage infrastructure improvements required to support future cumulative growth in the Santa Rosa area have not been identified. Without additional information about specific improvement programs, analysis of possible impacts in this EIR would be speculative. Continued stormwater drainage infrastructure planning efforts by the City of Santa Rosa will require environmental review pursuant to CEQA, which will identify any potential future physical impacts and appropriate mitigation measures.

5. Impacts and Mitigation Measures
Since no new significant impacts, other than those identified throughout the remainder of this EIR or can be identified with the non-speculative information available, were identified resulting from the implementation of the Spe-
specific Plan in regards to stormwater services, no mitigation measures are required.

D. Solid Waste

The following describes current conditions and potential impacts of the Specific Plan with regard to solid waste services in Specific Plan Area.

1. Regulatory Framework
   This section summarizes existing State and local regulations and policies that apply to solid waste services being analyzed in this section.

   a. California Integrated Waste Management Act
      California’s Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling and composting. To help achieve this, the Act requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.17

      California Solid Waste Reuse and Recycling Access Act requires areas to be set aside for collecting and loading recyclable materials in development projects. The Act required the California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials in development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects. The intent of the Act is to

---

require development projects to include advanced planning that focuses on solid waste issues at the beginning of a project and implement an adequate recycling program for the development project.

c. Local Regulations and Policies

i. Sonoma County Countywide Integrated Waste Management Plan (CoIWMB)
Direction for the County’s solid waste management system is provided by State law (AB 939 and subsequent legislation), the Sonoma County Waste Management Agency (SCWMA) and implementation regulations adopted by the California Integrated Waste Management Board. The CoIWMP regulations serve as the primary tool for satisfying the County’s solid waste management needs for the next 50 years in a manner that is cost-effective and is operated to follow the State of California’s solid waste management hierarchy. The hierarchy consists of waste prevention (source reduction), reuse, recycling, composting and disposal. Additionally, the solid waste management system for the County shall protect public health, safety and well being; preserve the environment; and provide for the maximum feasible conservation of natural resources and energy. The CoIWMP contains four elements, the Source Reduction and Recycling Element, Household Hazardous Waste Element, Siting Element and the Non-Disposal Facility Element.\(^\text{18}\)

ii. City of Santa Rosa 2020 General Plan
The goals and policies in the City of Santa Rosa General Plan address utility services provided by the City of Santa Rosa to residents and businesses. The following lists applicable General Plan goals and policies found in the Public Services and Facilities Element.

Goal PSF-H: Meet the City’s solid waste disposal needs, while maximizing opportunities for waste reduction and recycling.

♦ Policy PSF-H-1: Continue contracting for garbage and recycling collection services. Negotiate upgrade to a single-stream recycling program.

♦ Policy PSF-H-2: Work with Sonoma County to identify alternative to meet the need for solid waste disposal after 2014.

♦ Policy PSF-H-3: Expand recycling efforts in multifamily residential and commercial projects and continue to encourage recycling by all residents.

♦ Policy PSF-H-4: Require provision of attractive, convenient recycling bins and trash enclosures in residential and non-residential development.

2. Existing Conditions

The Specific Plan Area, as for the rest of Santa Rosa and Sonoma County, falls within the jurisdictional boundary of SCWMA, which is responsible for the implementation of regional waste diversion programs, as required by AB 939, in the following categories: Wood Waste, Yard Debris, Household Hazardous Waste, Education and Planning. The SCWMA is a Regional Agency organized under a Joint Powers Agreement to provide solid waste disposal for all nine incorporated cities and the unincorporated areas of Sonoma County.

Prior to June 2004, the SCWMA used the Central Landfill in Sonoma County for solid waste disposal. However, the RWQCB issued new Waste Discharge Requirements (#R1- 2004-0040) that prohibited construction of additional landfill capacity at the Central Landfill. Currently, the Central Landfill operates as a transfer station for solid waste.

Since then, the SCWMA has worked out contract agreements with four landfill sites in adjacent counties and has a contingency capacity agreement with a fifth landfill. As of October 2005, SCWMA has utilized the disposal services

19 Unless otherwise noted, information presented in this section, including the impact analysis, is a result of personal communication with Ken Well, Director, Sonoma County Waste Management Agency. December 4, 2006.
in these contracts to haul 100 percent of the Sonoma County’s solid waste. The SCWMA is responsible for transporting solid waste from transfer stations in Sonoma County to these landfills. The landfill sites utilized by the SCWMA are as follows:

- Keller Canyon Landfill – Pittsburg, CA
- Potrero Hills Landfill – Suisun, CA
- Redwood Landfill – Novato, CA
- Vasco Road Landfill – Livermore, CA
- Hay Road Landfill – Vacaville, CA (contingency site)

The SCWMA contract agreements with these landfills are structured to meet any foreseeable growth in Sonoma County through August 2010. Once the current contacts expire, the SCWMA will negotiate new contracts based on future capacity needs.

The North Bay Corporation (NBC) is the local solid waste service provider under contract with the City of Santa Rosa for the hauling of solid waste, yardwaste and recyclable materials. NBC is responsible for hauling solid waste to the Central Landfill for appropriate transfer. Greenwaste is hauled to the processing center adjacent to the Central Landfill operated by County contractor, Sonoma Compost. Recyclable materials are processed by NBC at the Materials Recovery Facility just outside of the Santa Rosa City Limit. Table 4.13-4 details amount of waste hauled by NBC for the period of October 1, 2005 through September 30, 2006.20

3. Standards of Significance

The Specific Plan would have a significant impact with regard to solid waste services if it would:

i. Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.

---

20 E-mail communication with Pamela Davis, North Bay Corporation. October 6, 2006.
### TABLE 4.13-3  
**City of Santa Rosa Waste Hauled from October 2005 to September 2006 (in tonnage)**

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Yearly Tonnage Hauled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Waste</td>
<td>73,562</td>
</tr>
<tr>
<td>Recyclable Waste</td>
<td>33,730</td>
</tr>
<tr>
<td>Greenwaste</td>
<td>23,190</td>
</tr>
</tbody>
</table>

**ii. Conflict with federal, state, and local statutes and regulations related to solid waste.**

### 4. Impact Discussion

This section discusses the impacts of the Specific Plan on solid waste services for the Specific Plan Area. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

**a. Project Impacts**

**i. Served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.**

Implementation of the Specific Plan would result in an increased production of solid waste generated by construction and development activities as well as residential occupancy and business/retail operations. Based on the 2006 population of 157,145 residents, Santa Rosa produces 0.468 tons of solid waste per capita each year. Development of the Specific Plan would result in an increase of roughly 8,125 new residents, assuming the average household size of 2.5 anticipated for Santa Rosa in 2020. Therefore, buildout of the Specific Plan it is anticipated to contribute an additional 3,800 tons of solid waste.

---

per capita each year. However, the increase in solid waste would be reduced through current and expanded waste recycling efforts and would not exceed the disposal capacity limits of SCWMA.

Under the City of Santa Rosa General Plan, Policies PSF-H-3 and PSF-H-4 have established and actively encourage residential and non-residential recycling programs. Specific Plan Policy SP-UPS-4.1 extends on these policies by expanding on the recycling efforts for multi-family and commercial projects within the Specific Plan Area. Additionally, the California Solid Waste Reuse and Recycling Access ordinance requires areas to be set aside for collecting and loading recyclable materials in development projects. This ordinance is further supported by Specific Plan Policy SP-UPS-4.2, which requires that new and redevelopment projects must comply with Santa Rosa’s Construction and Demolition Debris Franchise Agreement and prepare and implement recycling plans for their construction phase. This recycling plan will address the major materials generated by a construction project and will identify the means to divert these materials away from landfill disposal. These efforts allow the City to meet the AB 939 diversion requirements and Chapter 22 of the County Code (Section 22-7A) which, explicitly bans the disposal at County disposal sites of yard debris, recyclable wood waste, scrap metal and corrugated cardboard.

According to the current disposal contracts established by the SCWMA, there is adequate capacity to meet both short and longer term needs for solid waste disposal generated from the development of the Specific Plan. As part of the SCWMA’s mandate, compliance with the policies mentioned above, ensures that disposal capacity will be accommodate through current capacity agreements or use of the contingency capacity agreement.

Taken together, the Specific Plan would result in a less-than-significant impact in regards to solid waste capacity and disposal.
ii. Conflict with federal, state, and local statutes and regulations related to solid waste.

As mentioned above, development allowed under the Specific Plan would be required to comply with applicable local, regional and State solid waste regulations and policies. Therefore, the Specific Plan results in a less-than-significant impact.

b. Cumulative Impacts

Development within Sonoma County has the potential to result in a cumulative impact related to solid waste service and disposal. However, the 2002 General Plan EIR identified that with the policies included in the General Plan that the potential for development under the General Plan to result in a cumulative impact related to solid waste service and disposal would be reduced to a less-than-significant level with the included General Plan policies.

All of the reasonably foreseeable development in the Specific Plan Area is in keeping with the overall intent of the General Plan and is subject to General Plan policies. The Specific Plan policies regarding solid waste service and disposal are designed to guarantee the City works with the SCWMA to ensure adequate solid waste disposal capacity is built in and accounted for in future planning efforts. Thus, the Specific Plan would not contribute to a significant cumulative impact related to wastewater services.

5. Impacts and Mitigation Measures

Since no significant impacts were identified resulting from the implementation of the Specific Plan in regards to solid waste capacity or disposal, no mitigation measures are required.
5 Alternatives to the Proposed Project

The Specific Plan has been described and analyzed in the previous sections to determine the potential impact of the Specific Plan on various environmental issues. The State CEQA Guidelines also require the description and comparative analysis of a range of reasonable alternatives to the proposed project that could feasibly attain the objectives of the project.

The following discussion is intended to inform the public and decision-makers of project alternatives that have been developed and the positive and negative aspects of those alternatives. In accordance with the CEQA Guidelines and procedures, three project alternatives, including the No Project Alternative are discussed below. CEQA Guidelines also require that the environmentally superior alternative be identified. This information is included at the end of this chapter. The three alternatives are:

- No Project Alternative (Existing General Plan Buildout)
- Reduced Growth Alternative
- Reallocated Growth Alternative

Table 5-1 summarizes the key features of each alternative, while Table 5-2 summarizes the result of analyzing each alternative against the environmental issues considered for the proposed Specific Plan, assessing whether it would have a mitigating or adverse effect.

During development of the Specific Plan, the planning process included the design of three alternatives, which are described in the Downtown Station Area Specific Plan Land Use and Circulation Alternatives Report. All of these alternatives assumed the same level of development, but changed the focus of where the development would occur. The alternatives included one that focused growth along Santa Rosa Creek, another that focused growth along Third Street, and the final alternative that focused growth along the SMART rail line. Based on input provided by the community on the three alternatives, the final preferred alternative was developed.
### Table 5-1 Project Alternatives Summary at Buildout

<table>
<thead>
<tr>
<th>Alternative Features</th>
<th>Specific Plan</th>
<th>No Project Alternative</th>
<th>Reduced Growth Alternative</th>
<th>Reallocated Growth Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Detached (units)</td>
<td>775</td>
<td>775</td>
<td>775</td>
<td>775</td>
</tr>
<tr>
<td>Residential Attached (units)</td>
<td>4,444</td>
<td>2,095</td>
<td>3,270</td>
<td>4,444</td>
</tr>
<tr>
<td>Senior Housing</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Commercial/Retail (square feet)</td>
<td>2,430,000</td>
<td>2,422,856</td>
<td>2,430,000</td>
<td>2,430,000</td>
</tr>
<tr>
<td>Office (square feet)</td>
<td>1,350,000</td>
<td>1,711,959</td>
<td>1,350,000</td>
<td>1,350,000</td>
</tr>
<tr>
<td>Public/Institutional (square feet)</td>
<td>640,000</td>
<td>536,827</td>
<td>640,000</td>
<td>640,000</td>
</tr>
<tr>
<td>Heavy Industrial (square feet)</td>
<td>0</td>
<td>5,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Light Industrial (square feet)</td>
<td>20,000</td>
<td>379,641</td>
<td>150,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>

No off-site alternatives were identified during the Specific Plan development stage, nor are any included in this EIR since the Specific Plan is targeted towards development within Downtown Santa Rosa and along the SMART rail line. As a result, there are no other sites within the City that would be able to meet the objectives of the Specific Plan.
### Table 5-2  **Comparison of Project Alternatives**

<table>
<thead>
<tr>
<th>Impact Factor</th>
<th>No Project Alternative</th>
<th>Reduced Growth Alternative</th>
<th>Reallocated Growth Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air Quality</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hazards and Hazardous</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>=</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Land Use</td>
<td>-</td>
<td>=</td>
<td>-</td>
</tr>
<tr>
<td>Noise</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>+</td>
<td>=</td>
<td>-</td>
</tr>
<tr>
<td>Public Services and Recreation</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Traffic and Circulation</td>
<td>-</td>
<td>=</td>
<td>-</td>
</tr>
<tr>
<td>Utilities and Infrastructure</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

++ Substantial improvement compared to the proposed project (avoids a significant and unavoidable impact)
+	Insubstantial improvement compared to the proposed project (improvement, but does not avoid a significant and unavoidable impact)
= Same impact as proposed project.
- Insubstantial deterioration compared to the proposed project (deterioration, but does not create a new significant impact)
-- Substantial deterioration compared to the proposed project (creates a new significant impact)

**Note:** Competing aspects within some factors would create both improvement and deterioration simultaneously for a single alternative. These trade-offs are discussed in the text.
A. No Project Alternative

This section analyzes the No Project Alternative against the proposed Specific Plan.

1. Principal Characteristics

The No Project Alternative would result in the Specific Plan developing as currently allowed under the 2002 General Plan, as shown in Figure 4.8-1, in the Land Use section of this EIR. The major difference between the No Project Alternative and the Specific Plan is that there would be fewer attached units developed within the Specific Plan Area, especially within the Courthouse Square, Railroad Square and Railroad Corridor Sub-Areas. In exchange, there would be more retail and office uses, and significantly more industrial uses developed. In addition, all of the Imwalle Gardens Sub-Area would be developed with residential uses. It is assumed that this alternative would be subject to all the mitigation measures identified in this EIR since they address environmental issues that would need to be addressed for most development occurring in the area.

2. Impact Analysis

This section describes the potential environmental impacts from the No Project Alternative for each of the environmental factors considered in Chapter 4 of this EIR.

a. Aesthetics

The Specific Plan would result in changes to the visual character of the Specific Plan Area that would be reduced to a less than significant level by policies contained in the Specific Plan and General Plan, and mitigation included in this EIR. The No Project Alternative would result in a similar change to the visual character of the area since it would result in the development of the entire Specific Plan Area. The No Project Alternative would also develop all of the Imwalle Gardens Sub-Area, which would remove the last remaining large open space area within the Specific Plan Area; however, this would not be considered a significant impact since there are limited views of the prop-
property from most of the Specific Plan Area. In addition, the No Project Alternative would not be subject to the new Specific Plan design guidelines that would help improve the visual character of the existing urban downtown core area. As a result, the No Project Alternative would result in an insubstantially worse aesthetics impact than the Specific Plan.

b. Air Quality
The Specific Plan would result in significant and unavoidable impacts related to vehicular and operational emissions, especially ROG and PM_{10}, which would exceed allowable thresholds. The No Project Alternative would result in fewer vehicular trips, which would reduce the amount of air pollutants generated, although this alternative would still generate substantial amounts of emissions. As a result, the No Project Alternative would result in an insubstantial improvement over the Specific Plan with regards to air quality impacts.

c. Biological Resources
The Specific Plan would have impacts on the Santa Rosa Creek, sensitive species, riparian vegetation and potential nesting and nursery. These impacts would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The No Project Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. Development under the No Project Alternative would still need to comply with existing policies and regulations concerning the protection of biological resources. As a result, the No Project Alternative would have a similar biological impact as the Specific Plan.

d. Cultural Resources
The Specific Plan would have potential impacts on cultural resources that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The No Project Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. Development under the No Project Alternative would still need to comply with existing policies and regulations
concerning the preservation and protection of cultural resources. As a result, the No Project Alternative and the Specific Plan would have a similar impact on cultural resources.

e. Geology and Soils
The Specific Plan would have potential impacts related to seismic hazards, and erosive and expansive soils that would be reduced to less than significant level through policies contained in the Specific Plan and existing policies and regulations. The No Project Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area, and while there would be a different mixture of urban development, it would still be within the same geographic area. Development under the No Project Alternative would still need to comply with existing policies and regulations concerning geologic hazards. As a result, the No Project Alternative and the Specific Plan would have a similar geologic and soils-related impact.

f. Hazards and Hazardous Materials
The Specific Plan would result in potential impacts related to an accidental release or discharge of hazardous materials, human or environmental exposure to contamination and interference with an emergency access or evacuation plan. These impacts would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The No Project Alternative would result in a greater risk related to hazards and hazardous materials than the Specific Plan since there would be a greater amount of industrial uses developed under this alternative and industrial uses generally utilize a higher volume of hazardous materials compared with residential uses. However, development under the No Project Alternative would still need to comply with existing policies and regulations. As a result, the No Project Alternative would have an insubstantially worse impact related to hazards and hazardous material than the Specific Plan.

g. Hydrology and Water Quality
The Specific Plan would have potential impacts related to groundwater, water quality and run-off, erosion and siltation, and flooding that would be reduced
to a less than significant level through policies contained in the Specific Plan and existing policies and regulations. The No Project Alternative would have similar potential impacts since it would result in the development of the entire Specific Plan Area, and while there would be a different mixture of urban development, it would still convert the majority of the Specific Plan Area into urban uses. In addition, under the No Project Alternative the entire Imwalle Gardens Sub-Area would develop, which would increase the amount of impervious surface. However, since the No Project Alternative would result in a 6.5 percent reduction in water demand, the No Project Alternative would have less of an impact to the groundwater aquifer. While the General Plan does not include all of the policies contained in the Specific Plan, development under the No Project Alternative would still need to comply with existing policies and regulations. As a result, the No Project Alternative would result in a similar impact since it would include development of the entire Imwalle Gardens Sub-Area, but would reduce the demand for groundwater.

h. Land Use
The Specific Plan would result in potential impacts related to consistency with adopted land use plans (i.e. the General Plan) and conversion of agricultural lands. However, these impacts would be reduced to a less than significant level through policies contained in the Specific Plan and since the Specific Plan is consistent with the intent of the adopted General Plan. The No Project Alternative would not require a General Plan Amendment since the No Project Alternative is the adopted General Plan. Under the No Project Alternative, the entire Imwalle Gardens Sub-Area would develop, which would result in the loss of more agricultural lands than under the Specific Plan. However, this would not result in a significant and unavoidable impact since the Imwalle Gardens Sub-Area is a small, agricultural operation completely surrounded by urban development. In addition, the land within the Imwalle Gardens Sub-Area not considered to be significant farmland with long term viability. As a result, the No Project Alternative would be considered insubstantially worse than the Specific Plan.
i. Noise
The Specific Plan would result in potential impacts related to construction, traffic and operational-related noise from new development, exposure of new development to noise from existing uses and the SMART rail line, and vibration from construction and railroad operation. These impacts would be reduced to a less than significant level through mitigation contained in this EIR and policies contained in the General Plan. The No Project Alternative would be subject to mitigation contained in this EIR to address the concerns of noise and vibration related to the SMART rail line. The No Project Alternative would have less of a potential impact related to vehicular noise since it would result in fewer vehicle trips, though it would not avoid a significant impact. As a result, the No Project Alternative would result in an insubstantial improvement related to noise compared to the Specific Plan.

j. Population and Housing
The Specific Plan would have potential impacts related potential growth inducement and displacement of people and housing units that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan. The No Project Alternative would result in fewer housing units and more employment opportunities than the Specific Plan, which would be consistent with the current growth projections for the Specific Plan Area. As a result, the No Project Alternative would result in an insubstantial improvement compared with the Specific Plan.

k. Public Services and Recreation
The Specific Plan would not create a demand for public facilities that could not be supported by already planned facility improvements, or by facilities identified in the Specific Plan. In addition, the Specific Plan identifies additional park and recreational opportunities to serve the increased population. The No Project Alternative would result in less of a potential impact since it would generate less of a demand for public services and recreational facilities. As a result, the No Project Alternative would result in an insubstantial improvement related to public services and recreation in comparison to the Specific Plan.
1. Traffic and Circulation
The Specific Plan would result in potential impacts related to increased vehicular trips and parking demand. In the case of the future operations of Highway 101, the Specific Plan would result in a significant, unavoidable impact to the roadway. The No Project Alternative would have less of an potential impact since it would result in approximately 5 to 7 percent fewer trips, though it would not avoid the significant impact to Highway 101. However, the No Project Alternative would result in fewer housing units, which would reduce the number of people that would choose to walk and bike within the Specific Plan Area. The No Project Alternative would also not include the various policies and design guidelines from the Specific Plan that would encourage alternative modes of transportation. As a result, the No Project Alternative would result in an insubstantially worse traffic related impact compared to the Specific Plan.

m. Utilities and Infrastructure
The Specific Plan would not create a demand for utilities that could not be supported by already planned facility improvements, by facilities identified in the Specific Plan, or through implementation of the policies contained in the Specific Plan. However, with fewer residential units, the No Project Alternative would result in less of a potential impact since it would generate less of a demand for most utilities. For example, at buildout, the No Project Alternative would result in approximately 6.5 percent less demand for water. The demand for stormwater drainage would be similar since the No Project Alternative would result in a similar amount of the Specific Plan Area being developed with impervious surfaces. As a result, the No Project Alternative would result in an insubstantial improvement related to utilities in comparison to the Specific Plan.

3. Ability to Meet Project Objectives
The No Project Alternative would not meet any of the project objectives since it would not result in any change to the City’s current policy for the Specific Plan Area that would help focus development around the SMART transit station and downtown area.
4. Reasons for Not Selecting This Alternative
This alternative was not selected since it would not achieve any of the project objectives.

B. Reduced Growth Alternative
This section analyzes the Reduced Growth Alternative against the proposed Specific Plan.

1. Principal Characteristics
The Reduced Growth Alternative would decrease the amount of attached residential units that would be developed, to a mid-point between what would occur under the Specific Plan and under the No Project Alternative (existing General Plan). In addition, the amount of light industrial uses would be increased from the Specific Plan to replace some of the lost residential units; however, the amount of industrial uses would still be less than what would occur under the No Project Alternative. As a result, the majority of development change would occur within the Railroad Corridor and the Courthouse Square Sub-Areas. The portion of Imwalle Gardens that is designated for agricultural use in the Specific Plan would remain designated for agriculture. The goals, policies, and guidelines included in the Specific Plan would still apply, as would the mitigation measures included in this EIR.

2. Impact Analysis
This section describes the potential environmental impacts from the Reduced Growth Alternative for each of the environmental factors considered in Chapter 4 of this EIR.

a. Aesthetics
The Specific Plan would result in changes to the visual character of the Specific Plan Area that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan and mitigation contained in this EIR. The Reduced Growth Alternative would have the same
potential impact since it would result in similar types of development within the Specific Plan Area. The Reduced Growth Alternative would be subject to the same policies, regulations and mitigation as the Specific Plan. As a result, the Reduced Growth Alternative would have a similar aesthetics impact as the Specific Plan.

b. Air Quality
The Specific Plan would result in significant and unavoidable impacts related to vehicular and operational emissions, especially ROG and PM10, that would exceed allowable thresholds. The Reduced Growth Alternative would result in fewer vehicular trips, which would reduce the amount of air pollutants generated, although the alternative would still generate substantial amounts of emissions. As a result, the Reduced Growth Alternative would result in an insubstantial improvement over the Specific Plan with regards to air quality impacts.

c. Biological Resources
The Specific Plan would have impacts on the Santa Rosa Creek, sensitive species, riparian vegetation and potential nesting and nursery sites. The impacts would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reduced Growth Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. The Reduced Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reduced Growth Alternative would have a similar biological impact as the Specific Plan.

d. Cultural Resources
The Specific Plan would have potential impacts on cultural resources that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reduced Growth Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. The Reduced Growth Alternative would be subject to the same mitigation, policies and regulations as the
Specific Plan. As a result, the Reduced Growth Alternative would have a similar cultural resources impact as the Specific Plan.

e. Geology and Soils
The Specific Plan would have potential impacts related to seismic hazards, and erosive and expansive soils that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reduced Growth Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area, and while there would be a different mixture of urban development, it would still be within the same geographic area. The Reduced Growth Alternative would be subject to the same mitigation, policies, and regulations as the Specific Plan. As a result, the Reduced Growth Alternative would have a similar geologic and soils-related impact as the Specific Plan.

f. Hazards and Hazardous Materials
The Specific Plan would result in potential impacts related to an accidental release or discharge of hazardous materials, human or environmental exposure to contamination and interference with an emergency access or evacuation plan that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reduced Growth Alternative would result in a greater risk related to hazards and hazardous materials than the Specific Plan since there would be a greater amount of industrial uses developed under this alternative and industrial uses utilize a greater amount of hazardous materials compared with residential uses. However, development under the Reduced Growth Alternative would still need to comply with mitigation contained in this EIR, as well as existing policies and regulations. As a result, the Reduced Growth Alternative would have an insubstantially worse impact related to hazards and hazardous material than the Specific Plan.

g. Hydrology and Water Quality
The Specific Plan would have potential impacts related to groundwater, water quality and run-off, erosion and siltation, and flooding that would be reduced
to a less than significant level through policies contained in the Specific Plan and existing policies and regulations. The Reduced Growth Alternative would have a similar potential impact since it would result in the development of the entire Specific Plan Area, and while there would be a different mixture of urban development, it would still result in the majority of the Specific Plan Area developing into urban uses. However, since the Reduced Growth Alternative would result in a 5.7 percent reduction in water demand, the Reduced Growth Alternative would have less of an impact to the groundwater aquifer. As a result, the Reduced Growth Alternative would result in an insubstantial improvement related to hydrology and water quality.

h. Land Use
The Specific Plan would result in potential impacts related to consistency with adopted land use plans (i.e. the General Plan) and conversion of agricultural lands that would be reduced to a less than significant level through policies contained in the Specific Plan and since the Specific Plan is consistent with the intent of the adopted General Plan. The Reduced Growth Alternative would have a similar potential land use-related impact since it would result in the development of the entire Specific Plan Area with the same extent of development as the Specific Plan. As a result, the Reduced Growth Alternative would result in a similar land use impact.

i. Noise
The Specific Plan would result in potential impacts related to construction, traffic and operational-related noise from new development, exposure of new development to noise from existing uses and the SMART rail line, and vibration from construction and railroad operation that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan. The Reduced Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. The Reduced Growth Alternative would have less of a potential impact since it would result in fewer vehicle trips, thereby reducing vehicular-generated noise; however, since the Specific Plan would not result in a significant impact related to vehicular noise, the Reduced Growth Alternative would not avoid a signifi-
cant impact. As a result, the Reduced Growth Alternative would result in an insubstantial improvement related to noise compared to the Specific Plan.

j. Population and Housing
The Specific Plan would have potential impacts related to potential growth inducement and displacement of people and housing units that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan. The Reduced Growth Alternative would result in fewer housing units and more employment opportunities than the Specific Plan, which would be more consistent with the current growth projections for the Specific Plan Area. However, the alternative would result in development that did not work quite as well to meet some General Plan policies, especially those focusing on providing a range of affordable housing opportunities and housing within the downtown core. As a result, the Reduced Growth Alternative would balance out to be similar to the Specific Plan.

k. Public Services and Recreation
The Specific Plan would not create a demand for most public facilities that could not be supported by already planned facility improvements. In addition, the Specific Plan identifies additional park and recreational opportunities to serve the increased population. The Reduced Growth Alternative would have a similar potential impact since it would generate less of a demand for public services and recreational facilities, so would not exceed the capacity already planned. The Reduced Growth Alternative would have less of a potential impact since it would generate less of a demand for public services and recreational facilities. As a result, the Reduced Growth Alternative would result in an insubstantially improvement related to public services and recreation than the Specific Plan.

l. Traffic and Circulation
The Specific Plan would result in potential impacts related to increased vehicular trips and parking demand. In the case of the future operations of Highway 101, the Specific Plan would result in a significant, unavoidable impact to the roadway. The Reduced Growth Alternative would have less of an
potential impact since it would result in approximately 4 to 6 percent fewer trips, though it would not avoid the significant impact to Highway 101. However, the Reduced Growth Alternative would result in fewer housing units, which would reduce the number of people that would choose to walk and bike around the Specific Plan Area. As a result, the Reduced Growth Alternative would result in a similar traffic related impact as the Specific Plan.

m. Utilities and Infrastructure
The Specific Plan would not create a demand for utilities that could not be supported by already planned facility improvements, by facilities identified in the Specific Plan, or through implementation of the policies contained in the Specific Plan. However, with fewer residential units, the Reduced Growth Alternative would result in less of a potential impact since it would generate less of a demand for most utilities. For example, at buildout, the Reduced Growth Alternative would result in approximately 5.7 percent less demand for water. The demand for stormwater drainage would be similar since the Reduced Growth Alternative would result in a similar amount of the Specific Plan Area being developed with impervious surfaces. As a result, the Reduced Growth Alternative would result in an insubstantial improvement related to utilities in comparison to the Specific Plan.

3. Ability to Meet Project Objectives
The Reduced Growth Alternative would reduce some of the impacts related to the Specific Plan and meets the project objectives since it would increase the density of residential uses around the SMART station and it would contain the Specific Plan policies and guidelines. However, it would not go as far as the Specific Plan to achieve the project objectives of creating an environment that supports successful transit and alternative modes of transportation since it would not create the density associated with transit-conducive downtown cores.

4. Reasons for Not Selecting This Alternative
While this alternative does achieve the project objectives, it would not be as successful as the Specific Plan for the above reasons. As a result, since this
alternative does not avoid any significant impacts associated with the Specific Plan, it would not make sense to adopt an alternative that was less successful than the Specific Plan.

C. Reallocated Growth Alternative

This section analyzes the Reallocated Growth Alternative against the proposed Specific Plan.

1. Principal Characteristics

The Reallocated Growth Alternative would result in the same level of development anticipated under the Specific Plan, but would address some concerns from the community about new development adjacent to existing residential communities. In order to minimize the amount of density increases adjacent to the Residential Historic Sub-Areas, some of the attached residential units along the edges of the Railroad Corridor, Railroad Square and Courthouse Square Sub-Areas would be reallocated to the Imwalle Gardens site and the agricultural designation would be deleted. The Specific Plan would also be designed to focus more of the residential units into the core of the Courthouse Square Sub-Area. The goals, policies, and guidelines included in the Specific Plan would still apply, as would the mitigation measures included in this EIR.

2. Impact Analysis

This section describes the potential environmental impacts from the Reallocated Growth Alternative for each of the environmental factors considered in Chapter 4 of this EIR.

a. Aesthetics

The Specific Plan would result in changes to the visual character of the Specific Plan Area that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan and mitigation included in this EIR. The Reallocated Growth Alternative would have a similar
potential impact since it would result in similar types of development within the Specific Plan Area. However, the Reduced Growth Alternative would also develop all of the Imwalle Gardens Sub-Area, which would remove the last remaining large open space area within the Specific Plan Area, though it would not be considered a significant impact since there are limited views of the property from most of the Specific Plan Area. The Reduced Growth Alternative would be subject to the same policies, regulations and mitigation as the Specific Plan. As a result, the Reduced Growth Alternative would result in an insubstantially degraded aesthetics impact compared with the Specific Plan.

b. Air Quality
The Specific Plan would result in significant and unavoidable impacts related to vehicular and operational emissions, especially ROG and PM_{10}, that would exceed allowable thresholds. The Reallocated Growth Alternative would result in similar vehicular trips, and therefore, a similar level of emissions of air pollutants. As a result, the Reallocated Growth Alternative would result in a similar air quality impact as the Specific Plan.

c. Biological Resources
The Specific Plan would have impacts on Santa Rosa Creek, sensitive species, riparian vegetation and potential nesting and nursery sites that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reallocated Growth Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. The Reallocated Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar biological impact as the Specific Plan.

d. Cultural Resources
The Specific Plan would have potential impacts on cultural resources that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reallocated Growth
Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. The Reallocated Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar cultural resources impact as the Specific Plan.

e. Geology and Soils
The Specific Plan would have potential impacts related to seismic hazards, and erosive and expansive soils that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reallocated Growth Alternative would have the same potential impact since it would result in the development of the entire Specific Plan Area. While there would be a different organization of urban development, it would still be within the same geographic area. The Reallocated Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar geologic and soils-related impact as the Specific Plan.

f. Hazards and Hazardous Materials
The Specific Plan would result in potential impacts related to an accidental release or discharge of hazardous materials, human or environmental exposure to contamination and interference with an emergency access or evacuation plan that would be reduced to a less than significant level through mitigation contained in this EIR and existing policies and regulations. The Reallocated Growth Alternative would have the same potential impact since it would result in the same type and amount of development as the Specific Plan Area within the same geographic area. The Reallocated Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar impact related to hazards and hazardous materials as the Specific Plan.

g. Hydrology and Water Quality
The Specific Plan would have potential impacts related to groundwater, water quality and run-off, erosion and siltation, and flooding that would be reduced
to a less than significant level through policies contained in the Specific Plan and existing policies and regulations. The Reallocated Growth Alternative would have a similar potential impact since it would result in the development of the entire Specific Plan Area with the same amount of development as the Specific Plan and would generate the same demand for water. In addition, under the Reallocated Growth Alternative the entire Imwalle Gardens Sub-Area would develop, which would increase the amount of impervious surface. As a result, the Reallocated Growth Alternative would result in an insubstantially worse impact since it would include development of the entire Imwalle Gardens Sub-Area.

h. Land Use
The Specific Plan would result in potential impacts related to consistency with the 2002 General Plan and conversion of agricultural lands that would be reduced to a less than significant level through policies contained in the Specific Plan and since the Specific Plan is consistent with the intent of the adopted General Plan. The Reallocated Growth Alternative would have a similar potential land use-related impact since it would result in the development of the entire Specific Plan Area with the same amount of development as the Specific Plan. However, under the Reallocated Growth Alternative, the entire Imwalle Gardens Sub-Area would develop, which would result in loss of more agricultural lands than under the Specific Plan. However, this would not result in a significant, unavoidable impact since the Imwalle Gardens Sub-Area is a small, agricultural operation completely surrounded by urban development, and is not considered to be significant farmland with long-term viability. As a result, the Reallocated Growth Alternative would be considered insubstantially worse than the Specific Plan.

i. Noise
The Specific Plan would result in potential impacts related to construction, traffic and operational-related noise from new development, exposure of new development to noise from existing uses and the SMART rail line, and vibration from construction and railroad operation that would be reduced to a less than significant level through mitigation contained in this EIR and General
Plan policies. The Reallocated Growth Alternative would have the same potential impact since it would result in the same type and amount of development as the Specific Plan Area within the same geographic area. The Reallocated Growth Alternative would be subject to the same mitigation, policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar impact related to noise as the Specific Plan.

j. Population and Housing
The Specific Plan would have potential impacts related to potential growth inducement and displacement of people and housing units that would be reduced to a less than significant level through policies contained in the Specific Plan and General Plan. The Reallocated Growth Alternative would have a similar potential impact since it would result in the development of the entire Specific Plan Area, and while there would be a different organization of urban development, it would still result in a similar mix of development. However, since the Reallocated Growth Alternative would be somewhat less centralized than the Specific Plan, the alternative would result in development that would not achieve some General Plan policies as well as the Specific Plan. As a result, the Reallocated Growth Alternative would be considered insubstantially worse than the Specific Plan.

k. Public Services and Recreation
The Specific Plan would not create a demand for most public facilities that could not be supported by already planned facility improvements. In addition, the Specific Plan identifies additional park and recreational opportunities to serve the increased population. The Reallocated Growth Alternative would have the same potential impact since it would result in the same amount of development and generate the same demand for public services and recreational facilities. The Reallocated Growth Alternative would be subject to the same policies and regulations as the Specific Plan. As a result, the Reallocated Growth Alternative would have a similar impact related to public services and recreation as the Specific Plan.
1. Traffic and Circulation
The Specific Plan would result in potential impacts related to increased vehicular trips and parking demand. In the case of the future operations of Highway 101, the Specific Plan would result in a significant, unavoidable impact to the roadway. The Reallocated Growth Alternative would have the same potential impact since it would result in the same type and amount of development as the Specific Plan Area within the same geographic area. In addition, the Reallocated Growth Alternative would be subject to the same policies and regulations as the Specific Plan. However, the Reallocated Growth Alternative would spread development out further, which would reduce some of the incentives for people to walk and bicycle around the Specific Plan Area. As a result, the Reallocated Growth Alternative would have an insubstantially worse impact related to traffic than the Specific Plan.

m. Utilities and Infrastructure
The Specific Plan would not create a demand for utilities that could not be supported by already planned facility improvements, by facilities identified in the Specific Plan, or through implementation of the policies contained in the Specific Plan. The Reallocated Growth Alternative would result in the same potential impact since it would generate the same demand for utilities as it will result in the same amount of development. As a result, the Reallocated Growth Alternative would result in the same impact related to utilities in comparison to the Specific Plan.

3. Ability to Meet Project Objectives
The Reallocated Growth Alternative would meet all of the project objectives. However, it would not be as successful as the Specific Plan in achieving the project objectives to create an environment that supports the success of transit and alternative modes of transportation since it would distribute residential density further away from the downtown core and SMART station.

4. Reasons for Not Selecting This Alternative
While this alternative does achieve the project objectives, it would not be as successful as the Specific Plan for the above reasons. As a result, since this
alternative does not avoid any significant impacts associated with the Specific Plan, it would not make sense to adopt an alternative that was less successful than the Specific Plan.

D. Environmentally-Superior Alternative

CEQA Guidelines require that the environmentally-superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then this document must also designate the next most environmentally-preferable alternative. In this case, the Reduced Growth Alternative would be the preferable alternative when considering all of the various aspects.
As required by CEQA, this chapter provides an overview of the impacts of
the proposed project based on the technical analyses presented in Chapters 4
and 5. The topics covered in this chapter include growth inducement, un-
avoidable significant impacts, significant irreversible changes, and impacts not
found to be significant. A more detailed analysis of the effects the project
would have on the environment is provided in Chapter 4.

A. Growth Inducement

A project is considered to be growth-inducement if it fosters, directly or indi-
drectly, economic or population growth beyond the boundaries of the project
site. Typical growth inducements might be the extension of urban services or
transportation infrastructure to a previously unserved or under-served area or
the removal of major boundaries to development. According to CEQA
Guidelines, Section 15126.2, this discussion of growth inducement is not in-
tended to characterize growth as necessarily beneficial, detrimental, or of lit-
tle significance to the environment.

The Specific Plan would permit a mix of residential, retail, office and civic
uses through development or redevelopment in the Specific Plan Area. As
discussed in detail in Chapter 4.10, Population and Housing, implementation
of the Specific Plan would add 3,250 residential units over the life span of the
Specific Plan. Additionally, the Specific Plan would add close to 300,000
square feet of commercial/retail space, just over 56,000 square feet of office
space and about 141,000 square feet of public/institutional space, while de-
creasing about 8,600 square feet of heavy industrial space and just over
691,000 square feet of light industrial space.

Overall, the Specific Plan’s projected build out would exceed the amount of
growth that would occur under the existing General Plan for the Specific Plan
Area. However, the overall rate of residential growth in the Specific Plan
Area will continue to be controlled by the City’s Growth Management Or-
dinance. Additionally, the Specific Plan is designed to help the City of Santa
Rosa control and direct growth away from green field development and focus on brown field and redevelopment opportunities. Specifically, the Specific Plan encourages the City to utilize its vacant and underutilize parcels more efficiently while encouraging higher density uses in appropriate areas of the City. Implementation of the Specific Plan would therefore absorb some growth expected in outlying areas of the City. By focusing growth within the Urban Growth Boundary, the Specific Plan works toward the City’s goal to prevent urban sprawl by while meeting the housing needs of a range of Santa Rosa residents.

B. Unavoidable Significant Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. As described in Chapter 4, most of the potential impacts from the Specific Plan would be either less than significant due to the inclusion of “self-mitigation” policies in the document itself or could be mitigated to less than significant levels by the implementation of mitigation measures. Significant unavoidable impacts for the Specific Plan were identified in the following areas:

♦ Impact AQ-2: The Downtown Station Area Specific Plan would contribute to increased vehicular and residential area emissions that would exceed BAAQMD thresholds.

♦ Impact TRANS-1: Buildout of the Specific Plan in the future would exacerbate unacceptable LOS F traffic conditions in both directions on Highway 101, and unacceptable LOS E conditions on westbound State Highway 12.

C. Significant Irreversible Changes

Section 15126.2c of the CEQA Guidelines requires a discussion of the extent to which a proposed project will commit nonrenewable resources to uses that
future generations will probably be unable to reverse. A project would generally result in a significant irreversible impact if:

♦ Primary and secondary impacts would commit future generations to similar land uses.

♦ The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

♦ The project would involve a large commitment of nonrenewable resources.

These distinct categories of irreversible changes that should be considered are further detailed below.

1. Changes in Land Use which Commit Future Generations

The Specific Plan would commit future generations to more intense development within the Specific Plan Area. It is unlikely to be economically feasible or desirable to change the Specific Plan Area in the future to a significantly different land use or convert back to non-urban uses, although some proposed mixed-use structures could presumably be converted to other uses more easily than single-use structures such as single-family homes. However, this is not considered to be a significant adverse impact, since the Specific Plan Area is already mainly developed with urban uses and is foreseen to continue as a heavily urbanized part of town with significant residential and commercial activity with or without the Specific Plan.

a. Irreversible Damage from Environmental Accidents

Implementation of the Specific Plan would not involve the use or transport of unusual hazardous materials. Thus, no significant environmental damage, such as the accidental spill or explosion of hazardous material, is anticipated as a result of development of the Specific Plan.

b. Consumption of Natural Resources

Consumption of nonrenewable resources includes issues related to increased energy consumption, conservation of agricultural lands, and lost access to
mining reserves. The Specific Plan will require additional electric and gas service, and it will require resources for construction. It is anticipated that these additional services will create an impact to the service providers, including the need for additional staff or facilities. However, the Specific Plan includes policies that address the need to make improvements to the infrastructure system. In many cases, the new structures will also be more energy conserving than the older structures that they replace since new development will need to comply with city and State regulations, such as Title 24, that require new development to incorporate energy conserving features. Additionally, the great majority of the property is not agricultural land, nor does it provide access to a mining reserve, so it would not preclude access to any natural resources.

**D. Impacts Found Not to Be Significant**

CEQA allows environmental issues for which there is no likelihood of an impact to be “scoped out” during the EIR scoping process and not covered in an EIR. No topics were “scoped out” to be excluded in this EIR.
This report was prepared by:

Design, Community & Environment (DC&E)
EIR Preparation and Management; Project Description, Aesthetics, Land Use, Population and Housing, Public Services and Recreation, Utilities and Infrastructure.
1625 Shattuck Avenue, Suite 300
Berkeley, CA 94709
Tel: (510) 848-3815

David Early, Principal-in-Charge
Catherine Reilly, Senior Associate
Chad Markell, Associate, EIR Project Manager
Jose Moreno, Project Planner
Katie Hollenbaugh, Urban Designer, Aesthetics Analysis
Shay Boutillier, Planner
Kyle Simpson, Planner

Coastland Civil Engineering
Water, Sewer and Stormwater
1400 Neotomas Avenue
Santa Rosa, CA 95405
Tel: (707) 571-8005
Scott Reynolds, Principal in Charge
Heidi Utterback, Project Manager

Garcia and Associates
Cultural and Biological Resources
1 Saunders Avenue
San Anselmo, CA 94960
Tel: (415) 458.5803 ext. 29
John McCarthy & Chloe Scott, Project Managers
Liza Ryan, Biology
Carole Denardo, Cultural
Christophe Descantes, Cultural
Illingworth & Rodkin

Air Quality and Noise
505 Petaluma Blvd. South
Petaluma, CA 94952
Tel: (707) 766-7700
Rich Rodkin, Principal
James Reyff, Senior Consultant

Questa Engineering Corporation

Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality
1220 Brickyard Cove Road, Suite 206
Point Richmond, CA 94801
Mailing Address:
PO Box 70356
Point Richmond, CA 94807-0356
Tel: 510.236.6114
Jeffrey H. Peters, Principal/Senior Environmental Scientist
Willard Hopkins, Senior Engineering Geologist
Joe Farrow, Staff Geologist
Anna Rensi, Assistant Environmental Engineer

Whitlock & Weinberger Transportation (WTrans)

Transportation and Circulation
490 Mendocino Avenue, Suite 201
Santa Rosa, CA 95401
Tel: (707) 542-9500
Steve Weinberger, Principal
Zack Matley, Senior Planner, Project Manager