Southeast Greenway General Plan Amendment and Rezoning

SCH#: 2017042066

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1. Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, Chapter 14 California Code of Regulations, Section 15378[a], the Southeast Greenway General Plan Amendment and Rezoning project is considered a “project” subject to subject to environmental review as its implementation is “an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.” This Draft Environmental Impact Report (Draft EIR) provides an assessment of the potential environmental consequences of adoption and implementation of the project, herein referred to as “proposed project.” Additionally, this Draft EIR identifies mitigation measures and alternatives to the proposed project that would avoid or reduce significant impacts. This Draft EIR compares the development of the proposed project with the existing baseline condition, described in detail in Chapter 4.0, Environmental Evaluation, and each subchapter (Chapters 4.1 through 4.14). The City of Santa Rosa (City) is the lead agency for the proposed project. As the current property owner, the California Department of Transportation is a responsible agency. This assessment is intended to inform the City’s decision-makers, other responsible agencies, and the public-at-large of the nature of the proposed project and its effect on the environment.

1.1 Proposed Action

Upon adoption by the City of Santa Rosa City Council, the proposed project would amend the General Plan land use designations and zoning for the parcels in the 57-acre Southeast Greenway Area also referred to as the project site. The proposed Land Use and Circulation Concepts are intended to guide development and conservation in the Southeast Greenway Area through the 2035 buildout horizon of the Santa Rosa General Plan 2035 (General Plan 2035). The Land Use Concept describes the type and scale of potential development and the Circulation Concept addresses transportation improvements that may occur over the next 18 years in the Southeast Greenway Area. Both the Land Use Concept and the Circulation Concept have been written to be consistent with the other elements of the 2035 General Plan.

1.2 Environmental Review Process

1.2.1 DRAFT EIR

Pursuant to CEQA Section 21080(d)\(^1\) and CEQA Guidelines Section 15063,\(^2\) the City determined that the proposed project could result in potentially significant environmental impacts and that an EIR would be required. In compliance with CEQA Section 21080.4, the City circulated the Notice of Preparation (NOP) of an EIR for the proposed project to the Office of Planning and Research State Clearinghouse and interested

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\(^1\) The CEQA Statute is found at California Public Resources Code, Division 13, Sections 21000 to 21177.

\(^2\) The CEQA Guidelines are found at California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000 to 15387.
agencies and persons on April 24, 2017 for a 31-day-review period. A public Scoping Meeting was held on May 15, 2017 at 6:30 p.m. at the Bennett Valley Senior Center, in the City of Santa Rosa. The NOP and scoping process solicited comments from responsible and trustee agencies, as well as interested parties regarding the scope of the Draft EIR. Appendix A of this Draft EIR contains the NOP, as well as the comments received by the City in response to the NOP.

The scope of this EIR was established by the City of Santa Rosa through the EIR scoping process and includes an analysis of both the proposed project’s impacts and cumulative impacts in the following issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Circulation
- Utilities and Service Systems
- CEQA- Mandated Assessment Conclusions:
  - Impacts Found Not To Be Significant
  - Significant Unavoidable Impacts
  - Growth-Inducing Impacts
  - Significant Irreversible Changes

As explained in Chapter 4, adoption and implementation of the proposed project would have no impacts related to Agricultural, Forestry, and Mineral Resources; therefore, no detailed analysis discussion is warranted in this Draft EIR.

This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45-day comment period starting on August 21, 2017 and ending on October 4, 2017. During the comment period, the public is invited to provide written comments via mail or e-mail on the Draft EIR to the City of Santa Rosa Planning and Economic Development Department. Written comments should be submitted to:

Jessica Jones, Supervising Planner
City of Santa Rosa
Planning & Economic Development Department
100 Santa Rosa Avenue, Room 3
Santa Rosa, Ca 95404
Phone: (707) 543-3410
Email: jjones@srcity.org with “Southeast Greenway EIR” as the subject line

1.2.2 FINAL EIR

Upon completion of the 45-day review period for the Draft EIR, the City will review all written comments received and prepare written responses to each comment on the adequacy of the Draft EIR. A Final EIR will then be prepared, which contains all of the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR. The Final EIR will then be presented to the City of Santa Rosa for certification as the environmental document for the proposed project. All persons who
commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearing before the City.

All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to certification of the EIR. The City Council will make findings regarding the extent and nature of the impacts as presented in the EIR. The EIR will need to be certified as having been prepared in compliance with CEQA by the City Council prior to making a decision to approve or deny the proposed project. Public input is encouraged at all public hearings before the City Council or Planning Commission.

After the City Council certifies the EIR, it may then consider action on the proposed project. If approved, the City Council will adopt and incorporate into the project all feasible mitigation measures identified in the EIR and may also require other feasible mitigation measures.

In some cases, the City Council may find that certain mitigation measures are outside the jurisdiction of the City to implement, or that no feasible mitigation measures have been identified for a given significant impact. In that case, the City Council would have to adopt a statement of overriding considerations that determines that economic, legal, social, technological, or other benefits of the proposed project outweigh the unavoidable, significant effects on the environment.

1.2.3 MITIGATION MONITORING

CEQA Section 21081.6 requires that the lead agency adopt a Mitigation Monitoring and Reporting Program for any project for which it has made findings pursuant to CEQA Section 21081 or adopted a Negative Declaration pursuant to CEQA Section 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration. The Mitigation Monitoring and Reporting Program for the proposed project will be completed as part of the environmental review process.

1.3 PROGRAM LEVEL EIR

This Draft EIR is a program-level EIR that analyzes the adoption and implementation of the proposed project. CEQA and the CEQA Guidelines allow lead agencies to prepare a number of types of EIRs. Different types of EIRs are used for varying situations and intended uses. As described in the CEQA Guidelines Section 15161, the most common type of EIR is a project EIR, which examines the environmental impacts of a specific development project. As described in the CEQA Guidelines Section 15168, program EIRs are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria.

In this case, the proposed project that is the subject of this EIR consists of long-term plans that will guide future development within the Southeast Greenway Area over an 18-year buildout horizon (e.g., 2017 to 2035) consistent with the Santa Rosa General Plan 2035 (General Plan 2035). No specific development projects are proposed as part of the project. Therefore, this EIR is a program-level EIR that analyzes the potential significant environmental effects of the adoption and implementation of the proposed project.
INTRODUCTION

Where the program EIR addresses the program’s effects as specifically and comprehensively as is reasonably possible, and future development projects are within the scope of the effects examined in the program EIR, then additional environmental review may not be required for those future projects. When a program EIR is relied on for a subsequent future development project, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]).

However, as stated above, this program EIR is not project-specific, and does not evaluate the impacts of individual construction-level projects that may be proposed in the future. All future development projects within the Southeast Greenway Area that qualify as a “project” under CEQA are subject to compliance with CEQA, which may require additional, project-specific environmental analysis. Under a program-level EIR approach, in order to identify whether additional analysis would be necessary when a future development project is proposed, the City, acting as the lead agency, will need to determine the following:

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

If any of these conditions apply and the subsequent activity would have effects that are not within the scope of the program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR unless the activity qualifies for an exemption from the CEQA process.

For all subsequent environmental review documents, within or outside of the scope of the General Plan, this program EIR will serve as the first-tier environmental analysis, which may serve to streamline future environmental review of subsequent projects.

1.4 STREAMLINED ENVIRONMENTAL REVIEW

1.4.1 TIERING PROCESS

The CEQA concept of "tiering" refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the program EIR and by incorporating those analyses by reference.

CEQA Guidelines Section 15168(d) provides guidance for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program
or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]).

By tiering from this program-level EIR, the environmental analysis for a future project would rely on the EIR for the following:

- a discussion of general background and setting information for environmental topic areas;
- overall growth-related issues;
- issues that were evaluated in sufficient detail in this EIR for which there is no significant new information or change in circumstances that would require further analysis;
- assessment of cumulative impacts; and
- mitigation measures adopted and incorporated as part of the proposed project.

As previously stated, an Initial Study could be prepared for future projects to evaluate the potential environmental impacts of the future projects with respect to this EIR to determine what level of additional environmental review, if any, is appropriate.
INTRODUCTION

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This chapter presents an overview of the proposed Southeast Greenway General Plan Amendment and Rezoning project (project or proposed project). This executive summary also provides a summary of the alternatives to the proposed project, identifies issues to be resolved, areas of concern, and conclusions of the analysis contained in Chapter 4.0, Environmental Evaluation, and each subchapter (Chapters 4.1 through 4.14) of this Draft Environmental Impact Report (Draft EIR). For a complete description of the proposed project, see Chapter 3, Project Description, of this Draft EIR. For a discussion of alternatives to the proposed project, see Chapter 5, Alternatives to the Proposed Project, of this Draft EIR.

This Draft EIR addresses the environmental effects associated with the implementation of the proposed project. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Draft EIR has been prepared pursuant to the requirements of CEQA and the CEQA Guidelines to determine if approval of the identified discretionary actions and related subsequent development could have a significant effect on the environment (i.e., significant impact). The City of Santa Rosa, as the lead agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel and review of all technical subconsultant reports. Information for this Draft EIR was obtained from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic).

## 2.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals.
EXECUTIVE SUMMARY

The main purposes of this document as established by CEQA are:

- to disclose to decision-makers and the public the significant environmental effects of proposed activities;
- to identify ways to avoid or reduce environmental damage;
- to prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures;
- to disclose to the public reasons for agency approval of projects with significant environmental effects;
- to foster interagency coordination in the review of projects; and
- to enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in the statute and in the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. An EIR is intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project’s significant environmental impacts and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

2.1.1 REPORT ORGANIZATION

This Draft EIR is organized into the following chapters:

- **Chapter 1: Introduction.** This chapter provides an overview describing the Draft EIR document.
- **Chapter 2: Executive Summary.** This chapter summarizes the environmental consequences that would result from implementation of the proposed project the alternatives to the proposed project, the recommended mitigation measures, and indicates the level of significance of environmental impacts with and without mitigation.
- **Chapter 3: Project Description.** Describes the proposed project in detail, including the characteristics, objectives, and the structural and technical elements of the proposed action.
- **Chapter 4: Environmental Evaluation.** This chapter is divided into 14 subchapters. Each subchapter corresponds to the environmental resource categories identified in CEQA Guidelines Appendix F, Energy Conservation, and Appendix G, Environmental Checklist, as amended per Assembly Bill 52 (Tribal Cultural Resources) and the California Supreme Court in a December 2015 opinion [California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD), 62 Cal. 4th 369 (No. S 213478)]. This chapter provides a description of the physical environmental conditions in the City of Santa Rosa, as they existed at the time the Notice of Preparation was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of...
the proposed project, and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each subchapter provides baseline physical conditions from which the City of Santa Rosa acting as the lead agency determines the significance of environmental impacts resulting from the proposed project. Each subchapter also includes a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the proposed project; and the potential cumulative impacts associated with the proposed project.

- **Chapter 5: Alternatives to the Proposed Project.** This chapter includes an evaluation of four alternatives to the proposed project, which are the CEQA-required “No Project” Alternative, the No Commercial/Residential Alternative (No Commercial/Residential Development), the No Commercial Development Alternative, and the Reduced Density Alternative.

- **Chapter 6: CEQA-Mandated Assessment.** This chapter includes a discussion of growth inducement, cumulative impacts, significant unavoidable effects, and significant irreversible changes as a result of adoption and implementation of the proposed project.

- **Chapter 7: Organizations and Persons Consulted.** A list of people and organizations that were contacted during the preparation of this Draft EIR for the proposed project is included in this chapter.

- **Appendices:** The appendices for this Draft EIR (presented in portable document file [PDF] format attached to the back cover) contain the following supporting documents:
  - Appendix A: Notice of Preparation and Scoping Comments
  - Appendix B: Air Quality and Greenhouse Gas Emission Data
  - Appendix C: Biological Resource Assessment
  - Appendix D: Cultural Resources Data
  - Appendix E: Phase 1 Environmental Site Assessment
  - Appendix F: Noise Data
  - Appendix G: Public Service Provider Data
  - Appendix H: Traffic Impact Study
  - Appendix I: Existing Conditions Report

### 2.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to:

> Inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

Because of the long-term planning horizon of the proposed project and the permitting, planning, and development actions that are related both geographically and as logical parts in the chain of contemplated actions for implementation, this Draft EIR has been prepared as a program EIR for the proposed project, pursuant to Section 15168 of the CEQA Guidelines.
EXECUTIVE SUMMARY

Once a program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review needs to be prepared. However, if the program EIR addresses the program’s effects as specifically and comprehensively as possible, subsequent activities could be found to be within the program EIR scope, and additional environmental review may not be required (CEQA Guidelines Section 15168[c]). When a program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that are not within the scope of a program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR. For these subsequent environmental review documents, this program EIR will serve as the first-tier environmental analysis.

2.2 SUMMARY OF THE PROPOSED PROJECT

Upon adoption by the City of Santa Rosa City Council, the proposed project would amend the General Plan land use designations and zoning for the parcels within the 57-acre Southeast Greenway Area also referred to as the project site. The proposed Land Use and Circulation Concepts are intended to guide development and conservation in the Southeast Greenway Area through the 2035 buildout horizon of the Santa Rosa General Plan 2035 (General Plan 2035). The Land Use Concept describes the type and scale of potential development and the Circulation Concept addresses transportation improvements that may occur over the next 18 years in the Southeast Greenway Area. Both the Land Use Concept and the Circulation Concept have been written to be consistent with the other elements of the 2035 General Plan.

2.3 SUMMARY OF PROJECT ALTERNATIVES

This Draft EIR analyzes alternatives to the proposed project that are designed to reduce the significant environmental impacts of the proposed project and feasibly attain some of the proposed project objectives. There is no set methodology for comparing the alternatives or determining the environmentally superior alternative under CEQA. Identification of the environmentally superior alternative involves weighing and balancing all of the environmental resource areas by the City. The following alternatives to the proposed project were considered and analyzed in detail:

- No Project Alternative (Current General Plan)
- No Commercial/Residential Development
- No Commercial Development Alternative
- Reduced Density Alternative

Chapter 5, Alternatives to the Proposed Project, of this Draft EIR, includes a complete discussion of these alternatives and of alternatives that were considered, but not carried forward for detailed analysis.

2.4 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the
proposed project, the major issues to be resolved include decisions by the City of Santa Rosa, as lead agency, related to:

- whether this Draft EIR adequately describes the environmental impacts of the proposed project;
- whether the benefits of the proposed project override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance;
- whether the proposed land use changes and zoning changes are compatible with the character of the existing area;
- whether the identified mitigation measures should be adopted or modified;
- whether there are other mitigation measures that should be applied to the proposed project besides those mitigation measures identified in the Draft EIR;
- whether there are any alternatives to the proposed project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic objectives.

### 2.5 AREAS OF CONCERN

The City of Santa Rosa issued a Notice of Preparation for the EIR on April 24, 2017 and held a scoping meeting on May 15, 2017 to receive scoping comments. During the 31-day scoping period for this EIR, which concluded on May 24, 2017, responsible agencies and interested members of the public were invited to submit comments as to the scope and content of the EIR. The comments received focused primarily on the following issues:

- **Aesthetics**: impacts to view corridors
- **Air Quality**: operation and construction
- **Biological Resources**: impacts to native vegetation, creeks, existing wetlands, wildlife, and wildlife corridor
- **Cultural and Tribal Cultural Resources**: tribal cultural consultation
- **Hydrology and Water Quality**: potential run-off due to an increase in impervious surface area, and water use
- **Land Use and Planning**: parking demand, impacts on neighborhood cohesion, and increased development on the site
- **Noise**: traffic, operational, and construction noise
- **Population and Housing**: increased density
- **Public Services**: impacts to public service providers
- **Transportation and Circulation**: traffic impact, pedestrian access, and bicycle connections

### 2.6 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

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 proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.
The proposed project has the potential to generate significant environmental impacts in a number of areas. As shown in Table 2-1, some significant impacts would be reduced to a less-than-significant level if the mitigation measures identified in this Draft EIR are adopted and implemented. However, pursuant to Section 15126.2(b) of the CEQA Guidelines, which requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures, as shown in Table 2-1, significant unavoidable impacts were identified in the areas of air quality and transportation and circulation. For a complete summary of the significant and unavoidable impacts, please see Section 6.2 in Chapter 6, CEQA-Mandated Assessment, of this Draft EIR. As described in detail in Chapter 4, Environmental Evaluation, the proposed project would have no significant impact on agricultural, forestry and mineral resources due to existing conditions in the project area. Accordingly, these topics have not been analyzed further in this Draft EIR.

Table 2-1 summarizes the conclusions of the environmental analysis contained in this Draft EIR and presents a summary of impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Chapters 4.1 through 4.14. Table 2-1 is arranged in four columns: 1) environmental impact; 2) significance without mitigation; 3) mitigation measures; and 4) significance with mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapters 4.1 through 4.14.
### Table 2-1  Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Significance Without Mitigation</th>
<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
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<tbody>
<tr>
<td><strong>AESTHETICS</strong></td>
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<tr>
<td>AES-1: Implementation of the proposed project would not have a substantial adverse effect on a scenic vista.</td>
<td>LTS  N/A</td>
<td>N/A</td>
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<tr>
<td>AES-2: Implementation of the proposed project would not substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.</td>
<td>LTS  N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>AES-3: Implementation of the proposed project would not degrade the existing visual character or quality of the site and its surroundings.</td>
<td>LTS  N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>AES-4: Implementation of the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</td>
<td>LTS  N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>AES-5: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to aesthetics.</td>
<td>LTS  N/A</td>
<td>N/A</td>
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<tr>
<td><strong>AIR QUALITY</strong></td>
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<tr>
<td>AQ-1: Implementation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.</td>
<td>LTS  N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>AQ-2: Operation of the proposed project could contribute to an existing or projected air quality violation.</td>
<td>S  AQ-2: Prior to issuance of construction permits, development project applicants that are subject to CEQA and exceed the screening sizes in the Bay Area Air Quality Management District’s (BAAQMD) CEQA Guidelines shall prepare and submit to the City of Santa Rosa a technical assessment evaluating potential air quality impacts related to the project’s operation phase. The evaluation shall be prepared in conformance with the BAAQMD methodology in assessing air quality impacts. If operation-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in BAAQMD’s CEQA Guidelines, the City of Santa Rosa shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operation activities.</td>
<td>SU</td>
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</table>

LTS = Less than Significant,  S = Significant,  SU = Significant and Unavoidable
## Table 2-1 Summary of Impacts and Mitigation Measures

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<tr>
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<th>Significance With Mitigation</th>
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<tr>
<td>AQ-3: Future potential development projects associated with the proposed project could cumulatively contribute to the non-attainment designations of the SFBAAB.</td>
<td>S</td>
<td>AQ-3: Implement Mitigation Measure AQ-2.</td>
<td>SU</td>
</tr>
</tbody>
</table>
| AQ-4: Construction activities associated with potential future development projects accommodated under the proposed project could expose nearby receptors to substantial concentrations of TACs. | S | AQ-4: Applicants for construction within 1,000 feet of residential and other sensitive land use projects (e.g., hospitals, nursing homes, day care centers) in the City of Santa Rosa, as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Santa Rosa prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment (OEHHA) and the Bay Area Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children ages 0 to 16 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), PM$_{2.5}$ concentrations exceed 0.3 µg/m$^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include, but are not limited to:  
During construction, use of construction equipment fitted with Level 3 Diesel Particulate Filters (DPF) for all equipment of 50 horsepower or more.  
* Use of construction equipment fitted with Tier 3 engines for all equipment of 50 horsepower or more.  
* Equipment shall be properly serviced and maintained in accordance with manufacturer recommendations.  
* The construction contractor shall ensure that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.  
Measures identified in the HRA shall be included in the environmental document and/or incorporated into the site development. | LTS |

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### Table 2-1: Summary of Impacts and Mitigation Measures

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<tbody>
<tr>
<td>AQ-5: Implementation of the proposed project would not create or expose a substantial number of people to objectionable odors.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>AQ-6: Despite implementation of the proposed project policies, criteria air pollutant emissions associated with the proposed project would generate a substantial net increase in emissions that exceeds the BAAQMD regional significance thresholds.</td>
<td>S</td>
<td>AQ-5: Implement Mitigation Measures AQ-2 through AQ-4.</td>
<td>SU</td>
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### Biological Resources

**BIO-1a:** Proposed development could potentially result in an inadvertent take of individual California red-legged frog (CRLF) in the remote instance that individuals were to disperse onto the site in the future, in which case this could result in a potential violation of the federal and California Endangered Species Acts if adequate controls and preconstruction surveys are not implemented.

<table>
<thead>
<tr>
<th>Biological Resource</th>
<th>Significance</th>
<th>Mitigation Measures</th>
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</table>
| **BIO-1a** | S | BIO-1a: Ensure Avoidance of California Red-legged Frog. The following measures shall be implemented in locations within 100 feet of any drainage or seasonal wetland on the site to ensure avoidance of individual California red-legged frog (CRLF) in the remote instance individuals were to disperse onto the site in the future in advance of or during construction:  
  - **Wildlife exclusion fence:** Wildlife exclusion fencing shall be installed prior to the start of construction and maintained until construction of the proposed project is complete. Such fencing shall, at a minimum, run along the proposed project boundaries with riparian habitat and for a distance of at least 100 feet perpendicular to riparian habitat. Silt fence material may be used to also provide erosion control, however, per CRLF standards, it must be at least 42 inches in height (at least 36 inches above ground and buried at least 6 inches below the ground) and stakes must be placed on the inside of the project (side on which work will take place).  
  - **Pre-construction survey:** Pre-construction surveys for CRLF shall be conducted prior to initiation of project activities (including fence installation) and within 48 hours of the start of ground construction. | LTS |
## Table 2-1 Summary of Impacts and Mitigation Measures

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| disturbance activities following completion of exclusion fence installation. Surveys are to be conducted by qualified biologists with experience surveying for CRLF. If project activities are stopped for greater than 7 days, a follow-up pre-construction survey may be required within 48 hours prior to reinitiating project activities.  
- **Worker Training:** All workers for activities within 100 feet of riparian habitat shall be trained by the qualified biologist to understand the remote potential for occurrence of this listed species, need to avoid any potential inadvertent take, and process to follow if a frog is encountered, that all work must stop and the qualified biologist must determine whether it is CRLF before work proceeds.  
- **Earth Disturbing Activities only during dry weather:** No earth disturbing activities shall take place during rain events when there is potential for accumulation greater than 0.25 inch in a 24-hour period. In addition, no earth disturbing activities shall occur for 48 hours following rain events in which 0.25 inch of rain accumulation within 24 hours.  
- **Biological monitoring:** An approved biologist shall be required to inspect and approve installation of the exclusion fence.  
- **Erosion Control Materials:** Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibians do not get trapped. Plastic mono-filament netting (erosion control matting), rolled erosion control products, or similar material shall not be used. | S | LTS |
| BIO-1b: Project implementation could potentially result in loss or modifications to special-status plant species if present on the site and systematic surveys and adequate avoidance are not implemented. | S | BIO-1b: Appropriate measures shall be implemented to ensure adequate avoidance of special-status plant species, if present in the remaining natural areas on the project site east of Summerfield Road. A qualified botanist shall conduct systematic surveys of the portion of the project site east of the Summerfield Road in spring and summer months to confirm absence of any special-status plant species on the site. The survey shall focus on the special-status plant species considered to have a remote probability for occurrence on the project site. The surveys shall be completed and a report of findings submitted to the City before the onset of any initial ground- | LTS |

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TABLE 2-1  SUMMARY OF IMPACTS AND MITIGATION MEASURES

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| Disturbing activity or construction associated with project implementation. If any special-status plant species are encountered, then any occurrence(s) shall be avoided or potential impacts adequately mitigated as part of potential future project development. The qualified botanist shall develop and implement a Special-Status Plant Species Mitigation and Monitoring Program (SSPSMMP). The SSPSMMMP shall only be required if a listed species or those with a ranking of 1A, 1B or 2 of the California Native Plant Society (CNPS) Inventory are encountered during the preconstruction survey. Potential impacts on any species with a ranking of 3 and 4 of the CNPS Inventory would not be considered significant and no additional mitigation would be required for these species if encountered during the systematic survey(s). The SSPMMP shall be prepared in consultation with the California Department of Fish and Wildlife (CDFW) and shall be approved by the City prior to any initial ground-disturbing activity or construction. The SSPMMP shall be based on the status and vulnerability of the species present, with avoidance of all or a majority of any populations on the site the preferred method of mitigation. Where complete or even partial avoidance of any special-status plant populations on the site is considered infeasible, options for mitigation may include a program to salvage and reestablish the population at an alternative, suitable location. Details of any salvage and habitat recreation effort shall include the following criteria and performance standards measures may include:
- Collection of seeds during the appropriate developmental stage of the plan.
- Procedures for sowing techniques appropriate to the life cycle of the plant.
- Preparation of a maintenance and monitoring plan specific to the environmental conditions necessary for survival of the new population. Maintenance and monitoring shall be provided for a minimum of five years to determine success of re-seeding and habitat creation, and need for additional preservation.
- Identification of funding sources to provide implementation of

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<td>the plan in consultation with the qualified plant ecologist, landscape architect, and civil engineer.</td>
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<td>▪ In addition, preservation of another existing occurrence of the affected special-status plant species shall be required if monitoring indicates that the reestablishment efforts have not been successful after five years. The preservation program shall provide for permanent protection of a different existing population in Sonoma County, which is equal or larger in size than that encountered on the site (minimum 1:1 replacement), through land acquisition or use of a conservation easement. Any off-site mitigation lands shall include establishment of a management endowment as necessary to provide for long-term management of the preserved population.</td>
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| BIO-1c: Proposed development could potentially result in inadvertent loss of bird nests in active use, which would conflict with the federal Migratory Bird Treaty Act and CDFW code if adequate controls and preconstruction surveys are not implemented. | S | BIO-1c: Ensure Avoidance of Bird Nests in Active Use. Tree removal, landscape grubbing, and building demolition shall be performed in compliance with the Migratory Bird Treaty Act and relevant sections of the California Department of Fish and Wildlife (CDFW) code to avoid loss of nests in active use. This shall be accomplished by scheduling tree removal and landscape grubbing outside of the bird nesting season (which occurs from February 1 to August 31) to avoid possible impacts on nesting birds if new nests are established in the future. Alternatively, if building demolition, tree removal and landscape grubbing cannot be scheduled during the non-nesting season (September 1 to January 31), a pre-construction nesting survey shall be conducted. The pre-construction nesting survey shall include the following:  
▪ A qualified biologist (Biologist) shall conduct a pre-construction nesting bird (both passerine and raptor) survey within seven calendar days prior to tree removal, landscape grubbing, and/or building demolition.  
▪ If no nesting birds or active nests are observed, no further action is required and tree removal, landscape grubbing, and building demolition shall occur within seven calendar days of the survey.  
▪ Another nest survey shall be conducted if more than seven calendar days elapse between the initial nest search and the beginning of tree removal, landscape grubbing, and building | LTS |

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### Table 2-1: Summary of Impacts and Mitigation Measures

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<td>demolition.</td>
<td>LTS</td>
<td>N/A</td>
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<tr>
<td>• If any active nests are encountered, the Biologist shall determine an appropriate disturbance-free buffer zone to be established around the nest location(s) until the young have fledged. Buffer zones vary depending on the species (i.e., typically 75 to 100 feet for passerines and 300 feet for raptors) and other factors such as ongoing disturbance in the vicinity of the nest location. If necessary, the dimensions of the buffer zone shall be determined in consultation with the CDFW.</td>
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<td>• Orange construction fencing, flagging, or other marking system shall be installed to delineate the buffer zone around the nest location(s) within which no construction-related equipment or operations shall be permitted. Continued use of existing facilities such as surface parking and site maintenance may continue within this buffer zone.</td>
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<td>• No restrictions on grading or construction activities outside the prescribed buffer zone are required once the zone has been identified and delineated in the field and workers have been properly trained to avoid the buffer zone area.</td>
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<td>• Construction activities shall be restricted from the buffer zone until the Biologist has determined that young birds have fledged and the buffer zone is no longer needed.</td>
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<tr>
<td>• A survey report of findings verifying that any young have fledged shall be submitted by the Biologist for review and approval by the City prior to initiation of any tree removal, landscape grubbing, building demolition, and other construction activities within the buffer zone. Following written approval by the City, tree removal, and construction within the nest-buffer zone may proceed.</td>
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**BIO-2:** Implementation of the proposed project would generally not 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 Wildlife or United States Fish and Wildlife Service.

**BIO-3:** Provide Compensatory Mitigation for Wetland Modifications. The City shall require future project applicants to develop and

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### Summary of Impacts and Mitigation Measures

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<tr>
<td>species within the regulatory waters, and would require appropriate authorizations from regulatory agencies and adequate compensatory mitigation where avoidance is infeasible.</td>
<td>implement a compensatory mitigation program to provide adequate mitigation for jurisdictional waters affected by proposed improvements in the Southeast Greenway Area for submittal to the City. A jurisdictional wetland delineation shall be prepared by a qualified wetland specialist and submitted for verification by the United States Army Corps of Engineers (USACE) where jurisdictional waters may be affected by project-related improvements. A Wetland Protection and Replacement Program (WPRP) shall be prepared by the qualified wetland specialist and implemented to provide compensatory mitigation at a minimum 2:1 ratio where wetland habitat is affected, shall minimize disturbance to unvegetated waters, and shall be reviewed and approved by appropriate regulatory agencies (e.g., USACE, Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW). The WPRP shall include appropriate implementation measures to prevent inadvertent loss and degradation of jurisdictional waters to be protected, and replacement for those wetland features eliminated or modified as a result of potential future project development. The WPRP shall contain the following components:</td>
<td></td>
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<tr>
<td>Where verified waters of the United States are present and cannot be avoided, authorization for modifications to these features shall be obtained from regulatory agencies with jurisdiction. This includes the USACE through the Section 404 permitting process where waters of the United States are affected by the potential future project development and the RWQCB as part of the Section 401 Certification process. Together with a Streambed Alteration Agreement (SAA) secured from CDFW, if required as part of the SAA Notification process for proposed fills to the man-made ditch and possibly the pond on the golf course. All conditions required as part of the authorizations by the USACE, RWQCB, and CDFW shall be implemented as part of the project.</td>
<td></td>
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<tr>
<td>Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts. Future project applicants shall obtain all legally required permits or other authorizations from the USFWS, National Marine Fisheries Service</td>
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</tbody>
</table>

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EXECUTIVE SUMMARY

Table 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

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<thead>
<tr>
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<tr>
<td></td>
<td></td>
<td>(NOAA Fisheries), and CDFW for the potential “take” of protected species under the Endangered Species Acts.</td>
<td></td>
</tr>
</tbody>
</table>

- Install orange construction fencing around the boundary of all wetland areas and waters to be preserved at the interface with proposed fills and grading so that they are not disturbed during construction. The fencing shall be placed a minimum of 25 feet out from the boundary of the wetlands/waters but may need to be adjusted if restoration activities are to be conducted within this area. Grading, construction, and restoration work within the wetland/waters buffer zones shall be conducted in a way that avoids or minimizes disturbance of existing wetlands and aquatic habitat.

- A qualified biologist/restoration specialist shall be available during construction to provide situation-specific wetland avoidance measures or planting recommendation, as needed.

- Success criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures in the WPRP should be specified. Monitoring shall be conducted by the qualified wetland specialist for a minimum of five years and continue until the success criteria are met. Permanent monitoring transects shall be established as part of the program and vegetation data collected in the spring and summer months when plant identification is possible. Photo stations shall be established along each monitoring transect, and photographs taken every year during the required monitoring period.

- Annual monitoring reports shall be prepared by the qualified wetland specialist and submitted to resource agency representatives by December 31 of each monitoring year for a minimum of 5 years or until the defined success criteria are met. The annual report shall summarize the results of the monitoring effort, performance standards, and any required contingency measures, and shall include photographs of the monitoring transects and program success. Maps shall be included in the monitoring report to show the location of monitoring transects and photo stations.

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<tr>
<td><strong>BIO-4:</strong> Implementation of the proposed project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO-5:</strong> Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO-6:</strong> Implementation of the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO-7:</strong> Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to biological resources.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### CULTURAL RESOURCES

| CULT-1: Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. | LTS | N/A | N/A |
| CULT-2: Implementation of the proposed project would have the potential to cause a significant impact to an unknown archaeological resource pursuant to CEQA Guidelines Section 15064.5. | S | **CULT-2:** If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the City and the archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation | LTS |

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<td>LTS</td>
<td>proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) would be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is being carried out.</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CULT-3: Implementation of the proposed project would have the potential to directly or indirectly affect a unique paleontological resources or site, or unique geological feature.</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CULT-4: Implementation of the proposed project would have the potential to disturb human remains interred outside of formal territories, the disturbance of those remains could result in a significant impact under CEQA.</td>
<td>S</td>
</tr>
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<tr>
<td>CULT-5: Implementation of the proposed project would have the potential to impact TCRs the disturbance of which could result in a significant impact under CEQA.</td>
<td>S</td>
<td>CULT-5a: Implement Mitigation Measure CULT-2 CULT-5b: Implement Mitigation Measure CULT-4</td>
<td>LTS</td>
</tr>
<tr>
<td>CULT-6: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to cultural resources.</td>
<td>S</td>
<td>CULT-6: Implement Mitigation Measures CULT-2, CULT-3, CULT-4, and CULT-5.</td>
<td>LTS</td>
</tr>
<tr>
<td>GEOLOGY AND SOILS</td>
<td></td>
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<tr>
<td>GEO-1: Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GEO-2: Implementation of the proposed project would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GEO-3: Implementation of the proposed project would not create substantial risks to property as a result of its location on expansive soil, as defined by Section 1803.5.3 of the California Building Code.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GEO-4: Implementation of the proposed project would not 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.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>GEO-5: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology, soils, and seismicity.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>GREENHOUSE GAS EMISSIONS</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GHG-1: Implementation of the proposed project would not directly and indirectly generate greenhouse gas emissions that would result in an increase in community emissions from baseline conditions that would have a significant impact on the environment.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GHG-2: Implementation of the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GHG-3: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to greenhouse gas emissions.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>HAZARDS AND HAZARDOUS MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAZ-1: Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>HAZ-2: Implementation of the proposed project would not 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.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>HAZ-3: Implementation of the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-miles of an existing or proposed school.</td>
<td>LTS N/A</td>
<td>N/A</td>
<td></td>
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<tr>
<td><strong>HAZ-4:</strong> Implementation of the proposed project would not 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 not create a significant hazard to the public or the environment.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HAZ-5:</strong> Implementation of the proposed project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport resulting in a safety hazard for people residing or working in the project area.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HAZ-6:</strong> Implementation of the proposed project would not be within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the project area.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HAZ-7:</strong> Implementation of the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HAZ-8:</strong> Implementation of the proposed project would not 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.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HAZ-9:</strong> Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hazards and hazardous materials.</td>
<td>LTS  N/A</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

**HYDROLOGY AND WATER QUALITY**

| HYDRO-1: Implementation of the proposed project would not violate any water quality standards or discharge requirements. | LTS  N/A | | N/A |
| HYDRO-2: Implementation of the proposed project would not substantially deplete groundwater supplies or | LTS  N/A | | N/A |

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<td>interferes 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).</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HYDRO-3: Implementation of the proposed project would not 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 amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HYDRO-4: Implementation of the proposed project would not 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.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HYDRO-5: Implementation of the proposed project would not 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.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HYDRO-6: Implementation of the proposed project would not otherwise substantially degrade water quality.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HYDRO-7: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hydrology and water quality.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
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**LAND USE AND PLANNING**

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<tbody>
<tr>
<td>LU-1: Implementation of the proposed project would not physically divide an established community.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>LU-2: Implementation of the proposed project would not conflict with any applicable land use plan, policy, or</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
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<td>regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>LU-3</strong>: Implementation of the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>LU-4</strong>: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to land use and planning.</td>
<td>LTS N/A</td>
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<td>LTS N/A</td>
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<tr>
<td><strong>NOISE</strong></td>
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<tr>
<td><strong>NOISE-1</strong>: Implementation of the proposed project would not cause exposure of people to, or generation of, noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>NOISE-2</strong>: Implementation of the proposed project would not cause exposure of people to, or generation of, excessive groundborne vibration or groundborne noise levels.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>NOISE-3</strong>: Implementation of the proposed project would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>NOISE-4</strong>: Implementation of the proposed project would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td><strong>NOISE-5</strong>: Implementation of the proposed project would not cause exposure of people residing or working in the vicinity of the study area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
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<td>of a public airport or public use airport.</td>
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</tr>
<tr>
<td>NOISE-6: Implementation of the proposed project would not cause exposure of people residing or working in the project site to excessive noise levels, for a project within the vicinity of a private airstrip.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NOISE-7: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impacts with respect to noise.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>POPULATION AND HOUSING</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POP-1: Implementation of the proposed project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>POP-2: Implementation of the proposed project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>POP-3: Implementation of the proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>POP-4: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impact with respect to population and housing.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
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</tr>
<tr>
<td>PS-1: Implementation of the proposed project would not result in the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-2: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to fire protection services.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-3: Implementation of the proposed project would not result in the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-4: The proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to police services.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-5: Implementation of the proposed project would not result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-6: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to school services.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS-7: The proposed project would not result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.</td>
<td>LTS</td>
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<th>Mitigation Measures</th>
<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service ratios, or other performance objectives.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS-8: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to the construction of other public facilities.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td>PS-9: Implementation of the proposed project would not result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td>PS-10: Implementation of the proposed project would not 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.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td>PS-11: The proposed project would include recreational facilities and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
<tr>
<td>PS-12: The proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to parks.</td>
<td>LTS N/A</td>
<td></td>
<td>LTS N/A</td>
</tr>
</tbody>
</table>

TRANSPORTATION AND CIRCULATION

TRANS-1a: The Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) currently operates unacceptably at LOS E during the PM peak hour and is projected to continue operating at LOS E upon the addition of project-generated traffic, with increases in delay of approximately 9.6 seconds. This is considered to be a significant impact.

TRANS-1b: On Farmers Lane under Future plus Project conditions, the project is anticipated to cause a 1-mile per hour reduction in average southbound speeds during the

As discussed in Chapter 4.13, Transportation and Circulation, under impact discussion TRANS-1, measures that could potentially reduce this impact were considered and were determined to be infeasible. See Chapter 4.13 for more discussion.

LTS = Less than Significant, S = Significant, SU = Significant and Unavoidable
## EXECUTIVE SUMMARY

<table>
<thead>
<tr>
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<th>Significance With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM peak hour, and is anticipated to cause operation to drop from LOS D to LOS E in the southbound direction during the AM peak hour.</strong></td>
<td></td>
<td>See Chapter 4.13 for more discussion.</td>
<td></td>
</tr>
<tr>
<td><strong>TRANS-1c:</strong> The Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) is projected to operate unacceptably at LOS E during the AM and PM peak hours without the project and with the addition of project traffic would drop to LOS F during the AM peak hour.</td>
<td>S</td>
<td>As discussed in Chapter 4.3, Transportation and Circulation, under impact discussion TRANS-1, measures that could potentially reduce this impact were found to be infeasible.</td>
<td>SU</td>
</tr>
<tr>
<td><strong>TRANS-1d:</strong> The southbound stop-controlled approach the Hoen Avenue/Franquette Avenue intersection (#13) is projected to operate at LOS F during the AM peak hour, with a 6.1-second increase in delay attributable to the project, which would meet the CA-MUTCD “Peak Hour Volume” warrant for signalization.</td>
<td>S</td>
<td><strong>TRANS-1d:</strong> A traffic signal should be installed at the intersection of Hoen Avenue/Franquette Avenue in the future. The City’s Department of Transportation and Public Works should monitor operation at the intersection through field observations and review of development traffic impact studies, and add signalization of the intersection to the Capital Improvement Program once the City Traffic Engineer determines that signalization is warranted.</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>TRANS-2:</strong> Implementation of the proposed project would not conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TRANS-3:</strong> The proposed project would not 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.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TRANS-4:</strong> Implementation of the proposed project would not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersection) or incompatible uses (e.g. farm equipment).</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TRANS-5:</strong> Implementation of the proposed project would not result in inadequate emergency access.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TRANS-6a:</strong> The proposed multi-use pathway crossings could result in pedestrian and bicyclist safety concerns.</td>
<td>S</td>
<td><strong>TRANS-6a.1:</strong> The mid-block multi-use pathway crossings on Summerfield Road and Yulupa Avenue should include, at a minimum, an active pedestrian warning system (such as, but not limited to, pedestrian-activated flashing beacons or rapid rectangular flashing beacons) as well as high-visibility crosswalk markings.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

*LTS = Less than Significant, S = Significant, SU = Significant and Unavoidable*
## Summary of Impacts and Mitigation Measures

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>TRANS-6a.2: The mid-block multi-use pathway crossing on Franquette Avenue should include, at a minimum, high-visibility crosswalk markings and signs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS-6a.3: The multi-use pathway crossing at the Hoen Avenue/Hoen Avenue Frontage Road-Cypress Way signalized intersection should include, at a minimum, new high-visibility crosswalk markings and signal phasing to serve pedestrians and bicyclists, as well as signage (such as “Yield to Bikes” signs) alerting drivers to the presence of bike crossings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS-6a.4: The ultimate configuration of multi-use pathway street crossing designs, including selection of warning devices if appropriate, shall be determined by the City's Traffic Engineer, in consideration of the physical characteristics of each site and best design practices that exist at the time the design is initiated.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS-6b: Potential development of an at-grade crossing at the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection could result in pedestrian safety concerns.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS-6b.1: If an at-grade pedestrian crossing is to be implemented at Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection, the intersection would need to be modified to include, at a minimum, the following components:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Signal or pedestrian hybrid beacon with an exclusive phase for pedestrian-bicycle movements</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Horizontal realignment that regulates vehicle speeds to no greater than 35 mph at the crossing</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Maintained clear line of sight between drivers and pedestrians/bicyclists on the crossing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Right-turn pocket on westbound Hoen Avenue Frontage Road to provide vehicle queue storage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS-6b.2: The ultimate configuration of any at-grade pedestrian crossing at the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection shall be evaluated and determined by the City's Traffic Engineer, in collaboration with Caltrans, and in consideration of the physical characteristics the site and best design practices that exist at the time the design is initiated. The City shall obtain an LTS (Less than Significant).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LTS = Less than Significant, S = Significant, SU = Significant and Unavoidable
## Table 2-1 Summary of Impacts and Mitigation Measures

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>LTS</td>
<td>encroachment permit and design approval from Caltrans prior to implementing the new pedestrian crossing.</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>TRANS-6c</strong>: Construction activities associated with development in the Southeast Greenway Area may temporarily affect vehicular, pedestrian, and bicycle circulation.</td>
<td>S</td>
<td><strong>TRANS-6c</strong>: Prior to commencement of construction activities, applicants seeking to construct projects within the Southeast Greenway Area should submit a construction traffic control plan to the City of Santa Rosa for review and approval. The proposed project should identify the timing and routing of all major construction-related traffic to avoid potential congestion and delays on the local street network. Any temporary road or sidewalk closures should be identified along with detour plans. If necessary, movement of major construction equipment and materials should be limited to off-peak hours to avoid conflicts with local traffic circulation.</td>
<td>LTS</td>
</tr>
</tbody>
</table>

### UTILITIES AND SERVICE SYSTEMS

| UTIL-1: Implementation of the proposed project would have sufficient water supplies available to serve the proposed project from existing entitlements and resources, and would not require new or expanded entitlements. | LTS | N/A | N/A |
| UTIL-2: Implementation of the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. | LTS | N/A | N/A |
| UTIL-3: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to water service. | LTS | N/A | N/A |
| UTIL-4: Implementation of the proposed project would not exceed wastewater treatment requirements of the North Coast Regional Water Quality Control Board. | LTS | N/A | N/A |
| UTIL-5: Implementation of the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. | LTS | N/A | N/A |

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### Table 2-1 Summary of Impacts and Mitigation Measures

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</thead>
<tbody>
<tr>
<td>UTIL-6: Implementation of the proposed project would not result in the determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-7: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects would result in less-than-significant cumulative impacts with respect to wastewater service.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-8: Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-9: Implementation of the proposed project would comply with federal, State, and local statutes and regulations related to solid waste.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-10: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to solid waste.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-11: Implementation of the proposed project would not result in a substantial increase in natural gas and electrical service demands, and would not require new energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UTIL-12: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to energy conservation.</td>
<td>LTS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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3. Project Description

This chapter of the Draft Environmental Impact Report (EIR) describes the proposed Southeast Greenway General Plan Amendment and Rezoning project (project or proposed project). The proposed project would establish future land uses and result in the potential for new development to occur within the 57-acre area that spans a 1.9-mile linear path from Farmers Lane/State Route (SR) 12 to Spring Lake Regional Park, herein referred to as the Southeast Greenway Area or project site. Implementation and adoption of the proposed project would result in new development potential up to 47.2 acres of parks and recreational uses, 244 multi-family housing units, and 12,000 square feet of commercial space in the Southeast Greenway Area, in combination with the remaining and previously approved buildout in the existing Santa Rosa General Plan 2035 (General Plan 2035). The project also includes the proposed acquisition of the land by local public agencies and potential private developers for future development. No physical changes to the site are proposed at this time. This chapter provides general background about Santa Rosa and the proposed project, including detailed descriptions of the proposed buildout and General Plan Amendment and Rezoning.

3.1 Overview

3.1.1 Background

Every city and county in California is required to have an adopted comprehensive long-range general plan for the physical development of the county or city and, in some cases, land outside the city or county boundaries.\(^1\) The General Plan 2035 is the overarching policy document for the City of Santa Rosa (City) that defines a vision for future changes and sets the “ground rules” for locating and designing new projects, expanding the local economy, conserving resources, improving public services and safety, and fostering community health. The General Plan 2035, which includes guiding principles, goals, policies, and implementation programs, functions as the City’s primary land use regulatory tool. The General Plan 2035 is Santa Rosa’s constitution for future change and, together with the Zoning Ordinance and related sections of the Santa Rosa City Code (SRCC), serve as the basis for planning-related decisions made by the City. The City Council certified the EIR for the General Plan 2035 in November 2009.\(^2\)

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\(^1\) California Government Code Section 65300.
\(^2\) The City of Santa Rosa General Plan 2035, Environmental Impact Report, State Clearinghouse Number 2008092114 certified November 2009.
3.1.2 PLANNING PROCESS

The City has undertaken a community-based planning process to review land use alternatives as part of the proposed project. The planning process began on July 7, 2015 with the authorization by the City Council to execute a Memorandum of Understanding (MOU) between the City of Santa Rosa and the Southeast Greenway Community Partnership (Partnership). The purpose of the MOU was to document the understandings, intentions and expectations with regard to transferring the Southeast Greenway Area from its current owner, the California Department of Transportation (Caltrans), to the City of Santa Rosa and the SCWA. The Partnership is made up of the following agencies and organizations: City of Santa Rosa, Sonoma County Regional Parks (SCRP), Sonoma County Water Agency (SCWA), Sonoma Land Trust (SLT), LandPaths, and the Southeast Greenway Campaign to collaborate and work toward transferring the land to local public ownership. The City will seek to acquire all of the land except: 1) SCRP would be responsible for the management of approximately 16 acres east of Summerfield Road with ownership by the SCWA; 2) the parcels with potential for private development into residential or mixed-use. It is anticipated that the parcels identified for possible school facilities may be acquired by the City or another local public agency. On September 15, 2015, the City completed the Southeast Greenway Existing Conditions, Opportunities, and Constraints document, which is included as Appendix I, Existing Conditions, of this EIR. On October 6, 2015, the Santa Rosa City Council adopted Resolution Number 28696 to initiate the General Plan Amendment and Rezoning for the Southeast Greenway Area.

Upon initiation of the proposed project, the City met with key stakeholders to understand their vision for the Southeast Greenway Area. These stakeholders included the following:

- Mayette Village Shopping Center business owners, and other key business owners along with housing and commercial developers
- Residents, community members, resident association representatives, and community leaders
- Bike advocates and representatives from runners club, equestrian club and environmental organizations
- Representatives from the Partnership as listed above, the Santa Rosa City Schools District, and Rincon Valley Union School District
- Caltrans

A Technical Advisory Committee (TAC) was also established that included representatives from the Partnership (SCWA, SCRP, and SLT), as well as the following City departments: Planning and Economic Development, Recreation and Parks, Water, Transportation and Public Works, Information Technology, Police, Fire, and City Attorney’s Office. The TAC and Partnership each met three times during the planning process to identify critical issues and review preliminary alternatives. Two community workshops were also held to solicit additional feedback. The first community workshop was held on August 6, 2016 and included an overview of the Southeast Greenway Area and the year-long planning process. The feedback from the workshop established key areas of concern and improvement, including multi-modal transportation and safety, park and recreational uses including open space, housing and commercial uses, connectivity with Spring Lake Regional Park, maintenance, parking, and cost.

Based on the vision and concerns discussed at the first community workshop, the City prepared Draft Guiding Principles and three alternatives for Land Use and Circulation Concepts for the project site. The
Draft Guiding Principles focused on establishing a framework for land use planning, design, and development for the Southeast Greenway Area, while the alternatives included various options for connections for non-motorized travel linking Spring Lake Regional Park to Farmers Lane and beyond. The first alternative included a minimal footprint approach and emphasized park and recreational uses including open space. The second alternative included an active to tranquil approach from west to east and emphasized a range of active development uses between Farmers Lane and Franquette Avenue, in the west portion of the Southeast Greenway Area, and a range of tranquil park and recreational uses in the eastern portion near Spring Lake Regional Park. The third alternative focused on nodes of housing and retail uses at the major streets and recreational and agricultural activity at the intersections of pathways.

Draft Guiding Principles and Land Use and Circulation Concept alternatives were presented at the second community workshop held on October 8, 2016. Participants at this workshop expressed interest in expanding the Draft Guiding Principles to prioritize interactive educational activities, holistic development, integration with neighborhoods, and minimizing maintenance and operating costs. Participants generally supported an alternative that included continuous park and recreational uses with separate paths for pedestrians and bicyclists, some housing and retail, parking, a joint school facility, community gardens, and a community gathering space. Following the second workshop a community input survey was made available online from October 10 to 26, 2016 to solicit greater community input on the Draft Guiding Principles and the Land Use and Circulation Concept alternatives. In addition, intercept (in-person) surveys were conducted at Whole Foods, Lucky’s, Spring Lake Regional Park, Montgomery High School, and area elementary schools, as well as residences directly abutting the Greenway on one weekday (Monday, October 10th) and two weekends (Saturday, October 15th and 22nd). Feedback received from the online survey and intercept surveys aligned with participant feedback from the second workshop.

The City Council and Planning Commission reviewed the Draft Guiding Principles, the Land Use and Circulation Concept alternatives, and results from the public outreach effort during a joint study session held on November 1, 2016. The City Council and Planning Commission directed staff to create a single Draft Land Use and Circulation Concept alternative that would be financially feasible and would achieve the following:

- Provide a continuous Greenway with separate bike and pedestrian paths
- Connect to planned and existing bicycle routes and to Downtown
- Address the city’s need for housing and provide housing opportunities near existing infrastructure
- Increase eyes on the Greenway and activate the space
- Preserve the existing freeway on-ramp (i.e., no changes)
- Maximize shared parking opportunities with adjacent properties, such as Montgomery High School and Spring Lake Regional Park
- Restore the remnant orchards, particularly east of Summerfield Road

Based on the input received at the second community workshop, online survey, intercept surveys and the November 1st City Council and Planning Commission joint session, a single Draft Land Use and Circulation Concept was developed and subsequently presented at the March 28, 2017 City Council and Planning Commission joint study session. This Draft Land Use and Circulation Concept is the subject of this EIR and is described in detail below in Section 3.6, Project Components.
3.1.3 REGIONAL LOCATION

The City of Santa Rosa is located approximately 50 miles north of San Francisco in central Sonoma County, as shown in Figure 3-1. Situated on the Santa Rosa Plain, the City is bounded by the foothills of the Sonoma Mountains to the east and Laguna de Santa Rosa to the west. US Highway 101 (Highway 101) and State Route 12 (SR 12) divide the city into quadrants. Highway 101 is the north-south route connecting the San Francisco Bay Area to Mendocino and Humboldt counties to the north. SR 12 runs in an east-west direction, connecting the Sonoma Coast to the Sonoma and Napa Valleys to the east.

The City is surrounded by unincorporated rural and agricultural land. Nearby cities/communities include the Town of Windsor located to the north, the community of Kenwood located to the east, the City of Rohnert Park located to the south, and the City of Sebastopol located to the west. The Sonoma County Airport is located about 2.5 miles northwest of Santa Rosa's Urban Growth Boundary (UGB).

3.1.4 INTENDED USES OF THIS EIR

This Draft EIR has been completed in accordance with the California Environmental Quality Act (CEQA), which requires that State and local public agencies analyze proposed projects to determine potential impacts on the environment and disclose any such impacts. The City is the lead agency for the environmental review of the proposed project. As described in Chapter 1, Introduction, this Draft EIR provides a programmatic analysis of the environmental impacts associated with the projected buildout potential of the proposed project. Consistent with Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria. The proposed project that is the subject of this EIR consists of long-term plans and zoning changes that would guide future development activities and City actions in the Southeast Greenway Area through 2035. Because this is a program-level EIR, this document does not evaluate the impacts of specific, individual developments that may be allowed under the proposed project. Each specific future project may require separate environmental review, as required by CEQA, to secure the necessary discretionary development permits. Therefore, while subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects. Future activity that could occur following the certification of this EIR includes, but is not limited to, the following, provided they are consistent with the General Plan and Zoning Ordinance:
- Public and private development project approvals (e.g., tentative maps, variances, use permits).
- Development agreements.
- Funding approval of capital projects.
- Issuance of permits and other approvals necessary for implementation of the proposed project.

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3 California Environmental Quality Act Guidelines, Section 15126, Consideration and Discussion of Environmental Impacts.
3.2 EXISTING CONDITIONS

3.2.1.1 SOUTHEAST GREENWAY AREA LOCATION

The Southeast Greenway Area is comprised of approximately 57 acres of land located in southeast Santa Rosa and is currently owned by Caltrans. As shown on Figure 3-2, the Southeast Greenway Area follows a 1.9-mile linear path from Farmers Lane/SR 12 to Spring Lake Regional Park.

3.2.1.2 EXISTING AND SURROUNDING USES

The existing uses in the Southeast Greenway Area are described by three subareas below.

West Subarea

As shown on Figure 3-3, the 18.3-acre West Subarea follows a linear path from Farmers Lane to Wanda Way. The West Subarea is primarily composed of grassland with three creeks, numerous swales, and potential wetlands. Matanzas Creek is located within this subarea, and there are a number of drainage swales that collect runoff from the property and some adjoining properties. An underground stormwater conduit, called the Spring Creek Diversion is also located along the southern edge of the Southeast Greenway Area from Franquette Avenue in this subarea to Summerfield road at the eastern edge of the Central subarea. The overall elevation of the subarea ranges from 220 feet above mean sea level (amsl) on the western edge to 350 feet amsl along the eastern border. Surrounding land uses include retail, office, multi-family residential uses, and Montgomery High School to the north; the continuation of the project site to the east; retail, senior housing, and Matanzas Creek to the south; and Farmers Lane/SR 12 to the west.4

Central Subarea

As shown on Figure 3-4, the 22.6-acre Central Subarea follows a linear path from Wanda Way and Camden Court to Summerfield Road. The Central Subarea is primarily composed of undeveloped land with trees along the perimeter and remnant walnut orchard on the eastern portion of the site. Sierra Park Creek and Spring Creek, tributaries of Matanzas Creek, flow through this subarea. Informal paths along Sierra Park Creek connect Hoen Avenue to Mayette Avenue. There are a few trees located along Sierra Park Creek and potential swales/wetlands in the area between Yulupa Avenue and Sierra Park Creek. There is dense vegetation including trees and bushes near Summerfield Road where Spring Creek traverses the Central Subarea. The Central Subarea is relatively flat with a slight elevated area comprised of earthen fill between Janet Way and Yulupa Avenue. Surrounding land uses include single- and multi-family residential, and retail to the north and south, religious institutional/school facilities to the north, and the continuation of the project site to the east and west.5

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4 City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 13 to 26.
5 City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 27 to 38.
Source: City of Santa Rosa, Mike Hargreaves, Information Technology GIS, 2014.
PROJECT DESCRIPTION

Source: City of Santa Rosa, Mike Hargreaves, Information Technology \ GIS, 2014.

Figure 3-4

Central Subarea
SOUTHEAST GREENWAY GENERAL PLAN AMENDMENT AND REZONING DRAFT EIR
CITY OF SANTA ROSA

PROJECT DESCRIPTION

East Subarea

As shown on Figure 3-5, the 16.3-acre East Subarea follows a linear path from Summerfield Road to Spring Lake Regional Park. The East Subarea is primarily composed of grassland and rocky outcroppings, oak woodlands, two potential wetlands, and a small remnant walnut orchard. This subarea does not have any creeks, but there are a number of drainage swales that collect runoff from the property and some adjoining properties. The overall elevation of the subarea ranges from 220 feet amsl on the western edge to 350 feet amsl along the eastern border. Surrounding land uses include single- and multi-family residential to the north and south, Spring Lake Regional Park to the east, and the continuation of the project site to the west.\(^6\)

3.2.1.3 EXISTING LAND USE AND ZONING

As shown on Figure 3-6, the project site does not currently have a General Plan land use designation. In addition to the General Plan 2035, the City of Santa Rosa Zoning Code is the primary tool used to implement the land use goals, policies, and implementation programs of General Plan 2035 and to regulate all land use within the city. Under State law\(^7\) and the SRCC, all parcels are required to be zoned consistent with the City’s General Plan 2035. The Zoning Code identifies land use categories, site development regulations, and other general provisions that ensure consistency between the General Plan and proposed development projects. As shown on Figure 3-7, the Southeast Greenway Area is comprised of various zoning districts including various types of residential, planned development and public facilities. However, these zoning districts were mere extensions of surrounding zoning districts that predate General Plan 2035. Given that the project site does not have any General Plan land use designation, the preliminary or “remnant” zoning districts do not authorize specific land uses. As discussed in detail under Section 3.5, Project Components, the proposed project includes new General Plan land use designations and conforming zoning.

3.3 PROJECT STUDY AREA

The proposed project constitutes an amendment to the General Plan 2035. As such, this EIR includes an evaluation of the proposed project as it relates to the city-wide buildout potential anticipated under the General Plan 2035. Because the State of California encourages cities to look beyond their borders when undertaking the sort of comprehensive planning required of a General Plan, the EIR study area consist of all the land within the city of Santa Rosa, its Sphere of Influence (SOI) (where the City maintains a role in land use and transportation decisions through future annexations of unincorporated areas), Urban Growth Boundary (UGB), and a Planning Area (where the City believes the Santa Rosa community should be able to participate in influencing land use and transportation decisions). These boundaries are shown in Figure 3-8 and described below.

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\(^6\) City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 39 to 48.

\(^7\) California Government Code, Title 7, Planning and Land Use, Division 1, Planning and Zoning, Chapter 4, Zoning and Regulations, Article 2, Adoption and Regulations, Section 65860.
Figure 3-5
East Subarea

Source: City of Santa Rosa, Mike Hargreaves, Information Technology \ GIS, 2014.
Southeast Greenway Existing Land Use

Source: City of Santa Rosa, 2017; PlaceWorks, 2017.
Southeast Greenway Zoning

Source: City of Santa Rosa, 2017; PlaceWorks, 2017.

Figure 3-7

SOUTHEAST GREENWAY GENERAL PLAN AMENDMENT AND REZONING DRAFT EIR
CITY OF SANTA ROSA

PROJECT DESCRIPTION
Figure 3-8
Planning Area Boundary

Source: ESRI, 2008; City of Santa Rosa, 2008.
3.3.1 PLANNING AREA

The Planning Area for the proposed project, which is the same as the General Plan, is 118 square miles, and encompasses the city limits, SOI, and the Urban Growth Boundary. The purpose of including these additional areas is to provide adequate physical context for areas that could impact or be impacted by land use, development, and other changes in Santa Rosa, including impacts to hydrology, traffic, and biological resources, among others. Designating the Planning Area does not give the City any regulatory power over the land outside the city limits or SOI, but it signals to the County and to other nearby local and regional authorities that Santa Rosa recognizes that development within this area may have an impact on the future of the city. Although General Plan 2035 policies and zoning codes do not currently apply in these locations, General Plan policies must consider these areas and their relationship to the incorporated areas of Santa Rosa. Because the City does not currently have jurisdiction over all of the land in the Planning Area, no physical impacts on land outside the SOI or city limits but within the Planning Area are expected. See Chapter 4.0, Environmental Evaluation, for a description of the cumulative impact scope for this EIR, which may include lands within the Planning Area and beyond, depending on the environmental topic being analyzed.

3.3.2 SPHERE OF INFLUENCE

The SOI is a boundary that identifies land that the City may annex in the future, and for which urban services, if available, could be provided upon annexation. Under State law, the SOI is established by the Sonoma County Local Agency Formation Commission (LAFCo) with input from the City. The purpose of the SOI is to identify areas where urban development can be best accommodated over the next 5 to 10 years in an orderly and efficient manner. While the City does not have jurisdiction over land within the SOI, designating an SOI sets precedence for ensuring that the City is able to comment on development proposed for lands within the SOI prior to annexation and to begin planning for future development of the area. Establishment of this boundary is necessary to determine which governmental agencies can provide services in the most efficient way to the people and property in the area. Unincorporated areas adjacent to Santa Rosa fall under the planning, land use, and regulatory jurisdiction of Sonoma County. The City does not propose to annex any of these areas as part of this project.

3.3.3 CITY LIMITS

The city limits enclose an area of approximately 41.67 square miles. The City has primary authority over land use and other governmental actions within this area. The City of Santa Rosa is characterized by a wide range of existing land uses, including industrial, residential, commercial, office, and agricultural uses. The eastern portion of the City of Santa Rosa is located in the foothills of the Sonoma Mountains (part of the inner Coast Range), and the western portion is on the Santa Rosa Plain (also called the Llano de Santa Rosa). Santa Rosa is bisected by Santa Rosa Creek, which originates in the foothills of the Sonoma Mountains, and runs from east to west through the city, across the Santa Rosa Plain, and into the Laguna de Santa Rosa. Other creeks, including Piner Creek, Brush Creek, and Matanzas Creek, run through or near the city limits and are tributaries of Santa Rosa Creek.
3.3.4 URBAN GROWTH BOUNDARY

Santa Rosa’s UGB area encompasses 45.5 square miles. The UGB contains the city of Santa Rosa, as well as unincorporated land that is planned for annexation and would eventually be served by the city. UGBs identify a geographic location within which a municipality attempts to cluster development and public services. According to the General Plan, residential land uses comprise approximately 50 percent of the city’s acreage within the UGB. Approximately seven percent is occupied by commercial or office uses (including business parks) and less than four percent is devoted to industrial activities.

3.4 PROJECT OBJECTIVES

The primary goal of the proposed project is to establish General Plan land use designations and zoning districts to the Southeast Greenway Area in order to plan for anticipated future uses while sustaining the community’s character. Building upon this primary goal, the following project objectives were established through a collaborative process:

- Provide a linear park with park and recreational uses including open space, educational and cultural opportunities, and active and passive recreation for residents and visitors.
- Provide continuous pedestrian, bicycle, and non-motorized transportation connections from Spring Lake Regional Park to Farmers Lane and links to downtown Santa Rosa, surrounding neighborhoods and schools, and the regional trail system.
- Provide opportunities for high-density residential, retail, commercial, and public/institutional land uses.
- Enhance and protect wetlands, wildlife habitat, groundwater and air quality through sustainable development practices.
- Support a walkable and livable neighborhood, promote economic vitality, and encourage social equity.
- Promote public safety and respect the character of adjacent neighborhoods.

3.5 PROJECT COMPONENTS

3.5.1 PROPOSED GENERAL PLAN AMENDMENTS

The proposed General Plan Amendment includes changes to three elements: Land Use and Livability, Transportation, and Public Services and Facilities. The Land Use and Livability element would be amended to include a description of the Southeast Greenway’s Land Use Concept and Circulation Concept, along with a detailed map illustrating these concepts. Each of the three elements would be updated to include new goals and policies that address the Southeast Greenway. These proposed amendments are described in detail below.
3.5.1.1 PROPOSED LAND USE CONCEPT

The Land Use Concept provides general guidance on the physical development of the Southeast Greenway Area, describing the proposed land use designations and outlines the general uses and standards of building density and intensity for these land use designations. The proposed changes to the General Plan land use designations are within the Southeast Greenway Area only as shown on Figure 3-9. The proposed potential allowable uses are described below and shown on Figure 3-10.

- **Parks and Recreation.** Parkland with a mostly natural appearance would maintain a minimum width of 100 feet (but often wider) for the length of the Greenway, and would include pathways for pedestrians, bicyclists, and non-motorized access; native plantings; and some areas dedicated to play areas and picnic areas near access points. Within the parkland, select areas are appropriate for the following uses:
  - **Public Plaza.** Locations for small gatherings, trailheads, and gateways. These areas would include signage and seating, and could include restrooms, kiosks, public art, and public parking.
  - **Natural Open Space.** These areas would be for wildlife habitat and planted with appropriate native plants.
  - **Creek Restoration.** Areas around creeks would be restored with riparian vegetation where appropriate. Aside from designated trails, these areas would have minimal access.
  - **School Facilities.** This is intended to be an area for joint-use active recreational uses (swim center, running tracks, basketball or tennis courts), “outdoor classrooms,” and associated restrooms and lighting that could serve as an extension of Montgomery High School. The area could be usable by other schools, as well as the community at-large, and could benefit from sharing the school's existing parking lots.
  - **Community Gathering Place.** This space would benefit from its proximity to the school facilities, potentially sharing Montgomery High School's existing parking lot and would allow facilities for large, organized community events like celebrations, festivals and concerts. It could include a small amphitheater.
  - **Urban Agriculture.** These areas would allow community gardens or working farms, including orchards. They are primarily located near pedestrian/bicycle cross intersections and new housing. Community gardens serve the neighborhood and bring more “eyes to the Greenway” enhancing the safety for all users. They would be sited at pedestrian pathways to neighboring residential areas.
  - **Utilities.** In addition to the above-mentioned uses, the parkland must accommodate the existing Spring Creek Diversion that runs east-west along the southside of the Greenway and a new well field site and associated treatment facilities that are needed to enhance the City’s water supply along the northern side of the Greenway at the terminus of Albert Drive.
Notes: 1. Densities are housing units/gross acre
2. Stripes indicate areas designated for multiple land uses. Single use or a mix of uses is permitted.
3. Areas outside of the Urban Growth Boundary generally reflect the designations of the Sonoma County General Plan.

Source: The City of Santa Rosa, Excerpt from the General Plan Land Use Diagram.
Potential Greenway Uses

There are not General Plan land use designations, but are meant to guide future development.

Figure 3-10
Proposed Southwest Greenway Illustrative Map
Mixed-use. Two locations are appropriate for residential development with ground-floor retail uses, and potentially separate commercial structures. This mix will adhere to the land use designations of Medium High Density Residential and Retail & Business Services. Residential uses are required in this designation at a density of 18 to 30 dwelling units per acre which would result in 106 to 177 units. The individual sites are described below:
- One site is located on the 4.7-acre triangular parcel at the terminus of SR 12, bordered by Farmers Lane, Hoen Frontage Road and the SR 12 on-ramp. This site could result in up to 12,000 square feet of commercial space and 85 to 142 multifamily units.
- The other site is west of Yulupa Avenue on a 1.2-acre site, adjacent to other multi-family housing. This land use also could result in approximately 2,000 square feet of commercial space and 21 to 35 multifamily units.

2- to 3-Story Attached Housing. Apartments or condos of 2- to 3-stories in height would be allowed along Vallejo Street near housing of a similar nature on a 3.7-acre site. This land use adheres to the Medium Density Residential designation which would allow a density of 8 to 18 dwelling units per acre which could result in 30 to 67 residential units.

Adoption and implementation of the proposed land use designations would result in a continuous linear mix of park and recreational uses including open space with native plantings and areas restored to their natural habitat, interspersed with picnic areas, playgrounds, community gardens, educational/recreational spaces that can be used by neighboring schools, and a strategically located place for community gatherings. In addition, the proposed land use designations would allow for the future development of retail services, housing, and lodging for Santa Rosa residents and visitors.

3.5.1.2 PROPOSED CIRCULATION CONCEPT

The Circulation Concept contains descriptions of multi-modal access points, crossings, and connections throughout the Southeast Greenway Area. The proposed pedestrian and bicycle connections would increase connectivity between neighborhoods located north and south of the Southeast Greenway Area. The proposed circulation designations apply within the Southeast Greenway Area only.

The Circulation Concept includes strategies that would be effective in creating the most functional circulation system possible for the full range of users and travel modes within the Southeast Greenway Area. The proposed designations would promote connectivity within the Southeast Greenway Area and surrounding neighborhoods. The Circulation Concept includes the following multi-modal improvements that apply within the Southeast Greenway Area.

- Multi-use Paths: Multi-use paths running east to west would include a paved bike path (to accommodate travel in both directions) and paths to accommodate walkers, runners, and possibly equestrians (on the path east of Summerfield Road).
- Mid-block Crossings: Mid-block crossings are proposed at Summerfield Road, Yulupa Avenue, and Franquette Avenue. These will differ depending on the street to create bicycle and pedestrian crossings where the multi-use paths cross vehicle traffic.
- Intersection Crossings: Intersection crossings with enhanced signing, striping, and/or signal operations to improve pedestrian/bike travel are proposed at Hoen Avenue and Cypress Way, and at the new
driveway on Hoen Avenue Frontage Road just west of the Highway 12 on-ramp where a new public street access is specified by the proposed project which would provide primary access to the potential future mixed-use development.

- **Vehicular Access:** New vehicular access and driveways serving mixed-use and residential development would be located on Hoen Avenue Frontage Road, Vallejo Street, and Yulupa Avenue. Access to the large mixed-use site would require a signalized intersection on Hoen Avenue Frontage Road. Access to trailheads/public plazas would be from Vallejo Street, Hoen Avenue, Yulupa Avenue, and Summerfield Road. Emergency vehicles would have access to the entirety of the Greenway.

- **Pedestrian/Bicycle Connections:** A number of north/south pedestrian/bicycle connections have been identified to connect to neighborhoods, provide safe routes to school, and to provide access to the Greenway between the cross streets. Numerous access points would facilitate easier pedestrian/bicycle access to the Greenway and allow areas between the roadways to be activated with foot and bicycle traffic.

The multi-use paths connect to a number of existing and planned City bicycle facilities that lead to Downtown. In the west, bicyclists en route to Downtown Santa Rosa could choose to connect on bicycle facilities along proposed Class III facilities on Hoen Avenue to existing Class III facilities on Hahman Drive to existing Class II facilities on Sonoma Avenue. Alternatively, bicyclists could choose to use proposed Class III facilities on Vallejo Street to existing Class II facilities on Sonoma Avenue.

Circulation improvements should be analyzed on the west side of the Greenway. With the existing condition of the SR 12 on-ramp, pedestrians would not be able to effectively cross rapidly moving traffic. Therefore, the City performed preliminary analyses of two options for direct access to the multi-use paths.

- **Pedestrian/Bicycle Undercrossing:** An undercrossing was studied to connect the multi-use pathway on the north side of the on-ramp to connect to the mixed use development on the south side. This undercrossing could be configured under the on-ramp in the form of a box culvert.

- **State Route 12 On-ramp Minor Modification:** An alternative to the undercrossing is to slightly reconfigure the on-ramp where it meets Hoen Avenue Frontage Road and include pedestrian/bicycle crossing features so that pedestrians and bicyclists can safely cross and access the mixed-use development.

### 3.5.1.3 PROPOSED GOALS AND POLICIES

The proposed goals and polices have been carefully prepared to guide future development within the Southeast Greenway Area only. They are organized into three Elements of the General Plan; Land Use and Livability, Transportation, and Public Service and Facilities. The Land Use and Livability goals and policies address orderly development, design features, and land use compatibility. The Transportation goals and policies address safe multi-modal facilities, trails, and parking. The Public Service and Facilities goals and

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8 A Class III Bikeway is an on-street facility that provides for shared use with pedestrian or motor vehicle traffic. Bike Lanes are designated by a shared roadway sign.

9 A Class II Bikeway is an on-street facility with dedicated space for bicyclists, usually near the right side of the street. Bike Lanes are designated by roadway striping and signage.
policies address open space preservation, creek restoration, and public infrastructure. The adoption and implementation of the proposed goals and policies would ensure that the Southeast Greenway Area serves as public open space with nodes of connectivity and housing opportunities in the heart of Santa Rosa. The proposed goals and policies are listed below.

**Land Use and Livability Goals and Policies**

**Goal LUL-NN**  
*Develop the Southeast Greenway sustainably to enhance and protect wetlands, wildlife habitat, groundwater, and air quality.*

- **Policy LUL-NN-1**  
  Restore or enhance the areas around the three creeks that cross the Southeast Greenway: Matanzas Creek, Sierra Park Creek, and Spring Creek, consistent with the Citywide Creek Master Plan.

- **Policy LUL-NN-2**  
  Maximize open space and native plantings in the Southeast Greenway to provide a wildlife corridor to the greatest extent possible and reduce maintenance costs with the use of self-sustaining plant species.

- **Policy LUL-NN-3**  
  Increase stormwater infiltration and groundwater recharge.

**Goal LUL-OO**  
*Develop the Southeast Greenway to support a walkable, livable neighborhood, promote economic vitality, and encourage social equity.*

- **Policy LUL-OO-1**  
  Develop the site between Hoen Avenue Frontage Road and the Highway 12 on-ramp with a mix of residential and commercial development. Residential uses are required on this site and should be maximized. Lodging uses are allowed. Development of the site will require provision of pedestrian and bicycle access to the Southeast Greenway trails to the north.

- **Policy LUL-OO-2**  
  Create a Southeast Greenway gateway on the western edge of the Greenway that offers a prominently visible entrance to the open space and increases visitor awareness of the amenity.

- **Policy LUL-OO-3**  
  During the next General Plan update, consider a future planning effort for the area south of the Southeast Greenway between Franquette Avenue and Summerfield Road to identify land uses which would enable these properties to redevelop to improve the interface with the Greenway.

- **Policy LUL-OO-4**  
  Seek opportunities for shared parking to serve the Southeast Greenway. These include Montgomery High School, Spring Lake Regional Park, and adjacent non-residential uses.

**Goal LUL-PP**  
*Design uses on the Southeast Greenway to maximize the Greenway’s safety, accessibility, and respect for adjacent neighborhoods.*
Policy LUL-PP-1  Require all new development on or abutting the Southeast Greenway to front the Greenway with windows and entries, and limit fencing height and material to ensure views from private property into the Greenway to enhance public safety.

Policy LUL-PP-2  Locate new residential uses at select locations along the Southeast Greenway where they can access existing streets and infrastructure. These new uses should be sensitively designed to consider the scale of neighboring residential areas, maintain public views of the hills, and limit shade on the Greenway’s recreation areas.

Policy LUL-PP-3  Require the design of all structures, utilities and access roads in the Southeast Greenway to maximize public safety, attractiveness, and compatibility with other uses in the Greenway and surrounding neighborhood.

Policy LUL-PP-4  Provide for parking on the Southeast Greenway in future design phases of the project to minimize parking in surrounding neighborhoods.

Transportation Goals and Policies

Goal T-N  Provide a continuous pedestrian, bicycle, and non-motorized transportation connection from Spring Lake Regional Park to Farmers Lane and link to downtown Santa Rosa, surrounding neighborhoods and schools, and the regional trail system.

Policy T-N-1  Provide separate trails for bicycle and pedestrian use, and permit them to meander to respond to topographic or other features in the Southeast Greenway. Separate bicycle and pedestrian facilities should join together to cross streets and creeks for safety and habitat protection.

Policy T-N-2  Provide multi-use path crossings where the Southeast Greenway intersects with Hoen Avenue, Franquette Avenue, Yulupa Avenue, and Summerfield Road to enhance the crossings for cyclists and pedestrians at these locations. These could include enhanced crosswalks, median refuges, pedestrian and bicyclist activated signals and warning signage for drivers.

Policy T-N-3  Identify and sign a bicycle route from the Southeast Greenway to Downtown that is direct, well-marked, and easy to navigate, while ensuring multiple connections. Consideration should be given to the following routes as identified in the Bicycle and Pedestrian Master Plan to determine the highest priority for improvement: Franquette to Sonoma Avenue; Hoen Avenue to Sonoma Avenue; Hoen Avenue to Hahman Drive to Sonoma Avenue; and Vallejo Street to E Street.

Policy T-N-4  Ensure additional bicycle facilities connect to the Southeast Greenway as proposed in the Bicycle and Pedestrian Master Plan.

Policy T-N-5  Provide for parking on the Southeast Greenway and seek shared parking opportunities in adjacent non-residential uses, such as Montgomery High School and Spring Lake Regional Park.
Park in future design phases of the project to maximize a park once experience and minimize parking in surrounding neighborhoods.

Public Services and Facilities Goals and Policies

**Goal PSF-J**  
Provide natural open space, educational and cultural opportunities, and active and passive recreation for residents and visitors.

Policy PSF-J-1  
Coordinate with Santa Rosa City School District and Montgomery High School to share educational, recreational, and parking facilities to the greatest extent feasible.

Policy PSF-J-2  
Site the locations of community gardens as closely as possible to access points from neighboring residential areas to encourage use and activity.

**Goal PSF-K**  
Ensure that the Southeast Greenway’s natural open space is continuous from Spring Lake Regional Park to Hoen Avenue (except in existing street crossings), and is as wide as possible but not less than 125 feet in width. The only exception is the “pinch point” east of Summerfield Road where the right-of-way narrows to approximately 68 feet in width.

Policy PSF-K-1  
Support exploration of acquisition of property at the “pinch point” from property owners to allow for a wider and more accessible trail in that location.

**Goal PSF-L**  
Accommodate public infrastructure on the site.

Policy PSF-L-1  
Allow an easement for the Sonoma County Water Agency to install a pipeline through the Southeast Greenway to help provide needed redundancy in the regional water system.

Policy PSF-L-2  
Plan around the existing City well and allow potential additional wells near Franquette Avenue and Martha Way.

Policy PSF-L-3  
Allow the existing Spring Creek Diversion and existing and new water and sewer lines through the Southeast Greenway.

**Goal PSF-M**  
Plan for the Southeast Greenway’s improvements collaboratively to ensure an effective Greenway that meets the needs of the City, public agencies, and the citizens of Santa Rosa.

Policy PSF-M-1  
Coordinate the Greenway’s planning, acquisition, development, maintenance, stewardship, safety, and funding by working with the community, public agencies and private partners.

### 3.5.2 PROPOSED ZONING AMENDMENT

The proposed project includes an amendment to the City’s Zoning Ordinance for the Southeast Greenway Area, including assigning zoning districts and revising development standards, to ensure consistency with
the General Plan 2035. Other than as identified, no other changes to the Zoning Ordinance are proposed as part of the proposed project.

The proposed Zoning amendment would assign the Zoning districts described below, which would apply to the Southeast Greenway Area only as shown in specific locations on Figure 3-11.

- **Open Space Recreation (OSR) district.** The OSR zoning district is applied to public park and recreation sites and areas within the city. The allowable uses in this district are in the Zoning Code Table 2-12 in Section 20-26.030. The maximum height for allowable residential uses in the OSR district is 35 feet; non-residential structures may be greater height if authorized by a Conditional Use Permit as noted in Section 20-26.040. The following land uses are not permitted in the Southeast Greenway Area as denoted on Figure 3.10 and described in the Proposed Land Use Concept in Section 3.5.1.1 above:
  - Golf course/country club (public or quasi-public)
  - Caretaker unit
  - Community care facility—6 or fewer clients
  - Home occupation
  - Mobile home/manufactured housing unit
  - Multi-family dwellings
  - Residential accessory structures and uses
  - Second dwelling unit
  - Single-family dwelling
  - Single-family dwelling, attached
  - Transitional housing
  - Office—Accessory
  - Office—Government
  - Child day care—Small family day care home
  - Child day care—Large family day care home

- **Commercial General (CG) 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, personal and business services, and restaurants. Residential uses may also be accommodated as part of mixed use projects, and independent residential developments. The allowable uses in this district are in the Zoning Code Table 2-6 in Section 20-23.030. The maximum height allowed in the CG district is 55 feet as noted in Section 20-23-040. The following land uses are not permitted in the Southeast Greenway Area as denoted in Figure 3.10 Illustrative Map and described the Proposed Land Use Concept in section 3.5.1.1 section above:
  - Auto and vehicle sales and rental
  - Auto parts sales (no installation services)
  - Building and landscape materials sales—Outdoor
  - Drive-through retail sales
  - Gas station
  - General retail—More than 20,000 square feet, up to 50,000 sf
  - General retail—More than 50,000 square feet of floor area
  - Grocery store, large—20,000 square feet and greater
  - Night club
  - Warehouse retail
  - Medical service—Hospital
  - Vehicle services—Minor maintenance/repair
EXEMPLARY ZONING MAP

ZONING
CG General Commercial
CN Neighborhood Commercial
CO Office/Commercial
OSR Open Space Recreation
PD Planned Development
PI Public Institutional

R-1-6, R-1-7.5, R-1-9 Single Family Residential
R-2, R-3-15, R-3-18, R-3-30, R-3-HD Multi Family Residential
RR-20, RR-40 Rural Residential

PROJECT DESCRIPTION

SOUTHEAST GREENWAY GENERAL PLAN AMENDMENT AND REZONING DRAFT EIR
CITY OF SANTA ROSA

EXEMPLARY FROM THE ZONING MAP

Source: PlaceWorks, 2017.

Figure 3-11
Proposed Southeast Greenway Area Zoning Map
**Neighborhood Commercial (CN) 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 encouraged to include both a residential and nonresidential component as noted by Section 20-23.030 (Commercial Land Uses and Permit Requirements). The allowable uses in this district are in the Zoning Code Table 2-6 in Section 20-23.030. The maximum height allowed in the CG district is 45 feet as noted in Section 20-23-040. The following land uses are not permitted in the Southeast Greenway Area as denoted in Figure 3.10 and the Proposed Land Use Concept in section 3.5.1.1 section above:

- Gas station
- General retail—More than 20,000 square feet, up to 50,000 square feet
- Grocery store, large—20,000 square feet and greater
- Medical service—Hospital

**Multi-Family Residential (R-3-18) district.** The R-3 zoning district is 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 allowable uses in this district are in the Zoning Code Table 2-2 in Section 20-22.030. The maximum allowable density ranges from 8 to 18 dwelling units per acre. The maximum height allowed in the R-3-18 district is 45 feet as noted in Section 20-22-050.

### 3.5.3 PROPOSED BUILDOUT PROJECTIONS

The buildout of the potential future development within the Southeast Greenway Area is based on a horizon year of 2035 which is consistent with the General Plan 2035; therefore, this EIR analyzes growth occurring between 2017 and 2035, which represent an 18-year buildout horizon. Under CEQA Guidelines Section 15126.6(3)(A), when a project consists of the revision of a plan or policy, the project’s impacts are assessed against existing conditions, and future conditions under the existing plan are treated as the “No Project” alternative. Under Section 15064(d) of the CEQA Guidelines, “In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.” The buildout projections represent the City’s projection of “reasonably foreseeable” development that could occur over the next 18 years under the General Plan and are used as the basis for the EIR’s environmental assessment. See Chapter 4, Environmental Evaluation, of this Draft EIR, for a description of environmental analysis scenarios for this EIR.

Table 3-1 provides a summary of the total development projections, showing all of the reasonably foreseeable growth under the existing General Plan 2035 and the net new development potential that is proposed to occur only in the Southeast Greenway Area as shown on Figure 3-9. As shown in Table 3-1, the proposed net new growth for the Southeast Greenway Area is up to 47.2 acres of open space, 244 multi-family housing units, and 12,000 square feet of commercial space, which could generate up to 632 new residents and 40 new employees. The actual rate and amount of development at the project site would be dependent on market conditions and regulatory processes.
### PROJECT DESCRIPTION

#### TABLE 3-1  PROPOSED 2035 HORIZON-YEAR BUILDOUT PROJECTIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>General Plan 2035 Projections</th>
<th>Proposed Project</th>
<th>Maximum Citywide 2035 Buildout</th>
</tr>
</thead>
<tbody>
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<td>Non-Residential Square Feet</td>
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<td>12,000</td>
<td>40,742,631</td>
</tr>
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<td>Housing Units</td>
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<td>244d</td>
<td>95,084</td>
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<td>Park and Recreational Acres</td>
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<td>47.2</td>
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<tr>
<td>Population</td>
<td>233,520</td>
<td>632g</td>
<td>234,152</td>
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<td>Employees</td>
<td>128,400</td>
<td>40h</td>
<td>128,440</td>
</tr>
</tbody>
</table>

Notes: Numbers are estimates and rounded for the purposes of this program-level environmental review.

a. These projections are from the General Plan 2035 EIR certified in 2009 (State Clearinghouse Number 2011092010) and the 2014 to 2022 Housing Element Addendum to the General Plan 2035 EIR approved in 2014. Note the General Plan 2035 EIR evaluated 23,770 new housing units in the city’s Urban Growth Boundary. See Table 3-1, Buildout Changes Between the 2020 to 2035 General Plans, on page 3-8.

b. The Proposed Project development potential represents increases development potential for the Southeast Greenway Area only.

c. The Maximum Citywide 2035 Buildout potential represents the total of the two columns (Existing General Plan + Proposed Project).

d. This represents multi-family housing units and 2-3 story attached housing units.

e. As shown in Table 3-1, on page 3-8 of the General Plan 2035 EIR, the City did not include a projection for future park buildout. However, as shown in Table 4.P-2, Park Acreage Needs In 2035, it was determined that the City would need 1,401.12 acres of recreational area by the Citywide 2035 buildout horizon in order to meet its standard of 6 acres of parkland per 1,000 residents.

f. Park and recreational acres are comprised of Greenway (18.3 acres), Public Plaza (4 plazas x 0.25 each = 1.0 acres), Natural Open Space (17.8 acres), Creek Restoration (3.1 acres), School Facilities (1.4 acres), Community Gathering Place (0.5 acres), and Urban Agriculture (5.1 acres).

g. Assumes 2.59 persons per household per Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2016.

h. Assumes 300 square feet per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6.

Source: City of Santa Rosa and PlaceWorks 2017.

### 3.5.4 UTILITIES

As described above, the 57-acre site is generally undeveloped. Therefore, proposed future development would require connections to sewer, water, and drainage facilities. The area is generally well-served with these utilities and therefore implementation of the proposed project would not likely require significant off-site infrastructure improvements. However, some infrastructure improvements are anticipated. The SCWA needs to install a pipeline through the Southeast Greenway Area in order to provide needed redundancy in the regional water system. The City has a successful test well near Franquette Avenue and Martha Way; to provide emergency water supply for the City and needed redundancy for the City’s water supply unrelated to the proposed project, the City needs to develop a wellfield and install groundwater wells, pumps houses, and infrastructure improvements between Albert Drive and Wanda Way. The City also needs space for the existing Spring Creek Diversion, and existing and new water and sewer lines through the area. In addition, the future development within the proposed mixed-use land designation would require an approximate 600-foot extension to the sewer main at Farmers Lane Plaza. This EIR does not evaluate the specific details associated with the installation of future utilities including the SCWA water pipeline and City groundwater wells. Once utility and pipelines projects are planned and the details are known, additional environmental review may be required.
3.6 REQUIRED PERMITS AND APPROVALS

The proposed project would be adopted solely by the City without permitting by other agencies. The proposed project does not include any specific development proposals. Future development in the Southeast Greenway Area would need to be consistent with General Plan goals and policies and conform to applicable Zoning development and design standards. Depending on the proposal, a project may be exempt from CEQA review because a CEQA exemption applies or the approval is ministerial, or a project may require further environmental review and subsequent analysis in a Negative Declaration, Mitigated Negative Declaration, or an EIR.

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10 Projects may be ministerial, which means that they do not require any discretionary review. Building permits will be required for all structures.
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4. Environmental Evaluation

CHAPTER ORGANIZATION

This chapter of the Draft EIR is made up of 14 subchapters, which evaluate the direct, indirect, and cumulative environmental impacts from adoption and implementation of the proposed project. The following sections describe the format of the environmental analysis, the format of the thresholds of significance and the methodology of the cumulative impact analysis.

FORMAT OF ENVIRONMENTAL ANALYSIS

The California Environmental Quality Act (CEQA) Guidelines Section 15128 allows for no analysis of environmental issues for which there is no likelihood of significant impact. Due to the location of the proposed project in an urbanized area in the city of Santa Rosa, no impacts would occur to agricultural, forestry or mineral resources. A brief discussion of each topic is provided as follows:

- **Agricultural Resources:** Maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency categorize lands within Santa Rosa as Urban and Built-Up Land.\(^1\) There are no agricultural lands classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the city of Santa Rosa. The California Land Conservation Act (Williamson Act) 2014 State Report identifies land in Sonoma County that is under Williamson Act contract; however, none are located within the city of Santa Rosa.\(^2\) Therefore, future development facilitated by the adoption and implementation of the proposed project would not conflict with lands under Williamson Act contract. For these reasons, there would be no impacts to agricultural resources under CEQA.

- **Forestry Resources:** According to 2006 mapping data from the California Department of Forestry and Fire Protection, the city of Santa Rosa does not contain any woodland or forestland cover;\(^3\) therefore, the city does not contain land zoned for Timberland Production nor does the Santa Rosa Zoning Map identify areas zoned for Timberland Production.\(^4\) Consequently, there would be no impacts to forestry resources under CEQA.

- **Mineral Resources:** The California Department of Conservation, Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State

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Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans. The City of Santa Rosa has no General Plan Land Use designation for mineral resources. Therefore, no impacts to mineral sources under CEQA would occur.

Accordingly, this chapter of the Draft EIR is made up of 14 subchapters, which evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. In accordance with Appendix F, Energy Conservation, and Appendix G, Environmental Checklist, of the CEQA Guidelines as amended per Assembly Bill 52 (Tribal Cultural Resources) and the California Supreme Court in a December 2015 opinion [California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD), 62 Cal. 4th 369 (No. S 213478)], the potential environmental effects of the proposed project are analyzed for potential significant impacts in the following 14 environmental issue areas, which are organized with the listed abbreviations:

- Aesthetics (AES)
- Air Quality (AQ)
- Biological Resources (BIO)
- Cultural and Tribal Cultural Resources (CULT)
- Geology and Soils (GEO)
- Greenhouse Gas Emissions (GHG)
- Hazards and Hazardous Materials (HAZ)
- Hydrology and Water Quality (HYDRO)
- Land Use and Planning (LU)
- Noise (NOISE)
- Population and Housing (POP)
- Public Services and Recreation (PS)
- Transportation and Circulation (TRANS)
- Utilities and Service Systems (UTIL)

Each subchapter is organized into the following sections:

- **Environmental Setting** offers a description of the existing environmental conditions, providing a baseline against which the impacts of the proposed project can be compared, and an overview of federal, State, regional, and local laws and regulations relevant to each environmental issue.

- **Thresholds of Significance** refer to the quantitative or qualitative standards, performance levels, or criteria used to evaluate the existing setting with and without the proposed project to determine whether the impact is significant. These thresholds are based primarily on the CEQA Guidelines, and also may reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.

- **Impact Discussion** gives an overview of the potential impacts of the proposed project and explains why impacts are found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts related to the proposed project. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronym or abbreviated reference to the impact section.

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5 Public Resources Code, Division 2, Geology, Mines and Mining, Chapter 9, Surface Mining and Reclamation Act of 1975, Article 4, State Policy for the Reclamation of Mined Lands, Section 2762(a)(1).

THRESHOLDS OF SIGNIFICANCE

As noted above, significance criteria are identified before the impact discussion subsection, under the subsection, “Thresholds of Significance.” For each impact identified, a level of significance is determined using the following classifications:

- **Significant (S)** impacts include a description of the circumstances where an established or defined threshold would be exceeded.
- **Less-than-significant (LTS)** impacts include effects that are noticeable, but do not exceed established or defined thresholds, or can mitigate below such thresholds.
- **No impact** describes circumstances where there is no adverse effect on the environment.

For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse effect. If one or more mitigation measure(s) would reduce the impact to a less-than-significant level successfully, this is stated in the EIR. **Significant and unavoidable (SU)** impacts are described where mitigation measures would not diminish these effects to less-than-significant levels. The identification of a program-level significant and unavoidable impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with the applicable regulations and meet applicable thresholds of significance.

CUMULATIVE IMPACT ANALYSIS

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 impacts not caused by the proposed project. CEQA Guidelines Section 15130 requires an EIR to discuss cumulative impacts of a project when the project’s incremental effect is “cumulatively considerable.” Used in this context, cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effect of probable future projects.

Where the incremental effect of a project is not “cumulatively considerable,” a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. Where the cumulative impact caused by the project’s incremental effect and the effects of other reasonably foreseeable projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant.

The cumulative impacts discussions in subchapters 4.1 through 4.14 explain the geographic scope of the area affected by each cumulative effect (e.g., immediate project vicinity, city, county, watershed, or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing aesthetic impacts, the pertinent geographic study area is the vicinity of the areas of new development under the proposed project from which the new development can be publicly viewed and may contribute to a significant cumulative visual effect. In assessing macro-scale air quality impacts, on the other hand, all development within the air basin contributes to regional emissions.
of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect.

CEQA Guidelines Section 15130 of the CEQA Guidelines permits two different methodologies for completion of the cumulative impact analysis:

- The ‘list’ approach permits the use of a list of past, present, and probable future projects producing related or cumulative impacts, including projects both within and outside the city; and
- The ‘projections’ approach allows the use of a summary of projections contained in an adopted plan or related planning document, such as a regional transportation plan, or in an EIR prepared for such a plan. The projections may be supplemented with additional information such as regional modeling.

This Draft EIR uses the projections approach and takes into account growth from the proposed project within the Southeast Greenway Area, which encompasses the city limits, sphere of influence (SOI), and the urban growth boundary. In each subchapter of Chapter 4, the cumulative impacts discussion is based on the cumulative development described in Chapter 6, CEQA-Mandated Sections, of this Draft EIR. The following provides a summary of the cumulative impact setting for each impact area:

- **Aesthetics:** The cumulative setting for visual impacts is the land adjacent to the Southeast Greenway Area, in particular the areas where potential future development could occur.
- **Air Quality:** The cumulative air quality setting is the regional growth within the San Francisco Bay Area Air Basin.
- **Biological Resources:** The geographic scope of the cumulative analysis for biological resources is the 5-mile radius surrounding the Southeast Greenway Area.
- **Cultural Resources:** Cumulative impacts to cultural resources occur from potential future development under the proposed project combined with effects of development on lands within the region.
- **Geology and Soils:** The cumulative setting for impacts related to geology and soils is the land adjacent to the Southeast Greenway Area.
- **Greenhouse Gas Emissions:** Because GHG emissions are not confined to a particular air basin but are dispersed worldwide, the cumulative analysis focuses on the global impacts.
- **Hazards and Hazardous Materials:** The cumulative setting for impacts related to hazards and hazardous materials is the land adjacent to the Southeast Greenway Area.
- **Hydrology and Water Quality:** The geographic context used for the cumulative assessment of water quality and hydrology impacts is the Laguna de Santa Rosa Watershed and land adjacent to the Southeast Greenway Area.
- **Land Use and Planning:** The cumulative setting for land use and planning includes the City planning regulations and regional planning, with which the City is required to comply.
- **Noise:** The traffic noise levels are based on cumulative traffic conditions used for the traffic impact analysis, which takes into account cumulative development in the Southeast Greenway Area.
- **Population and Housing**: Impacts of cumulative growth are considered in the context of their consistency with regional planning efforts.

- **Public Services and Recreation**: Cumulative impacts are considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the service areas of each service provider.

- **Transportation and Circulation**: The cumulative setting for traffic and circulation applies the county-wide Sonoma County Transportation Authority’s (SCTA) SCTM\10 travel demand model to the transportation network in Santa Rosa and the Southeast Greenway Area.

- **Utilities and Service Systems**: Cumulative impacts are considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the service areas of each utility’s service area.
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4.1 AESTHETICS

This chapter describes the existing aesthetic character of the Southeast Greenway Area and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 REGULATORY FRAMEWORK

State Regulations

California Building Code

The California Building Code has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission and is updated every three years. The most current version went into effect in January 2017. The purpose of the California Building Code is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, outdoor lighting standards, use and occupancy, location, and maintenance of all building and structures within its jurisdiction.

California Building Code: CALGreen

California Green Building Standards Code of the California Code of Regulations, Title 24, Part 11, known as CALGreen, establishes building standards aimed at enhancing the design and construction of buildings through the use of building concepts that have a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. Specifically, Section 5.106.8, Light Pollution Reduction, establishes Backlight, Uplight, and Glare ratings to minimize the effects of light pollution for nonresidential development.

Local Regulations

General Plan 2035

The Urban Design (UD) element of the General Plan 2035 includes the following goals and policies specific to aesthetics and applicable to the proposed project:

- **Goal UD-A-1**: 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.


**Aesthetics**

- **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 Guidelines, Preservation District Plans, Scenic Roads policies, the Downtown Station Area Specific Plan, and the Citywide Creek Master Plan.

Examples of landmarks and community focal points are Old Courthouse Square, De Turk Round Barn, Railroad Square water tower, St. Rose School, Hotel La Rose, Santa Rosa Creek, Luther Burbank Home and Gardens, and views to the hills.

- **Policy UD-A-4:** In new developments, minimize overall grading by limiting site grading to the minimum necessary for driveways, parking areas, and understructure areas.

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

- **Policy UD-A-7:** Continue the city’s program of utility undergrounding.

- **Policy UD-A-8:** Maintain hillsides in the city as scenic backdrop to urban development.

- **Policy UD-A-10:** Relate landscape design to the natural setting. Require that graded areas within new development be revegetated.

- **Policy UD-A-11:** Require structures within new developments to step with the slope of the site. Absorb site topography through use of split-level designs.

- **Policy UD-A-12:** Promote green building design and low impact development projects.

- **Goal UD-F:** Maintain and enhance the diverse character of Santa Rosa’s neighborhoods. Promote the creation of neighborhoods – not subdivisions – in areas of new development.

- **Policy UD-F-2:** Protect natural topographic features such as hillsides, ridgelines and mature trees and stands of trees. Minimize grading of natural contours in new development.

- **Policy UD-F-4:** Provide visual interest in building, site, and landscape design that avoids the sense of a monotonous tract development.

**Santa Rosa City Code**

**Title 13, Streets, Sidewalks, and Public Places**

Title 13 of the SRCC includes regulations that govern street encroachments, utilities, parks, and setback lines. Chapter 13-12, Underground Utilities, includes regulations related to aesthetics which prohibit the above-ground suspension of any wires or any pole designed to carry telephone, telegraph, or electric conduit. Chapter 13-28, Setback Lines, includes development standards related to aesthetics which authorize the City Council to determine the minimum setback distance of the street line for the erection of buildings or structures along any portion of any street in the city.

**Title 18, Buildings and Construction**

As described under State Regulations, the California Building Code (Title 24, Part 2) and CALGreen (Title 24, Part 11), both include outdoor lighting standards to regulate light pollution. The City of Santa Rosa has
adopted all sections of the California Building Code Title 24, Part 2, in Chapter 18-16, California Building Code, and Chapter 18-42, Citation of California Green Building Standards Code, of the SRCC.

Title 20, Zoning

The SRCC Zoning Code implements the goals and policies of the General Plan 2035 by classifying and regulating the uses of land and structures within the city. The following provisions of the Zoning Code help minimize the visual impacts of new development projects in Santa Rosa.

Chapter 20-30, Standards for all Development and Land Uses

This chapter of the Zoning Code sets forth standards to address the details of site planning and project design to ensure that all development within Santa Rosa creates an environment of desirable character, is compatible with existing and future development, and protects the use and enjoyment of neighboring properties consistent with the General Plan 2035. SRCC Section 20-30.040, Creekside Development, requires minimum setbacks for new structures located near waterways in order to provide reasonable protection of riparian habitat and the public. SRCC Section 20-30.080, Outdoor Lighting, establishes maximum height standards for outdoor lighting on private property and requires the use of energy-efficient fixtures. In addition, new development is required to shield and direct lighting fixtures downward and away from adjoining properties to reduce spill-over lighting and light pollution.

Section 20-52.030, Design Review

This section of the Zoning Code establishes procedures for the City’s review of the design aspects of proposed development in compliance with the adopted Santa Rosa Design Guidelines (Design Guidelines). Proposed development requiring a building permit and/or resulting in exterior physical changes to existing structures are subject to the City’s design review process.¹ The design review authority charged with reviewing proposed development projects varies depending on the scale of the project. Projects that involve minor improvements such as a new door or window are reviewed by the Director of Planning and Economic Development. Development projects with up to 10,000 square feet of total floor area that are not located within a historic district are reviewed by the Zoning Administrator. Development projects with 10,000 square feet or more of total floor area that are not located within a historic district or projects with 5,000 square feet or more that are located within a historic district are reviewed by the Design Review Board (DRB).² The designated design review authority reviews project features such as building design, landscaping, site planning, and signage. The criteria for design review are as follows:

1. The design and layout of the proposed development is of superior quality, and is consistent with the General Plan, any applicable specific plan, applicable Zoning Code standards and requirements, the City’s Design Guidelines, architectural criteria for special areas, and other applicable City requirements (e.g., City policy statements and development plans);

¹ Santa Rosa City Code, Title 20, Zoning, Division 5, Land Use and Development Permit Procedures, Chapter 20-52, Permit Review Procedures, Section 20-52.030, Design Review.
² Santa Rosa City Code, Title 20, Zoning, Division 5, Land Use and Development Permit Procedures, Chapter 20-52, Permit Review Procedures, Section 20-52.030, Design Review, Table 5-2, Design Review Authority and Notice Requirements.
2. The design is appropriate for the use and location of the proposed development and achieves the goals, review criteria, and findings for approval as set forth in the framework of Design Review (Design Guidelines, Introduction, subsection C);

3. The design and layout of the proposed development will not interfere with the use and enjoyment of neighboring existing or future developments;

4. The architectural design of the proposed development is compatible with the character of the surrounding neighborhood;

5. The design of the proposed development will provide a desirable environment for its occupants, visiting public, and its neighbors through the appropriate use of materials, texture, and color, and would remain aesthetically appealing and be appropriately maintained;

6. The proposed development will not be detrimental to the public health, safety, or welfare or materially injurious to the properties or improvements in the vicinity; and

7. The project has been reviewed in compliance with the California Environmental Quality Act (CEQA).

Design Guidelines

The Design Guidelines, adopted in 2002, implement the design objectives of the Urban Design Element of the General Plan 2035 and serve as the primary authority for design issues when used in conjunction with applicable City regulations. The Design Guidelines are organized into four sections: Neighborhood Design; Core Area; Residential, Commercial and Industrial beyond the Core Area; and Special Design Considerations. Each section includes goals and guidelines that provide direction to designers as well as establish criteria that City staff, boards and commissions, and City Council use to evaluate project proposals.

Citywide Creek Master Plan

The Citywide Creek Master Plan (CCMP), adopted in 2007 and updated in 2013, provides guidelines for the care, management, restoration, and enhancement of the network of creeks and waterways that flow through Santa Rosa, which affects the visual setting. The CCMP is organized into six chapters: Introduction; Goals, Objectives, and Policies; Plan Concepts; Watershed-Specific Recommendations; Implementation Strategy; and References. Each chapter provides guidelines to aid the City’s decision-making when planning creek enhancement and restoration activities, coordinating and expanding creekside trail systems, making broader land use planning decisions concerning creeks, and in the development approval process for projects proposed adjacent to waterways.

4.1.1.2 EXISTING CONDITIONS

Visual Character

The City of Santa Rosa is a visually and culturally rich community situated in central Sonoma County on the Santa Rosa Plain. The downtown area serves as the city’s primary activity node, and is comprised of mixed office and retail uses. Local attractions such as the Old Courthouse, Santa Rosa Plaza, an indoor mall, Railroad Square, a retail and hotel hub, are located within the downtown area. Surrounding the downtown area are several historic districts, which contain structures that lend a sense of historic
character to the city. The city’s residential neighborhoods are diverse, ranging from the traditional grid street patterns and moderately high densities, to low density hillside neighborhoods.

The types of land use changes that may have the potential to impact the visual setting in Santa Rosa can include development types that are in conflict with City regulations and adopted Design Guidelines. Under the proposed project, changes to the development potential would only occur within the Southeast Greenway Area. Accordingly, the following description will focus on where changes to the existing visual resources could occur due to potential future development from implementation of the proposed project.

Visual Features of the Southeast Greenway Area

The Southeast Greenway Area is comprised of 57 acres of land located in southeast Santa Rosa and follows a 1.9-mile linear path from the Farmers Lane/State Route 12 (SR 12) intersection to Spring Lake Regional Park. As described in Chapter 3, Project Description, of this Draft EIR, the Southeast Greenway Area is divided into three large subareas. A description of the visual setting for each of these subareas is provided below.

**West Subarea**

The 18.3-acre West Subarea follows a linear path from Farmers Lane to Wanda Way. See Figure 3-3 in Chapter 3, Project Description, for an aerial view of this subarea. The West Subarea is primarily composed of grassland, Matanzas Creek, swales, potential wetlands, and remnant orchards. The overall elevation of the subarea ranges from 220 feet above mean sea level (amsl) on the western edge to 350 feet amsl along the eastern border. The surrounding area is largely built-up with mature trees ranging in height from 5- to 60-feet tall and other urban landscaping features (shrubs, fencing, etc.) and includes a range of 1- to 3-story retail, office, multi-family residential development, and Montgomery High School to the north. The project site continues to the east, retail, senior housing, and Matanzas Creek are located to the south, and the Farmers Lane/SR 12 intersection bounds the Subarea to the west.

**Central Subarea**

The 22.6-acre Central Subarea follows a linear path from Wanda Way and Camden Court to Summerfield Road. See Figure 3-4 in Chapter 3, Project Description, for an aerial view of this subarea. The Central Subarea is primarily composed of undeveloped land with native and non-native trees along the perimeter and remnant walnut orchard on the eastern portion of the subarea. Sierra Park Creek and Spring Creek, tributaries of Matanzas Creek, flow through this subarea. Informal paths along Sierra Park Creek connect Hoen Avenue to Mayette Avenue. There are a few trees located along it and potential swales/wetlands in the area between Yulupa Avenue and Sierra Park Creek. There is dense vegetation, including trees and bushes near Summerfield Road where Spring Creek traverses the Central Subarea. The Central Subarea is relatively flat with a slight elevated area comprised of earthen fill between Janet Way and Yulupa Avenue. Surrounding land uses include a range of 1- to 3-story single- and multi-family residential and retail to the north and south, religious institutional/school facilities directly to the north, and the continuation of the

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3 City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 13 to 26.
project site to the east and west.\(^4\) Like the West Subarea described above, the surrounding area is largely built-up with mature trees ranging in height from 5- to 60-feet tall and other urban landscaping features (shrubs, fencing, etc.).

**East Subarea**

The 16.3-acre East Subarea follows a linear path from Summerfield Road to Spring Lake Regional Park. See Figure 3-5 in Chapter 3, Project Description, for an aerial view of this subarea. The East Subarea is primarily composed of grassland and rocky outcroppings, oak woodlands, potential wetlands, and a small remnant walnut orchard. This subarea does not have any creeks. The overall elevation of the subarea climbs from 220 feet amsl on the western edge to 350 feet amsl along the eastern border. Surrounding land uses include a range of 1- to 3-story single- and multi-family residential to the north and south, Spring Lake Regional Park to the east, and the continuation of the project site to the west.\(^5\) Like the other subareas described above, the surrounding area is largely built-up with mature trees ranging in height from 5- to 60-feet tall and other urban landscaping features (shrubs, fencing, etc.).

**Scenic Corridors and Vistas**

Scenic corridors are considered an enclosed area of landscape, viewed as a single entity that includes the total field of vision visible from a specific point, or series of points along a linear transportation route. Public view corridors are areas in which short-range, medium-range and long-range views are available from publicly accessible viewpoints, such as from city streets. However, scenic vistas are generally interpreted as long-range views of a specific scenic feature (e.g., open space lands, mountain ridges, bay, or ocean views).

The city is bounded by the foothills of the Sonoma Mountains to the east and Laguna de Santa Rosa to the west. Long-range views to the Sonoma Mountains are predominantly visible from locations in the flatland areas of the city. The General Plan 2035 designates several scenic entries and corridors throughout the city; however, none are located within or visible from the project site.\(^6\) While the City has not officially designated any scenic vistas, the General Plan 2035 includes policies that enforce the protection of views of natural hillsides and natural ridgelines such as Taylor Mountain and Bennet Mountain.\(^7\) Given the undeveloped nature and generally flat topography of the project site, long-range views of the surrounding foothills can be seen intermittently through existing development surrounding the project site.

**Scenic Roads**

A scenic road is defined as a highway, road, drive, or street that provides opportunities for the enjoyment of natural and human-made scenic resources, in addition to its transportation function. Scenic roads direct views to areas of exceptional beauty, natural resources or landmarks, or historic or cultural interest. The aesthetic values of scenic routes can be protected and enhanced by regulations governing the

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\(^4\) City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 27 to 38.

\(^5\) City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 39 to 48.

\(^6\) City of Santa Rosa, Santa Rosa General Plan 2035, Element 3, Urban Design, page 3-4.

\(^7\) City of Santa Rosa, Santa Rosa General Plan 2035, Element 3, Urban Design, Figure 3-1, page 3-9.
development of property and the placement of outdoor advertising. The General Plan 2035 designates several Santa Rosa roadways as scenic roads throughout the city; however, none are located within or visible from the project site. In addition, the segment of SR 12 within the city is not designated as a scenic highway by the California Department of Transportation (Caltrans) Scenic Highway Program.

**Light and Glare**

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass or spill to adjacent sensitive receptors (e.g., residential development), sky glow, and over-lighting. Views of the night sky are an important part of the natural environment. Excessive light and glare can be visually disruptive to humans and nocturnal animal species. Light pollution in most of the city is minimal, and is restricted primarily to street lighting along major arterial streets, United States Highway 101, SR 12, and to night-time illumination of commercial buildings, shopping centers, and industrial buildings. Light spillage from residential areas, particularly older neighborhoods, is mostly well screened by trees.

**Existing Viewsheds**

Viewsheds refer to the visual qualities of a geographical area that are defined by the horizon, topography, and other natural features that give an area its visual boundary and context, or by development that has become a prominent visual component of the area. Public views are those which can be seen from vantage points that are publicly accessible, such as streets, freeways, parks, and vista points. These views are generally available to a greater number of persons than private views. Private views are those views that can be seen from vantage points located on private property. Private views are not necessarily considered to be impacted when interrupted by land uses on adjacent properties. Accordingly, this chapter is focused on the potential new development that could occur on the project site that would be visible from public viewing points and could result in a potentially significant aesthetic impact under CEQA.

The proposed project includes the potential for the development of future buildings associated with commercial, residential, and school facilities in the West Subarea west of Franquette Avenue and east of the Farmers Lane/SR 12 intersection, and the Central Subarea west of Yulupa and east of Janet Way. The existing publically accessible viewshed in these two areas are sidewalks and roadways including SR 12, Hoen Avenue Frontage Road, Vallejo Street, Yulupa Avenue, and Janet Way. Views from these locations in proximity to the project site include existing development and associated landscaping in the near-field viewshed and the surrounding natural hillsides and natural ridgelines in the far-field viewshed. It is also important to note, that as described above, the publically accessible areas surrounding the project site are not recognized by the City or the State as scenic viewing locations; a scenic viewing location is a distinct location where people gather with a reasonable expectation to have a view of a scenic resource.

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8 City of Santa Rosa, Santa Rosa General Plan 2035, Element 5, Transportation, page 5-8.
4.1.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant aesthetic impact if it would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. Substantially degrade the existing visual character or quality of the site and its surroundings.
4. Expose people on- or off-site to substantial light or glare, which would adversely affect day or nighttime views in the area.

4.1.3 IMPACT DISCUSSION

AES-1 Implementation of the proposed project would not have a substantial adverse effect on a scenic vista.

As described above, public views of scenic corridors are considered those views as seen along a linear transportation route and public views of scenic vistas are views of specific scenic features. Scenic vistas are generally interpreted as long-range views, while scenic corridors are comprised of short-, middle-, and long-range views. As stated above, the General Plan 2035 designates several scenic entries and corridors throughout the city; however, none are located within or visible from the project site. The General Plan 2035 includes policies that enforce the protection of views of natural hillsides and natural ridgelines; therefore, for the purposes of this analysis long-range views of Taylor Mountain, Bennet Mountain, and the Sonoma Mountains to the south or the project site, as well as the foothills to the north, east, and west are considered scenic vistas.

Implementation and adoption of the proposed project would result in new development potential of up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space on the project site; 47.2 acres would be dedicated to park and recreational uses. For the purposes of this evaluation, it is assumed that the only two areas where potential future development resulting in a structure that could obstruct a view would be in the areas designated for housing, commercial and school facilities as shown on Figure 3-9 in Chapter 3, Project Description, of this Draft EIR. The remainder of the project site would provide a continuous linear mix of park and opens space uses that would be generally undeveloped. As described above, the project site is comprised of undeveloped parcels surrounded by existing development and mature trees of various heights ranging from 1- to 3-stories and 5- to 60-feet in height, respectively.

As described in Chapter 3, Project Description, of this Draft EIR, the height limits for potential future development under the proposed project would be limited to the height restrictions in the Zoning Code as follows:

- **Open Space Recreation (OSR) district.** The maximum height for allowable residential uses in the OSR district is 35 feet; non-residential structures may be greater height if authorized by a Conditional Use Permit per Zoning Code Section 20-26-040.
- **Commercial General (CG) district.** The maximum height allowed in the CG district is 55 feet as noted in Zoning Code Section 20-23-040.

- **Neighborhood Commercial (CN) district.** The maximum height allowed in the CG district is 45 feet as noted in Zoning Code Section 20-23-040.

- **Multi-Family Residential (R-3-18) district.** The maximum height allowed in the R-3-18 district is 45 feet as noted in Zoning Code Section 20-22-050.

Given that the proposed project could result in potential future buildings that would be limited to 2- to 5-stories (35 to 55 feet) in height, implementation of the proposed project could block far-field views of Taylor Mountain, Bennet Mountain, the Sonoma Mountains and surrounding foothills from various publically accessible views surrounding the project site. However, as described in Section 4.1.1.2, Existing Conditions, because the topography in the Southeast Greenway Area is generally flat, the views from street-level public viewing to the scenic vistas are intermittently obstructed by existing conditions surrounding the project areas with potential height increases such as buildings, structures, and mature trees. Additionally, the publically accessible areas surrounding the project site are not recognized by the City or the State as scenic viewing locations; that is, a distinct location where people gather with a reasonable expectation to have a view of a scenic resource. Therefore, future development under the proposed project would not further block or obstruct public views of scenic vistas from street-level public viewing. Similar views would continue to be visible along the project site.

As described in Chapter 3, Project Description, of this Draft EIR, the proposed project includes Land Use and Livability goals and policies that once implemented would further the protection of scenic resources in the Southeast Greenway Area. Land Use and Livability Policy LUL-OO-2, would require the City to work to create a Southeast Greenway gateway on the western edge of the Southeast Greenway Area that offers a prominently visible entrance to park and recreational uses including open space and increases visitor awareness of the amenity. This would provide more publically accessible views of the surrounding natural hillsides and ridgelines. Land Use and Livability Policy LUL-PP-3, would require the design of all structures, utilities and access roads in the Southeast Greenway to maximize public safety, attractiveness, and compatibility with other uses in the Greenway and surrounding neighborhood. In addition, future development under the proposed project would be required to comply with the General Plan 2035 Urban Design policies (listed above), which seek to preserve existing views within Santa Rosa. The proposed project would also be required to comply with SRCC Section 20-52.030, which requires projects to undergo the City’s design review process. Consistency with these regulations would further ensure that future development under the proposed project would result in a less-than-significant impact to scenic vistas.

**Significance Without Mitigation:** Less than significant.

**AES-2**

Implementation of the proposed project would not substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

As described above, a scenic road is defined as a highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic
resources. The General Plan 2035 designates several Santa Rosa roadways as scenic roads throughout the City; however, none or located within or visible from the project site. In addition, the segment of SR 12 within the City of Santa Rosa is not designated as a scenic highway per Caltrans standards. Accordingly, no impact with respect to scenic resources within a State scenic highway would occur.

Significance Without Mitigation: No impact.

AES-3 Implementation of the proposed project would not degrade the existing visual character or quality of the site and its surroundings.

Future development allowed under the proposed project would represent a change to the existing visual character of the project site from undeveloped parcels to a continuous linear mix of park and recreational uses, multi-family housing, and commercial development. As described above in impact discussion AES-1, potential future multi-family housing, commercial, and school facilities development would be concentrated on parcels located in the West Subarea and Central Subarea of the project site that are adjacent to similar uses. Potential future buildings’ form and massing would represent a substantial change to the existing visual character of the project site, but would generally be consistent with the overall urban character of the surrounding area. In addition, implementation of the proposed project would introduce park and recreational uses with native plantings and areas restored to their natural habitat, interspersed with picnic areas, playgrounds, community gardens, educational/recreational spaces that can be used by neighboring schools, and a strategically located place for community gatherings.

While implementation of the proposed project would result in a change to the existing visual character of the site itself, potential future development would be limited to a small area of the site. The remainder of the project site would provide a variety of publically accessible park and recreational amenities, similar to the existing open areas. In addition, implementation of the proposed project would result in the restoration of designated areas where Matanzas Creek, Sierra Park Creek, and Spring Creek traverse the project site consistent with the Citywide Creek Master Plan.

As described in under impact discussion AES-1, the proposed project includes Land Use and Livability Policy LUL-PP-3 that would require new structures within the Southeast Greenway Area to be designed to maximize attractiveness and compatibility with the surrounding neighborhood. In addition, future development under the proposed project would be required to comply with the General Plan 2035 Urban Design policies (listed above) which seek to preserve Santa Rosa’s visual quality and require superior site and architectural design of new development projects. The proposed project would also be required to comply with the City’s development standards per SRCC Chapter 20.30 and undergo the design review process per SRCC Section 20-52.030. Consistency with these regulations would ensure that future development under the proposed project would not substantially degrade the visual quality of the site or its surroundings and associated impacts would be less than significant.

Significance Without Mitigation: Less than significant.
Nighttime illumination and glare impacts are the effect of a project’s exterior lighting upon adjoining uses and areas. Light and glare impacts are determined through a comparison of the existing light sources with the proposed lighting plan or policies.

As described above, the Southeast Greenway Area is undeveloped, and as such, the site does not currently contain existing sources of nighttime illumination. However, onsite light and glare is caused by surrounding sources of nighttime illumination which include street and parking area lights, and exterior lighting on existing residential, public/institutional, and commercial buildings.

With potential future development of the proposed project, sources of light could be introduced with new buildings and along the park and open areas. Exterior lighting provided on and around the future development would be required to comply with City standards for outdoor lighting that are intended to reduce light pollution and glare per SRCC Chapter 18-16, Chapter 18-42, and Section 20-30.080, which establish maximum height standards for outdoor lighting on private property and require new development to shield and direct lighting fixtures downward and away from adjoining properties to reduce spill-over lighting and light pollution. In addition, the proposed project would also be required to undergo the design review process per SRCC Section 20-52.030. Consistency with these regulations would ensure that future development under the proposed project would not create substantial light and glare such that could degrade daytime or nighttime views in the area and impacts would be less than significant.

Significance Without Mitigation: Less than significant.

4.1.4 CUMULATIVE IMPACTS

The methodology used for cumulative impact analysis is described in Chapter 4.0, Environmental Analysis, of this Draft EIR. The cumulative impact for aesthetics includes potential future development under the proposed project combined with effects of development on lands within the Planning Area and adjacent to the Southeast Greenway Area. A cumulative impact would be considered significant if, taken together with past, present and reasonably foreseeable projects in the identified area, it would result in a substantial adverse effect on a designated scenic vista or if it would result in a substantial degradation of the visual quality or character in the vicinity of the project site.

As described above, the SRCC requires projects to undergo the City’s design review process to ensure that project features such as building design, landscaping, site planning, and signage, are consistent with the City’s adopted plans, regulations, and design aesthetics. Moreover, similar to the proposed project, other projects within the Planning Area would be required to be in conformance with General Plan Policies.
(listed above), which require development to be compatible with the character of their surroundings. The uniform application of these regulations, goals, and policies would ensure that all development within the Planning Area is compatible with its surroundings upon approval. Additionally, the design review requirement as well as subsequent CEQA review of projects subject to CEQA would give the City the opportunity to evaluate projects’ potential impacts on scenic resources prior to approval. Therefore, implementation of the proposed project would have a less-than-significant cumulative impact with respect to visual character and scenic vistas.

Significance Without Mitigation: Less than significant.
4.2 **AIR QUALITY**

This chapter describes the existing air quality setting and evaluates the potential environmental impacts that could occur by adopting and implementing the proposed project. This analysis is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for project-level review, using preliminary information available. It focuses on air pollution from regional emissions and localized pollutant concentrations from buildout of the proposed project. Transportation sector emissions are based on trip generation included in the Traffic Impact Study prepared by W-Trans Transportation Consultants. The Traffic Impact Study is included in Appendix H of this Draft EIR.

Emissions of the proposed project were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.1. The modeling data is included in Appendix B of this Draft EIR. Criteria air pollutant and greenhouse gas (GHG) emissions modeling for construction and operational phases of the proposed project is also included in Appendix B of this Draft EIR. ‘Emissions’ refers to the actual quantity of pollutant, measured in pounds per day or tons per year. ‘Concentrations’ refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter (µg/m³).

### 4.2.1 ENVIRONMENTAL SETTING

#### 4.2.1.1 REGULATORY FRAMEWORK

Federal, state, and local air districts have passed laws and regulations intended to control and enhance air quality. Land use in the city is subject to the rules and regulations imposed by BAAQMD, California Air Resources Board (CARB), and United States Environmental Protection Agency (USEPA). The regulatory framework that is potentially applicable to the proposed project is also summarized below.

**Federal and State Regulations**

Ambient air quality standards have been adopted at federal and state levels for criteria air pollutants. In addition, both the federal and state governments regulate the release of toxic air contaminants (TACs). Santa Rosa in the San Francisco Bay Area Air Basin (SFBAAB or Air Basin) and is subject to the rules and regulations imposed by the BAAQMD, the National ambient air quality standards (AAQS) adopted by the USEPA, and the California AAQS adopted by CARB. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

**Ambient Air Quality Standards**

The Clean Air Act was passed in 1963 by the US Congress and has been amended several times. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The Clean Air Act allows states to adopt more stringent standards or to include other pollutants. The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California
AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 4.2-1. These pollutants are ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM₂.₅), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

**Table 4.2-1 Ambient Air Quality Standards for Criteria Pollutants**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone (O₃)</td>
<td>1 hour</td>
<td>0.09 ppm</td>
<td>*</td>
<td>Motor vehicles, paints, coatings, and solvents.</td>
</tr>
<tr>
<td></td>
<td>8 hours</td>
<td>0.070 ppm</td>
<td>0.070 ppm</td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>1 hour</td>
<td>20.0 ppm</td>
<td>35.0 ppm</td>
<td>Internal combustion engines, primarily gasoline-powered motor vehicles.</td>
</tr>
<tr>
<td></td>
<td>8 hours</td>
<td>9.0 ppm</td>
<td>9.0 ppm</td>
<td></td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Annual Average</td>
<td>0.030 ppm</td>
<td>0.053 ppm</td>
<td>Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.</td>
</tr>
<tr>
<td></td>
<td>1 hour</td>
<td>0.18 ppm</td>
<td>0.100 ppm</td>
<td></td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>Annual Arithmetic Mean</td>
<td>*</td>
<td>0.030 ppm</td>
<td>Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.</td>
</tr>
<tr>
<td></td>
<td>1 hour</td>
<td>0.25 ppm</td>
<td>0.075 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 hours</td>
<td>0.04 ppm</td>
<td>0.14 ppm</td>
<td></td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM₁₀)</td>
<td>Annual Arithmetic Mean</td>
<td>20.0 µg/m³</td>
<td>*</td>
<td>Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).</td>
</tr>
<tr>
<td></td>
<td>24 hours</td>
<td>50.0 µg/m³</td>
<td>150.0 µg/m³</td>
<td></td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM₂.₅)</td>
<td>Annual Arithmetic Mean</td>
<td>12.0 µg/m³</td>
<td>12.0 µg/m³</td>
<td>Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).</td>
</tr>
<tr>
<td></td>
<td>24 hours</td>
<td>*</td>
<td>35.0 µg/m³</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.2-1 Ambient Air Quality Standards for Criteria Pollutants

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Primary Standard</th>
<th>Major Pollutant Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (Pb)</td>
<td>30-Day Average</td>
<td>1.5 µg/m³</td>
<td>*</td>
<td>Present source: lead smelters, battery manufacturing &amp; recycling facilities. Past source: combustion of leaded gasoline.</td>
</tr>
<tr>
<td></td>
<td>Calendar Quarterly</td>
<td>*</td>
<td>1.5 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rolling 3-Month Average</td>
<td>*</td>
<td>0.15 µg/m³</td>
<td></td>
</tr>
<tr>
<td>Sulfates (SO₄)</td>
<td>24 hours</td>
<td>25 µg/m³</td>
<td>*</td>
<td>Industrial processes.</td>
</tr>
<tr>
<td>Visibility Reducing Particles</td>
<td>8 hours</td>
<td>ExCo ≈0.23/km visibility of 10≥ miles</td>
<td>No Federal Standard</td>
<td>Visibility-reducing particles consist of suspended particulate matter, which 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, dust, and salt.</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1 hour</td>
<td>0.03 ppm</td>
<td>No Federal Standard</td>
<td>Hydrogen sulfide (H₂S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>24 hour</td>
<td>0.01 ppm</td>
<td>No Federal Standard</td>
<td>Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.</td>
</tr>
</tbody>
</table>

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter * Standard has not been established for this pollutant/duration by this entity.

a. California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NOₓ, and particulate matter (PM₁₀, PM₂.₅, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
b. National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM₂.₅, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
c. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
d. On December 14, 2012, the national annual PM₂.₅ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM₁₀ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₂.₅ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
e. On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual arithmetic mean standards were revoked.


California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building Energy Efficiency Standards

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**PLACEWORKS**
Tanner Air Toxics Act and Air Toxics “Hot Spot” Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 US Code § 7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (i.e. a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10, Section 2485**, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- **13 CCR Chapter 10, Section 2480**, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- **13 CCR Section 2477 and Article 8**, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

**Air Pollutants of Concern**

**Criteria Air Pollutants**

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NOx), sulfur dioxide (SO2), coarse inhalable particulate matter (PM10), fine inhalable particulate matter (PM2.5), and lead (Pb) are primary air pollutants. Of these, CO, SO2, NO2, PM10, and PM2.5 are “criteria air pollutants,” which means that AAQS have been established
for them. ROG and NOx are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants. Each of the primary and secondary criteria air pollutants and its known health effects is described here.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little or no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the SFBAAB. Emissions are highest during cold starts, hard acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. New findings indicate that CO emissions per mile are lowest at about 45 miles per hour (mph) for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.¹ The SFBAAB is designated under the California and National AAQS as being in attainment of CO criteria levels.²

- **Reactive Organic Gases (ROGs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O₃. There are no AAQS established for ROGs. However, because they contribute to the formation of O₃, BAAQMD has established a significance threshold for this pollutant.

- **Nitrogen Oxides (NOₓ)** are a by-product of fuel combustion and contribute to the formation of O₃, PM₁₀, and PM₂.₅. The two major components of NOₓ are nitric oxide (NO) and nitrogen dioxide (NO₂). The principal component of NOₓ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NOX. NO₂ acts as an acute irritant and in equal concentrations is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm. NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen.

and oxygen when combustion takes place under high temperature and/or high pressure. The SFBAAB is designated an attainment area for NO₂ under the National AAQS and California AAQS.

- **Sulfur Dioxide (SO₂)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO₂. When SO₂ forms sulfates (SO₄) in the atmosphere, together these pollutants are referred to as sulfur oxides (SOₓ). Thus, SO₂ is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. The SFBAAB is designated an attainment area for SO₂ under the California and National AAQS.

- **Suspended Particulate Matter (PM₁₀ and PM₂.₅)** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM₁₀, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM₂.₅, have an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch).

Some particulate matter, such as pollen, occurs naturally. In the SFBAAB most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM₁₀ bypasses the body’s natural filtration system more easily than larger particles and can lodge deep in the lungs. The USEPA scientific review concluded that PM₂.₅ penetrates even more deeply into the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM₁₀ standards. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Motor vehicles are currently responsible for about half of particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.

Both PM₁₀ and PM₂.₅ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. These health effects include premature death; increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individual with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may

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initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs. However, the USEPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is also classified a carcinogen by CARB. The SFBAAB is designated nonattainment under the California AAQS for PM$_{10}$ and nonattainment under both the California and National AAQS for PM$_{2.5}$.\(^5\)

- **Ozone (O$_{3}$)** is commonly referred to as “smog” and is a gas that is formed when ROGs and NO$_x$, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O$_3$ is a secondary criteria air pollutant. O$_3$ concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O$_3$ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O$_3$ levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O$_3$ can also damage plants and trees and materials such as rubber and fabrics.\(^6\) The SFBAAB is designated nonattainment of the 1-hour California AAQS and 8-hour California and National AAQS for O$_{3}$.\(^7\)

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phasing out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the USEPA’s regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.\(^10\) The SFBAAB is designated in attainment of the California and National AAQS for lead.\(^11\) Because emissions of lead are found only in projects that are permitted by BAAQMD, lead is not an air quality of concern for the proposed project.

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\(^5\) On January 9, 2013, the EPA issued a final rule to determine that the SFBAAB had attained the 24-hour PM$_{2.5}$ National AAQS. This action suspended federal State Implementation Plan planning requirements for the Bay Area. However, the SFBAAB will continue to be designated nonattainment for the National 24-hour PM$_{2.5}$ standard until BAAQMD submits a redesignation request and a maintenance plan to the EPA and the EPA approves the proposed redesignation.


Toxic Air Contaminants

At the time of the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. According to BAAQMD, particulate matter emitted from diesel engines contributes more than 85 percent of the cancer risk within the SFBBAB and cancer risk from TAC is highest near major diesel PM sources.

Community Risk

To reduce exposure to TACs, CARB developed and approved the Air Quality and Land Use Handbook: A Community Health Perspective (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when siting sensitive receptors near existing pollution sources. CARB’s recommendations were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity substantially increases exposure and the potential for adverse health effects. Three carcinogenic TACs constitute the majority of the known health risks from motor vehicle traffic—DPM from trucks and benzene and 1,3 butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Regional Regulations

Bay Area Air Quality Management District

BAAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the SFBBAB. Air quality conditions in the SFBBAB have improved significantly since the BAAQMD was created in 1955. The BAAQMD prepares air quality management plans (AQMPs) to attain ambient air quality standards in the SFBBAB. The BAAQMD prepares ozone attainment plans for the

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8 California Air Resources Board, 1999. Final Staff Report: Update to the Toxic Air Contaminant List.
National O₃ standard and clean air plans for the California O₃ standard. The BAAQMD prepares these AQMPs in coordination with Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). BAAQMD adopted the 2017 Clean Air Plan, Spare the Air, Cool the Climate (2017 Clean Air Plan) on April 19, 2017, making it the most recent adopted comprehensive plan. The 2017 Clean Air Plan incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools.

**BAAQMD 2017 Clean Air Plan**

The 2017 Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues in providing the framework for SFBAAB to achieve attainment of the California and National AAQS. The 2017 Clean Air Plan updates the Bay Area’s ozone plan, which is based on the “all feasible measures” approach to meet the requirements of the California Clean Air Act. Additionally, it sets a goal of reducing health risk impacts to local communities by 20 percent by 2020. Furthermore, the 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state’s 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a postcarbon year 2050 that encompasses the following: ¹¹

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: 1) stationary (industrial) sources; 2) transportation; 3) energy; 4) agriculture; 5) natural and working lands; 6) waste management; 7) water; and 8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of “super-GHGs” such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon-free.
- Electrify the transportation and building sectors.

BAAQMD Community Air Risk Evaluation Program

The BAAQMD Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—diesel PM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for CARB’s diesel regulations. Overall, cancer risk from TAC dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.12

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and near the Maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area; however, Santa Rosa lies outside of these seven impacted communities.

The major contributor to acute and chronic non-cancer health effects in the SFBBAB is acrolein (C3H4O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports.13 Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the BAAQMD does not conduct health risk screening analysis for acrolein emissions.14

BAAQMD Rules and Regulations

Regulation 7, Odorous Substances

Sources of objectionable odors may occur within the City. BAAQMD’s Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that “no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property.”

Under BAAQMD’s Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

Other BAAQMD Regulations

In addition to the plans and programs described above, BAAQMD administers a number of specific regulations on various sources of pollutant emissions that would apply to individual development projects allowed under the proposed project, including:

- BAAQMD, Regulation 2, Rule 2, New Source Review
- BAAQMD, Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 8, Rule 3, Architectural Coatings
- BAAQMD Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- BAAQMD Regulation 8, Rule 7, Gasoline Dispensing Facilities
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA) is the congestion management agency (CMA) for Sonoma County. SCTA is tasked with developing a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision-making and air quality. SCTA’s latest congestion management program (CMP) is the 2016 Comprehensive Transportation Plan (CTP). SCTA’s countywide transportation model must be consistent with the regional transportation model developed by the MTC with ABAG data. The countywide transportation model is used to help evaluate cumulative transportation impacts of local land use decisions on the CMP system. In addition, SCTA’s updated CTP includes multi-modal performance standards and trip reduction and transportation demand management (TDM) strategies consistent with the goals of reducing regional vehicles miles travelled (VMT) in accordance with Senate Bill 375.

Plan Bay Area

Plan Bay Area is the Bay Area’s Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). Plan Bay Area was adopted jointly by the ABAG and MTC July 18, 2013 and the update, Plan Bay Area 2040, is currently being prepared. Plan Bay Area lays out a development scenario for the region, which when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB. Plan Bay Area is discussed in greater detail in Chapter 4.6, Greenhouse Gases, of this Draft EIR.

Local Regulations

General Plan 2035

The Land Use and Livability (LUL) and the Open Space and Conservation (OSC) elements of General Plan 2035 include the following goals and policies specific to air quality and applicable to the proposed project:
AIR QUALITY

- **Goal LUL-E Livable Neighborhoods**: Promote livable neighborhoods by requiring compliance with green building programs to ensure that new construction meets high standards of energy efficiency and sustainable material use. Ensure that everyday shopping, park and recreation facilities, and schools are within easy walking distance of most residents.

- **Goal OSC-J**: Take appropriate actions to help Santa Rosa and the larger Bay Area region achieve and maintain all ambient air quality standards.
  - **Policy OSC-J-1**: Review all new construction projects and require dust abatement actions as contained in the CEQA Handbook of the Bay Area Air Quality Management District.
  - **Policy OSC-J-3**: Reduce particulate matter emissions from wood burning appliances through implementation of the city’s Wood Burning Appliance code.

**Climate Action Plan**

On June 5, 2012, the Santa Rosa City Council adopted the Climate Action Plan (CAP). The CAP recognizes the imperative to act on climate change and demonstrates the City’s continued commitment to reducing GHG emissions. The CAP presents measures that will reduce local GHG emissions that have a direct impact on air quality. For additional discussion of the Climate Action Plan, see Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR.

**Santa Rosa City Code**

The Santa Rosa City Code (SRCC) includes provisions apply to buildings with regards to reducing GHG emissions through energy conservation. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Part 11, Title 24, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). The City of Santa Rosa has adopted all sections of the current California Building Code Title 24, Part 2, in Chapter 18-16, California Building Code, of the SRCC and the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

**4.2.1.2 EXISTING CONDITIONS**

**San Francisco Bay Area Air Basin**

California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. The State is divided into 15 air basins. As previously stated, Santa Rosa is in the SFBAAB. The discussion below identifies the natural factors in the SFBAAB that affect air pollution. Air pollutants of concern are criteria air pollutants and toxic air contaminants (TACs). Federal, State, and local air districts have adopted laws and regulations intended to control and improve air quality. The regulatory framework that is potentially applicable to the proposed project is also summarized below.
The BAAQMD is the regional air quality agency for the SFBAAB. In addition to the presence of existing air pollution sources and ambient conditions, air quality in the SFBAAB is determined by the following natural factors:\(^\text{15}\)

- **Meteo\(^\text{13}\)rology:** The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range\(^\text{16}\) splits in the Bay Area, creating a western coast gap, the Golden Gate, and an eastern coast gap, the Carquinez Strait, which allows air to flow in and out of the Bay Area and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast.

The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

- **Wind Patterns:** During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais in Marin County, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap. For example, the average wind speed at San Francisco International Airport in July is about 17 knots (from 3:00 to 4:00 p.m.), compared with only 7 knots at San Jose and less than 6 knots at the Farallon Islands.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon. As the day progresses, the sea breeze layer deepens and increases in velocity while spreading inland. The depth of the sea breeze depends in large part upon the height and strength of the inversion. Under normal atmospheric conditions, the air in the lower atmosphere is warmer than the air above it. An inversion is a change in the normal conditions that causes the temperature gradient to be reversed, or inverted. If the inversion is low and strong, and hence stable, the flow of the sea breeze will be inhibited, and stagnant conditions are likely to result.

In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes (i.e., conditions where there is little mixing, which occurs when there is a lack of or little wind) are characterized by nighttime

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\(^{16}\) The Coast Ranges traverses California’s west coast from Humboldt County to Santa Barbara County.
drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

- **Temperature:** Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons, the temperatures at the coast can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland; at night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

- **Precipitation:** The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys. During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

- **Wind Circulation:** Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

- **Inversions:** As described above, an inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions are more common in the summer and fall, and radiation inversions are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

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17 When the air blows over elevated areas, it is heated as it is compressed into the side of the hill/mountain. When that warm air comes over the top, it is warmer than the cooler air of the valley.

18 During the night, the ground cools off, radiating the heat to the sky.
SFBAAB Area Designations

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal AAQS through the State Implementation Plan. Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O₃ range from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

- **Attainment:** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.

- **Nonattainment:** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.

- **Nonattainment/Transitional:** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SFBBAB is shown in Table 4.2-2. The SFBBAB is currently designated a nonattainment area for California and National O₃, California and National PM₂.₅, and California PM₁₀ AAQS.

### Table 4.2-2 Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone – 1-hour</td>
<td>Nonattainment (serious)</td>
<td>No Federal Standard</td>
</tr>
<tr>
<td>Ozone – 8-hour</td>
<td>Nonattainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>PM₁₀ – 24-hour</td>
<td>Nonattainment</td>
<td>Unclassified</td>
</tr>
<tr>
<td>PM₂.₅ – 24-hour</td>
<td>Nonattainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>CO – 8-hour and 1-hour</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>NO₂ – 1-hour</td>
<td>Attainment</td>
<td>_b</td>
</tr>
<tr>
<td>SO₂ – 24-hour and 1-hour</td>
<td>Attainment</td>
<td>_c</td>
</tr>
<tr>
<td>Lead</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Sulfates</td>
<td>Attainment</td>
<td>No Federal Standard</td>
</tr>
<tr>
<td>All others</td>
<td>Unclassified/Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
</tbody>
</table>

**Notes:**

a. In December 2014, USEPA issued final area designations for the 2012 primary annual PM₂.₅, National AAQS. Areas designated “unclassifiable/attainment” must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

b. The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.

c. On June 2, 2010, the U.S. EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS however must
AIR QUALITY

TABLE 4.2-2 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SAN FRANCISCO BAY AREA AIR BASIN

<table>
<thead>
<tr>
<th>Pollutant/Standard</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone (O₃)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.09 ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State 8-hour ≥ 0.07 ppm</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Federal 8-Hour &gt; 0.075 ppm</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Maximum 1-Hour Conc. (ppm)</td>
<td>0.091</td>
<td>0.090</td>
</tr>
<tr>
<td>Maximum 8-Hour Conc. (ppm)</td>
<td>0.081</td>
<td>0.070</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 8-Hour &gt; 9.0 ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Federal 8-Hour ≥ 9.0 ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum 8-Hour Conc. (ppm)</td>
<td>1.94</td>
<td>2.41</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.18 (ppm)</td>
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<td>0</td>
</tr>
<tr>
<td>Maximum 1-Hour Conc. (ppm)</td>
<td>55.0</td>
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<tr>
<td>Sulfur Dioxide (SO₂)</td>
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<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.04 ppm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Max. 1-Hour Conc. (ppm)</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Coarse Particulates (PM₁₀)</td>
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<td></td>
</tr>
<tr>
<td>State 24-Hour &gt; 50 µg/m³</td>
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<td>1</td>
</tr>
<tr>
<td>Federal 24-Hour &gt; 150 µg/m³</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of Santa Rosa have been documented and measured by the BAAQMD. BAAQMD has 24 permanent monitoring stations located around the Bay Area, and data from the nearest station, 5th Street Monitoring Station in Santa Rosa, was used. Data from the Santa Rosa Station was not available for O₃ and NO₂ for years 2014 and 2015, so data from the Sebastopol-103 Morris Street Monitoring Station was used in their absence. The station closest to the project site with data for PM₁₀ was the Healdsburg-133 Matheson Street Monitoring Station. Data from these stations are summarized in Table 4.2-3. The data show occasional violations of the federal PM₁₀ standards. The federal state PM₁₀ standards have not been exceeded in the last five years. The State and federal O₃, CO, PM₂.₅, and NO₂ standards have not been exceeded in the last five years in the vicinity of the city.

Table 4.2-3 AMBIENT AIR QUALITY MONITORING SUMMARY

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ozone (O₃)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.09 ppm</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State 8-hour ≥ 0.07 ppm</td>
<td>2</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Federal 8-Hour &gt; 0.075 ppm</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum 1-Hour Conc. (ppm)</td>
<td>0.091</td>
<td>0.090</td>
<td>0.085</td>
<td>0.082</td>
<td>0.077</td>
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<tr>
<td>Maximum 8-Hour Conc. (ppm)</td>
<td>0.081</td>
<td>0.070</td>
<td>0.063</td>
<td>0.068</td>
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<tr>
<td>Carbon Monoxide (CO)</td>
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<td>State 8-Hour &gt; 9.0 ppm</td>
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<tr>
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<tr>
<td>Maximum 8-Hour Conc. (ppm)</td>
<td>1.94</td>
<td>2.41</td>
<td>2.24</td>
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<td>*</td>
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<tr>
<td>Nitrogen Dioxide (NO₂)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.18 (ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum 1-Hour Conc. (ppm)</td>
<td>55.0</td>
<td>47.4</td>
<td>52.4</td>
<td>49.4</td>
<td>50.1</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1-Hour ≥ 0.04 ppm</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>*</td>
</tr>
<tr>
<td>Max. 1-Hour Conc. (ppm)</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>0.002</td>
<td>*</td>
</tr>
<tr>
<td>Coarse Particulates (PM₁₀)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 24-Hour &gt; 50 µg/m³</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Federal 24-Hour &gt; 150 µg/m³</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE 4.2-3  AMBIENT AIR QUALITY MONITORING SUMMARY

<table>
<thead>
<tr>
<th>Pollutant/Standard</th>
<th>Number of Days Threshold Were Exceeded and Maximum Levels During Such Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
</tr>
<tr>
<td>Maximum 24-Hour Conc. (µg/m³)</td>
<td>41.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fine Particulates (PM₂.₅)⁷⁶</th>
<th>2012</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal 24-Hour &gt; 35 µg/m³</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Maximum 24-Hour Conc. (µg/m³)</td>
<td>29.4</td>
<td>54.2</td>
<td>36.8</td>
<td>48.0</td>
<td>39.6</td>
</tr>
</tbody>
</table>

Notes: ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; * = insufficient data; NA = Not Available

a. Data from the Sebastopol-103 Morris Street Monitoring Station.
b. Data from the Healdsburg-133 Matheson Street Monitoring Station.
c. On October 1, 2015 the EPA adopted a new 8-hour national AAQS for ozone of 0.070 ppm (70 ppb).

Existing Emissions

The existing Southeast Greenway Area or project site includes 57 acres of land owned by Caltrans, which has remained largely undeveloped. As described in Chapter 3, Project Description, of this Draft EIR, the West Subarea is primarily composed of grassland with a creek, numerous swales, potential wetlands, and remnant orchards. The Central Subarea is primarily composed of undeveloped land with trees along the perimeter, two creeks, and a remnant walnut orchard on the eastern portion of the site. The East Subarea is primarily composed of grassland and rocky outcroppings, oak woodlands, two potential wetlands, and a remnant walnut orchard. These current land uses do not generate long-term air pollutant emissions from mobile sources, energy use, or area sources. The proposed project would amend the General Plan to include land use and zoning changes and policies that would guide future development within the Southeast Greenway Area; however, no project development is proposed at this time.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, since the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the population. Nearby sensitive receptors include residences adjacent to the project site, along Hoen Avenue, Mayette Avenue, Summer Lane, Boulder Lane, Newanga Avenue, and Vallejo Street. In addition, Montgomery High School and Beth Ami Jewish Community Preschool are both adjacent to the project site, approximately 25 feet to the north of
the edge of the project site. Additionally, Spring Creek Elementary School is approximately 320 feet to the north of the edge of the project site.

4.2.2 THRESHOLDS OF SIGNIFICANCE

4.2.2.1 CEQA APPENDIX G THRESHOLDS

Implementation of the proposed project would have a significant effect on the environment with respect to air quality if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable odors affecting a substantial number of people.

4.2.2.2 BAAQMD THRESHOLDS

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD’s Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Guidelines. These Thresholds are designed to establish the level at which the District believed air pollution emissions would cause significant environmental impacts under CEQA.

In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modified procedures for assessing impacts related to risk and hazard impacts; however, this later amendment regarding risk and hazards was the subject of the December 17, 2015, California Supreme Court decision (California Building Industry Association v BAAQMD), which clarified that CEQA does not require an evaluation of impacts of the environment on a project. On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD CEQA Air Quality Guidelines. The court did not rule on the merits of the thresholds of significance, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD complied with CEQA. Following the court’s order, the BAAQMD released revised CEQA Air Quality Guidelines in May of 2012 that include guidance on calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, and which set aside the significance thresholds. The Alameda County
environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA. To account for these updates, BAAQMD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court’s opinion. This latest version of the BAAQMD CEQA Guidelines was used to prepare the analysis in this Draft EIR.

Criteria Air Pollutant Emissions and Precursors

Regional Significance Criteria

The BAAQMD’s criteria for regional significance for projects that exceed the screening thresholds are shown in Table 4.2-4. Criteria for both the potential future construction and operational phases of the project are shown.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Daily Emissions (lbs/day)</td>
<td>Average Daily Emissions (lbs/day)</td>
</tr>
<tr>
<td>ROG</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>NOₓ</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>82 (Exhaust)</td>
<td>82</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>54 (Exhaust)</td>
<td>54</td>
</tr>
<tr>
<td>PM₁₀ and PM₂.₅ Fugitive Dust</td>
<td>Best Management Practices</td>
<td>None</td>
</tr>
</tbody>
</table>


CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the California AAQS for CO, which are 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the California and National AAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, the BAAQMD does not require a CO hotspot analysis if the following criteria are met:

Superior Court, in ordering BAAQMD to set aside the thresholds, did not address the merits of the science or evidence supporting the thresholds, and in light of the subsequent case history discussed below, the science and reasoning contained in the BAAQMD 2017 CEQA Air Quality Guidelines provide the latest state-of-the-art guidance available. On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD’s CEQA Guidelines. (California Building Industry Association versus BAAQMD, Case Nos. A135335 and A136212 (Court of Appeal, First District, August 13, 2013))


AIR QUALITY

- The project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersection to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g. tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway, etc.).

Community Risk and Hazards

The BAAQMD’s significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and PM$_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level.

- The future potential development associated with the proposed project would generate TACs and PM$_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the nearby residential sensitive receptors. The thresholds for construction-related local community risk and hazard impacts are the same as for project operations. The BAAQMD has adopted screening tables for air toxics evaluation during construction. Construction-related TAC and PM$_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable.
- The proposed project does not involve construction of any facilities that would be a source of operational TACs and PM$_{2.5}$. BAAQMD thresholds related to siting new sources of TACs and PM$_{2.5}$ near existing or planned sensitive receptors are not applicable.

Since neither Santa Rosa nor Sonoma County currently has a qualified risk reduction plan, a site-specific analysis of TACs and PM$_{2.5}$ impacts on sensitive receptors was conducted. The thresholds identified below are applied to the construction and operational phases for potential future development under the proposed project.

Community Risk and Hazards: Project

Project-level emissions of TACs or PM$_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- Noncompliance with a qualified Community Risk Reduction Plan.
- An excess cancer risk level of more than 10 in one million, or a noncancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution.

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An incremental increase of greater than 0.3 micrograms per cubic meter (µg/m³) annual average PM$_{2.5}$ from a single source would be a significant cumulatively considerable contribution.  

Community Risk and Hazards: Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following:

- No-compliance with a qualified Community Risk Reduction Plan.
- An excess cancer risk level of more than 100 in one million or a chronic noncancer hazard index (from all local sources) greater than 10.0.
- 0.8 µg/m³ annual average PM$_{2.5}$.  

In February 2015, OEHHA adopted new health risk assessment guidance that includes several efforts to be more protective of children’s health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rate.  

Odors

BAAQMD’s thresholds for odors are qualitative based on BAAQMD’s Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health, or safety of any such persons or the public, or which cause, or has a natural tendency to cause, injury, or damage to business or property. Under BAAQMD’s Rule 1-301. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.  

For a plan-level analysis, BAAQMD requires:

- Identification of potential existing and planned location of odors sources.
- Policies to reduce odors.

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**AIR QUALITY**

### 4.2.3 IMPACT DISCUSSION

AQ-1 Implementation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the 2017 Clean Air Plan. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration at an early enough stage to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals in the Bay Area.

As described in Section 4.2.2, Thresholds of Significance, BAAQMD requires a consistency evaluation of a plan with its current AQMP measures. BAAQMD considers project consistency with the AQMP in accordance with the following:

- Does the project support the primary goals of the AQMP?
- Does the project include applicable control measures from the AQMP?
- Does the project disrupt or hinder implementation of any AQMP control measures?
- A comparison that the project VMT or vehicle trip increase is less than or equal to the projected population increase.

**BAAQMD 2017 Clean Air Plan Goals**

The primary goals of the 2017 Clean Air Plan are to attain the State and federal AAQS, reduce population exposure and protect public health in the Bay Area, and reduce GHG emissions and protect the climate. Furthermore, the 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state’s 2030 GHG reduction target and 2050 GHG reduction goal.

**Attain Air Quality Standards**

BAAQMDs 2017 Clean Air Plan strategy is based on regional population and employment projections in the Bay Area compiled by ABAG. These demographic projections are incorporated into *Plan Bay Area*. Demographic trends incorporated into *Plan Bay Area* determine VMT in the Bay Area, which BAAQMD uses to forecast future air quality trends. The SFBAAB is currently designated a nonattainment area for O₃, PM₂.₅, and PM₁₀ (State AAQS only).

Future growth associated with the proposed project could occur incrementally throughout the General Plan’s 2035 buildout horizon. The anticipated growth from the proposed project is within the population and employment projections identified by ABAG for the City of Santa Rosa, as discussed further in Chapter 4.11, Population and Housing, of this Draft EIR. As identified in Chapter 4.11, Population and Housing, the proposed project would not exceed the anticipated regional population and employment forecasts. Because population and employment projections of the proposed project are consistent with regional projections, BAAQMD emissions forecasts consider the additional growth and associated emissions from the proposed project. Consequently, emissions resulting from potential future development associated with the proposed project are included in BAAQMDs projections, and future development accommodated...
under the proposed project would not hinder BAAQMDs ability to attain the California or National AAQS. Accordingly, impacts would be less than significant.

Reduce Population Exposure and Protect Public Health

As identified in the discussion of community risk and hazards (see impact discussion AQ-4 below), new sensitive land uses (e.g., residential) could be near major sources of TACs. There are three stationary sources within 1,000 feet of the Southeast Greenway Area, all of which are gas stations. Likewise, State Route 12 is the only high-volume roadway with over 10,000 vehicles per day in the vicinity of the Southeast Greenway Area. Adherence to BAAQMD regulations would ensure that new sources of TACs do not expose populations to significant health risk; however, siting of land uses near major sources of air pollution is outside the control of BAAQMD as BAAQMD has no jurisdiction over municipal land use decisions. Future projects within 1,000 feet of major sources of TACs would be required to ensure that they could achieve BAAQMDs performance standards (greater or equal to 10 in 1 million \(10^{-06}\) cancer risk, greater or equal to 0.3 \(\mu g/m^3\) PM\(_{2.5}\), or a non-cancer hazard index greater or equal to 1.0). Compliance with these regulations would ensure consistency and impacts would be less than significant.

Reduce GHG Emissions and Protect the Climate

The GHG emissions impacts of the proposed project are discussed in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. Future development allowed by the proposed project would be required to adhere to statewide measures that have been adopted to achieve the GHG reduction targets of Assembly Bill 32. In addition, the proposed project is consistent with regional strategies for infill development identified in Plan Bay Area. Furthermore, the proposed project would not exceed the forecasted year 2035 project-level efficiency metric of 2.4 metric tons of carbon dioxide equivalent per service population (residents plus employees) per year and would be on a trajectory to meet the GHG reduction goal of Executive Order S-03-05. Therefore, the proposed project is consistent with the goal of the 2017 Clean Air Plan to reduce GHG emissions and protect the climate, and the impact would be less than significant.

2017 Clean Air Plan Control Measures

Table 4.2-5 identifies the control measures included in the 2017 Clean Air Plan that are required by BAAQMD to reduce emissions for a wide range of both stationary and mobile sources. As shown in the table, the proposed project, through compliance with existing City regulations, including the Santa Rosa Climate Action Plan and implementation of proposed General Plan policies and Zoning regulations, would not conflict with the 2017 Clean Air Plan and would not hinder BAAQMD from implementing the control measures in the 2017 Clean Air Plan. Accordingly, impacts would be less than significant.

<table>
<thead>
<tr>
<th>Table 4.2-5</th>
<th>CONTROL MEASURES FROM THE BAAQMD 2017 CLEAN AIR PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Measure Number / Title</strong></td>
</tr>
<tr>
<td>Stationary Source Control Measures</td>
<td>SS 1 – Fluid Catalytic Cracking in Refineries</td>
</tr>
<tr>
<td></td>
<td>SS 2 – Equipment Leaks</td>
</tr>
<tr>
<td></td>
<td>SS 3 – Cooling Towers</td>
</tr>
</tbody>
</table>

### Table 4.2-5  Control Measures from the BAAQMD 2017 Clean Air Plan

<table>
<thead>
<tr>
<th>Type</th>
<th>Measure Number / Title</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ SS 4 – Refinery Flares</td>
<td>Greenway Area would be required to comply with BAAQMDs regulations. BAAQMD routinely adopts/revises rules or regulations to implement the stationary source (SS) control measures to reduce stationary source emissions. Due to the location of the Southeast Greenway Area and the type of the proposed land uses (park and recreational, residential, and commercial) under the proposed project, implementation of the proposed project would not hinder the ability of BAAQMD to implement these SS control measures. Furthermore, implementation of the proposed project would not result in any new major stationary source emissions or toxic air contaminants, which are more commonly associated with industrial manufacturing or warehousing. However, the City has existing regulations in place to ensure potential future development under the proposed project would not conflict with the applicable SS control measures. For example General Plan Policy OSC-J-1 would require the City to review all new construction projects and require fugitive dust (PM$<em>{10}$ and PM$</em>{2.5}$) abatement actions as contained in the current BAAQMD basic control measures for reducing construction emissions. Non-residential land uses may generate small quantities of stationary source emissions during project operation (e.g., emergency generators, dry cleaners, and gasoline dispensing facilities); however, these small-quantity generators would require review by BAAQMD for permitted sources of air toxics, which would ensure consistency with the 2017 Clean Air Plan.</td>
</tr>
<tr>
<td></td>
<td>▪ SS 5 – Sulfur Recovery Units</td>
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<td></td>
<td>▪ SS 6 – Refinery Fuel Gas</td>
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<tr>
<td></td>
<td>▪ SS 7 – Sulfuric Acid Plants</td>
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<td></td>
<td>▪ SS 8 – Sulfur Dioxide from Coke Calcining</td>
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<td></td>
<td>▪ SS 9 – Enhanced NSR Enforcement for Changes in Crude Slate</td>
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<td></td>
<td>▪ SS 10 – Petroleum Refining Emissions Tracking</td>
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<td></td>
<td>▪ SS 11 – Petroleum Refining Facility-Wide Emission Limits</td>
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<tr>
<td></td>
<td>▪ SS 12 – Petroleum Refining Climate Impacts Limit</td>
<td></td>
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<tr>
<td></td>
<td>▪ SS 13 – Oil and Gas Production, Processing and Storage</td>
<td></td>
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<td></td>
<td>▪ SS 14 – Methane from Capped Wells</td>
<td></td>
</tr>
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<td></td>
<td>▪ SS 15 – Natural Gas Processing and Distribution</td>
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<tr>
<td></td>
<td>▪ SS 16 – Basin-Wide Methane Strategy</td>
<td></td>
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<td></td>
<td>▪ SS 17 – GHG BACT Threshold</td>
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<td></td>
<td>▪ SS 18 – Basin-Wide Combustion Strategy</td>
<td></td>
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<td></td>
<td>▪ SS 19 – Portland Cement</td>
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<tr>
<td></td>
<td>▪ SS 20 – Air Toxics Risk Cap and Reduction from Existing Facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 21 – New Source Review for Toxics</td>
<td></td>
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<td></td>
<td>▪ SS 22 – Stationary Gas Turbines</td>
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<td></td>
<td>▪ SS 23 – Biogas Flares</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 24 – Sulfur Content Limits of Liquid Fuels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 25 – Coatings, Solvents, Lubricants, Sealants and Adhesives</td>
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<td></td>
<td>▪ SS 26 – Surface Prep and Cleaning Solvent</td>
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<td>▪ SS 27 – Digital Printing</td>
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<tr>
<td></td>
<td>▪ SS 28 – LPG, Propane, Butane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 29 – Asphaltic Concrete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 30 – Residential Fan Type Furnaces</td>
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</tr>
<tr>
<td></td>
<td>▪ SS 31 – General Particulate Matter Emission Limitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 32 – Emergency Backup Generators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 33 – Commercial Cooking Equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 34 – Wood Smoke</td>
<td></td>
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<tr>
<td></td>
<td>▪ SS 35 – PM from Bulk Material Storage, Handling and Transport, Including Coke and Coal</td>
<td></td>
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<tr>
<td></td>
<td>▪ SS 36 – PM from Trackout</td>
<td></td>
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<td></td>
<td>▪ SS 37 – PM from Trackout</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 38 – Fugitive Dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ SS 39 – Enhanced Air Quality Monitoring</td>
<td></td>
</tr>
</tbody>
</table>
**TABLE 4.2-5 CONTROL MEASURES FROM THE BAAQMD 2017 CLEAN AIR PLAN**

<table>
<thead>
<tr>
<th>Type</th>
<th>Measure Number / Title</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Control Measures</td>
<td>TR 1 – Clean Air Teleworking Initiative</td>
<td>Transportation (TR) control measures are strategies to reduce vehicle trips, vehicle use, VMT, vehicle idling, and traffic congestion for the purpose of reducing motor vehicle emissions. Although most of the TR control measures are implemented at the regional level—that is, by MTC or Caltrans—the 2017 Clean Air Plan relies on local communities to assist with implementation of some measures. The proposed project would create new pedestrian and bicycle facilities to improve connectivity and reduce dependency on motorized vehicles. Likewise, several land use and circulation policies under the proposed project would reduce motor vehicle emissions. Examples of such policies include the following:</td>
</tr>
<tr>
<td></td>
<td>TR 2 – Trip Reduction Programs</td>
<td><em>Ensure additional bicycle facilities connect to the Southeast Greenway as proposed in the Bicycle and Pedestrian Master Plan.</em></td>
</tr>
<tr>
<td></td>
<td>TR 3 – Local and Regional Bus Service</td>
<td><em>Provide safe and convenient crossings where the Greenway bicycle and pedestrian trail crosses Hoen Avenue, Franquette Avenue, Yulupa Avenue and Summerfield Road.</em></td>
</tr>
<tr>
<td></td>
<td>TR 4 – Local and Regional Rail Service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TR 5 – Transit Efficiency and Use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TR 6 – Freeway and Arterial Operations</td>
<td></td>
</tr>
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<td></td>
<td>TR 7 – Safe Routes to Schools and Safe Routes to Transit</td>
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<td>TR 8 – Ridesharing, Last-Mile Connection</td>
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<td>TR 9 – Bicycle and Pedestrian Access and Facilities</td>
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<td>TR 10 – Land Use Strategies</td>
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<td>TR 13 – Parking Policies</td>
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<td>TR 14 – Cars and Light Trucks</td>
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<td>TR 15 – Public Outreach and Education</td>
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<td>TR 16 – Indirect Source Review</td>
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<td>TR 17 – Planes</td>
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<td>TR 18 – Goods Movement</td>
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<td>TR 19 – Medium and Heavy Duty Trucks</td>
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<td>TR 20 – Ocean Going Vessels</td>
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<td>TR 21 – Commercial Harbor Craft</td>
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<td></td>
<td>TR 22 – Construction, Freight and Farming Equipment</td>
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<td>TR 23 – Lawn and Garden Equipment</td>
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<tr>
<td>Energy and Climate Control Measures</td>
<td>EN 1 – Decarbonize Electricity Production</td>
<td>The energy and climate (EN) control measures are intended to reduce energy use as a means to reducing adverse air quality emissions. Under the City's Climate Action Plan and SRCC, future potential development under the proposed project would be required to comply with the Climate Action Plan Measure 1.1, which requires new development to meet Tier 1 CALGreen requirements, as amended, for new nonresidential and residential development, in addition to California Building Code, 2016 Building Energy Efficiency Standards, and CALGreen. Compliance with these ongoing City regulations would ensure consistency with these EN control measures.</td>
</tr>
<tr>
<td></td>
<td>EN 2 – Renewable Energy Decrease Electricity Demand</td>
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</tr>
<tr>
<td>Buildings Control Measures</td>
<td>BL 1 – Green Buildings</td>
<td>The buildings (BL) control measures focus on working with local governments to facilitate adoption of best GHG emissions control practices and policies. The 2017 Clean Air Plan includes measures to increase building efficiency. As described above, compliance with the City’s current Climate Action Plan and SRCC regulations (i.e., CALGreen and the current Building Energy Efficiency Standards of Title 24 for energy efficiency) would ensure the project would not conflict with these BL control measures.</td>
</tr>
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<td>BL 2 – Decarbonize Buildings</td>
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<td>BL 3 – Market-Based Solutions</td>
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<td>BL 4 – Urban Heat Island Mitigation</td>
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### Table 4.2-5 | Control Measures from the BAAQMD 2017 Clean Air Plan

<table>
<thead>
<tr>
<th>Type</th>
<th>Measure Number / Title</th>
<th>Consistency</th>
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<tbody>
<tr>
<td><strong>Agriculture Control Measures</strong></td>
<td></td>
<td>Agricultural practices in the Bay Area accounts for a small portion, roughly 1.5 percent, of the Bay Area GHG emissions inventory. The GHGs from agriculture include methane and nitrous oxide, in addition to carbon dioxide. While the Agriculture (AG) control measures target larger scale farming practices that are not proposed under the project, the type of urban farming associated with the proposed project would support reduced GHG emission by increasing the amount of food grown and consumed locally consistent with the City’s Climate Action Plan Measure 8.1 (Local Food Systems). Furthermore, the proposed project includes proposed General Plan Policy PSF-I-2, which requires that the locations of community gardens be sited as closely as possible to access points from neighboring residential areas to encourage use and activity. Therefore, implementation of the proposed project would not conflict with these AG control measures.</td>
</tr>
<tr>
<td><strong>Natural and Working Lands Control Measures</strong></td>
<td>NW 1 -- Carbon Sequestration in Rangelands</td>
<td>The control measures for the natural and working lands sector focus on increasing carbon sequestration on rangelands and wetlands. The proposed project would promote urban tree-planting in order to absorb CO₂, provide shade to reduce urban heat island effects, and increase carbon sequestration in urban areas.</td>
</tr>
<tr>
<td><strong>Waste Management Control Measures</strong></td>
<td>WA 1 – Landfills</td>
<td>The waste management (WA) control measures include strategies to increase waste diversion rates through efforts to reduce, reuse and recycle. The City actively implements several waste reduction and recycling programs that divert waste that is transported to landfills and assist in waste reduction. As discussed in Chapter 4.14, Utilities and Service Systems, in Section 4.14.3, Solid Waste, the City has existing regulations in place to ensure potential future development under the proposed project would not conflict with the applicable WA control measures. For example, General Plan Policy PSF-H-1, requires the city to continue contracting for garbage and recycling collection services as well as to expand the single-stream recycling program (all recyclables in one container) to all users. Policy PSF-H-3 requires the City to expand recycling efforts in multifamily residential and commercial projects, and continue to encourage recycling by all residents. Additionally, the City’s Climate Action Plan requires the City to increase the amount of waste that is recycled and composted. For example, Measure 1.1 requires the City to continue to enforce and require new development to meet Tier 1 CALGreen requirements, as amended, for new nonresidential and residential development, Implementation of these ongoing City regulations to reduce waste would ensure implementation of the proposed project would not conflict with these WA control measures.</td>
</tr>
<tr>
<td><strong>Water Control Measures</strong></td>
<td>WR 1 – Limit GHGs from publicly owned treatment works(POTWs)</td>
<td>The 2017 Clean Air Plan includes measures to reduce water use. As discussed in Chapter 4.14, Utilities and Services Systems, ongoing compliance with the City’s current water use regulations is required.</td>
</tr>
</tbody>
</table>


conservation regulations included in the General Plan, SRCC, and Climate Action Plan, would support water conservation and ensure the proposed project would not conflict with the WR control measures. For example CALGreen, adopted in SRCC Chapter 18-42, includes water conservation measures and requirements that new buildings reduce water consumption by 20 percent. General Plan Policy PSF-F-4 requires the City to continue improving water infrastructure by maintaining water mains and water transmission lines as necessary. Climate Action Plan Measure 7.1 (Water Conservation), also requires the City to continue to require and incentivize water conservation, while Measure 7.2 (Wastewater and Water Operations) requires the City to improve the efficiency of the water facilities. Furthermore, the Development Standards of the proposed project, would require that landscaping associated with the project be water efficient and meet the City’s Water Efficient Landscape Policy standards.

<table>
<thead>
<tr>
<th>Type</th>
<th>Measure Number / Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super-GHG Control Measures</td>
<td>SL 1 – Short-Lived Climate Pollutants</td>
</tr>
<tr>
<td></td>
<td>SL 2 – Guidance for Local Planners</td>
</tr>
<tr>
<td></td>
<td>SL 3 – GHG Monitoring and Emissions Measurements Network</td>
</tr>
</tbody>
</table>
|                       | Super-GHGs include methane, black carbon and fluorinated gases. The compounds are sometimes referred to as short-lived climate pollutants because their lifetime in the atmosphere is generally fairly short. Measures to reduce super GHGs are addressed on a sector-by-sector basis in the 2017 Clean Air Plan. Through ongoing implementation of the City’s Climate Action Plan, the City will continue to reduce local GHG emissions, meet State, regional, and local reduction targets, which would ensure implementation of the proposed project would not conflict with these SL control measures.

| Further Study Control Measures | FSM SS 1 – Internal Combustion Engines                                             |
|                                | FSM SS 2 – Boilers, Steam Generator and Process Heaters                             |
|                                | FSM SS 3 – GHG Reductions from Non Cap-and Trade Sources                             |
|                                | FSM SS 4 – Methane Exemptions from Wastewater Regulation                             |
|                                | FSM SS 5 – Controlling start-up, shutdown, maintenance, and malfunction (SSMM) Emissions |
|                                | FSM SS 6 – Carbon Pollution Fee                                                     |
|                                | FSM SS 7 – Vanishing Oils and Rust Inhibitors                                       |
|                                | FSM SS 8 – Dryers, Ovens and Kilns                                                 |
|                                | FSM SS 9 – Omnibus Rulemaking to Achieve Continuous Improvement                      |
|                                | FSM BL 1 – Space Heating                                                            |
|                                | FSM AG 1 – Wineries                                                                |
|                                | The majority of the further study control measures apply to sources regulated directly by BAAQMD. Because BAAQMD is the implementing agency, new and existing sources of stationary and area sources in the project area would be required to comply with these additional further study control measures in the 2017 Clean Air Plan. |

Source: Bay Area Air Quality Management District, 2017 Revised, California Environmental Quality Act Air Quality Guidelines.
Regional Growth Projections for VMT and Population and Employment

Future potential development allowed by the proposed project would result in additional sources of criteria air pollutants. Growth accommodated by the proposed project could occur throughout the 2035 buildout horizon. As a result, BAAQMDs approach to evaluating impacts from criteria air pollutants generated by a plan’s long-term growth is done by comparing population and employment estimates to the VMT estimates. This is because BAAQMDs AQMP plans for growth in the SFBAAB are based on regional population and employment projections identified by ABAG and growth in VMT identified by SCTA. Changes in regional, community-wide emissions in the Plan Area could affect the ability of BAAQMD to achieve the air quality goals in the AQMP. Consequently, air quality impacts for a plan-level analysis are based on consistency with the regional growth projections.

VMT estimates based on trip generation data provided by W-Trans were calculated for the proposed project. Table 4.2-6 compares the projected increase in service population with the projected increases in total VMT and per capita VMT.

Generally, land uses that reflect a more balanced jobs-housing ratio result in lower per capita VMT. As shown in this table, VMT throughout Santa Rosa is projected to increase by 1,074,658 trips per day. Implementation of the proposed project would only represent approximately 0.2 percent of this projected increase, making the project a nominal source of VMT. In addition, daily VMT in the Plan Area would increase at a lower rate (29 percent) than would the population (49 percent) and employment (83 percent) when compared to existing conditions. BAAQMDs AQMP requires that the VMT increase be less than or equal to the projected population increase from the proposed project (e.g., generate the same or less VMT per capita). In other words, BAAQMD requires that a proposed project be designed to ensure the same or lower VMT per capita compared to what is on the ground. Even though the proposed project would result in an increase in service population, the total VMT does not increase at the same rate, but rather a lower rate. As shown in Table 4.2-6, implementation of the proposed project would result in lower VMT per capita. Consequently, impacts would be less than significant.

<table>
<thead>
<tr>
<th>Category</th>
<th>2010 Baselinea</th>
<th>2040 With Projectb</th>
<th>Project Contributionc</th>
<th>Percent increase from 2010-2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>167,815</td>
<td>249,721</td>
<td>632</td>
<td>49%</td>
</tr>
<tr>
<td>Employment</td>
<td>75,460</td>
<td>138,193</td>
<td>40</td>
<td>83%</td>
</tr>
<tr>
<td>VMT per Day</td>
<td>3,723,824</td>
<td>4,798,482</td>
<td>2,313</td>
<td>29%</td>
</tr>
</tbody>
</table>

Notes:
- b. 2040 population and employment projections from the Santa Rosa General Plan 2035. An annual 1% increase was added to 2035 population projections, and an annual 0.9% increase was assumed for employment growth, in line with growth assumed in the general plan in tables 2-2, 4-2, and 4-6.
- c. VMT for the proposed project and 2040 baseline is based on the CalEEMod Version 2016.3.1 and trip generation provided by W-Trans.

In summary, implementation of the proposed project would not conflict with the 2017 Clean Air Plan.

Significance Without Mitigation: Less than significant.
Implementation of the proposed project would generate short- and long-term criteria air pollutant emissions that could violate air quality standards or contribute substantially to an existing or projected air quality violation.

BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including ROG, NO, PM$_{10}$, and PM$_{2.5}$. Development projects below the significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation. According to BAAQMDs CEQA Guidelines, long-range plans, such as the proposed project, present unique challenges for assessing impacts. 28 Due to the SFBAABs nonattainment status for ozone and PM and the cumulative impacts of growth on air quality, these plans almost always have significant, unavoidable adverse air quality impacts.

**Construction Emissions**

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the project site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM$_{10}$ and PM$_{2.5}$) from soil-disturbing activities, such as grading and excavation. Air pollutant emissions from construction activities on site would vary daily as construction activity levels change. The proposed project involves the construction of a continuous bicycle, pedestrian, and non-motorized transportation route, as well as park and recreational uses, educational opportunities, active recreation areas, residential developments, and commercial space.

BAAQMDs plan-level guidelines do not require an evaluation of construction emissions for plan-level projects. There is no proposed development under the proposed project at this time. Future development proposals under the proposed project would be subject to separate environmental review pursuant to CEQA in order to identify and mitigate potential air quality impacts. Because the details regarding future construction activities are not known at this time—including phasing of future individual projects, construction duration and phasing, and preliminary construction equipment—construction emissions are evaluated qualitatively in accordance with BAAQMDs plan-level guidance. Subsequent environmental review of development projects would also be required to assess potential impacts under BAAQMDs project-level thresholds based on site-specific construction phasing and buildout characteristics.

Construction emissions associated with individual development projects under the proposed project would increase criteria air pollutants and TACs. Subsequent environmental review of future development projects would be required to assess potential impacts under BAAQMDs project-level thresholds. Construction emissions from buildout of future projects in the Southeast Greenway Area would primarily be 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by demolition, grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles; and 4) off-gas emissions of ROGs from application of asphalt, paints, and coatings.

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Existing federal, State, and local regulations, and policies and strategies of the proposed project described throughout this section protect local and regional air quality. Continued compliance with these regulations would reduce construction-related impacts. In addition, General Plan Policy OSC-J-1 would require the City to review all new construction projects and require fugitive dust (PM$_{10}$ and PM$_{2.5}$) abatement actions as contained in the current BAAQMD basic control measures for reducing construction emissions of PM$_{10}$ (Table 8-1, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines). In compliance with BAAQMD requirements, if construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City would require that future applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds (Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold, of the BAAQMD CEQA Guidelines, or applicable construction mitigation measures subsequently approved by BAAQMD). These identified measures would be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and verified by the City’s Building Division and/or Planning Division. Consequently, construction-related impacts would be less than significant.

**Significance Without Mitigation:** Less than significant.

**Operational Emissions**

The existing 57 acres of undeveloped land do not generate long-term air pollutant emissions from the burning of fossil fuels in vehicles (mobile sources), energy use for cooling, heating, and cooking (energy), or landscape equipment use and consumer products (area sources).

Implementation and adoption of the proposed project would result in new development potential up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space in the Southeast Greenway Area, in combination with the remaining and previously approved buildout in the existing General Plan 2035. One of the primary goals of the proposed project is to encourage multimodal transit and walking, provide a mixture of land uses, and support open and natural spaces. No physical changes to the site are proposed at this time.

Criteria air pollutant emissions would be generated from on-site area sources (e.g., landscaping fuel, consumer products), vehicle trips generated by implementation of the proposed project, and energy use (e.g., natural gas used for cooking and heating). These emissions from the proposed project could violate air quality standards or contribute substantially to an existing or projected air quality violation and expose sensitive receptors to elevated concentrations of pollutants during construction activities. Consequently, impacts are significant.

**Impact AQ-2:** Operation of the proposed project could contribute to an existing or projected air quality violation.

**Mitigation Measure AQ-2:** Prior to issuance of construction permits, development project applicants that are subject to CEQA and exceed the screening sizes in the Bay Area Air Quality Management District’s (BAAQMD) CEQA Guidelines shall prepare and submit to the City of Santa Rosa a technical assessment evaluating potential air quality impacts related to the project’s operation phase. The
evaluation shall be prepared in conformance with the BAAQMD methodology in assessing air quality impacts. If operation-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in BAAQMD’s CEQA Guidelines, the City of Santa Rosa shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operation activities.

**Significance With Mitigation:** Significant and unavoidable. The proposed project includes measures that would minimize emissions to the extent feasible. Mitigation Measure AQ-2 would require implementation of BAAQMD-approved mitigation measures if subsequent environmental review determines that applicants for future development in Santa Rosa could generate operational emissions in excess of the BAAQMD significance thresholds. An analysis of emissions generated from the operation of potential future projects allowed under the proposed project would be compared to BAAQMD’s project-level significance thresholds during individual environmental review. The total criteria air pollutant emissions from operation of potential future development projects associated with the proposed project could be substantial and could contribute to increases in concentrations of air pollutants, which could contribute to ongoing violations of air quality standards. It should be noted that the identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with BAAQMD screening criteria or meet applicable thresholds of significance. The policies proposed as part of the proposed project would reduce criteria air pollutants, to the extent feasible, as part of this programmatic review of air quality impacts. Additional measures to reduce criteria air pollutant emissions would be considered during individual project-level review based on site-specific and project-specific characteristics to reduce significant impacts as applicable. Because those projects and measures cannot be known at this time, the impact is considered **significant and unavoidable**.

**AQ-3** Implementation of the proposed project could violate an air quality standard, contribute substantially to an existing or projected air quality violation, and would result in a cumulatively considerable net increase of criteria pollutants for which the project region is in nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

This section analyzes potential impacts related to air quality that could occur from the buildout associated with the proposed project in combination with the regional growth in the air basin. The SFBAAB is currently designated a nonattainment area for California and National $O_3$, California and National $PM_{2.5}$, and California $PM_{10}$ AAQS. At a plan level, air quality impacts are measured by the potential for a project to exceed BAAQMDs significance criteria and contribute to the State and federal nonattainment designations in the SFBAAB. Any project that produces a significant regional air quality impact in an area that is in nonattainment adds to the cumulative impact. The proposed project’s contribution to cumulative air quality impacts is identified under impact discussions AQ-1 and AQ-2. The analyses in these sections identify whether the proposed project would conflict with the 2017 Clean Air Plan (impact discussion AQ-1) or generate a substantial increase in criteria air pollutants (impact discussion AQ-2). As described in impact discussion AQ-1, the proposed project would be consistent with the 2017 Clean Air Plan. As described under impact discussion AQ-2, the proposed project could generate a substantial
increase in criteria air pollutant emissions from operational activities that could exceed the BAAQMD regional significance thresholds. Consequently, cumulative regional air quality impacts are also significant.

Impact AQ-3: Future potential development projects associated with the proposed project could cumulatively contribute to the non-attainment designations of the SFBAAB.

Mitigation Measure AQ-3: Implement Mitigation Measure AQ-2.

Significance With Mitigation: Significant and unavoidable. Mitigation Measure AQ-2 would ensure that future new development under the proposed project would be required to prepare an evaluation of the potential contribution of air quality impacts if the project exceeds the BAAQMD screening thresholds. However, because the emissions are unknown at this time, regional and localized operational emissions could exceed the BAAQMD significance thresholds. As stated under impact discussion AQ-2, the identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with BAAQMD screening criteria or meet applicable thresholds of significance. Consequently, implementation of the proposed project could cumulatively contribute to the nonattainment designations of the SFBAAB and impacts would be considered significant and unavoidable.

Construction activities associated with potential future development projects accommodated under the proposed project could expose nearby receptors to substantial concentrations of air pollution.

If the proposed project would cause or contribute significantly to elevated pollutant concentration levels it could expose sensitive receptors to elevated pollutant concentrations. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Construction Community Risk and Hazards

Future construction under the proposed project would temporarily elevate concentrations TACs and diesel-PM$_{2.5}$ in the vicinity of sensitive land uses during construction activities. The proposed project involves siting recreational land uses proximate to existing residential units in the vicinity of the project site. Because the details regarding future construction activities are not known at this time—including phasing of future individual projects, construction duration and phasing, and preliminary construction equipment—construction emissions are evaluated qualitatively in accordance with BAAQMDs plan-level guidance. Subsequent environmental review of future development projects would be required to assess potential impacts under BAAQMDs project-level thresholds. Because construction emissions associated with the proposed project could exceed BAAQMD’s project level and cumulative significance thresholds for community risk and hazards, construction-related health risk impacts associated with the proposed project is considered significant.

Impact AQ-4: Construction activities associated with potential future development projects accommodated under the proposed project could expose nearby receptors to substantial concentrations of TACs.
**Mitigation Measure AQ-4:** Applicants for construction within 1,000 feet of residential and other sensitive land use projects (e.g., hospitals, nursing homes, day care centers) in the City of Santa Rosa, as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Santa Rosa prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment (OEHHA) and the Bay Area Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children ages 0 to 16 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), PM$_{2.5}$ concentrations exceed 0.3 µg/m$^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include, but are not limited to:

- During construction, use of construction equipment fitted with Level 3 Diesel Particulate Filters (DPF) for all equipment of 50 horsepower or more.
- Use of construction equipment fitted with Tier 3 engines for all equipment of 50 horsepower or more.
- Equipment shall be properly serviced and maintained in accordance with manufacturer recommendations.
- The construction contractor shall ensure that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.

Measures identified in the HRA shall be included in the environmental document and/or incorporated into the site development plan as a component of the proposed project. Prior to issuance of any construction permit, the construction contractor shall ensure that all construction plans submitted to the City of Santa Rosa Planning Division and/or Building Division clearly show incorporation of all applicable mitigation measures.

**Significance With Mitigation:** Less than significant.
AIR QUALITY

Operational Phase On-Site Community Risk and Hazards

Exposure to elevated concentrations of vehicle-generated PM$_{2.5}$ and TACs at sensitive land uses have been identified by CARB, the California Air Pollution Control Officer’s Association, and BAAQMD as a potential air quality hazard. The proposed project would not create new major sources of TACs, which are more commonly associated with industrial manufacturing or warehousing. Non-residential (e.g., research and development and commercial and retail) land uses may generate small quantities of TACs (e.g., emergency generators, dry cleaners, and gasoline dispensing facilities). However, these small-quantity generators would require review by BAAQMD for permitted sources of air toxics, which would ensure health risks are below the BAAQMD thresholds. Therefore, operation-related health risk impacts associated with the proposed project are considered less than significant.

Significance Without Mitigation: Less than significant.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO, called hotspots. These pockets have the potential to exceed the State 1-hour standard of 20 parts per million (ppm) or the 8-hour standard of 9.0 ppm. Because CO is produced in the greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

SCTA’s CMP must be consistent with Plan Bay Area, and an overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth in outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle VMT and associated GHG emissions reductions. Because the proposed project would provide routes for alternative modes of transportation, the proposed project would be consistent with the overall goals of the Plan Bay Area. Additionally, the proposed project would not conflict with SCTA’s CMP because it would not hinder the capital improvements outlined in the CMP or alter regional travel patterns. Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact. Based on the traffic analysis conducted as part of this environmental analysis, the proposed project would generate a total of 277 daily peak hour trips and not increase traffic volumes at affected intersections by more than BAAQMD screening criteria of 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Therefore, the proposed project would not have the potential to substantially increase CO hotspots at intersections in the Southeast Greenway Area and vicinity. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

Significance Without Mitigation: Less than Significant.

29 Bay Area Air Quality Management District (BAAQMD), 2017 (Revised). CEQA Air Quality Guidelines.
Implementation of the proposed project would not create or expose a substantial number of people to objectionable odors.

The proposed project would accommodate future residential and commercial development. Construction and operation of residential developments, retail, and restaurants would not generate substantial odors or be subject to odors that would affect a substantial number of people. The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Residential and commercial uses are not associated with foul odors that constitute a public nuisance.

During operation, residences could generate odors from cooking. Odors from cooking are not substantial enough to be considered nuisance odors that would affect a substantial number of people. Furthermore, nuisance odors are regulated under BAAQMD Regulation 7, Odorous Substances, which requires abatement of any nuisance generating an odor complaint. BAAQMD’s Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. In addition, odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance

During construction activities of future developments on the project site, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Impacts would be less than significant.

Significance Without Mitigation: Less than significant.

Implementation of the proposed project would cumulatively contribute to air quality impacts in the San Francisco Bay Area Air Basin.

As described under impact discussion AQ-3, regional criteria air pollutant emissions generated by cumulative development associated with potential future buildout of the proposed project could exceed BAAQMD’s project-level significance thresholds and could contribute to the nonattainment designations of the SFBAAB. The SFBAAB is currently designated a nonattainment area for California and national O₃, California and national PM₁₂.₅, and California PM₁₀ AAQS. Therefore, in combination with past, present, and reasonably foreseeable projects elsewhere within the SFBAAB, the proposed project, even with

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31 It should be noted that while restaurants can generate odors, these sources are not identified by BAAQMD as nuisance odors since they typically do not generate significant odors that affect a substantial number of people. Larger restaurants that employ five or more people are subject to BAAQMD Regulation 7, Odorous Substances.
implementation of applicable regulations, would result in a *significant* cumulative impact with respect to air quality.

**Impact AQ-6:** Despite implementation of the proposed project policies, criteria air pollutant emissions associated with the proposed project could generate a substantial net increase in emissions that exceeds the BAAQMD regional significance thresholds, and impacts would be *significant*.

**Mitigation Measure AQ-5:** Implement Mitigation Measures AQ-2 through AQ-4.

**Significance With Mitigation:** Significant and unavoidable. Criteria air pollutant emissions generated by land uses allowed under the proposed project could exceed the BAAQMD thresholds (see Impact AQ-2). Air quality impacts identified in the discussion under impact discussion AQ-2 constitute the proposed project’s contribution to cumulative air quality impacts in the SFBAAB. Mitigation Measures AQ-2 through AQ-4, identified previously to reduce project-related emissions, would reduce impacts to the extent feasible. Due to the programmatic nature of the proposed project, site-specific details of potential future development are unknown and no additional mitigation measures are available. Air pollutant emissions associated with the proposed project would result in a cumulatively considerable contribution to air quality impacts; however, identification of this program-level impact does not preclude the finding of less-than-significant impacts for individual subsequent projects.
4.3 Biological Resources

This chapter describes existing biological resources in the project site and its surroundings and evaluates the potential biological resources impacts that could result from implementation of the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed and cumulative impacts.

The analysis in this chapter is based on a Biological Resource Assessment (BRA) that was prepared on May 25, 2017 by Environmental Collaborative. The BRA is included in Appendix C of this Draft EIR.

4.3.1 Environmental Setting

4.3.1.1 Regulatory Framework

Federal Regulations

Federal Endangered Species Act (FESA)

The United States Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) are responsible for implementation of the Federal Endangered Species Act (FESA) (16 United States Code Section 1531 et seq.). The act protects fish and wildlife species that are listed as threatened or endangered, and their habitats. “Endangered” species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range, and “threatened” species, subspecies, or distinct population segments are likely to become endangered in the near future.

Section 9 of the FESA prohibits the “take” of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species’ recovery. “Take” is defined as an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to take at the time of listing.

Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and reduction to possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any State law or in the course of criminal trespass. Candidate species and species that are proposed or under petition for listing receive no protection under FESA Section 9.

Migratory Bird Treaty Act

The USFWS is also responsible for implementing the Migratory Bird Treaty Act (MBTA). The MBTA implements a series of treaties between the United States, Mexico, and Canada that provide for the international protection of migratory birds. Wording in the MBTA makes it clear that most actions that result in taking or possession (permanent or temporary) of a protected species can be a violation of the Act. The word “take” is defined as meaning “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or...”
attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” The provisions of the MBTA are nearly absolute; “except as permitted by regulations” is the only exception. Examples of permitted actions that do not violate the law are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird-banding, and similar activities.

Clean Water Act

The federal Clean Water Act (CWA) is the primary federal law regulating water quality. Implementing the CWA is the responsibility of the United States Environmental Protection Agency (USEPA). The USEPA depends on other agencies, such as individual state government and the United States Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Sections 401 and 404 apply to activities that would impact waters in the United States (such as creeks, ponds, wetlands, etc.).

Section 404

The USACE, the federal agency charged with investigating, developing, and maintaining the country’s water and related resources, is responsible under Section 404 of the CWA for regulating the discharge of fill material into waters of United States and their lateral limits are defined in Part 328.3(a) of Title 33 of the Code of Federal Regulations (CFR) and include streams that are tributaries to navigable waters and adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark or the limit of adjacent wetlands. Any permanent extension of the limits of an existing water of the United States, whether natural or human-made, results in a similar extension of USACE jurisdiction.¹

In general, a USACE permit must be obtained before an individual project can place fill or grade in wetlands or other waters in the United States and mitigation for such actions will be required based on the conditions of the USACE permit. The USACE is required to consult with the USFWS and/or the NMFS under Section 7 of the FESA if the action being permitted under the CWA could affect federally listed species.

Section 401

Pursuant to Section 401 of the CWA, projects that require a USACE permit for discharge of dredge or fill material must obtain a water quality certification or waiver that confirms the project complies with State water quality standards, or a no-action determination, before the USACE permit is valid. State water quality is regulated and administered by the State Water Resources Control Board (SWCB). The Plan Area is within jurisdiction of the North Coast Regional Water Quality Control Board (RWQCB). In order for the applicable RWQCB to issue a 401 certification, a project must demonstrate compliance with the California Environmental Quality Act (CEQA).

¹ Section 33 Code of Federal Regulation Part 328.5.
State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et seq.) establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect a species that is on the federal and State lists, compliance with the FESA satisfies the CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species that is only State listed, the project proponent must apply for a take permit under Section 2081(b).

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to “projects” proposed to be undertaken or requiring approval by State and local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria” for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a “de facto” rare or endangered species.

California Fish and Game Code

Under the California Fish and Game Code, the CDFW provides protection from “take” for a variety of species. The CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the California Fish and Game Code. The California Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

California Fish and Game Code Section 3503.5 prohibits “take,” possession, or destruction of any raptor (e.g., bird of prey species in the orders Falconiformes and Strigiformes), including their nests or eggs. Violations of this law include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity that causes nest abandonment and reproductive failure.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, “take” of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under the CESA but rather under CEQA.
California Native Plant Society (CNPS) is a non-governmental conservation organization that has developed a list of plants of special concern in California. The following explains the designations for each plant species:2

- Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
- Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere
- Rank 2A – Plants Presumed Extirpated in California, But Common Elsewhere
- Rank 2B – Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- Rank 3 – Plants About Which More Information is Needed - A Review List
- Rank 4 – Plants of Limited Distribution - A Watch List

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants with a Ranking of 1A through 2B may be considered to meet the definition of endangered, rare, or threatened species under Section 15380(d) of CEQA (see above), and impacts to these species may be considered “significant.”

In addition, the CDFW recommends, and local governments may require, protection of species which are regionally significant, such as locally rare species, disjunct populations, essential nesting and roosting habitat for more common wildlife species, or plants with a CNPS Ranking of 3 and 4.

California Natural Communities

Sensitive natural communities are natural community types considered to be rare or of a “high inventory priority” by the CDFW. Although sensitive natural communities have no legal protective status under the federal ESA or CESA, they are provided some level of consideration under CEQA. Appendix G of the CEQA Guidelines identifies potential impacts on a sensitive natural community as one of six criteria to consider in determining the significance of a proposed project. While no thresholds are established as part of this criterion, it serves as an acknowledgement that sensitive natural communities are an important resource and, depending on their rarity, should be recognized as part of the environmental review process. The level of significance of a project’s impact on any particular sensitive natural community will depend on that natural community’s relative abundance and rarity.

As an example, a discretionary project that has a substantial adverse effect on any riparian habitat, native grassland, valley oak woodland, and/or other sensitive natural community would normally be considered to have a significant effect on the environment. Further loss of a sensitive natural community could be interpreted as substantially diminishing habitat, depending on its relative abundance, quality and degree of past disturbance, and the anticipated impacts to the specific community type.

Porter-Cologne Water Quality Control Act

This act authorizes the RWQCB to regulate the discharge of waste that could affect the quality of the State’s waters. Projects that do not require a federal permit may still require review and approval by the RWQCB. The RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB requires the integration of water quality

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control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction best management practices.

Other Statutes, Codes, and Policies Affording Species Protection

The CDFW maintains an administrative list of Species of Special Concern (SSC), defined as a “species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:
- Is extirpated from the State, or, in the case of birds, in its primary seasonal or breeding role;
- Is listed as federally, but not State-, threatened or endangered;
- Meets the State definition of threatened or endangered but has not formally been listed;
- Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.

The CDFW's Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, and reptiles and amphibians. The Fisheries Branch is responsible for updates to the Fish SSC document and list. Section 15380 of the CEQA Guidelines clearly indicates that SSC should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outline therein. In contrast to species listed under the federal ESA or CESA, however, SSC have no formal legal status.

Local Regulations

General Plan 2035

The Open Space and Conservation (OSC) element of the General Plan 2035 includes the following goals and policies specific to biological resources and applicable to the proposed project:
- **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 rights; and/or
    - Compensatory mitigation, such as restoration or creation.
- **Policy OSC-D-2:** Protect high quality wetlands and vernal pools from development or other activities as determined by the Vernal Pool Ecosystem Preservation Plan.
- **Policy OSC-D-3:** Preserve and restore the elements of wildlife habitats and corridors throughout the Planning Area.
- **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.

- **Goal OSC-E**: Ensure local creeks and riparian corridors are preserved, enhanced, and restored as habitat for fish, birds, mammals and other wildlife.

  - **Policy OSC-E-1**: Maintain creek areas using practices that protect and support fish and wildlife as well as help retain hydraulic capacity.

- **Goal OSC-H**: Conserve significant vegetation and trees and plant new trees.

  - **Policy OSC-H-1**: Preserve trees and other vegetation, including wildflowers, both as individual specimens and as parts of larger plant communities.

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

  - **Policy OSC-H-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.

**Santa Rosa City Code**

**Chapter 17.24, Trees**

Santa Rosa City Code’s (SRCC) Chapter 17.24, Trees, regulates the treatment of trees that qualify as a “heritage tree”, “protected”, or “street tree” as defined under the ordinance. A heritage tree includes a tree or grove of trees designated by the Planning Commission, or a native species with minimum trunk diameters that range from six inches for a valley oak or blue oak, or California buckeye, to 24 inches for a redwood, California bay, or Douglas fir, or big leaf maple. Other native trees species regulated under the ordinance include: live oak, black oak, Garry oak, canyon oak, interior live oak, madrone, red alder, and white alder. A street tree is defined as any tree having a single trunk circumference greater than six and one-quarter inches or a diameter greater than two inches, a height of more than six feet, and one half or more of its trunk is within a public right-of-way or within five feet of a paved portion of a City street or a public sidewalk. A permit is typically required for removal of any regulated heritage or street tree.

**Section 7-12.110, Leash Required in Public Park, Playground**

SRCC Section 7-12.110, Leash Required in Public Park, Playground, includes provisions that require dogs to be restrained by leash or chain, not exceeding six feet in length, when on the premises of a public park or playground.
**4.3.1.2 EXISTING CONDITIONS**

**Methodology**

**Literature Review**

Biological resources associated with the project site were identified through a review of available background information and field reconnaissance surveys. A Biological Resource Assessment (BRA) for the project site was prepared in 2017, and contains a detailed description of existing conditions and planning considerations. The BRA is included in Appendix C of this Draft EIR, and its contents are incorporated into this chapter by reference. The BRA was prepared based on a review of available background information and field reconnaissance surveys. Available literature and mapping of biological and wetland resources was reviewed, including: records maintained by the California Natural Diversity Data Base (CNDDB) of the CDFW to determine known occurrences of special-status species and sensitive natural communities in the site vicinity; mapping prepared by the United State Fish and Wildlife Service (USFWS) as part of the National Wetland Inventory and designated critical habitat for federally-listed species; and memos prepared by the City describing existing conditions associated with the project site and the potential for any environmentally sensitive areas, which included maps of known or suspected jurisdictional wetlands and waters.

**On-Site Field Survey**

A field reconnaissance survey of the site was initially conducted on September 27, 2016 to determine vegetation and wildlife habitats, conduct a preliminary wetland assessment, and evaluate the potential for occurrence of special-status species. A follow-up survey was completed on November 21, 2016 to inspect field conditions associated with several of the potential seasonal wetlands observed on the site. No protocol surveys for special-status species were performed as part of the BRA, although additional detailed investigation is recommended as part of future project-specific review and permitting.

**Vegetation and Wildlife Habitat**

The project site remains largely undeveloped and supports a cover dominated by non-native grasslands, scattered native trees and areas of fallow walnut orchards. Matanzas Creek, Sierra Park Creek, and Spring Creek bisect the project site, together with smaller drainage swales and man-made ditches, and areas of potential seasonal wetlands. The three creeks support riparian woodland and scrub, with the Matanzas Creek corridor supporting the highest quality in terms of native species’ density and diversity. As shown on Figures 4.3-1 through 4.3-4, the existing cover across the project site, and locations of creeks, drainages, and potential seasonal wetlands. Although most of the project site is bordered by residential and other urban uses, the large area of grassland cover, scattered trees, and dense riparian vegetation along creek corridors continue to provide important habitat for wildlife. The BRA provides a detailed description of each of these habitat types and their associated wildlife habitat values.

**Special-Status Species**

Special-status species are plants and animals that are legally protected under the State and/or federal ESAs or other regulations, as well as other species that are considered rare enough by the scientific
community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. Special-status species receive varying degrees of legal protection under both the State and/or federal ESAs, and the CEQA. The USFWS, National Marine Fisheries Service (NOAA Fisheries), and CDFW share responsibility for protection and management of natural resources. Species with legal protection under the ESAs often represent major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species. If a listed species may be affected by proposed development, the lead agency must initiate a consultation with the USFWS, NOAA Fisheries, and/or CDFW, as required by State or federal law.

A record search conducted by the CNDDB, together with the review of lists from the USFWS and CNPS, indicates that occurrences of numerous plant and animal species with special-status have been recorded from or are suspected to occur in the surrounding area of Sonoma County. Figure 4.3-5, shows the distribution of known occurrences of special-status plant and animal species in the surrounding area, respectively. As indicated in Figure 4.3-5, only general occurrence of narrow-anthered brodea (*Brodiaea leptandra*) and saline clover (*Trifolium hydrophilum*) have actually been reported from the southeast Santa Rosa vicinities encompassing portions of the project site. However, these two occurrences are based on historic records that encompass broad areas, rather than a specific occurrence within the project site with an intact population. Below is a summary of the special-status plant and animal species known from the surrounding area of Sonoma County and the Santa Rosa vicinity, and conclusions regarding possible presence or absence on the project site.

**Special-Status Plant Species**

A number of plant species with special status have been reported from the Santa Rosa vicinity, and based on recorded geographic range and preferred habitat, numerous other species may potentially occur in the central Sonoma County vicinity. Figure 4.3-5, shows occurrences of 30 special-status plant species within an approximately five-mile radius of the project site. Additional information is provided in Table 1 of the BRA in Appendix C of this Draft EIR, which provides information on 71 special-status plant species that have varying potential for occurrence in the central Sonoma County vicinity. These have varied status, and many are considered rare (rarity ranking of 1B) by the California Native Plant Society (CNPS) and would be considered of special-status under CEQA regulations (see Section 4.3.1.1, Regulatory Framework, above).

Based on habitat conditions observed during the field reconnaissance surveys, routine disking over much of the project site generally precludes the potential for occurrence of special-status plant species. Similarly, the intensive grazing over portion of the eastern portion of the project site closest to Spring Lake Regional Park also limits the likelihood for occurrences of special-status plant species in these areas. However, some locations continue to provide relatively intact natural habitat, and there remains varying potential for occurrence by a number of special-status plant species (see Table 1 in the BRA in Appendix C of this Draft EIR). These include those associated with grasslands, riparian woodlands, seasonal wetlands and drainages, and oak woodland habitats.
Figure 4.3-1

Existing Cover & Potential Jurisdictional Waters (Farmers Lane to Hoen Avenue)

City’s Assessment, 2014 & 2015
- Purple: Potential Seasonal Wetland
- Blue: Drainage
- Green: Riparian Shrub/Woodland

Biological Resources Study, 2017
- Southeast Greenway Boundary
- Storm Drain
- Creek

Additional Potential Seasonal Wetland Area

Source: City of Santa Rosa (2014 & 2015); Environmental Collaborative (2017).
Figure 4.3-2

Existing Cover & Potential Jurisdictional Waters (Hoen Avenue to Yulupa Avenue)

Source: City of Santa Rosa (2014 & 2015); Environmental Collaborative (2017).

City’s Assessment, 2014 & 2015
- Potential Seasonal Wetland
- Drainage
- Riparian Shrub/Woodland

Biological Resources Study, 2017
- Southeast Greenway Boundary
- Storm Drain
- Creek
- Additional Potential Seasonal Wetland Area

Scale (Feet)
Figure 4.3-3
Existing Cover & Potential Jurisdictional Waters (Yulupa Avenue to Summerfield Road)

Source: City of Santa Rosa (2014 & 2015); Environmental Collaborative (2017).

**City’s Assessment, 2014 & 2015**
- Potential Seasonal Wetland
- Drainage
- Riparian Shrub/Woodland

**Biological Resources Study, 2017**
- Southeast Greenway Boundary
- Storm Drain
- Creek
- Additional Potential Seasonal Wetland Area
Source: City of Santa Rosa (2014 & 2015); Environmental Collaborative (2017).

**City’s Assessment, 2014 & 2015**
- Purple: Potential Seasonal Wetland
- Light Blue: Drainage
- Green: Riparian Shrub/Woodland

**Biological Resources Study, 2017**
- Orange: Southeast Greenway Boundary
- Dark Blue: Storm Drain
- Light Blue: Additional Potential Seasonal Wetland Area

*Existing Cover & Potential Jurisdictional Waters (Summerfield Road to Spring Lake Park)*

Figure 4.3-4
Occurrences of Special-Status Species and Designated Critical Habitat

Source: CNDDB, 2016; USFWS, 2016; ESRI, 2016; PlaceWorks, 2016.
Systematic surveys are typically necessary to conclusively determine the presence or absence of special-status plant species from a particular location if natural habitat remains. As summarized in the Southeast Greenway Existing Conditions, Opportunities, and Constraints document, which is included as Appendix I, Existing Conditions, of this Draft EIR, a limited survey effort was performed in the portion of the project site east of Summerfield Road, but the field effort did not extend through the spring and summer flowering period necessary to allow for confirmation on presence or absence. No special-status plant species were detected during the survey effort, but additional field surveys would be necessary to confirm presence or absence prior to any potential future development. Those of greatest concern and highest likelihood for occurrence include special-status plant species known or suspected to occur in the remaining grasslands and vernal pools in the Santa Rosa area.

Special-Status Animal Species

A number of bird, mammal, reptile, fish, and invertebrate species with special-status are known or suspected to possibly occur in the Santa Rosa area of Sonoma County. Figure 4.3-5, shows the distribution of known occurrences of 17 special-status animal species reported by the CNDDB within about a 5-mile radius of the project site. Table 4.3-1 includes the name, status, and preferred habitat for the 21 special-status animal species considered to have the highest potential for occurrence in the surrounding area of Santa Rosa, and indication of the likelihood of occurrence within the project site; these are described below.

| Table 4.3-1 Special Status Species with the Potential to Occur in the Project Site Vicinity |
|---|---|---|
| Species Name | Status (federal/State) | Habitat Characteristics (Occurrence within the Project Site Vicinity) |
| **Fish/Amphibians/Reptiles** | | |
| California tiger salamander | FT/ST, SSC | Grassland and open woodlands with temporary or permanent (unlikely) |
| Western pond turtle | -/SSC | Ponds, marshes, rivers and streams (possible) |
| California red-legged frog | FT/SSC | Permanent ponds, pools, and streams (unlikely) |
| Foothill yellow-legged frog | -/SSC | Perennial streams (unlikely) |
| Steelhead Trout | FT/ | Perennial and intermittent streams (known) |
| **Birds** | | |
| Golden eagle | -/SSC, CP | Open mountains, foothills, and canyons (unlikely) |
| Burrowing owl | -/SSC | Open grassland and fields, farms, and ruderal areas (unlikely) |
| Cooper’s hawk | -/- | Riparian and woodland habitat (possible) |
| Sharp-shinned hawk | -/- | Riparian and woodland habitat (possible) |
| Northern harrier | -/SSC | Marshes, fields, and grassland (possible) |
| White-tailed kite | -/CP | Open foothills, marshes, and grassland (possible) |
| California horned lark | -/- | Open habitat with sparse cover (foraging possible) |
| Prairie falcon | -/- | Canyons, mountains, open grassland (foraging possible) |
| Peregrine falcon | Delisted/ Delisted, CP | Canyons, mountains, open grassland (foraging possible) |
| Loggerhead strike | -/SSC | Open habitat with scattered trees, shrubs, and other perches (possible) |
| **Mammals** | | |
| American badger | -/SSC | Open grassland, scrub and savanna (unlikely) |
**Table 4.3-1** Special Status Species with the Potential to Occur in the Project Site Vicinity

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Status (federal/State)</th>
<th>Habitat Characteristics (Occurrence within the Project Site Vicinity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pallid bat</td>
<td>-/SSC</td>
<td>Roosts in tree hollows, crevices, unused structures (foraging possible)</td>
</tr>
<tr>
<td>Townsend western big-eared bat</td>
<td>-/C, SSC</td>
<td>Roosts in caves, mines, and unused buildings (foraging possible)</td>
</tr>
<tr>
<td>Western red bat</td>
<td>-/SSC</td>
<td>Roosts in trees (foraging possible)</td>
</tr>
<tr>
<td>Western yellow bat</td>
<td>-/SSC</td>
<td>Roosts in trees (foraging possible)</td>
</tr>
<tr>
<td>Little brown bat</td>
<td>-/</td>
<td>Roosts in caves and buildings (foraging possible)</td>
</tr>
<tr>
<td>Yuma bat</td>
<td>-/</td>
<td>Roosts in caves, mines and buildings (foraging possible)</td>
</tr>
</tbody>
</table>

**Notes:**

- **Species Name**
- **Status (federal/State)**
- **Habitat Characteristics (Occurrence within the Project Site Vicinity)**

**Notes:**

- **a:** Status Designations:
- **Federal:**
  - FE = Listed as Endangered under federal Endangered Species Act
  - FT = Listed as Threatened under federal Endangered Species Act
  - PE = Proposed for federal listing as “endangered”
  - PT = Proposed for federal listing as “threatened”
- **State:**
  - SE = Listed as Endangered under the California Endangered Species Act
  - ST = Listed as Threatened under the California Endangered Species Act
  - C = Candidate species under review for listing, includes taxa for which the CDFW has sufficient biological information to support a proposal to list as endangered or threatened
  - CP = California fully protected species; individuals may not be possessed or taken at any time

**Birds**

Most of the special-status animal species known or suspected to occur in the site vicinity are bird species which may forage and possibly nest where suitable nesting substrate is present. These include: northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus caeruleus*), prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), and yellow warbler (*Dendroica petechia*). Suitable nesting habitat is generally absent for golden eagle, prairie falcon, and California horned lark in the project site, due to the intensity of human activity, disturbance to grassland cover, or absence of suitable nesting substrate. Potentially suitable habitat for the remaining species, and other more common bird species is present in the areas of dense riparian woodland vegetation along Matanzas and Spring Creeks, scattered trees, and dense brush. More common raptors such as the great horned owl (*Bubo virginianus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*) may nest in mature trees in the site vicinity with other more common bird species.

Nests of most bird species are protected under the MBTA when in active use, and nests of raptors (birds-of-prey) are also protected under State Fish and Game Code when in active use. No nesting locations have been identified by the CNDDB for special-status bird species in the site vicinity or were observed during the field reconnaissance surveys. But new nests could be established in the future, and preconstruction surveys are typically preformed to avoid disturbance or inadvertent abandonment of nests in active use when vegetation removal or construction is to be initiated during the nesting season (typically from February 1 through August 31).

**Amphibians and Reptiles**

Suitable habitat for special-status amphibians and reptiles is relatively limited in the site vicinity, due to the extent of urbanization. No occurrences of California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana aurora draytonii*), foothill yellow-legged frog (*Rana boylii*), or northwestern pond turtle (*Clemmys marmorata marmorata*) have been reported on the project site by
the CNDDB. As indicated in Figure 4.3-5, the project site is outside the mapped critical habitat for California tiger salamander or California red-legged frog.

California red-legged frog (CRLF) is listed by the USFWS as threatened and is recognized as a SSC by the CDFW. It inhabits ponds, marshes, and streams that typically support riparian vegetation, but can also be found in man-made stock ponds, near seeps, and in ephemeral streams with pools. This subspecies requires still or slow-moving water during the breeding season, where it deposits large egg masses, usually attached to submerged or emergent vegetation. Adult CRLF are capable of dispersing long distances from aquatic habitat, and may utilize ephemeral water sources during the wet season. Individuals are known to disperse during the rainy season, presumably in search of new breeding locations. They may take refuge in small mammal burrows, beneath leaf litter, or in other moist areas during periods of inactivity or whenever it is necessary to avoid desiccation.

California tiger salamander (CTS) is listed by the USFWS and CDFW as threatened. It occurs in grassland and savanna habitat, breeding in vernal pools and swales, seasonal drainages and man-made ponds, and spending most of the year in subterranean refugia such as rodent burrows, cracks, and under rocks and logs. Adults migrate to suitable breeding locations with the onset of sustained rainfall, and have been reported to move considerable distances. Most of the occurrences of CTS in Sonoma County are from the complex of vernal pools and drainages of the Santa Rosa Plain along the Laguna de Santa Rosa watershed, generally between Sebastopol, Santa Rosa, and Cotati. Extensive habitat conversion and fragmentation of breeding habitat has eliminated this species from much of its former range, and habitat conversion and fragmentation is considered a serious threat to the Sonoma County population.

Foothill yellow-legged frog (Rana boylii) is restricted to perennial aquatic habitat, typically found in streams with a cobble bed and shallow riffles. The segment of the Matanzas Creek that bisects the project site provides only marginal habitat for foothill yellow-legged frog, given the dense overstory and disturbed channel bed conditions. However, there remains a potential for individuals to be washed down or occasionally disperse along the creek corridor through the project site. But predation by raccoons and other predators limits the potential for permanent occupation in the site vicinity.

No occurrences of western pond turtle (Actinemys marmorata) have been reported on the project site by the CNDDB, with the closest occurrences reported from Lake Ralphine and Spring Lake to the north and east, respectively. Western pond turtle is an aquatic species, occurring in ponds, lakes, and perennial slow-moving streams where deep pools are present that allow for retreat from predators. The Matanzas Creek and Spring Creek corridors which bisect the project site could provide dispersal habitat for this species, but deep pools and secure haul-out areas for sunning are absent, precluding permanent occupation. It is possible that western pond turtle may occasionally disperse along these creek corridors in search of suitable pond and pool habitat.

**Mammals**

Suitable habitat for special-status mammals is also absent from most of the project site, or is limited by the extent of adjacent development. Intensive grazing in the eastern portion of the project site limits the cover necessary to support prey populations large enough to attract American badger (Taxidea taxus), and no excavated burrows large enough to support this species or diggings indicating foraging were observed during the field reconnaissance surveys. Several species of special-status bat species, including pallid bat...
(Antrozous pallidus), Townsend’s western big-eared bat (Corynorhinus townsendii), western red bat (Lasiurus blossevillii), western yellow bat (Lasiurus xanthinus), little brown bat (Myotis lucifugus), and Yuma bat (Myotis yumanensis), may occasionally forage through the project site, but vacant and abandoned structures or other suitable roosting habitat is generally absent in the project site. Mountain lion (Felis concolor) is known to forage and disperse through the parklands and watershed lands to the east, and may occasionally pass through the eastern portion of the project site, but denning habitat is absent.

**Fish**

The federally-threatened steelhead (Oncorhynchus mykiss) are known from Matanzas Creek and most likely were once known from the other creeks in the project site, although drainage modifications for flood control and other purposes most likely precludes their continued presence. As indicated in Figure 4.3-5, none of the streams in the project site have been mapped as critical habitat for steelhead.

**Invertebrates**

Suitable habitat for the invertebrate species reported by the CNDDB from the Santa Rosa vicinity is generally absent from the project site. Western bumblebee (Bombus occidentalis), which has been reported from the Santa Rosa vicinity and is found in a variety of habitats, technically does not have any legal protective status under the federal or State Endangered Species Acts, but records on their distribution in the western United States are now being more closely monitored by the CNDDB and other data bases because of a dramatic decline in numbers and distribution over the past two decades. Their presence on the project site, either foraging or nesting, would not be considered a significant constraint.

**Sensitive Natural Communities**

In addition to species-oriented management, protecting habitat on an ecosystem-level is increasingly recognized as vital to the protection of natural diversity in the State. The CNDDB also monitors the locations of natural communities that are considered rare or threatened, known as sensitive natural communities. Although these natural communities have no legal protective status under the State or federal Endangered Species Acts, they are provided some level of protection under the CEQA Guidelines. A project would normally be considered to have a significant effect on the environment if it would substantially affect a sensitive natural community such as a riparian woodland, native grassland, or coastal salt marsh. Further loss of a sensitive natural community could also be interpreted as substantially diminishing habitat, depending on the relative abundance, quality and degree of past disturbance, and the anticipated impacts.

The well-developed riparian habitat along the Matanzas and Spring Creek corridors qualify as a sensitive natural community type. Seasonal wetlands that support a cover dominated by native species would also qualify as a sensitive natural community type, including the large seasonal wetlands to the east of Summerfield Road dominated by native willow.

The scattered seasonal wetlands and smaller drainages support a cover of primarily non-native species and do not qualify as sensitive natural community types. These may be jurisdictional waters, regulated by the US Army Corps of Engineers (Corps), the RWQCB, and CDFW, as discussed below. Areas dominated by non-native grassland, fallow orchards, scattered trees and more common oak woodlands also do not
qualify as sensitive natural community types. Past agricultural activities, routine disking for fire fuel management, and heavy grazing has largely eliminated most of the native cover in these grasslands, and none appear to support a high enough native cover to be considered a sensitive natural community type.

**Jurisdictional Waters**

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the Corps and the USFWS, which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation.

The CDFW, Corps, and RWQCB have jurisdiction over modifications to shorelines, open water, stream channels, river banks, and other waterbodies (see detailed descriptions below under Regulatory Context). Jurisdiction of the Corps is established through the provisions of Section 404 of the CWA, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters". All three of the identified technical criteria must be met for an area to be identified as a wetland under Corps jurisdiction, unless the area has been modified by human activity. Jurisdictional authority of the CDFW over wetland areas is established under Section 1601-1606 of the Fish and Wildlife Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The RWQCB is responsible for enforcing the provisions of Section 401 of the CWA, as defined by the Corps under Section 404, and for overseeing State waters as defined under the Porter-Cologne Water Quality Act. State waters typically extend to the top of a creek or river bank, or the limits of woody riparian vegetation, whichever is greater.

Based on the Southeast Greenway Existing Conditions, Opportunities, and Constraints document and the field reconnaissance surveys conducted during preparation of this BRA, jurisdictional waters in the project site include the various creek corridors and possibly the areas of seasonal wetlands and smaller drainages. The limits of Corps jurisdiction typically extend to the Ordinary High Water Mark along the creeks, and the limits of regulated State waters extend to the top of the channel banks or edge of woody riparian vegetation along the creeks, whichever is greater.

**4.3.2 Standards of Significance**

Implementation of the proposed project would result in a significant impact to biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.

2. 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 Wildlife, or United States Fish and Wildlife Service.
3. 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.

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

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

4.3.3 IMPACT DISCUSSION

**BIO-1** Implementation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.

There is a remote potential that implementation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. This consists of: 1) a remote possibility that individual California red-legged frog could disperse onto the site in the future, although considered highly unlikely, and be injured or taken during construction; 2) that occurrences of one or more special-status plant species may be present within the remaining natural areas on the site and could be adversely affected if adjustments on proposed limits of disturbance and adequate controls during construction are not implemented; and 3) there is a possibility that bird nests regulated under the MBTA and CDFW code could be inadvertently destroyed during construction.

Suitable habitat for special-status species known or suspected to occur in the vicinity is generally absent from the site and no impacts are anticipated for most special-status species. This includes absence of suitable habitat for CRLF, among other special-status species. Although considered highly unlikely, there remains a remote potential for an individual CRLF to disperse onto the site in the future, which could be injured or killed during construction unless construction restrictions are implemented. Given the formal listing status of this species, this would be a significant impact.

**California Red-legged Frog**

**Impact BIO-1a:** Proposed development could potentially result in an inadvertent take of individual California red-legged frog (CLRF) in the remote instance that individuals were to disperse onto the site in the future, in which case this could result in a potential violation of the federal and California Endangered Species Acts if adequate controls and preconstruction surveys are not implemented.

**Mitigation Measure BIO-1a:** Ensure Avoidance of California Red-legged Frog. The following measures shall be implemented in locations within 100 feet of any drainage or seasonal wetland on the site to
ensure avoidance of individual California red-legged frog (CRLF) in the remote instance individuals
were to disperse onto the site in the future in advance of or during construction:

- **Wildlife exclusion fence:** Wildlife exclusion fencing shall be installed prior to the start of
construction and maintained until construction of the proposed project is complete. Such fencing
shall, at a minimum, run along the proposed project boundaries with riparian habitat and for a
distance of at least 100 feet perpendicular to riparian habitat. Silt fence material may be used to
also provide erosion control, however, per CRLF standards, it must be at least 42 inches in height
(at least 36 inches above ground and buried at least 6 inches below the ground) and stakes must
be place on the inside of the project (side on which work will take place).

- **Pre-construction survey:** Pre-construction surveys for CRLF shall be conducted prior to initiation of
project activities (including fence installation) and within 48 hours of the start of ground
disturbance activities following completion of exclusion fence installation. Surveys are to be
conducted by qualified biologists with experience surveying for CRLF.

If project activities are stopped for greater than 7 days, a follow-up pre-construction survey may
be required within 48 hours prior to reinitiating project activities.

- **Worker Training:** All workers for activities within 100 feet of riparian habitat shall be trained by the
qualified biologist to understand the remote potential for occurrence of this listed species, need
to avoid any potential inadvertent take, and process to follow if a frog is encountered, that all
work must stop and the qualified biologist must determine whether it is CRLF before work
proceeds.

- **Earth Disturbing Activities only during dry weather:** No earth disturbing activities shall take place
during rain events when there is potential for accumulation greater than 0.25 inch in a 24-hour
period. In addition, no earth disturbing activities shall occur for 48 hours following rain events in
which 0.25 inch of rain accumulation within 24 hours.

- **Biological monitoring:** An approved biologist shall be required to inspect and approve installation
of the exclusion fence.

- **Erosion Control Materials:** Tightly woven fiber netting or similar material shall be used for erosion
control or other purposes to ensure amphibians do not get trapped. Plastic mono-filament
netting (erosion control matting), rolled erosion control products, or similar material shall not be
used.

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

**Special-status Plant Species**

Although the potential for special-status plant species is considered unlikely or very low, there remains a
remote possibility that one or more occurrences occur in the more natural hillside areas east of
Summerfield Road. If present, the occurrence(s) could be inadvertently lost as a result of grading,
construction of multi-use path trail and other improvements, fire fuel treatment and other vegetation
management activities. Depending on the location of the occurrence(s) in relation to proposed
improvements associated with potential future development under the proposed project, this could be a
potentially significant impact. In addition, special-status species could occur in regulated waters. These
impacts are discussed under Impact BIO-3 below.
Impact BIO-1b: Project implementation could potentially result in loss or modifications to special-status plant species if present on the site and systematic surveys and adequate avoidance are not implemented.

Mitigation Measure BIO-1b: Appropriate measures shall be implemented to ensure adequate avoidance of special-status plant species, if present in the remaining natural areas on the project site east of Summerfield Road. A qualified botanist shall conduct systematic surveys of the portion of the project site east of the Summerfield Road in spring and summer months to confirm absence of any special-status plant species on the site. The survey shall focus on the special-status plant species considered to have a remote probability for occurrence on the project site. The surveys shall be completed and a report of findings submitted to the City before the onset of any initial ground-disturbing activity or construction associated with project implementation.

If any special-status plant species are encountered, then any occurrence(s) shall be avoided or potential impacts adequately mitigated as part of potential future project development. The qualified botanist shall develop and implement a Special-Status Plant Species Mitigation and Monitoring Program (SSPSMMP). The SSPSMMP shall only be required if a listed species or those with a ranking of 1A, 1B or 2 of the California Native Plant Society (CNPS) Inventory are encountered during the preconstruction survey. Potential impacts on any species with a ranking of 3 and 4 of the CNPS Inventory would not be considered significant and no additional mitigation would be required for these species if encountered during the systematic survey(s).

The SSPMMP shall be prepared in consultation with the California Department of Fish and Wildlife (CDFW) and shall be approved by the City prior to any initial ground-disturbing activity or construction. The SSPMMP shall be based on the status and vulnerability of the species present, with avoidance of all or a majority of any populations on the site the preferred method of mitigation. Where complete or even partial avoidance of any special-status plant populations on the site is considered infeasible, options for mitigation may include a program to salvage and reestablish the population at an alternative, suitable location. Details of any salvage and habitat recreation effort shall include the following criteria and performance standards measures may include:

- Collection of seeds during the appropriate developmental stage of the plan.
- Procedures for sowing techniques appropriate to the life cycle of the plant.
- Preparation of a maintenance and monitoring plan specific to the environmental conditions necessary for survival of the new population. Maintenance and monitoring shall be provided for a minimum of five years to determine success of re-seeding and habitat creation, and need for additional preservation.
- Identification of funding sources to provide implementation of the plan in consultation with the qualified plant ecologist, landscape architect, and civil engineer.
- In addition, preservation of another existing occurrence of the affected special-status plant species shall be required if monitoring indicates that the reestablishment efforts have not been successful after five years. The preservation program shall provide for permanent protection of a different existing population in Sonoma County, which is equal or larger in size than that encountered on the site (minimum 1:1 replacement), through land acquisition or use of a conservation easement. Any off-site mitigation lands shall include establishment of a
management endowment as necessary to provide for long-term management of the preserved population.

Significance With Mitigation: Less than significant.

**Nesting Birds**

In addition, there is a remote possibility that mature trees and areas of dense cover on the site could be used for nesting by raptors and more common bird species. These nests would be protected under the federal MBTA and CDFW code when in active use. The MBTA prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the USFWS; this prohibition includes whole birds, parts of birds, and bird nests and eggs. Tree removal, vegetation clearing, and other construction activities during the breeding season could result in the incidental loss of fertile eggs or nestlings or nest abandonment if any active nests are present. This would be considered a significant impact.

**Impact BIO-1c:** Proposed development could potentially result in inadvertent loss of bird nests in active use, which would conflict with the federal Migratory Bird Treaty Act and CDFW code if adequate controls and preconstruction surveys are not implemented.

**Mitigation Measure BIO-1c: Ensure Avoidance of Bird Nests in Active Use.** Tree removal, landscape grubbing, and building demolition shall be performed in compliance with the Migratory Bird Treaty Act and relevant sections of the California Department of Fish and Wildlife (CDFW) code to avoid loss of nests in active use. This shall be accomplished by scheduling tree removal and landscape grubbing outside of the bird nesting season (which occurs from February 1 to August 31) to avoid possible impacts on nesting birds if new nests are established in the future. Alternatively, if building demolition, tree removal and landscape grubbing cannot be scheduled during the non-nesting season (September 1 to January 31), a pre-construction nesting survey shall be conducted. The pre-construction nesting survey shall include the following:

- A qualified biologist (Biologist) shall conduct a pre-construction nesting bird (both passerine and raptor) survey within seven calendar days prior to tree removal, landscape grubbing, and/or building demolition.
- If no nesting birds or active nests are observed, no further action is required and tree removal, landscape grubbing, and building demolition shall occur within seven calendar days of the survey.
- Another nest survey shall be conducted if more than seven calendar days elapse between the initial nest search and the beginning of tree removal, landscape grubbing, and building demolition.
- If any active nests are encountered, the Biologist shall determine an appropriate disturbance-free buffer zone to be established around the nest location(s) until the young have fledged. Buffer zones vary depending on the species (i.e., typically 75 to 100 feet for passerines and 300 feet for raptors) and other factors such as ongoing disturbance in the vicinity of the nest location. If necessary, the dimensions of the buffer zone shall be determined in consultation with the CDFW.
- Orange construction fencing, flagging, or other marking system shall be installed to delineate the buffer zone around the nest location(s) within which no construction-related equipment or operations shall be permitted. Continued use of existing facilities such as surface parking and site maintenance may continue within this buffer zone.
No restrictions on grading or construction activities outside the prescribed buffer zone are required once the zone has been identified and delineated in the field and workers have been properly trained to avoid the buffer zone area.

Construction activities shall be restricted from the buffer zone until the Biologist has determined that young birds have fledged and the buffer zone is no longer needed.

A survey report of findings verifying that any young have fledged shall be submitted by the Biologist for review and approval by the City prior to initiation of any tree removal, landscape grubbing, building demolition, and other construction activities within the buffer zone. Following written approval by the City, tree removal, and construction within the nest-buffer zone may proceed.

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

**BIO-2**

Implementation of the proposed project would generally not 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 Wildlife or United States Fish and Wildlife Service.

Grading, multi-use paths, and other improvements associated with project implementation would generally be located away from the riparian sensitive natural communities on the site. Direct modification would be limited to multi-use path crossings of Matanzas and Spring creeks. New crossings would presumably be located and designed to minimize tree removal and disturbance to other native cover along these creek corridors where riparian vegetation is relatively well-developed, and for new crossings of Sierra Park Creek and other drainages where woody riparian vegetation is less well-developed. Best management practices, such as source control, and treatment control measures that provide both flow control and treatment to runoff during construction would be implemented to control the potential for construction-generated sediment from reaching these drainages and downstream waters, as discussed under Chapter 4.8, Hydrology and Water Quality, of this Draft EIR. Further, the exclusionary fencing recommended in Mitigation Measure BIO-1a would ensure that the limits of grading associated with the project are clearly defined, and would prevent any inadvertent disturbance to the riparian corridors on the site. As a result, the proposed project would result in less-than-significant impacts to riparian habitat and other sensitive natural communities.

**Significance Without Mitigation:** Less than significant.
4.3-24

Implementation of the proposed project could 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.

Grading and other improvements associated with project implementation would include new multi-use path crossings of Spring Creek, Sierra Park Creek, and other drainages, and possibly a new crossing over Matanzas Creek, and would require filling of areas of potential seasonal wetlands on the east side of Summerfield Road where public plaza trailhead and urban agriculture uses are proposed. Implementation of the proposed project would result in direct and indirect effects on jurisdictional wetlands and other waters. This includes possible modifications to the bank and bed of jurisdictional drainages, and filling of areas of potential seasonal wetlands.

Modifications to regulated waters would require appropriate authorizations from federal and State regulatory agencies, including the USACE and RWQCB under Section 404 and 401 of the CWA, and CDFW under the Streambed Alteration Agreement program. Further review would be provided by these regulatory agencies where a permit application was formally submitted for authorization of activities within jurisdictional limits. If regulated wetland habitat is affected, a compensatory mitigation program would be required as part of the regulatory agency authorizations. A program to monitor and maintain any created habitat provided as mitigation would be a requirement of the regulatory agency authorizations, ensuring adequate compensatory mitigation and successful establishment of any replacement marshland and adjunct upland vegetation. As discussed in Chapter 4.8, Hydrology and Water Quality, best management practices would be utilized to prevent any construction-generated sediments or pollutants from entering the surrounding wetlands and downstream waters. Consequently, without mitigation the proposed project could result in significant impacts with regards to wetlands and other waters.

Impact BIO-3: Potential future development would result in adverse impacts to regulated waters and special-status species within the regulatory waters, and would require appropriate authorizations from regulatory agencies and adequate compensatory mitigation where avoidance is infeasible.

Mitigation Measure BIO-3: Provide Compensatory Mitigation for Wetland Modifications. The City shall require future project applicants to develop and implement a compensatory mitigation program to provide adequate mitigation for jurisdictional waters affected by proposed improvements in the Southeast Greenway Area for submittal to the City. A jurisdictional wetland delineation shall be prepared by a qualified wetland specialist and submitted for verification by the United States Army Corps of Engineers (USACE) where jurisdictional waters may be affected by project-related improvements. A Wetland Protection and Replacement Program (WPRP) shall be prepared by the qualified wetland specialist and implemented to provide compensatory mitigation at a minimum 2:1 ratio where wetland habitat is affected, shall minimize disturbance to unvegetated waters, and shall be reviewed and approved by appropriate regulatory agencies (e.g., USACE, Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW). The WPRP shall include appropriate implementation measures to prevent inadvertent loss and degradation of jurisdictional waters to be protected, and replacement for those wetland features eliminated or
modified as a result of potential future project development. The WPRP shall contain the following components:

- Where verified waters of the United States are present and cannot be avoided, authorization for modifications to these features shall be obtained from regulatory agencies with jurisdiction. This includes the USACE through the Section 404 permitting process where waters of the United States are affected by the potential future project development and the RWQCB as part of the Section 401 Certification process. Together with a Streambed Alteration Agreement (SAA) secured from CDFW, if required as part of the SAA Notification process for proposed fills to the man-made ditch and possibly the pond on the golf course. All conditions required as part of the authorizations by the USACE, RWQCB, and CDFW shall be implemented as part of the project.

- Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts. Future project applicants shall obtain all legally required permits or other authorizations from the USFWS, NOAA Fisheries, and CDFW for the potential “take” of protected species under the Endangered Species Acts.

- Install orange construction fencing around the boundary of all wetland areas and waters to be preserved at the interface with proposed fills and grading so that they are not disturbed during construction. The fencing shall be placed a minimum of 25 feet out from the boundary of the wetlands/waters but may need to be adjusted if restoration activities are to be conducted within this area. Grading, construction, and restoration work within the wetland/waters buffer zones shall be conducted in a way that avoids or minimizes disturbance of existing wetlands and aquatic habitat.

- A qualified biologist/restoration specialist shall be available during construction to provide situation-specific wetland avoidance measures or planting recommendation, as needed.

- Success criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures in the WPRP should be specified. Monitoring shall be conducted by the qualified wetland specialist for a minimum of five years and continue until the success criteria are met. Permanent monitoring transects shall be established as part of the program and vegetation data collected in the spring and summer months when plant identification is possible. Photo stations shall be established along each monitoring transect, and photographs taken every year during the required monitoring period.

- Annual monitoring reports shall be prepared by the qualified wetland specialist and submitted to resource agency representatives by December 31 of each monitoring year for a minimum of 5 years or until the defined success criteria are met. The annual report shall summarize the results of the monitoring effort, performance standards, and any required contingency measures, and shall include photographs of the monitoring transects and program success. Maps shall be included in the monitoring report to show the location of monitoring transects and photo stations.

**Significance With Mitigation:** Less than significant.
BIOLOGICAL RESOURCES

**BIO-4** Implementation of the proposed project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Implementation of the proposed project would not result in any substantial adverse impacts on wildlife movement opportunities or native nurseries. Wildlife in the site vicinity is already acclimated to human activities and the proposed multi-use path and associated uses on the project site would not result in substantial disruption or obstruction of wildlife movement opportunities. Project implementation would result an increase in the frequency and intensity of human activity on the project site, including dogs and other pets. But appropriate controls would be implemented to minimize the potential for harassment of wildlife, including existing leash laws per SRCC Section 7-12.110, Leash Required in Public Park, Playground. Accordingly, the impact would be *less than significant*.

**Significance Without Mitigation:** Less than significant.

**BIO-5** Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

In general, the proposed project would not conflict with any goals and policies of the Santa Rosa General Plan, or conflict with any ordinances. With the exception of the riparian habitats that bisect the site, and the scattered mature trees, sensitive biological resources are generally absent from the site. Measures called for in Mitigations BIO-1a through BIO-1c would ensure avoidance of any special-status species in the remote instance that they disperse onto or establish new nests on the site. Implementation of the proposed project could result in the removal of one or more regulated trees. But any tree removal would be required to comply with the City’s tree protection ordinance. Overall, the proposed project would not conflict with any local policies or ordinances protecting biological resources and a *less-than-significant* impact would occur.

**Significance Without Mitigation:** Less than significant.

**BIO-6** Implementation of the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

There are no habitat conservation plans, natural community conservation plans, or other approved local, regional, or State habitat conservation plans that encompasses the project site or its immediate vicinity. The Santa Rosa Plain Conservation Strategy establishes a long-term conservation program to address potential adverse effects on listed species due to future development on the Santa Rosa Plain, but the service area restricted to the west of Highway 101 and does not extend into the vicinity of the project site. Accordingly, there would be *no impact*.

**Significance Without Mitigation:** No impact.
4.3.4 CUMULATIVE IMPACTS

BIO-7 Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would not result in a significant cumulative impacts with respect to biological resources.

The potential impacts of a proposed project on biological resources tend to be site-specific, and the overall cumulative effect is dependent on the degree to which significant vegetation and wildlife resources are protected on a particular site. This includes preservation of well-developed native vegetation (e.g., marshlands, native grasslands, oak woodlands, riparian scrub and woodland, etc.), populations of special-status plant or animal species, and wetland features (including seasonal wetlands and drainages). Environmental review of specific development proposals in the vicinity of a development site should serve to ensure that important biological resources are identified, protected, and properly managed, and to prevent any significant adverse development-related impacts, including development for the remaining undeveloped lands in the surrounding area.

Because the footprint of the proposed project lacks any sensitive biological resources, with the exception of the proposed crossing of riparian corridors, and because the identified mitigation measures would reduce any potential biological impacts to a less than significant level, the project would not contribute to any cumulative impacts on special-status species, sensitive natural communities, or regulated wetlands. And the impacts associated with the proposed development would not contribute to a cumulative reduction of important wildlife habitat. Accordingly, the impact would be less than significant.

Significance Without Mitigation: Less than significant.
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4.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

This chapter describes existing cultural resources in the Southeast Greenway Area and evaluates the potential cultural resource impacts associated with future development that could occur by adopting and implementing the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts.

The analysis in this chapter is based on a cultural resources analysis prepared by Tom Origer & Associates on December 2, 2016.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

Federal Regulations

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. This Act incorporates key findings of a report, Fossils on Federal Land and Indian Lands, issued by the Secretary of Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.¹

State Regulations

California Environmental Quality Act

California State law provides for the protection of cultural resources by requiring evaluations of the significance of prehistoric and historic resources identified in documents prepared consistent with CEQA. The CEQA Statute is contained in Public Resources Code (PRC) 21000 to 21177 and the CEQA Guidelines are contained in CCR, Title 14, Division 6, Chapter 3, Sections 15000 to 15387.

Under CEQA, a cultural resource is considered a “historical resource” if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines. Under CEQA, the lead agency determines whether projects may have a significant effect on archaeological and historical resources. CEQA Guidelines Section 15064.5 defines what constitutes a historical resource, including: (1) a resource determined by the State Historical Resources Commission to be eligible for the California Register of Historical Resources (including all properties on the National Register); (2) a resource included in a local register of historical resources, as defined in Public Resources Code (PRC) Section 5020.1(k); (3) a resource identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) any object, building, structure, site, area, place, record, or manuscript that the City determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the City's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered to be historically significant if it meets the criteria for listing on the California Register.

If the lead agency determines that a project may have a significant effect on a historical resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. However, no further environmental review needs to be completed if, under the qualifying criteria, a cultural resource is not found to be a historical resource or unique archaeological resource.

Public Resources Code Section 5097.5

California Public Resources Code (PRC) Section 5097.5 prohibits “knowing and willful” excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.” Public lands are defined to include lands owned by or under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof.

State Laws Pertaining to Human Remains

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA), Public Resources Code Section 5097.98, California Health and Safety Code Section 7050.5. California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Specifically, Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority.
If the human remains are determined to be of Native American origin, the county coroner must contact the California Native American Heritage Commission (NAHC) within 24 hours of this identification. An NAHC representative will then identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. In addition, CEQA Guidelines Section 15064.5 specifies the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

**Senate Bill 18**

Senate Bill (SB) 18, signed into law in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting or mitigating impacts to cultural places. The consultation and notice requirements apply to adoption and amendment of both general plans (Government Code Section 65300 et seq.) and specific plans (Government Code Section 65450 et seq.). Specifically, Government Code Section 65352.3 requires local governments, prior to making a decision to adopt or amend a general plan, to consult with California Native American tribes identified by the NAHC for the purpose of protecting or mitigating impacts to cultural places. As previously discussed, the NAHC is the State agency responsible for the protection of Native American burial and sacred sites.

**Assembly Bill 52**

Assembly Bill 52 (AB 52), the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Projects subject to AB 52 are those that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration on or after July 1, 2016. AB 52 adds tribal cultural resources (TCR) to the specific cultural resources protected under CEQA. Under AB 52, a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

**Local Regulations**

**General Plan 2035**

The Historic Preservation (HP) element of the General Plan 2035 includes the following goals and policies specific to the cultural resources and applicable to the proposed project:

- **Goal HP-A**: Protect Native American heritage.

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2 SB 18 amended Government Sections 65040.2, 65092, 65351, 65352, and 65560, and added Sections 65352.3, 653524, and 65562.5
CULTURAL AND TRIBAL CULTURAL RESOURCES

- **Policy HP-A-1**: Review proposed developments and work in conjunction with the California Historical Resources Information System, Northwest Information Center at Sonoma State University, to determine whether project areas contain known archeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

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

- **Policy HP-A-3**: If cultural resources are encountered during development, work should be halted to avoid the materials and their context until a qualified consulting archaeologist and Native American representative (if appropriate) have evaluated the situation, and recorded identified cultural resources and determined suitable mitigation measures.

- **Policy HP-A-4**: Consult with local Native American tribes to identify, evaluate, and appropriately address cultural resources and tribal sacred sites through the development review process.

- **Policy HP-A-5**: Ensure that Native American human remains are treated with sensitivity and dignity and assure compliant with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.

### 4.4.12 EXISTING CONDITIONS

**Methodology**

Archival Research

Archival research included examination of the library and project files at Tom Origer & Associates. A review was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park (NWIC File No. 16-0157). Sources of information included but were not limited to the current listings of properties on the National Register of Historic Places (National Register), California Historical Landmarks, California Register of Historical Resources (California Register), and California Points of Historical Interest as listed in the Office of Historic Preservation’s *Historic Property Directory* (OHP 2012).

An examination of historical maps was conducted to gain insight into the nature and extent of historical development in the Southeast Greenway Area and general vicinity. Maps ranged from hand-drawn maps from the 1800s to topographic maps issued by the United States Geological Survey (USGS) and the United States Army Corps of Engineers (USACE).

**Outreach to Native American Tribes**

In compliance with SB 18, a letter was sent to the NAHC seeking information from the sacred lands files, which track Native American cultural resources, and the names of Native American individuals and groups that would be appropriate to contact regarding this project. The NAHC replied with a letter dated August 12, 2016, in which they indicated that the sacred land file has no information about the presence of Native American cultural resources in the immediate project area, and provided a list of Native American contacts (groups and individuals) who may have information regarding known and recorded sites. Letters were also sent to the following contacts:
CULTURAL AND TRIBAL CULTURAL RESOURCES

- Federated Indians of Graton Rancheria
- Lytton Rancheria of California
- Greg Sarris
- Gene Buvelot
- Marjorie Mejia
- Buffy McQuillen
- Peter Nelson

A log of contact efforts is provided in Appendix D, Cultural Resources Data, of this Draft EIR, along with copies of all responses received.

In response to AB 52, the City has not received any request from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Santa Rosa. Nonetheless, the evaluation of potential impacts to TCRs is addressed below in Section 4.4.3, Impact Discussion, of this chapter.

On-Site Field Survey

An intensive field survey was completed by the California Department of Transportation (Caltrans) from July 10 to July 18, 2014. Approximately 90 percent of the project site was examined by walking along transects in 10-meter intervals. Visibility was generally good with 75 percent of observable ground surface. Where needed, a trowel was used to clear small patches of vegetation so that the ground surface could be inspected. Tom Origer & Associates conducted a follow-up field survey on September 27, 2016, to reexamine locations of buildings shown on historical maps. These areas were surveyed by walking along transects in 15-meter intervals. Visibility ranged from good to poor with 80 percent of observable ground surface. Where needed, a hoe was used to clear small patches of vegetation so that the ground surface could be inspected.

Paleontological Resources

Paleontological resources (fossils) are the remains and/or traces of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in the geologic deposits (rock formations) in which they were originally buried. Paleontological resources represent a limited, non-renewable, sensitive scientific and educational resource.

The potential for fossil remains at a location can be predicted through previous correlations that have been established between the fossil occurrence and the geologic formations within which they are buried. For this reason, knowledge of the geology of a particular area and the paleontological resource sensitivity of particular rock formations, make it possible to predict where fossils will or will not be encountered.

The natural geology of the project site is comprised of Holocene epoch (11,700 years ago to present) alluvial and terrace deposits, Holocene and/or Pleistocene (2.5 million years ago to present) alluvial fan and terrace deposits, Petaluma Formation deposits that date back to the Pliocene and Miocene epochs (23 to 2.5 million years ago), and Sonoma Volcanics that also date back to the Pliocene and Miocene epochs. A previous study conducted by Far Western Anthropological Research Group Inc., indicated that buried prehistoric archaeological sites are likely to be found within or underneath Holocene-age depositional land forms. In addition, prehistoric settlements associated with these landforms tend to be located near San Francisco and San Pablo bays and along major, inland watercourses. Although Holocene-age landforms have the potential to contain buried archaeological deposits, the probability of encountering such resources varies significantly.
Archaeological Resources

At the time of European settlement, the project site was included in the territory controlled by the Southern Pomo (Pomo). The Pomo were hunter-gatherers who lived in rich natural environments that allowed for dense populations with complex social structures. They settled in large, permanent villages along with seasonal camps and task-specific sites. Primary village sites were occupied continually throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites were often situated near sources of fresh water in ecotones where plant and animal life were diverse and abundant.

Based on the result of pre-field research, it is possible that prehistoric and, to a lesser extent, historic-period archaeological resources could be found on the project site. Prehistoric archaeological site indicators expected to be found in the region include, but are not limited to: obsidian and chert flakes and chipped stone tools, grinding and mashing implements, such as slabs and handstones, and mortars and pestles, bedrock outcrops and boulders with mortar cups; and locally darkened soils containing some of the previously listed items plus fragments of bone, shellfish, and fire affected stones.

Historical Resources

Historic resources include sites, structures, districts, landmarks, or other physical evidence of past human activity generally greater than 50 years old. Santa Rosa has a rich architectural heritage spanning many periods, with Mexican Period adobes, 19th century Gothic, Greek Revival and Italianate houses, turn of the century Stick/Eastlake styles, early 20th century Craftsman and California bungalows, 1920s Spanish Revival, and 1930s art deco buildings. The city’s eclectic collection of different styles and periods is represented by numerous well preserved structures, which form part of the city’s character and identity. To recognize individual properties and whole neighborhoods as key components of the City’s heritage, the City established 21 landmarks and 8 designated historic preservation districts. The project site is not recognized as a landmark nor located within a designated historic preservation district.

Archival research indicated that a total of seven buildings were present on the project site between 1916 and 1968. The on-site field survey confirmed that these buildings are no longer present on the project site. However, due to the extensive history in the area, there is a high potential to find historic period site indicators such as: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits.

4.4.2 Standards of Significance

Implementation of the proposed project would result in a significant cultural resource impact if it would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.
2. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

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1 City of Santa Rosa, Santa Rosa General Plan 2035, Element 11, Historic Preservation, page 11-2.
2 City of Santa Rosa, Santa Rosa General Plan 2035, Element 11, Historic Preservation, page 11-2 and 11-4.
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4. Disturb any human remains, including those interred outside of dedicated cemeteries.

5. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
   - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
   - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.4.3 IMPACT DISCUSSION

CULT-1 Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

The types of cultural resources that meet the definition of historical resources under CEQA Section 21084.46 generally consist of districts, sites, buildings, structures, and objects that are significant for their traditional, cultural, and/or historical associations. Under CEQA, both prehistoric and historic-period archaeological sites may qualify based on historical associations. As such, the two main historical resources that are subject to impact, and that may be impacted by implementation of the proposed project, are historical archaeological deposits and historical architectural resources. Impacts to archaeological resources are discussed under impact discussion CULT-2 below.

As discussed above, there are no existing structures on the project site. Additionally, the project site is not located within a historic preservation district nor is it identified as a historic landmark. Therefore, with no historical resources on the project site, there would no impact as a result project implementation.

Significance Without Mitigation: No impact.

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1 California Code of Regulations (CCR), Title 14, Chapter 3, Section 15064.5(c), Determining the Significance of Impacts on Historical and Unique Archaeological Resources.
2 City of Santa Rosa, Santa Rosa General Plan 2035, Element 11, Historic Preservation, page 11-2 and 11-4.
CULTURAL AND TRIBAL CULTURAL RESOURCES

CULT-2 Implementation of the proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Archaeological deposits that meet the definition of historical resource under CEQA Section 21084.1 or CEQA Guidelines Section 15064.5 could be present within the project site and could be damaged or destroyed by ground-disturbing construction activities (e.g., site preparation, grading, excavation, and trenching for utilities) associated with implementation of the proposed project. Should this occur, the ability of the deposits to convey their significance, either as containing information about prehistory or history, or as possessing traditional or cultural significance to Native American or other descendant communities, would be materially impaired.

As discussed above, archival research indicated prehistoric and, to a lesser extent, historic-period archeological resources could be found on the project site. Therefore, it is possible that unknown buried archaeological materials could be found during ground-disturbing construction activities, including unrecorded Native American prehistoric archaeological materials. While the General Plan 2035 Historic Preservation policies (listed above) includes direction for the protection of archeological resources, ground-disturbing activities associated with implementation of the proposed project could have the potential to uncover and damage or destroy unknown resources. This is a significant impact.

Impact CULT-2: Implementation of the proposed project would have the potential to cause a significant impact to an unknown archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Mitigation Measure CULT-2: If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the City and the archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) would be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is being carried out.

Significance With Mitigation: Less than significant.
CULTURAL AND TRIBAL CULTURAL RESOURCES

CULT-3  Implementation of the proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

As discussed above, although there is no record of paleontological resources on the project site previous research indicated that buried prehistoric archaeological resources are likely to be found within or underneath Holocene-age depositional land forms on the project site. While the General Plan 2035 Historic Preservation policies (listed above) includes direction for the protection of archeological resources, including pre-historic deposits, ground-disturbing activities associated with implementation of the proposed project could disturb unrecorded fossils of potential significance and other unique features could exist; thus, resulting in damage to, or destruction of, unknown paleontological resources or unique geological features. This is a significant impact.

Impact CULT-3: Implementation of the proposed project would have the potential to directly or indirectly affect a unique paleontological resources or site, or unique geological feature.

Mitigation Measure CULT-3: In the event that fossils or fossil-bearing deposits are discovered during construction, excavations within 50 feet of the find shall be temporarily halted or diverted. The contractor shall notify a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project based on the qualities that make the resource important. The plan shall be submitted to the City for review and approval prior to implementation.

Significance With Mitigation: Less than significant.

CULT-4  Implementation of the proposed project would not disturb any human remains, including those interred outside of formal cemeteries.

Human remains associated with pre-contact archaeological deposits could exist on the project site and could be encountered at the time potential future development occurs. The associated ground-disturbing activities, such as site grading and trenching for utilities, have the potential to disturb human remains interred outside of formal cemeteries. Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA), Public Resources Code Section 5097.98, California Health and Safety Code Section 7050.5, and General Plan 2035 Policy HP-A-5, which state the mandated procedures of conduct following the discovery of human remains. Descendant communities may ascribe religious or cultural significance to such remains, and may view their disturbance as an unmitigable impact. Disturbance of unknown human remains would be a significant impact.
Impact CULT-4: Implementation of the proposed project would have the potential to disturb humans remains interred outside of formal territories, the disturbance of those remains could result in a significant impact under CEQA.

**Mitigation Measure CULT-4:** Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Sonoma County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the NAHC within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD’s recommendations, the owner or the descendent may request mediation by the NAHC.

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

**CULT-5**

Implementation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Sections, 21074, 5020.1(k), or 5024.1.

As previously described in Section 4.4.1.1, Regulatory Framework, under subheading “Assembly Bill 52,” a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources, or if the City of Santa Rosa, acting as the lead agency, supported by substantial evidence, chooses at its discretion to treat the resources as a TCR.

As discussed under impact discussions CULT-2 and CULT-4, impacts from future development on the project site could impact unknown archaeological resources including Native American artifacts and human remains. Impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CULT-2 and CULT-4.

Therefore, compliance with existing federal, State, and local laws and regulations, and the General Plan 2035 Historic Preservation policies (listed above), would protect unrecorded TCR’s on the project site by providing for the early detection of potential conflicts between development and resource protection, and by preventing or minimizing the material impairment of the ability of archaeological deposits to convey their significance through excavation or preservation. Furthermore, implementation of Mitigation Measures CULT-2 and CULT-4 would reduce any impacts to TCR discovered on the project site as a result implementation of the proposed project.
Impact CULT-5: Implementation of the proposed project would have the potential to impact TCRs the disturbance of which could result in a significant impact under CEQA.

Mitigation Measure CULT-5a: Implement Mitigation Measure CULT-2

Mitigation Measure CULT-5b: Implement Mitigation Measure CULT-4

Significance With Mitigation: Less than significant.

4.4.4 CUMULATIVE IMPACTS

CULT-6 Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to cultural resources.

The methodology used for cumulative impact analysis is described in Chapter 4.0, Environmental Analysis, of this Draft EIR. The cumulative impact for cultural resources includes potential future development under the proposed project combined with effects of development on lands within the Planning Area and region.

Future development under the proposed project, in conjunction with development on lands within the Planning Area, has the potential to cumulatively impact cultural resources including archaeological and paleontological deposits, human remains, and TCRs. As previously discussed, there are no structures on the project site; thus implementation of the proposed project would result in no impact to historic architectural resources. Impacts to archaeological resources, paleontological resources, human remains, or TCRs identified within the project site and implementation of Mitigation Measures CULT-2, CULT-3, CULT-4, and CULT-5 would reduce these impacts to a less-than-significant level; implementation of the proposed project would not create or contribute to a cumulative impact on cultural resources.

Additionally, the existing federal, State, and General Plan 2035 Historic Preservation policies (listed above) serve to protect cultural resources in the Planning Area. For example, Policy HP-A-1 requires projects to undergo review to determine whether project areas contain known archeological resources, either prehistoric and/or historic-era, or have the potential for such resources. Continued compliance with these regulations and mitigation measures would avoid impacts to historical, archaeological, paleontological resources, human remains, and TCRs to the maximum extent practicable. Therefore, in combination with past, present, and reasonably foreseeable projects, the project would result in a less-than-significant cumulative impact with respect to cultural resources.

Impact CULT-6: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to cultural resources.

Mitigation Measure CULT-6: Implement Mitigation Measures CULT-2, CULT-3, CULT-4, and CULT-5.

Significance With Mitigation: Less than significant.
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4.5 GEOLOGY AND SOILS

This chapter includes an evaluation of the potential environmental consequences associated with the adoption and implementation of the proposed project that are related to geology and soils. Additionally, this chapter describes the environmental setting, including regulatory framework and existing geological conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts. The chapter was prepared by a California Registered Geologist.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 REGULATORY FRAMEWORK

This section summarizes key State and City regulations and programs related to the proposed General Plan Amendment. There are no specific Federal regulations applicable to the proposed General Plan Amendment.

State Regulations

The most relevant State laws that regulate geology, soils, and seismicity in the General Plan Area are the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, and the California Building Code, each of which is discussed below.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy.¹ The main purpose of the act is to prevent the construction of buildings used for human occupancy on top of the traces of active faults. Although the act addresses the hazards associated with surface fault rupture, it does not address other earthquake-related hazards, such as seismically-induced ground shaking, liquefaction, or landslides.²

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to publish appropriate maps that depict these zones.³ The maps are then distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. In general, construction within 50 feet of an active fault zone is prohibited.

¹ Originally titled the Alquist-Priolo Special Studies Zones Act until renamed in 1993, Public Resources Code Division 2, Chapter 7.5, Section 2621.
Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses earthquake hazards other than surface fault rupture, including liquefaction and seismically-induced landslides. Under this act, seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. The act states that “it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.” Section 2697(a) of the act states that “cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard.”

California Building Code

The California Building Standards Code, also known as Title 24 of the California Code of Regulations, reflects various building criteria that have been derived from different sources. One of these sources is the International Building Code (IBC), a model building code adopted across the United States that has been modified to suit conditions in the state, thereby creating what is known as the California Building Code (CBC), or Part 2 of CCR Title 24. The CBC is updated every three years, and the current 2016 edition of the CBC went into effect on January 1, 2017. Through the CBC, the State provides a minimum standard for building design and construction. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

Local Regulations

The Santa Rosa City Code’s (SRCC) provisions apply to building structure and safety with regards to reducing impacts related to geologic hazards. Like similar jurisdictional authorities that issue building permits, the City of Santa Rosa is required to enforce the California Building Standards Code (which includes the current CBC). The City of Santa Rosa has adopted all sections of the CBC Title 24, Part 2, in Chapter 18-16, California Building Code, of the SRCC. In addition, the City has enacted local amendments to the CBC in the SRCC. These amendments include, but are not limited to design requirements for retaining walls, creation of a permit appeals board, building address identification requirements, and use of automated fire sprinklers. The SRCC also includes requirements for the performance and review of geological investigations prior to the issuance of building permits in a State-designated Alquist-Priolo fault zone.

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5 California Public Resources Code, Division 2, Chapter 7.8, Section 2691(c).
6 California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a)
4.5.1.2 EXISTING CONDITIONS

This section discusses the existing geological, soil, and seismic conditions in and around the Southeast Greenway Area.

Geology and Soils

The city is located in the Coast Ranges Geomorphic Province, a geologically young, tectonically active region on the west margin of the stable North American craton. This province is characterized by northwest-trending ridges and valleys that are underlain by strongly deformed sedimentary and low-grade metamorphic rocks of the Jurassic and Cretaceous Franciscan Complex. Major strike-slip faults define many valleys in this region, such as the San Andreas Fault southwest of the city and the Rodgers Creek Fault immediately to the west.

Much of the shallow geology beneath the Southeast Greenway Plan Area has been mapped as Holocene alluvial and fluvial deposits that are largely composed of sandy gravel, sand, and silt. In turn, the bedrock that underlies these sediments consists of the Pliocene and Miocene Petaluma Formation that includes sandy to silty gravel, silty sandstone, siltstone, and mudstone (see Figure 4.5-1).

Geographically, the Southeast Greenway Plan Area lies within the United States Geological Survey’s (USGS’s) Santa Rosa, California 7.5-minute topographic quadrangle map. The topography near the Plan Area is relatively flat, with gentle slopes toward the west-southwest. Typical ground surface elevations within the Southeast Greenway Plan Area range from 200 to 210 feet above mean sea level (amsl). This topography is consistent with the Southeast Greenway Plan Area setting in an alluvial valley whose source areas are located in the foothills to the east.

Web-based soil mapping data compiled by the United States Department of Agriculture’s (USDA) Natural Resources Conservation Service (formerly, the Soil Conservation Survey) was used to identify the dominant soil types in the Southeast Greenway Plan Area. The mapped soil types are dominated by the soils of the Clear Lake Clay Loam and Loam, Yolo Clay Loam, and Zamora Silty Clay Loam typically formed on slopes of 0 to 5 percent. According to the USDA, these poorly drained soils generally form valleys atop alluvium derived from volcanic and sedimentary bedrock.

Regional Faulting, Seismicity, and Related Seismic Hazards

The Earth’s crust includes tectonic plates that locally collide with or slide past one another along plate boundaries. Coastal parts of California are prone to such plate movements, notably, the largely horizontal or “strike-slip” movement of the Pacific Plate as it impinges on and slides past the west margin of the North American Plate. In general, earthquakes occur when the accumulated stress along a fault is suddenly released, resulting in seismic slippage. The amount (i.e., distance) of slippage during an earthquake can vary widely, ranging in scale from a few millimeters or centimeters, to tens of feet.

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Figure 4.5-1
Geologic Map

Approximate Project Boundary

Channel (Holocene)-lacustrine deposits

Alluvial fan and fluvial terrace deposits, unbedded (Holocene)-gravel, sand and silt, derived primarily from Petrified Forest and older alluvial and outwash units, including older Tertiary to Holocene non-marine gravel, late Tertiary volcanic rocks, and Miocene bedrock units of the Franciscan Complex, Coast Range ophiolites and Great Valley sequence. Unit may be further subdivided into the following units.

Petrified Forest Formation (Miocene-Miocene)-Dominantly sandy to silty gravel, silty sandstone, siltstone, and mudstone (Tp). Contains distalized (Tp) and clayey distal tuffaceous shales with local lenses of lignite and lignitic mudstone (Tdp), silicified wood (Twp), and flood water limestone (Tvp). Petrified Forest Formation units were deposited in fluvial, lacustrine, and lake-deltaic to estuarine environments and the formation locally contains the 4.26 ± 0.4 Ma (K-Ar) Robinson tuff. Depositional settings are locally characterized by interbedded sands, gravels, and siltstones, with rare conglomerates and rare sandstones. The formation locally includes interbedded gravel with well-rounded and polished pebbles of banded porphyry, milky quartz, and black chert and agglomerics coeval with the gravels of Coon (Fos, 1983), a lithofacies of the Petrified Forest and Wilson Grove Formations.

The Petrified Forest Formation is older than ~4.5-5.0 Ma and younger than ~4.5 Ma where exposed along the N. side of Santa Rosa Plain. Beneath the Santa Rosa Plain and north of Coon and Robert Park, the lower Petrified Forest Formation is interbedded with the older, ~4.5-10 Ma Tolly Volcanics, and overlying Miocene basement of the Franciscan Complex, Coast Range ophiolites and Great Valley sequence. The Petrified Forest Formation locally includes the following units.
The performance of man-made structures during a major earthquake can be influenced by numerous factors: location with respect to active fault traces or areas prone to liquefaction or seismically induced landslides; the age and type of buildings (i.e., wood frame, unreinforced masonry, non-ductile concrete frame); the proximity, magnitude, and intensity of the earthquake; and many other factors. Evidence from past earthquakes shows that wood frame structures tend to perform well, especially when their foundations are properly designed and anchored. On the other hand, older, unreinforced masonry structures do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements, such as those found in the CBC, adopted by reference in the SRCC, include requirements that are intended to ensure the satisfactory performance of building materials under prescribed seismic conditions.

The Southeast Greenway Plan Area, like much of the San Francisco Bay Area, is vulnerable to seismic activity due to the presence of active earthquake faults in the region. The closest and most prominent active fault is the Rodgers Creek-Healdsburg Fault System, whose closest approach lies approximately 0.35 miles southwest of the Plan Area.

Other active earthquake faults in the region include the San Andreas Fault, that passes as close as 20 miles southwest of the Southeast Greenway Area. Based on the maps published by the California Geological Survey (CGS, formerly the Division of Mines and Geology), no Alquist-Priolo Earthquake Fault Zones have been mapped within the Plan Area although the nearby Rodgers Creek-Healdsburg Fault is flanked by such a State-designated zone.

**Ground Shaking**

The severity of ground shaking depends on many variables, such as earthquake magnitude, hypocenter proximity, local geology (including the properties of unconsolidated sediments), groundwater conditions, and topographic setting. In general, ground-shaking hazards are most pronounced in areas that are underlain by loosely consolidated soil or sediment.

When earthquake faults within the Bay Area’s nine-county area were considered, the USGS estimated that the probability of a magnitude 6.7 or greater earthquake prior to year 2036 is 63 percent, or roughly a two-thirds probability over this timeframe (see Figure 4.5-2). Individually, the forecasted probability for a given earthquake fault to produce a magnitude 6.7 or greater seismic event by the year 2036 is as follows: 31 percent for the Rodgers Creek-Hayward Fault, 21 percent for the San Andreas Fault, and 3 percent for the Green Valley-Concord Fault. Earthquakes of this magnitude can create ground accelerations severe enough to cause major damage to structures and foundations not designed to resist the forces generated by earthquakes. Underground utility lines are also susceptible where they lack sufficient flexibility to accommodate the seismic ground motion. In the event of an earthquake of this magnitude, the seismic forecasts published by the CGS suggest that area around the Southeast Greenway Area is expected to experience “very strong” shaking (i.e., Modified Mercali Intensity [MMI] VIII).
Earthquake Probabilities

The map shows the probability of magnitude 6.7 or greater earthquakes before 2036 on the indicated faults. The expanding urban areas and increasing probability along fault segments are highlighted.

- **SAN FRANCISCO BAY REGION EARTHQUAKE PROBABILITY**
  - 63% probability for one or more magnitude 6.7 or greater earthquakes from 2007 to 2036.

Legend:
- **%** Probability of magnitude 6.7 or greater quakes before 2036 on the indicated fault
- Increasing probability along fault segments
- Expanding urban areas

Figure 4.5-2

Approximate Project Location

Scale (Miles)

0 20

The San Francisco Bay Region earthquake probability is 63%, with varying probabilities along fault segments and expanding urban areas.
It should be noted that the Southeast Greenway Area is not unique in this regard; more than 90 percent of Sonoma County falls into this category of anticipated seismic ground shaking.

The April 1906 earthquake on the San Andreas Fault, estimated between magnitude 7.7 and 8.3, was the largest seismic event in recent history that affected the Southeast Greenway Area. The impacts of this event on Sonoma County were considerable, with more than 60 fatalities reported around the city and the near-total destruction of the downtown.\cite{note1}

On October 1, 1969, two earthquakes measuring magnitude 5.7 and 5.8 occurred on the south part of the Healdsburg Fault, just north of the city. These earthquakes caused severe damage in some parts of Santa Rosa, affecting many buildings, bringing down chimneys, causing sidewalks to buckle, and rupturing underground pipes.

Roughly 25 years ago, the magnitude 6.9 Loma Prieta earthquake of October 1989 on the San Andreas Fault caused significant damage throughout the San Francisco Bay Area, although no deaths and only slight property damage were reported in Sonoma County. The epicenter of the Loma Prieta event was located nearly 100 miles south-southeast of the Southeast Greenway Area.

Most recently, the August 24, 2014 magnitude 6.0 Napa earthquake, located near Napa roughly 26 miles southeast of the Southeast Greenway Area, underscored the ever-present seismic hazards in the San Francisco Bay region. This earthquake represented the largest regional seismic event since Loma Prieta, and it resulted in one fatality, the destruction of more than 70 structures, and total damage in excess of $400 million. Recently published research concerning that earthquake’s impact concluded that most of the structural damage (i.e., a reported 165 red tags [prohibited access] and 1,707 yellow tags [restricted access]) was to older buildings, many of which were located in the historic center of Napa.

### Landslides

Landslides are gravity-driven movements of earth materials that can include rock, soil, unconsolidated sediment, or combinations of these materials. The rate of landslide movement can vary considerably. Some landslides move rapidly, as in a soil or rock avalanche, while other landslides creep or move slowly for extended periods of time. The susceptibility of a given area to landslides depends on many variables, although the general characteristics that influence landslide hazards are well understood. Some of the more important factors that can increase the likelihood of landslides are: 1) loose slope materials such as unconsolidated soil and weakly indurated or highly fractured bedrock; 2) steep slopes; 3) the orientation of planar elements in earth materials such as bedding, foliation, joints, etc.; 4) increased moisture in soil or bedrock; 5) sparse vegetation; 6) eroded slopes or man-made cuts; and 7) strong seismic shaking. Due to the prevailing gentle topography and lack of steep slopes, earthquake-induced landslides are unlikely to occur at the Southeast Greenway Area or in its immediate vicinity.

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\cite{note1} California Division of Mines and Geology, 1980. Geology for Planning in Sonoma County, by Roger Greensfelder, Special Report 120.
**GEOLOGY AND SOILS**

**Liquefaction**

Liquefaction generally occurs in areas where moist, fine-grained, cohesionless sediment or fill materials are subjected to strong, seismically induced ground shaking. Under certain circumstances, such ground shaking can temporarily transform an otherwise solid, granular material to a fluid state. Liquefaction is a potentially serious hazard because buildings in areas that experience liquefaction may subside, suffer major structural damage, or completely collapse. Liquefaction is most often triggered by seismic shaking, but it can also be caused by improper grading, landslides, or other factors. In dry soils, seismic shaking may cause soil to consolidate rather than flow, a process known as densification.

Based on mapped sediment characteristics, the presence of shallow groundwater and other factors, the USGS estimated that the liquefaction susceptibility was “moderate” in the Plan Area. To date, the CGS has not mapped liquefaction hazards in the Santa Rosa 7.5-minute topographic quadrangle.

**Unstable Geologic Units**

The volume of expansive soils can change dramatically depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special building/structure design or soil treatment are often needed in areas with expansive soils.

Expansive soils are typically very fine-grained with a high to very high percentage of clay, typically montmorillonite, smectite, or bentonite clay. Most of the soils in the Plan Area have been mapped as poorly drained loam, clay loam, and silty clay loam; these soil types are likely to be more prone to shrink-swell behavior. Thus, expansive soils could be present beneath the Plan Area.

### 4.5.2 STANDARDS OF SIGNIFICANCE

Adoption and implementation of the proposed project would have a significant environmental impact if it would expose people or structures to potentially substantial adverse effects including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides; or exacerbate any of these conditions per the December 2015 CA Supreme Court ruling in *California Building Industry Association v. Bay Area Air Quality Management District*. As previously discussed, no Alquist-Priolo Earthquake Fault Zones have been mapped by the CGS within the Southeast Greenway Area, although such a zone has been mapped roughly 0.35 miles to the west. The risk of surface fault rupture or earthquake-induced landslides associated with the implementation of the proposed project is considered low. Potential hazards posed by strong seismic ground shaking during a major earthquake, while variable, are omnipresent across the Southeast Greenway Area and the city. Adherence to applicable building code and building permit requirements would help ensure that the impacts associated with such ground shaking

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are mitigated to the maximum extent practicable. Although the Southeast Greenway Area has not been mapped by the CGS for potential liquefaction hazards in the Santa Rosa 7.5-minute quadrangle, USGS regional maps of seismic susceptibility in the San Francisco Bay region show that the Southeast Greenway Area is located in a zone of “moderate” susceptibility.\(^\text{16}\) Therefore, implementation of the proposed project would not cause or exacerbate the rupture of a known earthquake, strong seismic shaking, seismic-related ground failure, or landslides; thus, this topic is not discussed further in this Draft EIR.

Implementation of the proposed project would result in a significant impact if it would:

1. Result in substantial soil erosion or the loss of topsoil.
2. 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.
3. Be located on expansive soil, as defined by Section 1803.5.3 of the California Building Code, creating substantial risks to life or property.
4. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

### 4.5.1 IMPACT DISCUSSION

**GEO-1 Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.**

Substantial soil erosion or loss of topsoil during development could, in principle, undermine structures and slopes in the Southeast Greenway Area. Compliance with existing regulatory requirements such as the CBC, and implementation of erosion control best management practices during any significant construction in the Southeast Greenway Area would reduce the impacts associated with soil erosion or the loss of topsoil. Frequently-implemented soil stabilization best management practices include hydroseeding and short-term biodegradable erosion control blankets; linear sediment barriers such as silt fences, sandbag barriers, or straw bale barriers; fiber rolls, gravel bag berms, and check dams to break up slope length or flow; silt fences or other means of inlet protection at storm drain inlets; post-construction inspection of all drainage infrastructure for accumulated sediment; and clearing of accumulated sediment in such drainage structures. It should also be noted that the only significant anticipated construction would consist of multi-family housing units and mixed-use residential/commercial space in only two parts of the Plan Area which would require additional environmental review. Therefore, adherence to existing regulatory requirements would ensure that the impacts associated with substantial erosion or the loss of topsoil resulting from development of the Southeast Greenway Area would be less than significant.

**Significance Without Mitigation:** Less than significant.

GEO-2 Implementation of the proposed project would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse.

In general, unstable geologic units have not been reported in the Southeast Greenway Area during previous mapping efforts. As previously discussed, the potential for landslides is judged low in light of the essentially flat topography. Furthermore, existing developments in the immediate vicinity of the Plan Area, constructed on sites typified by similar topography and underlying geology, have not experienced landslides, lateral spreading, subsidence, liquefaction, or collapse. Given this experience, development of the Southeast Greenway Area is unlikely to result in significant adverse impacts related to unstable geologic units or soil. USGS evaluations of Sonoma County concluded that the Southeast Greenway Area is located in an area described as “flat land” with “areas of gentle slope at low elevation that have little or no potential for the formation of slumps, translational slides, or earth flows…” \(^{17}\) Furthermore, compliance with relevant requirements of the CBC and the SRCC will further ensure that potential impacts relating to unstable geologic units or soils would be less than significant.

Significance Without Mitigation: Less than significant.

GEO-3 Implementation of the proposed project would not create substantial risks to property as a result of its location on expansive soil, as defined by Section 1803.5.3 of the California Building Code.

Expansive soils are known to be present in various parts of Sonoma County. These soils often increase in volume when they absorb water and shrink when they dry. This behavior, also known as “shrink-swell” behavior, is frequently attributable to certain types of clay minerals in soil, although some bedrock is also prone to this phenomenon. Bedrock examples include claystones or altered volcanic deposits that contain abundant montmorillonite, a clay mineral with well-known expansive properties. The water that can induce soil expansion may be derived from infiltrating precipitation, overland runoff, or shallow ground water. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. Roadways, pavements, and other flatwork can be susceptible to damage from expansive soils. Soil movement can vary under different parts of a building, resulting in cracked foundations, distorted parts of buildings such that doors and windows no longer function properly.

The adverse effects of expansive soils can be avoided through proper subsoil preparation, drainage, and foundation design. In order to design a suitable foundation, expansive soils need to be recognized through appropriate sampling and soils testing. Such testing is generally part of a detailed, design-level geotechnical investigation performed prior to construction. Procedures employed in expansive soils testing are found in many codes and regulations. For example, Chapter 18, Sections 1803.5.3. and 1808.6 of the CBC set forth investigation and foundation requirements related to expansive soils. Adherence to these regulatory requirements, especially the performance of a detailed geotechnical investigation prior

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology, soils, and seismicity.

Any potential future development resulting from implementation of the proposed project or in the surrounding vicinity would be required to meet the latest standards set forth in the CBC. The CBC requirements, along with requirements in the SRCC, ensure that any development on unstable soil or expansive soil is regulated to minimize potential hazards. The SRCC includes requirements for the performance and review of geological investigations prior to the issuance of building permits in a State-designated Alquist-Priolo fault zone. Moreover, in combination with foreseeable development in the surrounding area, implementation of the proposed project would not change the geology or soil characteristics of the project area as a whole.

Implementation of the proposed project would not result in a significant impact with respect to geology, and soils, and would not significantly contribute to cumulative impacts in this regard. Therefore, the cumulative impacts associated with potential future development allowed by the proposed project, together with anticipated cumulative growth, would result in a less-than-significant cumulative impact with respect to geology, soils, and seismicity.

Significance Without Mitigation: Less than significant.
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4.6 GREENHOUSE GAS EMISSIONS

This chapter evaluates the potential for land use changes associated with adopting and implementing the proposed project to cumulatively contribute to greenhouse gas (GHG) emissions. Because no single project is large enough individually to result in a measurable increase in global concentrations of GHG emissions, global warming impacts of a project are considered on a cumulative basis. This analysis is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD). The proposed project was evaluated using BAAQMD’s plan-level review criteria, based on the preliminary information. GHG emissions are based on average daily trip (ADT) generation provided by W-Trans Transportation Consultants for the on-road transportation emissions section. The GHG emissions modeling is included in Appendix B, Air Quality and Greenhouse Gas Data, of this Draft EIR.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Human activities contribute to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.¹,² The major GHG are briefly described below.

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global warming potential gases.

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² Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop of changing radiative forcing rather than a primary cause of change.
GREENHOUSE GAS EMISSIONS

- **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

- **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.

- **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced, along with HFCs, as alternatives to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

- **Sulfur Hexafluoride (SF₆)** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high global warming potential gases. The global warming potential or “GWP” is used to convert GHGs to carbon dioxide (CO₂) equivalence (CO₂e) to show the relative potential that different GHGs have to contribute to the greenhouse effect. For example, under IPCC’s Fourth Assessment Report GWP values for methane (CH₄), a project that generates 10 metric tons (MT) of CH₄ would be equivalent to 250 MT of CO₂. Specific climate change impacts that could affect the proposed project include water supply, wildfire risks, health impacts, and energy demand. The GWP of GHG emissions are shown in Table 4.6-1.

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5 CO₂-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.
Table 4.6-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

<table>
<thead>
<tr>
<th>GHGs</th>
<th>Second Assessment Report Atmospheric Lifetime (Years)</th>
<th>Fourth Assessment Report Atmospheric Lifetime (Years)</th>
<th>Second Assessment Report Global Warming Potential Relative to CO₂ a</th>
<th>Fourth Assessment Report Global Warming Potential Relative to CO₂ a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>50 to 200</td>
<td>50 to 200</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>12 (±3)</td>
<td>12</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>120</td>
<td>114</td>
<td>310</td>
<td>298</td>
</tr>
<tr>
<td>Hydrofluorocarbons:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HFC-23</td>
<td>264</td>
<td>270</td>
<td>11,700</td>
<td>14,800</td>
</tr>
<tr>
<td>HFC-32</td>
<td>5.6</td>
<td>4.9</td>
<td>650</td>
<td>675</td>
</tr>
<tr>
<td>HFC-125</td>
<td>32.6</td>
<td>29</td>
<td>2,800</td>
<td>3,500</td>
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<tr>
<td>HFC-134a</td>
<td>14.6</td>
<td>14</td>
<td>1,300</td>
<td>1,430</td>
</tr>
<tr>
<td>HFC-143a</td>
<td>48.3</td>
<td>52</td>
<td>3,800</td>
<td>4,470</td>
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<tr>
<td>HFC-152a</td>
<td>1.5</td>
<td>1.4</td>
<td>140</td>
<td>124</td>
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<tr>
<td>HFC-227ea</td>
<td>36.5</td>
<td>34.2</td>
<td>2,900</td>
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<td>209</td>
<td>240</td>
<td>6,300</td>
<td>9,810</td>
</tr>
<tr>
<td>HFC-431omee</td>
<td>17.1</td>
<td>15.9</td>
<td>1,300</td>
<td>1,030</td>
</tr>
<tr>
<td>Perfluoromethane: CF₄</td>
<td>50,000</td>
<td>50,000</td>
<td>6,500</td>
<td>7,390</td>
</tr>
<tr>
<td>Perfluoroethane: C₂F₆</td>
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<td>10,000</td>
<td>9,200</td>
<td>12,200</td>
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<td>Perfluorobutane: C₃F₁₀</td>
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<td>7,400</td>
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<td>Sulfur Hexafluoride (SF₆)</td>
<td>3,200</td>
<td>NA</td>
<td>23,900</td>
<td>22,800</td>
</tr>
</tbody>
</table>

Notes: The Intergovernmental Panel on Climate Change has published updated global warming potential (GWP) values in its Fifth Assessment Report ⁷ that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂ (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space).

a. Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

b. The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.


4.6.1.2 REGULATORY FRAMEWORK

Federal Regulations

The United States Environmental Protection Agency (USEPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat.⁸ To regulate GHGs from passenger vehicles, the USEPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs: CO₂, CH₄,


N\textsubscript{2}O, hydrofluorocarbons, perfluorocarbons, and SF\textsubscript{6}. The first three are applicable to the project’s GHG emissions inventory because they constitute the majority of GHG emissions and, per BAAQMD guidance, are the GHG emissions that should be evaluated as part of a project’s GHG emissions inventory. The following summarize the federal regulations:

- **US Mandatory Report Rule for GHGs (2009):** Requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO\textsubscript{2}e per year are required to submit an annual report.

- **Update to Corporate Average Fuel Economy Standards (2010 to 2012):** Automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with State requirements. The federal government issued new standards in 2012 for model years 2017 to 2025 that will require a fleet average of 54.5 miles per gallon in 2025. However, the USEPA is currently reexamining the 2017 to 2025 emissions standards.

- **USEPA Regulation of Stationary Sources under the Clean Air Act (Ongoing):** Pursuant to its authority under the Clean Air Act, the USEPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the 2013 *Climate Change Adaptation Plan*, the USEPA was directed to develop regulations for existing stationary sources.

### State Regulations

**GHG Emission Reduction Legislation**

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), Executive Order B-30-15, and Senate Bill 375 (SB 375). These State laws and other key legislation aimed at reducing GHG emissions in the California are summarized as follows:

- **Executive Order S-03-05:** Signed June 1, 2005, the following GHG reduction targets for the State included 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

- **Assembly Bill 32:** Also known as the Global Warming Solutions Act (2006), AB 32 was signed August 31, 2006, in order to reduce California’s contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05. Under AB 32, California Air Resources Board (CARB) prepared the *2008 Climate Change Scoping Plan* and the *2014 Climate Change Scoping Plan*, and as discussed further below, has released the Draft 2017 *Climate Change Scoping Plan*.

- **Executive Order B-30-15:** Signed April 29, 2015, this executive order sets a goal of reducing Statewide GHG emissions to 40 percent below 1990 levels by the year 2030 and required an update to CARB’s 2014 Scoping Plan.

- **Senate Bill 32 and Assembly Bill 197:** Signed September 2016, SB 32 and AB 197 made the 2030 goal under Executive Order B-30-15 a Statewide mandated legislative target. AB 197 established a joint
legislative committee on climate change policies and required CARB to prioritize direction emissions reductions.9 Pursuant to these requirements on January 20, 2017, CARB released the Draft 2017 Climate Change Scoping Plan Update, which includes the potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. CARB has adoption hearings planned for June 2017. The Draft 2017 Scoping Plan establishes a new emissions limit of 260 million metric tons of carbon dioxide equivalent (MMTCO₂e) for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030. The Draft 2017 Scoping Plan identified local governments as essential partners in achieving the State’s long-term GHG reduction goals and identified local actions to reduce GHG emissions, including to achieve emissions of no more than 6 metric tons of carbon dioxide equivalent (MTCO₂e) or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. For projects undergoing CEQA environmental review, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the current Scoping Plan and the State’s long-term GHG goals—and projects that exceed those thresholds may be required to incorporate either on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible, or a performance-based metric using a climate action plan or other plan to reduce GHG emissions is appropriate.10

- **Senate Bill 1383:** Signed September 19, 2016, SB 1383 is a supplement to the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter (PM) produced during incomplete combustion of fuels (e.g., on- and off-road transportation, residential wood burning, charbroiling, and industrial processes). SB 1383 requires CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve the following reductions below 2013 levels by 2030, including CH₄ by 40 percent, hydrofluorocarbon gases by 40 percent, and black carbon by 50 percent. This bill also establishes targets for reducing organic waste in landfills. In response to SB 1383, CARB adopted the Final Proposed Short-Lived Climate Pollutant Strategy on March 14, 2017.

- **Senate Bill 375:** Also known as the Sustainable Communities and Climate Protection Act, SB 375 was adopted in 2008 to connect the Scoping Plan’s GHG emissions reductions targets for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional, long-range, transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 regions in California managed by a metropolitan planning organization (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area region. MTC’s targets are a 7 percent per capita reduction in GHG emissions from 2005 by 2020, and 15 percent per capita reduction from 2005 levels by 2035. SB 375 requires CARB to periodically update the targets, no later than every 8 years.

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9. Rather than the previously-used market-based cap-and-trade program for large stationary, mobile, and other sources.
The 2020 targets are less than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region’s transportation network. The targets would result in 3 MMTCO2e of reductions by 2020 and 15 MMTCO2e of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB’s Scoping Plan (for AB 32) would be met.11

- **Assembly Bill 1493**: Also known as Pavley I, AB 1493 is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under Federal Laws, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards.

- **Executive Order S-01-07**: Signed on January 18, 2007, the State set new low-carbon fuel standards for transportation fuels sold within the State.

- **Executive Order B-16-2012**: Signed on March 23, 2012, the State directed that CARB, the California Energy Commission, the Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations).

- **Senate Bills 1078, 107, and X1-2, and Executive Order S-14-08**: A major component of California’s Renewable Energy Program is the renewable portfolio standard established under Senate Bill 1078 and 107. Executive Order S-14-08 was signed in November 2008, which expanded the State’s Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

- **Senate Bill 350**: Signed in September 2015, SB 350 establishes tiered increases to the renewable portfolio standard of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 seeks to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

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California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 Building Energy Efficiency Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively. While the 2016 Standards do not achieve zero net energy, they do get very close to the State’s goal and make important steps toward changing residential building practices in California. The 2019 Standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California.

California Building Code: CALGreen

On July 17, 2008, California Green Building Standards Code (24 California Code of Regulations, Part 11, known as “CALGreen”) was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of the 2016 CALGreen building standards became effective on January 1, 2017.

2006 Appliance Efficiency Regulations

Adopted by the California Energy Commission on October 11, 2006, the 2006 Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through 1608) were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California’s Integrated Waste Management Act of 1989 (AB 939), Public Resources Code 40050 et seq.) set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this,

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14 The green building standards became mandatory in the 2010 edition of the code.
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. AB 341 (Chapter 476, Statutes of 2011) increased the Statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code Sections 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The Act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own. Section 5.408 of CALGreen also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1826, signed on October of 2014, requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009 to 2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the Energy Commission, in consultation with the department, to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.
Regional Regulations

Plan Bay Area

*Plan Bay Area* is the Bay Area’s Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). *Plan Bay Area*, adopted jointly by ABAG and MTC July 18, 2013, lays out a development scenario for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB. *Plan Bay Area* meets a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions. As part of the implementing framework for *Plan Bay Area*, local governments have identified Priority Development Areas (PDAs) to focus growth. PDAs are transit-oriented, infill development opportunity areas within existing communities. Overall, well over two-thirds of all regional growth in the Bay Area by 2040 is allocated within PDAs. PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs in the region. The Southeast Greenway Area is not within a Priority Development Area.

The final draft of *Plan Bay Area 2040* was recently released and has an anticipated adoption in the fall of 2017. It would serve as a limited and focused update to *Plan Bay Area 2013*, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years. Per the final draft of *Plan Bay Area 2040*, while the projected number of new housing units and new jobs within PDAs would increase to 629,000 units and 707,000 jobs compared to the adopted *Plan Bay Area 2013*, its overall share would be reduced to 77 percent and 55 percent. However, the final draft of *Plan Bay Area 2040* plan would remain on track in meeting the 16 percent per capita reduction of GHG emissions by 2035.

Climate Action 2020 and Beyond

*Climate Action 2020 and Beyond* is the regional climate action plan for Sonoma County. *Climate Action 2020 and Beyond* builds on prior commitments to reduce GHG emissions through a community-wide climate action plan for all communities in Sonoma County, including Santa Rosa. The regional framework creates an efficient and consistent approach to address climate change but allows local governments to adopt locally appropriate measures to reduce GHG emissions. The *Climate Action 2020 and Beyond* establishes a countywide GHG reduction goal as opposed to individual goals for each jurisdiction that recognizes the shared nature of the challenge as well as the fact that Sonoma County communities each have a different capacity to achieve GHG reductions. It also provides information about local climate...
hazards and what Sonoma County communities can do to prepare. The Regional Climate Protection Agency board adopted *Climate Action 2020 and Beyond* on July 11, 2016.

**Local Regulations**

**General Plan 2035**

The Land Use and Livability (LUL) and Open Space and Conservation (OSC) elements of the General Plan 2035 include the following goals and policies specific to reducing GHG emission and applicable to the proposed project:

- **Goal LUL-A:** Foster a compact rather than a scattered development pattern in order to reduce travel, energy, land, and materials consumption while promoting greenhouse gas emission reductions citywide.
  - **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 LUL-E:** Promote livable neighborhoods by requiring compliance with green building programs to ensure that new construction meets high standards of energy efficiency and sustainable material use. Ensure that everyday shopping, park and recreation facilities, and schools are within easy walking distance of most residents.
  - **Policy LUL-E-2:** As part of planning and development review activities, ensure that projects, subdivisions, and neighborhoods are designed to foster livability.

- **Goal OSC-K:** Reduce energy use in existing and new commercial, industrial, and public structures.
  - **Policy OSC-K-5:** Implement measures of the Climate Action Plan which increase energy efficiency, including retrofitting existing buildings and facilitating energy upgrades.

- **Goal OSC-M:** Reduce Greenhouse Gas Emissions
  - **Policy OSC-M-1** Meet local, regional and State targets for reduction of greenhouse gas emissions through implementation of the Climate Action Plan.

**Climate Action Plan**

On June 5, 2012, the Santa Rosa City Council adopted the Santa Rosa Climate Action Plan (CAP). The Santa Rosa CAP recognizes the imperative to act on climate change and demonstrates the City’s continued commitment to reducing GHG emissions. As described above, the City is one of the nine cities in Sonoma County to collaborate on regional efforts to reduce GHG emissions as part of the Sonoma County *Climate Action and Beyond*. The Santa Rosa CAP presents measures that will reduce local GHG emissions, meet State, regional, and local reduction targets, and streamline future environmental review of projects within Santa Rosa by following the California Environmental Quality Act (CEQA) Guidelines and meeting the BAAQMD expectations for a Qualified GHG Emissions Reduction Strategy. The Santa Rosa CAP follows both the CEQA Guidelines and the BAAQMD guidelines by incorporating the standard elements of a

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Qualified GHG Reduction Strategy. The Santa Rosa CAP recommends various community and municipal strategies for near-term and mid-term considerations, and is centered on the following nine topic areas:

- Energy Efficiency and Conservation
- Renewable Energy
- Parking and Land Use Management
- Improved Transport Options
- Optimized Vehicular Travel
- Waste Reduction, Recycling, and Composting
- Water and Wastewater
- Agriculture and Local Food
- Off-Road Vehicles and Equipment

The Santa Rosa CAP goals, measures, and actions that are relevant to the proposed project are shown in Table 4.6-2.

**TABLE 4.6-2 POLICIES OF THE SANTA ROSA CLIMATE ACTION PLAN RELEVANT TO THE PROPOSED PROJECT**

<table>
<thead>
<tr>
<th>Goal 1: Energy Efficiency and Conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure 1.1</strong></td>
</tr>
<tr>
<td>Action 1.1.1</td>
</tr>
<tr>
<td>Action 1.1.2</td>
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<tr>
<td>Action 1.1.3</td>
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<tr>
<td>Action 1.1.4</td>
</tr>
</tbody>
</table>

| Measure 1.3 | **Smart Meter Utilization.** Encourage existing development and require new development to utilize PG&E’s Smart Meter system to facilitate energy and cost savings. |
| Action 1.3.1 | Require new construction and major remodels to install real-time energy monitors that allow building users to track their current energy use. |

| Measure 1.4 | **Tree Planting and Urban Forestry.** Plant and maintain trees on private property, streets, and open space areas. |
| Action 1.4.2 | Implement the City’s tree preservation ordinance. |
| Action 1.4.3 | Require new development to supply an adequate number of street trees and private trees. |

<table>
<thead>
<tr>
<th>Goal 3: Parking and Land Use Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure 3.2</strong></td>
</tr>
<tr>
<td>Action 3.2.2</td>
</tr>
</tbody>
</table>

| Measure 3.6 | **Traffic Calming.** Provide traffic calming measures to encourage people to walk or bike instead of drive. |
| Action 3.6.1 | Install traffic calming design features such as bulb-outs, median barriers, and striped crosswalks to improve pedestrian convenience and encourage pedestrian and bicycle travel. |

<table>
<thead>
<tr>
<th>Goal 4: Improved Transit Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure 4.1</strong></td>
</tr>
<tr>
<td>Action 4.1.1</td>
</tr>
<tr>
<td>Action 4.1.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal 5: Optimized Vehicular Travel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure 5.1</strong></td>
</tr>
</tbody>
</table>
TABLE 4.6-2 POLICIES OF THE SANTA ROSA CLIMATE ACTION PLAN RELEVANT TO THE PROPOSED PROJECT

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action 5.1.1</td>
<td>Provide electric vehicle recharging stations in City facilities and parking lots that are equipped with solar-generated power.</td>
</tr>
<tr>
<td>Action 5.1.6</td>
<td>Continue to expand the electric vehicle charging network.</td>
</tr>
</tbody>
</table>

Goal 6: Waste Reduction, Recycling, and Composting

Measure 6.1 Recycling and Composting. Increase the amount of waste that is recycled and composted.

Action 6.1.3 Increase the City’s construction and demolition ordinance to require 75% diversion by 2020 and 85% diversion by 2035.

Goal 7: Water and Wastewater

Measure 7.1 Water Conservation. Continue to require and incentivize water conservation.

Action 7.1.1 Require new development to reduce potable water use in accordance with the Tier 1 standards of CALGreen.

Action 7.1.2 Continue and expand water conservation efforts including water-efficient landscaping, rainwater harvesting, and high-efficiency appliance and fixture installations.

Goal 8: Agriculture and Local Food

Measure 8.1 Local Food Systems. Increase the amount of food grown and consumed locally.

Action 8.3.1 Establish community gardens and urban farms throughout the city.

Goal 9: Off-Road Vehicles and Equipment

Measure 9.2 Construction Emissions. Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.

Action 9.2.1 Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes or less (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Provide clear signage at all access points to remind employees of idling restrictions.

Action 9.2.2 Construction equipment shall be maintained in accordance with manufacturer’s specifications.

Action 9.2.3 Work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project:

a. Substitute electrified equipment for diesel- and gasoline-powered equipment where practical.

b. Use alternative fuels for construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

c. Avoid the use of on-site generators by connecting to grid electricity or utilizing solar-powered equipment.


4.6.1.3 EXISTING CONDITIONS

The project site includes 57 acres of land owned by Caltrans, which is largely undeveloped. The project site includes grassland, creeks, remnant orchards, potential wetlands and rocky outcroppings. These current land uses do not generate long-term GHG emissions from mobile sources, energy use, or area sources.
4.6.2 Standards of Significance

4.6.2.1 CEQA Guidelines Appendix G

Implementation of the proposed project would result in a significant impact if it would:

1. Generate GHG emissions, either directly or indirectly, that may a significant effect on the environment.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG emissions.

4.6.2.2 BAAQMD Significant Criteria

BAAQMD has a tiered approach for assessing GHG emissions impacts of a project. If a project is within the jurisdiction of an agency that has a “qualified” GHG reduction strategy, the project can assess consistency of its GHG emissions impacts with the reduction strategy.

BAAQMD has adopted screening criteria and significance criteria for development projects that would be applicable for the proposed project. If a project exceeds the Guidelines’ GHG screening-level sizes, the project would be required to conduct a full GHG analysis using the following BAAQMD significance criteria:

- 1,100 MT of CO₂e per year; or
- 4.6 MT of CO₂e per service population (SP) for year 2020

AB 32 requires the Statewide GHG emission be reduced to 1990 levels by 2020 on a per-capita basis; that means reducing the annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020. Hence, BAAQMD’s per capita significance threshold is calculated based on the State’s land use sector emissions inventory prepared by CARB and the demographic forecasts for the 2008 Scoping Plan. The land use sector GHG emissions for 1990 were estimated by BAAQMD, as identified in Appendix D of the BAAQMD CEQA Guidelines, to be 295.53 MMTCO₂e and the 2020 California service population (SP) to be 64.3 million. Therefore, the significance threshold that would ensure consistency with the GHG reduction goals of AB 32 is estimated at 4.6 MTCO₂e/SP for year 2020. Land use development projects include residential, commercial, industrial, and public land use facilities. Direct sources of emissions may include on-site combustion of energy, such as natural gas used for heating and cooking, emissions from industrial processes (not applicable for most land use development projects), and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production, water conveyance due to a project’s energy use and water consumption, and non-biogenic emissions from waste disposal. Biogenic CO₂ emissions are not included in the quantification of a project’s GHG emissions, because biogenic CO₂ is derived from living biomass (e.g. organic matter present in wood, paper, vegetable oils, animal fat, food, animal, and yard waste) as opposed to fossil fuels. Although GHG emissions from waste generation are included in the GHG inventory for the proposed project, the efficiency threshold of 4.6 MTCO₂e per service population for 2020 identified above does not include the waste sector, and it is therefore not considered in the evaluation.
BAAQMD does not have thresholds of significance for construction-related GHG emissions, but requires quantification and disclosure of construction-related GHG emissions.

**Post-2020 Target Setting**

For projects with a buildout horizon past the AB 32 target year of 2020, the BAAQMD thresholds are adjusted. Since the BAAQMD efficiency targets are based on the GHG reduction goals of AB 32 for year 2020, BAAQMD’s efficiency targets have been adjusted based on the long-term GHG reduction targets of SB 32, which set a goal of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050 as shown in Table 4.6-3.

<table>
<thead>
<tr>
<th>GHG Sectora</th>
<th>Scoping Plan Scenario GHG Emissions MMTCO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2017 Scoping Plan End Use Sector 2030 – Land Use Only Sectors</strong></td>
<td></td>
</tr>
<tr>
<td>Residential – residential energy consumption</td>
<td>38.4</td>
</tr>
<tr>
<td>Commercial – commercial energy consumption</td>
<td>26.8</td>
</tr>
<tr>
<td>Transportation – transportation energy consumption</td>
<td>104.1</td>
</tr>
<tr>
<td>Transportation Communications and Utilities – energy that supports public infrastructure like street lighting and waste treatment facilities</td>
<td>4.3</td>
</tr>
<tr>
<td>Non-Energy Solid Waste – methane emissions from solid waste disposal</td>
<td>9.17</td>
</tr>
<tr>
<td>Total 2017 Scoping Plan Land Use Sector Target</td>
<td>182.8</td>
</tr>
<tr>
<td><strong>2030 Project-Level Efficiency Target</strong></td>
<td></td>
</tr>
<tr>
<td>2030 Populationb</td>
<td>44,085,600</td>
</tr>
<tr>
<td>2030 Employmentc</td>
<td>17,394,580</td>
</tr>
<tr>
<td>2030 Service Population</td>
<td>61,480,180</td>
</tr>
<tr>
<td>2030 Efficiency Target</td>
<td>3.0 MTCO₂e/SP</td>
</tr>
<tr>
<td><strong>2035 Project-Level Efficiency Targetd</strong></td>
<td></td>
</tr>
<tr>
<td>2035 Land Use Sector Target Estimate</td>
<td>151,400,000</td>
</tr>
<tr>
<td>2035 Population Estimate</td>
<td>18,191,720</td>
</tr>
<tr>
<td>2035 Employment Estimate</td>
<td>45,747,645</td>
</tr>
<tr>
<td>2035 Service Population Estimate</td>
<td>63,939,365</td>
</tr>
<tr>
<td>2035 Efficiency Target</td>
<td>2.4 MTCO₂e/SP</td>
</tr>
</tbody>
</table>

Sources:
- d. The 2035 Efficiency target is based on interpolating the 2030 land use emissions target of 182.8 MMTCO₂e (40 percent below 1990 levels by 2030) and the 2050 land use emissions target of 57.4 MMTCO₂e (80 percent below 1990 levels by 2050), which equates to approximately 47 percent below 1990 levels by 2035. The population and employment estimates are based on a similar forecast to estimate the service population in California in 2035.
While the State has identified additional GHG reduction goal for year 2050 (Executive Order S-03-05), because buildout of the project would occur by 2035, the applicable threshold is based on the GHG reduction target for the horizon year of the project and the legislative target under SB 32. Project emissions are compared to the project-level efficiency threshold of the 2035 GHG estimated efficiency target would be 2.4 MTCO₂e/SP to be on a trajectory with the GHG reduction target of SB 32.

4.6.3 IMPACT DISCUSSION

4.6.3.1 METHODOLOGY

The analysis in this section is based on buildout of the proposed Southeast Greenway Area as modeled using California Emissions Estimator Model (CalEEMod), Version 2016.3.1. Emissions are based on the following:

- **Transportation**: GHG emissions are based on the annual average trip generation and vehicle miles traveled data provided by W-Trans Transportation Consultants (see Appendix H of this Draft EIR). For purposes of this analysis, the estimated 3,265 average daily trips (ADT) generated under future potential development’s full buildout conditions are utilized. Based on the projected 3,265 ADTs and the 2,313 project-related vehicle miles traveled (VMT) anticipated, the analysis utilized an average trip distance of 0.71 miles per trip.

- **Solid Waste Disposal**: Indirect emissions from waste generation are based on CalRecycle solid waste generation rates. Emissions calculated using CalEEMod include biogenic emissions generated from solid waste.

- **Water/Wastewater**: GHG emissions from this sector are associated with the embodied energy used to supply water, treat water, distribute water, and then treat wastewater and fugitive GHG emissions from wastewater treatment. Emissions are based on average water demand and wastewater generation using CalEEMod default indoor and outdoor water generation rates.

- **Area Sources**: Area and stationary sources are based on the CalEEMod defaults for use of consumer products and cleaning supplies.

- **Energy**: GHG emissions from this sector are from use of electricity and natural gas by the proposed buildings. For purposes of this analysis, new buildings are assumed to comply with the 2016 Building Energy Efficiency Standards, which are 28 percent more energy efficient for residential buildings and 5 percent more energy efficient for nonresidential buildings and residential buildings of 4 stories or more than the 2013 Building Energy Efficiency Standards.

- **Construction**: For purposes of this analysis, it is assumed that future potential development projects in the proposed Southeast Greenway Area would generally commence beginning of 2018 with a buildout of year 2035. In addition, while the specific timeline in how the land uses accommodated under the Southeast Greenway Area would be developed is unknown, this analysis assumes that the various construction activities (e.g., site preparation, demolition, building construction) would overlap. Construction assumptions were based on CalEEMod defaults such as construction equipment mix and worker, vendor, and haul trips.
Life-cycle emissions are not included in this analysis because not enough information is available for the Southeast Greenway Area; therefore, life-cycle GHG emissions would be speculative.\textsuperscript{21}

Black carbon emissions are not included in the GHG analysis because CARB does not include this pollutant in the State’s AB 32 inventory and treats this short-lived climate pollutant separately.\textsuperscript{22}

A project does not generate enough GHG emissions on its own to influence global climate change; therefore, this section measures the proposed project’s contribution to the cumulative environmental impact. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, this GHG analysis measures a project’s contribution to the cumulative environmental impact. Future potential development under the proposed project would contribute to global climate change through direct and indirect emissions of GHG from transportation sources, energy (natural gas and purchased energy), water use and wastewater generation, waste generation, and other, off-road equipment (e.g., landscape equipment, construction activities).

The proposed project would facilitate redevelopment of the project site with residential, commercial, park and recreational uses including open space, and multimodal transportation elements. At this time, no development application for the Southeast Greenway Area is proposed. However, future development of up to 244 residential units, 12,000 square feet of commercial development, and 47.2 acres of park and recreational uses including open space resulting in construction and operational GHG emissions in the SFBAAB could occur through implementation of the proposed project. Future potential development of the proposed project would generate up to 632 new residents and 40 new employees, resulting in an increase in vehicle trips, energy use, water use, wastewater generation, and solid waste disposal onsite. In

\textsuperscript{21} Life-cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction phases of individual development projects is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (Governor’s Office of Planning and Research. 2008, June. CEQA and Climate Change: Addressing Climate Change through CEQA Review. Technical Advisory. http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf).

\textsuperscript{22} Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State’s existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (California Air Resources Board. 2017a, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm).
addition, construction activities would generate a short-term increase in GHG emissions. The GHG emissions associated with the construction and operational phases under the proposed project are shown in Table 4.6-4 and 4.6-5, respectively.

**Construction Phase**

BAAQMD does not have thresholds of significance for construction-related GHG emissions. The BAAQMD advises that lead agencies quantify and disclose GHG emissions that would occur during construction and make a determination on the significance of these construction-generated GHG emissions in relation to meeting AB 32 GHG emissions reduction goals. GHG emissions from construction activities are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. One-time, short-term emissions are converted to average annual emissions by amortizing them over the service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation. The net increase in emissions generated by the project was evaluated using CalEEMod. GHG emissions associated with construction of the proposed project are shown in Table 4.6-4. The annual construction emissions for years 2018 through 2031 are based on the CalEEMod default construction schedule with the durations of each construction activity normalized to a year 2035 buildout. Additionally, it was assumed that the various construction activities would overlap with one another (see Appendix B for further details). Because construction emissions are a one-time occurrence and would cease at project buildout, GHG emissions impacts of the proposed project would be less than significant.

**Table 4.6-4  Project GHG Emissions – Construction Phase**

<table>
<thead>
<tr>
<th>Category</th>
<th>GHG Emissions (MTCO\textsubscript{2}e/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>4,171.67</td>
</tr>
<tr>
<td>2019</td>
<td>2,879.42</td>
</tr>
<tr>
<td>2020</td>
<td>2,585.32</td>
</tr>
<tr>
<td>2021</td>
<td>2,529.06</td>
</tr>
<tr>
<td>2022</td>
<td>2,472.29</td>
</tr>
<tr>
<td>2023</td>
<td>2,408.14</td>
</tr>
<tr>
<td>2024</td>
<td>2,382.78</td>
</tr>
<tr>
<td>2025</td>
<td>2,330.66</td>
</tr>
<tr>
<td>2026</td>
<td>2,291.90</td>
</tr>
<tr>
<td>2027</td>
<td>2,257.18</td>
</tr>
<tr>
<td>2028</td>
<td>2,218.31</td>
</tr>
<tr>
<td>2029</td>
<td>2,199.53</td>
</tr>
</tbody>
</table>

Table 4.6-4  Project GHG Emissions – Construction Phase

<table>
<thead>
<tr>
<th>Category</th>
<th>GHG Emissions (MTCO₂e/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2030</td>
<td>2,214.56</td>
</tr>
<tr>
<td>2031</td>
<td>1,185.14</td>
</tr>
<tr>
<td>Total Construction Emissions (Years 2018 to 2031)</td>
<td>34,125.96</td>
</tr>
</tbody>
</table>

30-Year Amortized Construction 1,138

Source: PlaceWorks, CalEEMod 2016.3.1.

Operational Phase

The total and net increase in GHG emissions from the proposed project are shown in Table 4.6-5.

Table 4.6-5  Project GHG Emissions – Operation Phase

<table>
<thead>
<tr>
<th>Source Population</th>
<th>672</th>
</tr>
</thead>
<tbody>
<tr>
<td>2035 Buildout Efficiency Metric Significance Threshold (Project-Level)</td>
<td>2.4 MTCO₂e/SP/Year²</td>
</tr>
<tr>
<td>Project Emissions Per Service Population</td>
<td>1.57 MTCO₂e/SP/Year</td>
</tr>
</tbody>
</table>

Exceeds Efficiency Threshold? No

Note: Emissions may not total to 100 percent due to rounding. New buildings would be constructed to the 2016 Building Energy Efficiency Standards (effective January 1, 2017) at minimum.

* Future new buildings are assumed to achieve the 2016 Building Energy Efficiency Standards which are 5 percent more energy efficient for nonresidential structures and 28 percent more energy efficient for residential buildings compared to the 2013 Building Energy Efficiency Standards. Under the Building Energy Efficiency Standards, multi-family buildings four stories and higher are regulated under the non-residential standards.

* Based on the Land Use Sector Inventory 2008 Scoping Plan and extrapolated from year 2020 to the mid-term year 2030 GHG reduction target of SB 32. Project-level thresholds are based only on the State’s land use emissions inventory sectors identified in the Scoping Plan to ensure consistency with the scope of emissions included in a development project’s GHG emissions inventory; and are therefore, more stringent than the plan-level thresholds, which include all GHG sectors.

* Based on the Land Use Sector Inventory 2008 Scoping Plan and adjusted to the 2030 GHG reduction target of SB 32.

Source: PlaceWorks, CalEEMod 2016.3.1.
As shown in Table 4.6-5, implementation of the proposed project would result in a net increase of GHG emissions of 1,056 MTCO$_2$e per year and would not exceed BAAQMD’s bright-line threshold of 1,100 MTCO$_2$e/year/SP. Similarly, as potential future development under the proposed project would generate 1.57 MTCO$_2$e/SP/year, it would meet the forecasted efficiency metric of 2.4 MTCO$_2$e/SP/year based on the long-term GHG reduction target of SB 32 and trajectory to achieve the long-term reduction goal of Executive Order S-03-05. Average annual emissions per service population are divided by the service population$^{24}$ of the proposed project to estimate the proposed project’s efficiency at buildout based on the GHG reduction target for the horizon year of the project (2035). Furthermore, compliance with the City’s CAP would minimize GHG emissions to the extent feasible to meet the reduction target established under AB 32. Therefore overall, the proposed project’s cumulative contribution to the long-term GHG emissions in the State would be considered less than significant.

**Significance Without Mitigation:** Less than significant.

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**GHG-2**

Implementation of the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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**CARB’s Scoping Plan**

In accordance with AB 32, CARB developed the 2008 Scoping Plan to outline the State’s strategy established by AB 32, which is to return to the State’s GHG emissions inventory to 1990 levels by year 2020. In September 2016, SB 32 was signed into law, requiring the State’s GHG emissions to return to 40 percent below 1990 levels by 2030. Executive Order B-30-15 and SB 32 require CARB to prepare another update to the Scoping Plan to address the 2030 target for the State. On January 20, 2017, CARB released the Draft 2017 Climate Change Scoping Plan Update to address the new interim GHG emissions target under SB 32. The CARB Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The 2017 Scoping Plan has adoption hearings planned for June 2017, and provides the strategies for the State to meet the 2030 GHG reduction target as established under SB 32. Statewide strategies to reduce GHG emissions in the 2017 Scoping Plan include:

- Implement Senate Bill 350, which expands the Renewables Portfolio Standard to 50 percent by 2030 and doubles energy efficiency savings.
- Expand the Low Carbon Fuel Standard to 18 percent by 2030.
- Implement the Mobile Source Strategy to deploy zero-emissions vehicle buses and trucks.
- Implement the Sustainable Freight Action Plan.

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$^{24}$ BAAQMD defines service population (SP) as residents and employees who live or work within the project site.
Implement the Short-Lived Climate Pollutant Reduction Strategy, which reduces methane and hydrofluorocarbons 40 percent below 2013 levels by 2030 and black carbon emissions 50 percent below 2013 levels by 2030.

- Continue to implement Senate Bill 375.
- Create a post-2020 Cap-and-Trade Program.
- Establish a new regulation to reduce GHG emissions from the refinery sector by 20 percent.
- Develop an Integrated Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.  

The project GHG emissions shown in Table 4.6-5 include reductions associated with Statewide strategies that have been adopted since AB 32 and SB 32. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy (CAFE) standards, and other early action measures as necessary to ensure the State is on target to achieve the GHG emissions reduction goals of AB 32. In addition, new buildings are required to comply with the 2016 Building Energy Efficiency Standards (or future cycle update) and CALGreen. The proposed project would comply with these GHG emissions reduction measures since they are Statewide strategies. Therefore, the project’s GHG emissions would be reduced from compliance with Statewide measures that have been adopted since AB 32 was adopted. Therefore, impacts would be less than significant.

Significance Without Mitigation: Less than significant.

Plan Bay Area

To achieve ABAG’s/MTC’s sustainable vision for the Bay Area, the Plan Bay Area land use concept plan concentrates the majority of new population and employment growth in PDAs. While the proposed project is not within a PDA, one of the key principles of the proposed project is to encourage the efficient use of land through sustainable development patterns, a mixture of uses, and development intensities that support transit and walking. The proposed project would accommodate infill development projects on the CalTrans right of way within Santa Rosa near existing infrastructure. Additionally, intersection crossings with enhanced signing, striping, and/or signal operations to improve pedestrian/bike travel are proposed at Hoen Avenue and Cypress Way, and at the proposed driveway on Hoen Avenue Frontage Road. Likewise, a number of pedestrian/bicycle connections have been identified to connect to neighborhoods, provide safe routes to school, and to provide access to the Greenway between the cross streets. Numerous access points will facilitate easier pedestrian/bicycle access to the Greenway and allow areas between the roadways to be activated with foot and bicycle traffic. Therefore, the proposed project would not conflict with the land use concept plan in Plan Bay Area and impacts are considered less than significant.

Significance Without Mitigation: Less than significant.

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Santa Rosa Climate Action Plan

As previously described under Section 4.6.1.2, Regulatory Framework, in subsection “Local Regulations,” the Santa Rosa CAP is a strategic planning document that identifies sources of GHG emissions within the city boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions from the energy, transportation and land use, water, solid waste, and green infrastructure sectors. The emissions reduction strategies developed by the City follow the BAAQMD’s CEQA Guidelines and the corresponding criteria for a Qualified GHG Emissions Reduction Strategy as defined by the BAAQMD, which in turn were developed to comply with the requirements of AB 32 and achieve the goals of the CARB’s AB 32 Scoping Plan. The proposed project also incorporates several design elements that would reduce GHG emissions such as conformance to the 2016 Building Energy Efficiency Standards and CALGreen building regulations. The proposed project would be consistent with the applicable measures in the Santa Rosa CAP, as identified in Table 4.6-6.

Table 4.6-6  Santa Rosa Climate Action Plan Goals and Actions

<table>
<thead>
<tr>
<th>Applicable Goals</th>
<th>Actions</th>
<th>Consistency Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Energy Efficiency and Conservation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Measure 1.1: CALGreen Requirements for New Construction.</strong> Continue to enforce and require new development to meet Tier 1 CALGreen requirements, as amended, for new nonresidential and residential development.</td>
<td>Action 1.1.1. Require new development to comply with the current provisions, as amended, of CALGreen, Part 11 of the California Green Building Standards Code.</td>
<td>Consistent. While no specific site plans are being considered as part of the proposed project, future potential development under the proposed project would be required to comply with the Santa Rosa CAP Actions 1.1.1 through 1.1.3 in addition to California Building Code, 2016 Building Energy Efficiency Standards, and CALGreen.</td>
</tr>
<tr>
<td></td>
<td>Action 1.1.2. Continue to require Tier 1 standards for new development and consider adding major remodels during the next building code update.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action 1.1.3. Require all new construction to be built with net zero electricity use, beginning in 2020.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action 1.1.4. Evaluate potential incentives for projects that have net zero electricity use, prior to 2020.</td>
<td></td>
</tr>
<tr>
<td><strong>Measure 1.3: Smart Meter Utilization.</strong> Encourage existing development and require new development to utilize PG&amp;E’s Smart Meter system to facilitate energy and cost savings.</td>
<td>Action 1.3.1. Require new construction and major remodels to install real-time energy monitors that allow building users to track their current energy use.</td>
<td>Consistent. Potential future construction associated with the proposed project would install real-time energy monitors as appropriate under Santa Rosa CAP Measure 1.3.</td>
</tr>
<tr>
<td><strong>Measure 1.4: Tree Planting and Urban Forestry.</strong> Plant and maintain trees on private property, streets, and open space areas.</td>
<td>Action 1.4.2. Implement the City’s tree preservation ordinance.</td>
<td>Consistent. The proposed project would allow future green space and require the preservation of many trees on site. While no specific site plans are being considered as part of the proposed project, future potential development under the proposed project would be consistent with the Santa Rosa CAP.</td>
</tr>
<tr>
<td></td>
<td>Action 1.4.3. Require new development to supply an adequate number of street trees and private trees.</td>
<td></td>
</tr>
</tbody>
</table>
## Table 4.6-6  Santa Rosa Climate Action Plan Goals and Actions

<table>
<thead>
<tr>
<th>Applicable Goals</th>
<th>Actions</th>
<th>Consistency Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 3: Parking and Land Use Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 3.2: Diversity and Destination</td>
<td>Action 3.2.2. Improve the non-vehicular transportation network serving common destinations in Santa Rosa in order to facilitate walking and biking.</td>
<td>Consistent. The proposed project would allow future development of protected bike paths and pedestrian pathways and connect various common destinations between Farmers Lane and Spring Lake Regional Park.</td>
</tr>
<tr>
<td></td>
<td>Action 3.2.4. Improve the non-vehicular transportation network serving common destinations in Santa Rosa in order to facilitate walking and biking.</td>
<td></td>
</tr>
<tr>
<td>Measure 3.6: Traffic Calming</td>
<td>Action 3.6.1. Install traffic calming design features such as bulb-outs, median barriers, and striped crosswalks to improve pedestrian convenience and encourage pedestrian and bicycle travel.</td>
<td>Consistent. The proposed project would allow future construction of protected bike paths and pedestrian pathways separated from vehicle traffic. Features such as bicycle and pedestrian crossings will be included will promote pedestrian and bicycle travel.</td>
</tr>
<tr>
<td></td>
<td>Action 3.6.4. Install traffic calming design features such as bulb-outs, median barriers, and striped crosswalks to improve pedestrian convenience and encourage pedestrian and bicycle travel.</td>
<td></td>
</tr>
<tr>
<td>Goal 4: Improved Transit Options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 4.1: Bicycle and Pedestrian Network</td>
<td>Action 4.1.1. Implement the Bicycle and Pedestrian Master Plan.</td>
<td>Consistent. The proposed project includes and expands upon proposed bike pathways in the Bicycle and Pedestrian master Plan.</td>
</tr>
<tr>
<td></td>
<td>Action 4.1.4. Continue to support the Safe Routes to School (SRTS) and safe routes to transit programs in Santa Rosa.</td>
<td>Consistent. The proposed project would comply with the Safe Routes to School Program and provide pedestrian and bike routes to Montgomery High School.</td>
</tr>
<tr>
<td>Goal 5: Optimized Vehicular Travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 5.1: Electric and Hybrid-Electric Vehicles</td>
<td>Action 5.1.1. Provide electric vehicle recharging stations in City facilities and parking lots that are equipped with solar-generated power.</td>
<td>Consistent. Future projects under the proposed project would be required to adhere to any zoning requirements regarding installation of EV charging stations.</td>
</tr>
<tr>
<td></td>
<td>Action 5.1.4. Continue to expand the electric vehicle charging network.</td>
<td></td>
</tr>
<tr>
<td>Goal 6: Waste Reduction, Recycling, and Composting</td>
<td>Action 6.1.3. Increase the City’s construction and demolition ordinance to require 75% diversion by 2020 and 85% diversion by 2035.</td>
<td>Consistent. Future potential development projects associated with the proposed project would comply with the City’s Construction and Demolition Ordinance. Prior to receiving a final building inspection, a construction recycling report would be submitted to show the tons recycled and disposed by material type.</td>
</tr>
<tr>
<td>Measure 6.1: Recycling and Composting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Table 4.6-6  Santa Rosa Climate Action Plan Goals and Actions

<table>
<thead>
<tr>
<th>Actionable Goals</th>
<th>Actions</th>
<th>Consistency Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 7: Water and Wastewater</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 7.1: Water Conservation</td>
<td>Continue to require and incentivize water conservation.</td>
<td></td>
</tr>
<tr>
<td><strong>Action 7.1.1.</strong></td>
<td>Require new development to reduce potable water use in accordance with the Tier 1 standards of CALGreen.</td>
<td>Consistent. The proposed project would comply with all Tier 1 CALGreen Standards, incorporate appropriate water efficient mechanisms, and comply with the City’s Water Efficient Landscape Ordinance.</td>
</tr>
<tr>
<td><strong>Action 7.1.2.</strong></td>
<td>Continue and expand water conservation efforts including water-efficient landscaping, rainwater harvesting, and high-efficiency appliance and fixture installations.</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 8: Agriculture and Local Food</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 8.1: Local Food Systems</td>
<td>Increase the amount of food grown and consumed locally.</td>
<td></td>
</tr>
<tr>
<td><strong>Action 8.3.1.</strong></td>
<td>Establish community gardens and urban farms throughout the city.</td>
<td>Consistent. The proposed project includes areas zoned for urban agriculture.</td>
</tr>
<tr>
<td><strong>Goal 9: Off-Road Vehicles and Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure 9.2: Construction Emissions</td>
<td>Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.</td>
<td></td>
</tr>
<tr>
<td><strong>Action 9.2.1.</strong></td>
<td>Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes or less (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Provide clear signage at all access points.</td>
<td>Consistent. Future potential construction associated with the proposed project would comply with Title 13, Section 2485 of California Code of Regulations [CCR]. Likewise, the construction contractor shall be responsible for maintaining equipment in accordance with the manufacturer’s specifications and limiting GHG emissions from construction equipment in accordance with Santa Rosa CAP Actions 9.9.2 and 9.2.3.</td>
</tr>
<tr>
<td><strong>Action 9.2.2.</strong></td>
<td>Construction equipment shall be maintained in accordance with manufacturer’s specifications.</td>
<td></td>
</tr>
<tr>
<td><strong>Action 9.2.3.</strong></td>
<td>Work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project: a) Substitute electrified equipment for diesel- and gasoline-powered equipment where practical. B) Use alternative fuels for construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel. C) Avoid the use of on-site generators by connecting to grid electricity or utilizing solar powered equipment.</td>
<td></td>
</tr>
</tbody>
</table>


**Significance Without Mitigation:** Less than significant.
4.6.4 CUMULATIVE IMPACTS

GHG-3 Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to GHG emissions.

As described above, GHG emissions related to the proposed project are not confined to a particular air basin but are dispersed worldwide. Therefore, the analysis of impacts in Section 4.6.3, Impact Discussion, above, also addresses cumulative impacts. A project that exceeds the BAAQMD’s significance criteria in the context of emissions from all other development projected within the entire SFBAAB would cumulative contribute to impacts. As identified in impact discussion GHG-1, Table 4.6-5 shows that implementation of the proposed project would not exceed BAAQMDs efficiency metric; and therefore, GHG emissions would result in a less than significant impact. Consequently, GHG emissions impacts of the proposed project would be less than significant.

Significance Without Mitigation: Less than significant.
4.7 HAZARDS AND HAZARDOUS MATERIALS

This chapter includes an evaluation of the potential environmental consequences associated with the adoption and implementation of the proposed project that are related to the release of hazardous materials into the environment. Additionally, this chapter describes the environmental setting, including regulatory framework and existing conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

Some of the information in this chapter was derived from a recent Phase 1 Environmental Site Assessment (ESA) of the Southeast Greenway Area dated June 2017 and prepared by PlaceWorks. A copy of this report is included as Appendix E, Phase 1 Environmental Site Assessment, of this Draft EIR. This chapter was prepared by a California Registered Engineer.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 REGULATORY FRAMEWORK

Hazardous materials refer generally to hazardous substances, hazardous waste, and other materials that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products, etc.). Hazardous materials can include petroleum products, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial and industrial uses, retail businesses, hospitals, and households. Accidental releases of hazardous materials can result from a variety of incidents, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

The term “hazardous materials” as used in this section includes all materials defined in the California Health and Safety Code (H&SC):

A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. ‘Hazardous materials’ include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

The term includes chemicals regulated by the United States Department of Transportation (USDOT), the United States Environmental Protection Agency (USEPA), the California Department of Toxic Substances Control (DTSC), the California Governor’s Office of Emergency Services (Cal OES), and other agencies as hazardous materials, wastes, or substances. ‘Hazardous waste’ is any hazardous material that has been discarded, except those materials specifically excluded by regulation. Hazardous materials that have been intentionally disposed of or inadvertently released fall within the definition of “discarded” materials and can result in the creation of hazardous waste. Hazardous wastes are broadly characterized by their
ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity. Federal and State hazardous waste
definitions are similar, but contain enough distinctions that separate classifications are in place for federal
Resource Conservation and Recovery Act (RCRA) hazardous wastes and State non-RCRA hazardous wastes.
Hazardous wastes require special handling and disposal because of their potential to impact public health
and the environment. Some materials are designated “acutely” or “extremely” hazardous under relevant
statutes and regulations.

Hazardous materials and wastes can pose a significant actual or potential hazard to human health and the
environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many
federal, State, and local programs that regulate the use, storage, and transportation of hazardous
materials and hazardous waste are in place to prevent these unwanted consequences. These regulatory
programs are designed to reduce the danger that hazardous substances may pose to people and
businesses under normal daily circumstances and as a result of emergencies and disasters.

**Federal Agencies and Regulations**

**United States Environmental Protection Agency**

The USEPA is the primary federal agency that regulates hazardous materials and waste. In general, the
USEPA works to develop and enforce regulations that implement environmental laws enacted by
Congress. The agency is responsible for researching and setting national standards for a variety of
environmental programs and delegates the responsibility for issuing permits and for monitoring and
enforcing compliance to States and Native American tribes. USEPA programs promote handling hazardous
wastes safely, cleaning up contaminated land, and reducing waste volumes through such strategies as
recycling. California falls under the jurisdiction of USEPA Region 9. Under the authority of RCRA and in
cooperation with State and tribal partners, the USEPA Region 9 Waste Management and Superfund
Divisions manage programs for site environmental assessment and cleanup, hazardous and solid waste
management, and underground storage tanks.

**United States Department of Transportation**

The USDOT has the regulatory responsibility for the safe transportation of hazardous materials between
states and to foreign countries. The USDOT regulations govern all means of transportation, except for
those packages shipped by mail, which are covered by United States Postal Service regulations. The
federal RCRA of 1976 (described below) imposes additional standards for the transport of hazardous
wastes.

**Occupational Safety and Health Administration**

The Occupational Safety and Health Administration (OSHA) oversees the administration of the
Occupational Safety and Health Act, which requires specific training for hazardous materials handlers,
provision of information to employees who may be exposed to hazardous materials, and acquisition of
material safety data sheets from materials manufacturers. The material safety data sheets describe the
risks, as well as proper handling and procedures, related to particular hazardous materials. Employee
training must include response and remediation procedures for hazardous materials releases and
exposures.

Federal hazardous waste laws are generally promulgated under the RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the “cradle to grave” regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. DTSC is responsible for implementing the RCRA program as well as California’s own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency (CUPA) program, California Environmental Protection Agency (CalEPA) has in turn delegated enforcement authority to Sonoma County for State law regulating hazardous waste producers or generators in Santa Rosa.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as “Superfund,” on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended the CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased State involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted in October 1986. This law requires State and local governments to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. EPCRA Sections 301 through 312 are administered by EPA’s Office of Emergency Management. EPA’s Office of Information Analysis and Access implements the EPCRA Section 313 program. In California, SARA Title III is implemented through California Accidental Release Program (CalARP). The State of California has delegated local oversight authority of the CalARP program to Sonoma County.

Hazardous Materials Transportation Act

The USDOT regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations (CFR). State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). The California State Fire Marshal’s Office has oversight authority for hazardous materials liquid pipelines. The California Public Utilities
HAZARDS AND HAZARDOUS MATERIALS

Commission has oversight authority for natural gas pipelines in California. These agencies also govern permitting for hazardous materials transportation.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies and other resource providers, including the American Red Cross, that: 1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of State and local governments overwhelmed by a major disaster or emergency; 2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and 3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency. The Federal Response Plan is part of the National Response Framework, which was most recently updated on March 22, 2008.

The Stafford Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) of 1988 authorizes federal government assistance for emergencies and disasters when State and local capabilities are exceeded. The Stafford Act forms the statutory authority for most federal disaster response activities, especially as they relate to the Federal Emergency Management Agency (FEMA) and FEMA programs.

National Response Framework

The 2013 National Response Framework, published by the Department of Homeland Security, is a guide for the nation to respond to all types of disasters and emergencies. The Framework describes specific authorities and best practices for managing incidents that range from serious local or large-scale terrorist attacks or catastrophic natural disasters. In addition, the Framework describes the principles, roles, and responsibilities, and coordinating structures for responding to an incident, and further describes how response efforts integrate with those of the other mission areas.

State Agencies and Regulations

California Environmental Protection Agency

One of the primary State agencies that regulate hazardous materials is the CalEPA. CalEPA is authorized by the USEPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the CalEPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code. The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans (HMBPs). The DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management, evaluation of samples taken from sites, enforcement of

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1 Hazardous Substance Account, Chapter 6.5 (Section 25100 et seq.) and the Hazardous Waste Control Law, Chapter 6.8 (Section 25300 et seq.) of the Health and Safety Code.
regulations regarding use, storage, and disposal of hazardous materials, and encouragement of pollution prevention.

**California Division of Occupational Safety and Health**

Like OSHA at the federal level, the California Division of Occupational Safety and Health (CalOSHA) is the responsible State-level agency for ensuring workplace safety. The CalOSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a work site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

**California Building Code**

The State of California provided a minimum standard for building design through the California Building Code (CBC), which is found in Title 24, Part 2 of the California Code of Regulations (CCR). The CBC is based on the 1997 Uniform Building Code, with certain California-specific modifications. The CBC is updated every three years, and the current 2016 edition of the CBC went into effect on January 1, 2017. It is generally adopted on a jurisdiction-by-jurisdiction basis, and may be subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the typical fire safety requirements of the CBC, including the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors and building materials; and the clearance of debris and vegetation near occupied structures in wildfire hazard areas.

**California Fire Code**

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is found in CCR Title 24, Part 9 and it is revised and published approximately every three years by the California Building Standards Commission.

**California Emergency Management Agency**

The California Emergency Management Agency (CalEMA) was established as part of the Governor’s Office on January 1, 2009. It was created pursuant to Assembly Bill 38, which merged the duties, powers, purposes, and responsibilities of the former Governor’s Office of Emergency Services with those of the Governor’s Office of Homeland Security. CalEMA is responsible for the coordination of overall State agency response to major disasters in support of local government. The agency is responsible for ensuring the State’s readiness to respond to and recover from all hazards—natural, manmade, emergencies, and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.
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California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California.\(^2\) CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning based on topography, fire history, and climate. The rankings include no fire threat, moderate, high, and very high fire threat. Additionally, the CAL FIRE published the 2010 Strategic Fire Plan for California, which contains goals, objectives, and policies to prepare for and mitigate for the effects of fire on California’s natural and built environments.\(^3\)

California Department of Transportation and California Highway Patrol

The California Department of Transportation (Caltrans) and California Highway Patrol (CHP) are the two State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. Caltrans manages more than 50,000 miles of California’s highways and freeways, provides intercity rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highways, freeways, and intercity rail lines.

The CHP enforces hazardous materials and hazardous waste labeling and packing regulations designed to prevent leakage and spills of materials in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP, which conducts regular inspections of licensed transporters to assure regulatory compliance. In addition, the State of California regulates the transportation of hazardous waste originating or passing through the State.

Common carriers are licensed by the CHP, pursuant to Section 32000 of the California Vehicle Code. This section requires licensing every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and CCR Title 19, Section 2729 set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on-site. A business which uses hazardous materials or a mixture containing hazardous materials, must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Education Code

The California Education Code (CEC) establishes the law for California public education. The CEC requires that the DTSC be involved in the environmental review process for the proposed acquisition and/or construction of school properties that will use State funding. The CEC requires that a Phase I Environmental Site Assessment be completed prior to acquiring a school site or engaging in school construction. Depending on the findings of the Phase I, further site assessment and/or remediation may be necessary. The CEC also requires potential, future school sites that are proposed within two miles of an airport to be reviewed by the Caltrans Division of Aeronautics. If Caltrans does not approve the proposed location, no State or local funds can be used to acquire the site or construct the school.

California State Aeronautics Act

The State Aeronautics Act is implemented by the Caltrans Division of Aeronautics. The purpose of this Act is to: 1) foster and promote safety in aeronautics; 2) ensure State laws and regulations relating to aeronautics are consistent with federal aeronautics laws and regulations; 3) assure that persons residing near airports are protected against unreasonable levels of aircraft noise; and 4) develop informational programs to increase the understanding of current air transportation issues. The Caltrans Division of Aeronautics issues permits for and annually inspects hospital heliports and public-use airports, makes recommendations regarding proposed school sites within two miles of an airport runway, and authorizes helicopter landing sites at/near schools.

Regional Agencies and Regulations

North Coast Regional Water Quality Control Board

The Porter-Cologne Water Quality Act established the State Water Resources Control Board (SWRCB) and divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB). The North Coast Region RWQCB – Region 1 regulates water quality in the Southeast Greenway Area. The North Coast RWQCB has the authority to require groundwater investigations and/or remedial action if the quality of groundwater or surface waters of the State are threatened.

Bay Area Air Quality Management District

The BAAQMD has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products. The latter are typically the responsibility of the CalEPA and the California Air Resources Board (CARB). The BAAQMD is responsible for preparation of attainment plans for non-attainment criteria pollutants, control of stationary air pollutant sources, and issuance of permits for activities, including demolition and renovation activities affecting asbestos containing materials (District Regulation 11, Rule 2) and lead (District Regulation 11, Rule 1). The BAAQMD District boundaries embrace the south part of Sonoma County including the Southeast Greenway Area.

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4 California Water Code Sections 13000 et seq.
HAZARDS AND HAZARDOUS MATERIALS

Sonoma County Department of Health Services, Environmental Health and Safety Branch

A Certified Unified Program Agency (CUPA) is a local agency that has been certified by CalEPA to implement the local Unified Program. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. The Sonoma County Department of Health Services, Environmental Health and Safety Branch is the certified CUPA for the City of Santa Rosa and vicinity.

Local Agencies and Regulations

General Plan 2035

The Noise and Safety (NS) element of the General Plan 2035 identifies methods and resources for minimizing death, injury, property and environmental damage, and social disturbance resulting from natural and human-induced hazards, as well as goals, policies and strategies related to hazardous materials, hazardous wastes, and hazardous materials emergency response. The following goals and policies are applicable to the proposed project:

- **Goal NS-F**: Minimize dangers from hazardous materials.
  - **Policy NS-F-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-F-2**: Require that hazardous materials used in business and industry are transported, handled, and stored in accordance with applicable federal, state, and local regulations.
  - **Policy NS-F-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-F-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-F-5**: Require commercial and industrial compliance with the Sonoma County Hazardous Materials and Waste Management Plan.
  - **Policy NS-F-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.

Santa Rosa City Code

The Santa Rosa City Code (SRCC) includes site development regulations to help minimize impacts related to hazards and hazardous materials. Title 17, Environmental Protection, Chapter 17-34, Certified Unified Program Agency (CUPA), of the SRCC regulates emergency response and hazardous materials, including such topics as:

- Hazardous materials release response plans and inventory (business plan)
- Contents of hazardous materials business plans
HAZARDS AND HAZARDOUS MATERIALS

- Acutely hazardous materials registration
- Risk management and prevention plans
- Underground storage tanks
- Hazardous waste generators and on-site treatment
- Closure work plans and closure reports
- Response to threatened or actual releases
- Enforcement authority, and
- Civil and criminal penalties

Santa Rosa Fire Department

The Santa Rosa Fire Department (SRFD) is responsible for the registration, installation, operation, and abandonment of underground storage tanks (USTs) in the city of Santa Rosa. In addition, they maintain responsibility for enforcement of the California Fire Code (with local amendments) and emergency abatement regulations in the SRCC.

4.7.1.2 EXISTING CONDITIONS

This section describes existing conditions related to hazardous materials, airport hazards, and wildland fires within the city and Southeast Greenway Area.

Hazardous Materials Sites

California Government Code Section 65962.5 requires the CalEPA to compile, maintain, and update specified lists of hazardous material release sites. The California Environmental Quality Act (CEQA) (California Public Resources Code Section 21092.6) requires the lead agency to consult the lists compiled pursuant to Government Code Section 65962.5 to determine whether a project and any alternatives are identified on any of the following lists:

- **EPA NPL**: The USEPA’s National Priorities List includes all sites under the USEPAs Superfund program, which was established to fund cleanup of contaminated sites that pose risk to human health and the environment.

- **EPA CERCLIS and Archived Sites**: The USEPA’s Comprehensive Environmental Response, Compensation, and Liability Information System includes a list of 15,000 sites nationally identified as hazardous sites. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned (NFRAP) status.

- **EPA RCRIS (RCRA Info)**: The Resource Conservation and Recovery Act Information System (RCRIS or RCRA Info) is a national inventory system about hazardous waste handlers. Generators, transporters, handlers, and disposers of hazardous waste are required to provide information for this database.

- **DTSC Cortese List**: The DTSC maintains the Hazardous Waste and Substances Sites (Cortese) list as a planning document for use by the State and local agencies to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database (CalSites).

- **DTSC HazNet**: The DTSC uses this database to track hazardous waste shipments.
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- **SWRCB LUSTIS**: Through the Leaking Underground Storage Tank Information System, the SWRCB maintains an inventory of USTs and leaking USTs, which tracks unauthorized releases.

The required lists of hazardous material release sites are commonly referred to as the “Cortese List” named after the legislator who authored the legislation. Because the statute was enacted more than 20 years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information required in the Cortese List does not exist. Those requesting a copy of the Cortese Lists are now referred directly to the appropriate information resources contained on internet websites hosted by the boards or departments referenced in the statute, including DTSCs online EnviroStor database and the SWRCB’s online GeoTracker database. These two databases include hazardous material release sites, along with other categories of sites or facilities specific to each agency’s jurisdiction. A search of the DTSC EnviroStor online database on May 26, 2017 found no listed sites within the Southeast Greenway Area. However, three listings were found adjacent to the Southeast Greenway Area as shown in Table 4.7-1.

<table>
<thead>
<tr>
<th><strong>Table 4.7-1</strong></th>
<th><strong>EnviroStor Sites Near the Southeast Greenway Area</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Name</strong></td>
<td><strong>Address</strong></td>
</tr>
<tr>
<td>Bagala, Don</td>
<td>1255 Kathy Street</td>
</tr>
<tr>
<td>Texaco Yulupa Avenue</td>
<td>1101 Yulupa Avenue</td>
</tr>
<tr>
<td>Texaco Farmers Lane</td>
<td>1400 Farmers Lane</td>
</tr>
</tbody>
</table>


**Phase I Environmental Site Assessment**

As previously stated, a Phase I Environmental Site Assessment (Phase I ESA) of the Southeast Greenway Area was recently performed as part of the community planning process. The Phase I ESA is included in Appendix E of this Draft EIR. As described in more detail in the Phase 1 ESA, the Southeast Greenway Area historically mostly consisted of agricultural and undeveloped land with a few residences and other structures. The Southeast Greenway Area was then purchased by Caltrans for highway purposes over a 20-year period spanning the 1950s and 1970s. At present, the land is still owned by Caltrans, although roughly 6.5 acres were leased to private individuals who built stables and used the land for grazing. In the late 1960s, the present-day Montgomery High School campus was developed directly north of the Southeast Greenway Area. Residential development in the area began in the 1960s and continued in areas to the north, west, and south. Commercial development south of the Southeast Greenway Area began in the late 1960s and continued during the 1970s. Agency records show that most of the Southeast Greenway Area was historically used as walnut orchards. Dating to 1942 or earlier, pesticides could have been used in the orchards, based on widespread agricultural practices at that time. Although a review of County agency records revealed no pesticide application reports or records for the Southeast Greenway Area, it remains possible that pesticides were historically used or stored at the Southeast Greenway Area and that pesticide residues could remain in soil. Only one recognized environmental condition (REC) associated with the historical agricultural uses on the Southeast Greenway Area was identified in the
Phase I ESA. Although no record of past pesticide use at the Southeast Greenway Area was found, it is possible that organo-chlorine pesticides (OCPs) may be locally present in soil given the long agricultural history of the area. Areas where pesticides may have been stored, mixed, or disposed of on the Southeast Greenway Area could have resulted in localized OCP residues. In order to address this concern, a limited soil sampling program for OCPs in shallow soil is recommended for parts of the Southeast Greenway Area where community gardens, working farms, and children’s playgrounds with exposed soil are planned.

Existing Schools

The 1.9-mile long Southeast Greenway Area has several schools within a 0.25-mile range. These are listed below:

- Brookhill Elementary School at 1850 Vallejo Street, Santa Rosa, CA 95404
- Montgomery High School at 1250 Hahman Dr, Santa Rosa, CA 95405
- Matanzas Elementary School at 1687 Yulupa Ave, Santa Rosa, CA 95405
- Spring Creek Elementary School at 4675 Mayette Ave, Santa Rosa, CA 95405
- Village Elementary School at 900 Yulupa Avenue, Santa Rosa, CA 95405
- Merryhill Preschool at 4044 Mayette Ave, Santa Rosa, CA 95405

Airports

The city, including the Southeast Greenway Area, is not located within an airport land use plan area. There are no airports within two miles of the Southeast Greenway Area. The nearest public airport is the Sonoma County Airport, located approximately 9 miles northwest of the project area. The nearest heliport is at the Santa Rosa Memorial Hospital, located approximately one mile northwest of the project site. The nearest private airport is Graywood Ranch Airport, located approximately 6 miles to the southeast of the project area.

Wildland Fire Hazard

CAL FIRE evaluates fire hazard severity risks according to areas of responsibility (i.e., federal, State, and local). According to maps published by CAL FIRE, the Southeast Greenway Area lies in the Local Responsibility Area (LRA) for the city of Santa Rosa, where it has been classified as a “Non-Very High Wildfire Hazard Severity Zone.”

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4.7.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact related to hazards or hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2. 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.

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.

4. 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, create a significant hazard to the public or the environment.

5. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport resulting in a safety hazard for people residing or working in the project area.

4.7.3 IMPACT DISCUSSION

**HAZ-1**

Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Potential future development under the proposed project would not involve the routine transport of hazardous waste, thus, no impacts to the public or the environment would occur. Potential impacts during construction of bike paths, or residential and mixed-used development near Farmers Lane and Yulupa Avenue could include potential spills associated with the use of fuels and lubricants in construction equipment. These potential impacts would be short-term in nature and would be reduced to less-than-significant levels through compliance with applicable local, State, and federal regulations, as well as the use of standard equipment operating practices by experienced, trained personnel. Additionally, during the operational phase of future development, common cleaning and building maintenance substances (i.e., paints and cleaners) and similar items could be stored and used in the proposed residential or mixed-use buildings within the Southeast Greenway Area. These potentially hazardous materials, however, would not be of a type or occur in sufficient quantities to pose a significant hazard to public health and safety or the environment. Compliance with the applicable laws, regulations, and conditions of approval, would minimize hazards associated with the routine transport, use, or disposal of hazardous materials to the maximum extent practicable. For these reasons, the impacts would be **less than significant**.

**Significance Without Mitigation:** Less than significant.
HAZARDS AND HAZARDOUS MATERIALS

HAZ-2  Implementation of the proposed project would not 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.

The implementation of the proposed project would provide for habitat restoration, low-impact public recreation (e.g., hiking and cycling), and construction of mixed-use buildings. As described above, operation of future projects could involve the storage and use of common cleaning substances, building maintenance products, or paints and solvents in the proposed buildings; however, these potentially hazardous substances would not be of a type or occur in sufficient quantities on-site to pose a significant hazard to public health and safety or the environment. The storage and use of these materials would be subject to existing federal and State regulations. Compliance with these regulations would ensure that the risk of accidents and spills are minimized to the maximum extent practicable. In addition, proposed Land Use and Livability Policy LUL-PP-3 would require the design of all structures, utilities and access roads in the Southeast Greenway to maximize public safety and compatibility with other uses in the Southeast Greenway Area and surrounding neighborhood. Therefore, impacts related to accidental release of hazardous materials would be less than significant.

Significance Without Mitigation: Less than significant.

HAZ-3  Implementation of the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-miles of an existing or proposed school.

As described in the existing conditions above, there are several schools within the 0.25-mile range surrounding the Southeast Greenway Area. These include the Brookhill Elementary School, Montgomery High School, Matanzas School, Spring Creek Elementary School, Village Elementary School, and Merryhill Preschool.

Adoption and implementation of the proposed project would provide for habitat restoration and low-impact public recreation (e.g., hiking and cycling) and associated construction of supporting facilities as well as a joint school facility and community gathering place near Montgomery High School, residential and mixed-use development near Farmers Lane, and mixed-use development near Yulupa Avenue. In addition, the proposed project could also result in plazas, playgrounds, community gardens and restored orchards. Construction activities would be subjected to applicable existing regulations that are applicable to hazardous materials use and transport. As described in impact discussion HAZ-1 and HAZ-2, operation of future projects under the proposed project would involve the storage and use of common cleaning substances, building maintenance products, paints and solvents in the proposed buildings; however, these potentially hazardous substances would not be of a type nor would they occur in sufficient quantities on-site to pose a significant hazard to public health and safety or the environment. The storage and use of these materials would be subject to existing federal and State regulations. Compliance with applicable regulations and conditions of approval would ensure that risks to existing or proposed schools are minimized to the maximum extent practicable. Therefore, the impact would be less than significant.

Significance Without Mitigation: Less than significant.
HAZARDS AND HAZARDOUS MATERIALS

HAZ-4 Implementation of the proposed project would not 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 not create a significant hazard to the public or the environment.

As discussed in Section 4.7.1.2, Existing Conditions, no sites that are included in the DTSC EnviroStor database of hazardous materials sites are located in the Southeast Greenway Area. However, three EnviroStor sites, whose status and nature were of potential concern, are located in proximity to the Southeast Greenway Area. As shown in Table 4.7-1, one of these sites was granted regulatory closure in 1993, whereas the remaining two sites (1101 Yulupa Avenue and 1400 Farmers Avenue) have completed all State-required cleanup actions and are only subject to verification monitoring. Given the regulatory status of these sites near the Southeast Greenway Area, and the lack of listed sites within the Southeast Greenway Area boundaries, the potential impact of implementing the proposed project with respect to known listed hazardous materials sites is considered less than significant.

Significance Without Mitigation: Less than significant.

HAZ-5 Implementation of the proposed project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport resulting in a safety hazard for people residing or working in the project area.

As discussed in Section 4.7.1.2, Existing Conditions, there are no public airports within 2 miles of the Southeast Greenway Area.

Significance Without Mitigation: Less than significant.

HAZ-6 Implementation of the proposed project would not be within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the project area.

As discussed in Section 4.7.1.2, Existing Conditions, there are no private airstrips within 2 miles of the Southeast Greenway Area.

Significance Without Mitigation: Less than significant.

HAZ-7 Implementation of the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The adoption and implementation of the proposed project would not involve any material changes to public streets, roads, or evacuation infrastructure and it would not include the construction of any features that might impair the implementation of any relevant emergency operation plan. Furthermore, its implementation would not change existing emergency response and rescue access routes within the
Southeast Greenway Area. In light of the above, the impact of project implementation with respect to impairing or preventing implementation of an adopted emergency response plan or emergency evacuation plan would be less than significant.

Significance Without Mitigation: Less than significant.

HAZ-8 Implementation of the proposed project would not 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.

As discussed in Section 4.7.1.2, Existing Conditions, the Southeast Greenway Area is designated as an area referred to as a “Non-Very High Wildfire Hazard Severity Zone” and is not located in an area of high wildfire hazard. In light of CAL FIRE’s determination, the potential impact of project implementation with respect to exposing people or structures to a significant risk of loss, injury, or death involving wildland fires is considered less than significant.

Significance Without Mitigation: Less than significant.

4.7.4 CUMULATIVE IMPACTS

HAZ-9 Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hazards and hazardous materials.

This section analyzes potential impacts related to hazards and hazardous materials that could arise from a combination of the adoption and implementation of the proposed project along with buildout of proposed projects in the vicinity. Although the proposed project could introduce a limited number of new structures, and infrastructure to support low-impact recreation activities, implementation would be carried out in accordance with applicable local, State, and federal laws. Furthermore, because the proposed project itself is not proposing site-specific projects, future projects as a result of implementation would be subject to separate project-level CEQA review where site-specific impacts are identified along with mitigation measures. Therefore, adherence to existing policies and ordinances aimed at protecting public safety, along with the provisions of subsequent independent CEQA review for specific projects, the cumulative impacts of implementation of the proposed project would be less than significant.

Significance Without Mitigation: Less than significant.
HAZARDS AND HAZARDOUS MATERIALS

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4.8 HYDROLOGY AND WATER QUALITY

This chapter includes an evaluation of the potential environmental consequences associated with the adoption and implementation of the proposed project that are related to hydrology and water quality. Additionally, this chapter describes the environmental setting, including regulatory framework and existing conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) of 1977, as administered by the United States Environmental Protection Agency (USEPA), seeks to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. The CWA employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the USEPA to implement water-quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the United States. California has an approved State NPDES program. The USEPA has delegated authority for water permitting to the State Water Resources Control Board (SWRCB) and the North Coast Regional Water Quality Control Board (RWQCB) (Region 1). Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are “impaired” (i.e., not meeting one or more of the water-quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water-quality standards. Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The intent of the 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality. In accordance with Section 303(d), the RWQCB has identified impaired water bodies within its jurisdiction, and the pollutants or stressors responsible for impairing the water quality. Stormwater from the Southeast Greenway Area drains via overland flow into drainage swales, existing City storm drains, as well as onsite creeks, including Matanzas Creek, Sierra Park Creek, and Spring Creek, with eventual discharge into Santa Rosa Creek, Mark
West Creek, and the Middle Russian River. The Middle Russian River and Santa Rosa Creek are listed on the SWRCB’s 303(d) list.\(^1\)

**National Pollutant Discharge Elimination System**

The CWA-established NPDES permit program regulates municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain a NPDES permit. Requirements for stormwater discharges are also regulated under this program.

The Regional Board has been issuing a National Pollutant Discharge Elimination (NPDES) Storm Water Permit jointly to the City of Santa Rosa, County of Sonoma and the Sonoma County Water Agency (SCWA). The project is subject to the Waste Discharge Requirements (WDR) of the Municipal Regional Permit (MRP) Order Number R1-2015-0030 and NPDES Permit Number CA0025054, issued on November 19, 2015. The MRP is effective as of January 6, 2016 and expires on January 5, 2021. The permit governs a variety of activities in the city of Santa Rosa such as industrial and commercial businesses, new and redevelopment projects, construction sites, storm drain operation and maintenance, creek monitoring, pesticide applications, and illegal dumping of water and other pollution in the City's storm drain.

**National Flood Insurance Program**

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain planning and identify potential flood areas based on current conditions. To delineate a FIRM, FEMA conducts engineering studies called Flood Insurance Studies (FISs). Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas (SFHAs) on FIRMs. The Southeast Greenway Area is identified on two FIRMs, with the southwestern edge of the Greenway in FIRM No. 06097C0741F dated October 16, 2012, and the rest of the Greenway in FIRM No. 06097C0733E dated December 2, 2008.\(^2\) The FIRMs show that a small portion of the Southeast Greenway Area is within a 100-year floodplain (i.e., the floodplain associated with Matanzas Creek which crosses the Southeast Greenway Area just west of Hoen Avenue).

**State Regulations**

**Porter-Cologne Water Quality Act**

The Porter-Cologne Water Quality Act is the basic water-quality control law for California. Under this Act, the SWRCB has ultimate control over State water rights and water-quality policy. In California, the California EPA has delegated authority to issue NPDES permits to the SWRCB. The SWRCB, through its nine Regional Water Quality Control Boards (RWQCBs), carries out the regulation, protection, and

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administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan, or Basin Plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region’s ground and surface water, and local water-quality conditions and problems. The city is within the North Coast Basin and is under the jurisdiction of the North Coast RWQCB (Region 1). The North Coast RWQCB monitors surface water quality through implementation of the Water Quality Control Plan for the North Coast Basin (Basin Plan) and designates beneficial uses for surface water bodies and groundwater within Sonoma and adjacent counties. The Basin Plan for the North Coast Basin was last updated in 2011 and will continue to be updated as deemed necessary to maintain pace with technological, hydrological, political, and physical changes in the region. This Basin Plan describes the water quality that must be maintained to support the designated beneficial uses and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan. The Basin Plan also contains water quality criteria for groundwater.

**Statewide General Construction Permit**

Construction projects of one acre or more are regulated under the General Construction Permit (GCP), Order No. 2012-0006-DWQ, issued by the SWRCB. Under the terms of the permit, applicants must file Permit Registration Documents (PRDs) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

The SWPPP must demonstrate conformance with applicable Best Management Practices (BMPs), including a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project location. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Some sites may require implementation of a Rain Event Action Plan (REAP). The GCP also requires applicants to comply with post-construction runoff reduction requirements. Since the future potential development that could result from this project could disturb more than one acre, it would be subject to these requirements.

**Regional Regulations**

**Sonoma County Water Agency**

The SCWA is the flood control agency for the County. Their responsibilities include creek restoration, pollution prevention efforts, and groundwater recharge. The SCWA has partnered with federal agencies to help build and manage a variety of flood protection projects, including Warm Springs Dam, Spring Lake, Coyote Valley Dam, Matanzas Creek Reservoir, Piner Creek Reservoir, Brush Creek Middle Fork Reservoir

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and Spring Creek Reservoir. The SCWA also manages a proactive stream maintenance program for more than 80 miles of creeks throughout its service area, including the three creeks that cross the Southeast Greenway Area.

**Local Regulations**

**Urban Water Management Plan**

The City 2015 Urban Water Management Plan (UWMP) has been prepared in accordance with the Urban Water Management Planning Act. The 2015 UWMP addresses the City’s water system and includes a description of the water supply sources, historical and projected water use, and a comparison of water supply to water demands during normal, single-dry, and multiple-dry years. The 2015 UWMP also addresses water use efficiency legislation, including the City’s 2015 and 2020 water use targets, as required by the Water Conservation Act of 2009, and the implementation plan for meeting the City’s 2020 water use targets.\(^4\)

**Groundwater Master Plan**

Adopted by the Santa Rosa Board of Public Utilities on September 19, 2013, the overall objective of the Groundwater Master Plan (GWMP) is to provide a strategic road map for the City’s Utilities staff, Board of Public Utilities, and City Council regarding how available groundwater resources could be most effectively used to meet the needs of the City’s existing and future customers. The GWMP documents the need for additional emergency groundwater supply wells to provide for water service to residents in the event of an emergency.

**Storm Water Permit Compliance**

In order for the City to meet RWQCB permit requirements and reduce stormwater pollution, the City has provided stormwater design guidelines in a series of manuals since 2005. The Storm Water Low Impact Development (LID) Technical Design Manual was recently revised in 2017 and is applicable for all new development after May 3, 2017. The City’s stormwater requirements require treatment of all tributary areas as well as hydromodification control with 100 percent capture of the post project volume for all projects creating or replacing 1.0 acre or more of impervious surface. All design requirements must be completed by using the Storm Water Calculator (www.srcity.org/stormwaterLID).

**Citywide Creek Master Plan**

The Santa Rosa Citywide Creek Master Plan provides guidelines for the care, management, restoration, and enhancement of approximately 90 miles of creeks in Santa Rosa. The Master Plan is used by City and County staff when planning creek enhancement and restoration activities, coordinating and expanding creekside trail systems, and making land use planning decisions concerning creeks. The Master Plan will be periodically updated and amended to reflect changing conditions and new opportunities that would increase the benefits to creeks within the community.

General Plan 2035

The Public Services and Facilities (PSF), Open Space and Conservation (OSC), and Noise and Safety (NS) elements of the General Plan 2035 include the following environmental goals and policies relevant to hydrology and water quality and are applicable to the proposed project:

- **Goal PSF-A:** Provide recreational facilities and parks for all sectors of the community.
  - **Policy PSF-A-20:** Encourage multiple use of waterways, including:
    - Flood control;
    - Wildlife habitats;
    - Passive open space uses;
    - Nature study;
    - Pedestrian and bicycle circulation; and
    - Other compatible outdoor uses.

- **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 Citywide Creek Master 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 conduct 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 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.
  - **Policy PSF-I-8:** Implement the Standard Urban Storm Water Mitigation Plan (SUSMP) in order 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 Citywide Creek Master Plan and Bicycle and Pedestrian Master Plan, when possible as part of stormwater improvement projects along the city’s creek corridors.

- **Goal OSC-A:** Maximize the benefits of open space.
  - **Policy OSC-A-8:** Coordinate with public and private entities to link open spaces with a network of paths and trails, including Sonoma County Water Agency access roads and the Bay Area Ridge Trail

- **Goal OSC-D:** Conserve wetlands, vernal pools, wildlife ecosystems, rare plant habitats, and waterways.
  - **Policy OSC-D-2:** Protect high quality wetlands and vernal pools from development or other activities as determined by the Vernal Pool Ecosystem Preservation Plan.
**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:** Ensure local creeks and riparian corridors are preserved, enhanced, and restored as habitat for fish, birds, mammals and other wildlife.

**Policy OSC-E-1:** Maintain creek areas using practices that protect and support fish and wildlife as well as help retain hydraulic capacity.

**Policy OSC-E-2:** Plan and perform stream maintenance activities that respect the balance of flood protection and environmental protection.

**Policy OSC-E-3:** Continue to support efforts towards healthy, clean, and safe creeks.

**Policy OSC-F-2:** Cooperate with various public and private entities to create new public access trails along creeks to parks and open spaces within the Urban Growth Boundary, as well as connections to regional trail systems.

**Policy OSC-I-2:** Require non-residential projects requesting Conditional Use Permit or Design Review approval to provide water efficient landscaping in accordance with the city’s Water Efficient Landscape Policy.

**Policy OSC-I-6:** Protect groundwater recharge areas, particularly creeks and riparian corridors. Identify and protect other potential groundwater recharge areas.

**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. Creek beds that are dry most of the year can provide flood retention needed for public safety.

**Policy NS-D-3:** Require that new development and redevelopment projects meet the requirements of the Storm Water Low Impact Development Technical Design Manual to reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include:
- Additional landscape areas;
- Vegetated swales with bioretention;
- Rain gardens; and
- Pervious pavement.

**Policy NS-D-4:** Incorporate features and appropriate standards that reduce flooding hazards.

**Policy NS-D-5:** Apply design standards and guidelines to new development that help reduce project runoff into local creeks, tributaries, and drainage ways.
Policy NS-D-6: Evaluate flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated flood zone. Ensure that new development within flood zones is designed to be protected from flooding without negatively affecting adjacent areas.

Santa Rosa City Code

The Santa Rosa City Code (SRCC) contains the following regulations pertaining to hydrology and water quality issues in Title 14, *Potable and Recycled Water*, Title 16, *Storm Water Enterprise*, Title 17, *Environmental Protection*, and Title 18, *Building and Construction*.

- **Chapter 14-30, Water Efficient Landscape:** This chapter ensures efficient water use by establishing standards for landscape design appropriate to Santa Rosa’s climate, soils, water resources, and land use and resource planning. The Water Efficient Landscape Policy was initially adopted by Resolution No. 21142 of the Santa Rosa City Council on December 22, 1992 in response to California’s Government Code Section 65591, which requires local agencies to adopt water efficient landscape regulations. The policy was replaced by the Water Efficient Landscape Ordinance which initially went into effect January 2010 and was most recently updated in 2016. The chapter applies to all new public and private projects with landscaping that require conditional use permit or design review by the City, or a Utilities certificate. This includes office, commercial, industrial, and institutional landscaping; park and greenbelt landscaping; developer-installed landscaping in multiple-family residential; and common areas of single-family residential developments.

- **Title 16, Storm Water Enterprise:** This title was added to the SRCC in 1996 to comply with the NPDES permit and to control and reduce flooding, property damage, erosion, and stormwater quality degradation. The code established a Storm Water Enterprise and Utility to prescribe and collect charges (special assessments) for the services and facilities of the enterprise, which are collected through the property tax rolls.

- **Chapter 17-12, Storm Water:** This chapter prohibits the impairment or obstruction of the natural flow of stormwaters in a channel, pipe, or storm drain system unless an encroachment permit or grading permit has been issued by the City Engineer or Chief Building Official. The chapter also addresses stormwater quality in accordance with the requirements of the NPDES permit, prohibits the discharge of non-stormwater into the City’s storm drain system, and requires the reduction of pollutants in stormwater discharges by implementing BMPs and LID features for new development and redevelopment projects.

- **Chapter 18-52, Flood Damage Prevention:** This chapter is in accordance with FEMA regulations and establishes flood damage prevention measures that apply to all areas of special flood hazard (i.e., 100-year floodplains) within the city. It requires that buildings and development projects that are vulnerable to floods be protected against flood damage at the time of construction by obtaining a development permit and implementing construction standards specified in the chapter.

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4.8.1.2 EXISTING CONDITIONS

This section includes a discussion of the existing hydrology and water quality conditions that apply to the Southeast Greenway Area.

Climate

Santa Rosa has a Mediterranean climate with cool, wet winters and hot, dry summers. In the summer, fog often moves in from the Pacific Ocean in the evenings and mornings but it usually clears to warm, sunny weather by late morning or noon before returning in the late evening. The mean annual precipitation is 30 inches per year, with most of the rainfall occurring between the months of October and April. The average maximum temperature of 82.8 degrees Fahrenheit occurs in August and the average minimum temperature of 36.7 degrees Fahrenheit occurs in January.

Hydrology and Surface Drainage

The Southeast Greenway Area lies within the Laguna de Santa Rosa Watershed, as shown on Figure 4.8-1. The watershed encompasses an area of 254 square miles and runoff from the watershed drains into Santa Rosa Creek, which eventually drains into the Russian River and ultimately into the Pacific Ocean. The watershed consists of natural creek channels, engineered channels or conduits, water transfer canals, natural and artificial bodies of water, wetlands, riparian forests, and perennial marshes. Matanzas Creek, Spring Creek, and Sierra Park Creek cross the Southeast Greenway Area.

The City of Santa Rosa Transportation and Public Works Department is responsible for maintaining the City’s storm drain system, which includes a network of over 320 miles of underground storm drain pipes, and over 18,000 stormwater structures, such as catch basins. Stormwater runoff is collected from City streets and properties via catch basins and storm drain pipes and is then discharged into local creeks that eventually flow into the Russian River.

The SCWA maintains the system of open channels and creeks that divert flow to the Russian River. Sonoma County is divided into nine flood control zones that are managed by the SCWA. The Southeast Greenway Area and City of Santa Rosa are located in Flood Control Zone 1A (Mark West Creek-Laguna de Santa Rosa Watershed). The SCWA provides system-wide maintenance and improvements activities funded through Zone 1A funds including the repair of box culverts and dam spillways; cleaning of side drains leading into channels from subdivisions or city streets; repair/replacement of in-channel control structures; removal of siltation in low-velocity channels to restore hydraulic capacity; repair of bank “wash-outs”; and removal of debris that collects in creek channels.

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Figure 4.8-1
Laguna de Santa Rosa Watershed

Source: City of Santa Rosa, 2017; PlaceWorks, 2017.

Legend:
- Southeast Greenway
- Laguna de Santa Rosa Watershed
- City Limit
Presently, there is no dedicated storm drain infrastructure that collects runoff from the Southeast Greenway Area other than drainage swales and three creeks that cross the site. The stormwater runoff from the site is conveyed by overland sheet flow to adjacent areas, streets and three waterways (Mantanzas Creek, Sierra Park Creek, and Spring Creek).

The Spring Creek Bypass is located along the southern boundary of the site extending from Franquette Avenue to the west and Summerfield Road to the east. It is an underground stormwater conduit that diverts a portion of the flow from Spring Creek and Sierra Park Creek to address local flooding problems. It eventually reconnects to Spring Creek at Franquette Avenue. However, stormwater from the site does not drain to this structure other than what is discharged by overland runoff into Sierra Park Creek and Spring Creek. The locations of the creeks and Spring Creek Diversion structure are shown on Figures 3-3 to 3.5 in Chapter 3, Project Description, of this Draft EIR.

**Groundwater**

According to the California Division of Water Resources (DWR), the city and the western two-thirds of the Southeast Greenway Area lie within the Santa Rosa Plain Groundwater Subbasin, as shown on Figure 4.8-2. The eastern third of the Southeast Greenway Area is not within any groundwater basin. The Santa Rosa Plain is bounded on the northwest by the middle reach of the Russian River floodplain, on the west by the upland hills of western Sonoma County, on the south by a series of low hills just south of Cotati, and on the east by mountains. The groundwater basin provides rural residential, municipal, agricultural, and industrial water supplies, and base flow to streams and surface water bodies. There are over 12,000 permitted water wells in the basin. The City’s Water Department is the water purveyor for the residents and customers within the city boundaries. The Water Department receives 90 to 95 percent of its water supply from the SCWA, which is primarily surface water from the Russian River. The remaining 5 to 10 percent comes from the City’s two municipal groundwater production wells. The City also has a test boring in the Southeast Greenway Area and plans to develop groundwater well facilities in the Southeast Greenway Area for emergency water supply. According to the City’s 2015 Urban Water Management Plan, there are sufficient water supplies for normal, single-dry, and multiple dry years through 2040. According to the State Water Resources Control Board’s (SWRCB’s) Geotracker website, shallow groundwater in the vicinity of the Southeast Greenway Area is approximately 13.5 to 18.5 feet below ground surface (bgs). Therefore, it is possible that future housing and/or commercial development would require construction dewatering if subterranean parking or deep excavations are necessary. Also, the construction of bridges or pedestrian paths over the three creeks that cross the Southeast Greenway Area may require diversion dams. Future potential development resulting from implementation of the proposed project would be required to develop and submit a construction dewatering plan with the permit application to the City and monitoring during construction would be conducted to comply with the provisions of the NPDES permit. For additional discussion of groundwater as it relates to water supply, see Chapter 4.14, Utilities and Service Systems, of this Draft EIR.

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Source: California Department of Water Resources, 2017; City of Santa Rosa, 2017; PlaceWorks, 2017.

Figure 4.8-2
Santa Rosa Plain Groundwater Subbasin
SOUTHEAST GREENWAY GENERAL PLAN AMENDMENT AND REZONING DRAFT EIR
CITY OF SANTA ROSA

HYDROLOGY AND WATER QUALITY

Water Quality

The North Coast RWQCB monitors surface water quality through implementation of the Basin Plan and designates beneficial uses for surface water bodies and groundwater within the city and the surrounding communities. The beneficial uses of the surface water bodies to which stormwater from the site would discharge are summarized in Table 4.8-1.

<table>
<thead>
<tr>
<th>Water Body</th>
<th>Designated Beneficial Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laguna Hydrologic Subarea</td>
<td>MUN (potential), AGR, IND, PRO (potential), GWR, FRSH, NAV, POW, REC1, REC2, COMM, WAR,</td>
</tr>
<tr>
<td></td>
<td>COLD, WILD, RARE, MIGR, SPWN, SHELL (potential), AQUA (potential)</td>
</tr>
<tr>
<td>Santa Rosa Hydrologic Subarea</td>
<td>MUN, AGR, IND, PRO (potential), GWR, NAV, POW (potential), REC1, REC2, COMM, WAR, COLD,</td>
</tr>
<tr>
<td></td>
<td>WILD, RARE, MIGR, SPWN, SHELL (potential), AQUA (potential)</td>
</tr>
<tr>
<td>Mark West Hydrologic Subarea</td>
<td>MUN, AGR, IND, PRO (potential), GWR, FRSH, NAV, POW (potential), REC1, REC2, COMM, WAR,</td>
</tr>
<tr>
<td></td>
<td>COLD, WILD, RARE, MIGR, SPWN, SHELL (potential), AQUA (potential)</td>
</tr>
</tbody>
</table>

Groundwater

<table>
<thead>
<tr>
<th>Water Body</th>
<th>Designated Beneficial Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Rosa Valley</td>
<td>MUN, AGR, IND, PRO (potential)</td>
</tr>
</tbody>
</table>

Notes: All beneficial uses are existing uses, except where noted as potential. MUN = Municipal and Domestic Supply, AGR = Agricultural Supply, IND = Industrial Service Supply, PRO = Industrial Process Supply, GWR = Groundwater Recharge, FRSH = Freshwater Replenishment, NAV = Navigation, POW = Hydropower Generation, REC1 = Water Contact Recreation, REC2 = Non-Contact Water Recreation, COMM = Commercial and Sport Fishing, WAR = Warm Freshwater Habitat, COLD = Cold Freshwater Habitat, COLD = Cold Freshwater Habitat, RARE = Rare, Threatened, or Endangered Species, MIGR = Migration of Aquatic Organisms, SPWN = Spawning, Reproduction, and/or Early Development, SHELL = Shellfish Harvesting, AQUA = Aquaculture.

Source: North Coast RWQCB. Water Quality Control Plan.

In accordance with Section 303(d) of the Clean Water Act, the State must present to USEPA a list of impaired water bodies that do not meet water quality standards. Once a water body has been placed on the 303(d) list of impaired waters, states are required to develop a Total Maximum Daily Load (TMDL) to address each pollutant causing impairment. Santa Rosa Creek and its tributaries are listed as impaired for indicator bacteria, sedimentation/siltation, and temperature. TMDLs for these pollutants are currently under development by the North Coast RWQCB.

The Basin Plan also contains water quality criteria for groundwater. The Southeast Greenway Area is within the Santa Rosa Plain groundwater subbasin. Groundwater in the Santa Rosa area generally meets or exceeds primary and secondary drinking water standards for municipal use. Naturally occurring elements such as iron, manganese, boron, and arsenic are widely variable in groundwater and can pose problems in some areas. In order to protect the quality and beneficial reuse of groundwater, the City as well as other cities and water districts in the area developed a Salt and Nutrient Management Plan in 2013 to manage salts, nutrients, and other significant chemical compounds on a watershed or basin-wide basis.

Groundwater contamination can result from releases of hazardous materials from underground storage tanks or historical industrial activities. There are no RWQCB or Department of Toxic Substance Control

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(DTSC) hazardous waste cleanup sites within or in close proximity to the Southeast Greenway Area that would pose a threat due to the migration of contaminated groundwater. If groundwater dewatering activities are required as part of the construction efforts, it does not appear that contaminated groundwater would be present beneath the Southeast Greenway Area.

**Flooding**

FEMA prepares maps of the 100-year floodplains for communities in the United States. For areas within the 100-year floodplain, there is a one percent chance of flooding for any given year and these areas are considered to be at high-risk. Maps are also available for 500-year floods, which mean that in any given year, the risk of flooding in the designated area is 0.2 percent. Areas within the 100-year floodplain that are financed by federally backed mortgages are subject to mandatory federal insurance requirements and building standards to reduce flood damage. According to FEMA Maps 06097C0741F and 06097C0733E, the Southeast Greenway Area is outside of the 100-year floodplain, except for a small portion of the site on either side of Matanzas Creek, which crosses the Southeast Greenway Area just west of Hoen Avenue. The area of the Southeast Greenway Area that is within the 100-year floodplain is shown on Figure 4.8-3. It is not anticipated that any housing or structures would be constructed within this small area of the 100-year floodplain since they have been designated as creek enhancement or restoration area in the General Plan 2035.

**Dam Inundation**

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Dam failure can occur with little warning. Intense storms may produce floods in a few hours or even minutes for upstream locations. Flash floods occur within six hours of the beginning of heavy rainfall, and dam failure may occur within hours of the first signs of breaching. Other types of failures and breaches can take much longer to occur, from days to weeks. However, dam failure is a very rare occurrence. There is no historic record of dam failure in Sonoma County or Santa Rosa.

The California Office of Emergency Services (CalOES) is required by State law to work with State and federal agencies, dam owners and operators, municipalities, floodplain managers, planners, and the public to make available dam inundation maps. Dam inundation maps are used in the preparation of Local Hazard Mitigation Plans (LHMPs) and General Plan Safety Element updates. In addition, CalOES requires all dam owners to develop Emergency Action Plans (EAPs) for warning, evacuation, and post-flood actions in the event of a dam failure.

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16 Sonoma County, 2011, Sonoma County Hazard Mitigation Plan.

17 California Office of Emergency Services, 2013, California Multi-Hazard Mitigation Plan.
Figure 4.8-3

100-Year Floodplain

Source: FEMA National Flood Hazard Layer, 2017; City of Santa Rosa, 2017; PlaceWorks, 2017.
Portions of the Southeast Greenway Area are within the dam inundation zone of Matanzas Creek Reservoir. This dam is owned and operated by SCWA as a flood protection facility. It was constructed in 1963 and has a capacity of 1,500 acre feet. It is an earth dam with a height of 95 feet and crest length of 685 feet. According to the CalOES dam inundation map, there are two portions of the site to the west and east that are within the dam inundation zone. The dam inundation zones at the site range from 675 to 1,000 feet in width. In the event of a major earthquake or catastrophic event, the dam inundation map indicates that flood waters would reach the Southeast Greenway Area in approximately 35 minutes. This should be sufficient time to implement evacuation efforts. Flood waters at the site would be limited per the CalOES dam inundation footprint and site elevations.

The State of California, Division of Safety of Dams (DSOD) inspects and monitors all jurisdictional dams through the Dam Safety Program. The dams are inspected twice a year and continually monitored for seepage and settlement. The Sonoma County Emergency Management Division coordinates preparedness efforts to mitigate against, plan for, respond to, and recover from natural hazards, including the possibility of dam failure.

**Tsunami, Seiche, and Mudflows**

**Tsunami**

A tsunami is a series of traveling ocean waves generated by a rare, catastrophic event, which could include an earthquake, submarine landslide, or volcanic eruption. Tsunamis can travel over the ocean surface at speeds of 400 to 500 miles per hour (mph) or more, and wave heights at the shore can range from inches to an excess of 50 feet. Factors influencing the size and speed of a tsunami include the source and magnitude of the triggering event, as well as off-shore and on-shore topography. The Southeast Greenway Area is approximately 26 miles from San Pablo Bay and 21 miles from the Pacific Ocean and is not within any mapped tsunami inundation zone.

**Seiche**

A seiche is an oscillation wave generated in a closed or partially closed body of water, which can be compared to the back-and-forth sloshing in a bath tub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, tsunamis, or landslides into the water body. Bodies of water such as bays, harbors, reservoirs, ponds, and swimming pools can experience seiche waves up to several feet in height during a strong earthquake. The Southeast Greenway Area is approximately 26 miles from San Pablo Bay and 21 miles from the Pacific Ocean. Accordingly, there are no bodies of water large enough near the Southeast Greenway Area that could result in a seiche impacting the site. Although a seiche could theoretically occur at Matanzas Creek Reservoir, the potential flooding impact would be much less than the mapped inundation zone and it is unlikely that any flood water would reach the Southeast Greenway Area.
Mudflows

Mud and debris flows are mass movements of dirt and debris that occur after intense rainfall, earthquakes, and severe wildfires. The speed of a slide depends on the amount of precipitation, steepness of the slope, and alternate freezing and thawing of the ground. The Southeast Greenway Area is in a relatively flat area of the City and is not in a mapped rainfall induced landslide area, according to the Association of Bay Area Governments.19

4.8.2 STANDARDS OF SIGNIFICANCE

Adoption and implementation of the proposed project would have a significant environmental impact if it would place housing within a 100-year flood hazard area or expose people or structures to existing hazards from flooding, including flooding as a result of the failure of a levee or dam or if the project site would be potentially be inundated by seiche, tsunami, or mudflow or exacerbate any of these conditions per the December 2015 CA Supreme Court ruling in California Building Industry Association v. Bay Area Air Quality Management District. As previously discussed the FIRM shows that a small portion of the Southeast Greenway Area is within a 100-year floodplain (i.e., the floodplain associated with Matanzas Creek which crosses the Southeast Greenway Area just west of Hoen Avenue). However, the proposed project would not allow housing or any structures immediately adjacent to Matanzas Creek or within the 100-year floodplain. Further, while the Southeast Greenway Area is located within the Matanzas Creek dam inundation zone, future potential development under the proposed project would not cause or exacerbate failure of the dam. For example, a major seismic event, if sufficiently intense, would be the most likely cause of dam failure. The probability of dam failure is extremely low and there is no historic record of dam failure in Sonoma County or Santa Rosa.20 Dams in California are continually monitored by various governmental agencies, including the California Division of Safety of Dams (DSOD), which conducts inspections twice a year and reviews all aspects of dam safety. The SCWA also maintains an Emergency Action Plans (EAP) that include procedures for damage assessment and emergency warnings. In addition, Sonoma County addresses the possibility of dam failure in the Hazard Mitigation Plan (HMP), which also provides emergency response actions. On a similar note, the adoption and implementation of the proposed project would not cause or exacerbate the effects of a seiche, tsunami or mudflow. The Southeast Greenway Area is approximately 26 miles from San Pablo Bay and 21 miles from the Pacific Ocean and is not within any mapped tsunami inundation zone. According to the ABAG landslide maps,21 the Southeast Greenway Area is not within an area susceptible to mudflows. Although there could be a seiche associated with Matanzas Creek reservoir in the event of a large magnitude earthquake, the flooding impact would be much less than the area shown in the dam inundation map and most likely would not reach the Southeast Greenway Area. Accordingly, these topics are not discussed further in this Draft EIR.

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20 Sonoma County, 2011, Sonoma County Hazard Mitigation Plan.
Implementation of the proposed project would result in a significant impact if it would:

1. Violate any water quality standards or discharge requirements.

2. 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.

3. 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.

4. 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.

5. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

6. Otherwise substantially degrade water quality.

### 4.8.3 IMPACT DISCUSSION

**HYDRO-1** Implementation of the proposed project would not violate any water quality standards or discharge requirements.

Increasing the total area of impervious surfaces can result in a greater potential to introduce pollutants to receiving waters. Urban runoff can carry a variety of pollutants, such as oil and grease, metals, sediments, and pesticide residues from roadways, parking lots, rooftops, and landscaped areas, and deposit them into an adjacent waterway via the storm drain system.

**Construction Impacts**

Clearing, grading, excavation, and construction activities have the potential to impact water quality through soil erosion and increased silt and debris discharged into runoff. Additionally, the use of construction materials such as fuels, solvents, and paints may present a risk to surface water quality. Temporary storage of construction materials and equipment in work areas or staging areas could create the potential for a release of hazardous materials, trash, or sediment to the storm drain system.

Because this is a programmatic EIR, it is not known at this time the scope or details for individual projects within the Southeast Greenway Area. However, if construction of future potential development projects would disturb more than one acre of soil, compliance with the NPDES General Construction Permit would be required. The GCP requires the submittal of Permit Registration Documents (PRDs) to the SWRCB prior to the start of construction. The PRDs include a Notice of Intent (NOI), risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The SWPPP describes the incorporation of BMPs to control sedimentation, erosion, and the potential for hazardous materials contamination of runoff during construction. New requirements by the SWRCB also require the SWPPP to include post-construction treatment measures aimed at minimizing stormwater runoff. The
proposed Plan must detail the BMPs that would be implemented to minimize the potential for stormwater pollutants.

Consistent with General Plan 2035 Policy OSC-D-9, construction adjacent to creek channels must preserve natural topography and vegetation along the creek, and must not disrupt or pollute the waterways. In addition, erosion and sedimentation control measures are required to maintain an operational drainage system and preserve drainage capacity during construction, in accordance with General Plan 2035 Policy PSF-I-3. Furthermore, the proposed Land Use and Livability Policy LUL-NN-1 requires the City to restore or enhance the areas around the three creeks that cross the Southeast Greenway: Matanzas Creek, Sierra Park Creek, and Spring Creek, consistent with the Citywide Creek Master Plan, which would further reduce any potential water quality impacts. Accordingly, adoption of the proposed project, with the implementation of the above standard permit conditions, would not result in significant construction-related water quality impacts. Construction-related impacts would be less than significant.

Operational Impacts

Runoff from residential and commercial properties and parking lots typically contain oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as fertilizers, herbicides, pesticides, and other pollutants. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations. Operational and maintenance impacts associated with the trail portion of the project would result in minimal impacts on water quality.

Water quality in stormwater runoff is regulated locally by the Santa Rosa Area MRP Permit, which requires compliance with the City of Santa Rosa and County of Sonoma’s Low Impact Development (LID) Technical Design Manual, recently revised in 2017. Adherence to these guidelines require new development projects to incorporate LID design strategies and BMPs to reduce pollutants in runoff to the maximum extent practicable. Because this is a programmatic EIR, no development is being proposed. Therefore, the stormwater LID features and stormwater treatment measures that would result from future potential development will be implemented at the time those projects were to move forward.

The proposed project would incorporate minimization of impervious surfaces to the extent feasible, measures to detain or infiltrate runoff from stormwater, and agreements to ensure that the stormwater treatment and control facilities are maintained in perpetuity. These LID features are required on new developments that create 10,000 square feet or more of impervious surface.

In accordance with General Plan 2035 Policy PSF-I-8, the developer shall prepare and implement a Standard Urban Storm Water Mitigation Plan (SUSMP) in order to reduce pollutants and runoff flows from operation of the proposed project. Likewise, dedication, improvement, and maintenance of stormwater flow and retention areas are required as a condition of approval under General Plan 2035 Policy PSF-I-1. Pursuant to General Plan 2035 Policy PSF-I-9, the proposed project will also consider the installation of creekside pathways, consistent with the Citywide Creek Master Plan and Bicycle and Pedestrian Master Plan, when possible as part of stormwater improvement projects along the city’s creek corridors. Finally, the City will cooperate with the SCWA and the North Coast RWQCB to conduct 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, as stipulated in General Plan 2035 Policy PSF-I-5.

Prior to the issuance of grading permits, a SUSMP will be prepared by the project applicant and submitted to the City for review and approval. The SUSMP will describe all of the site design, source control, and treatment measures as well as an operations and maintenance (O&M) plan that describes how the treatment control measures will be maintained for perpetuity. As a rule of thumb, the design goal is to infiltrate and/or reuse 100 percent of the calculated volume of stormwater generated by the developed site for the 85th percentile, 24-hour rain event.

Required compliance with the MRP and the implementation of LID and BMP site design features would render any potential operational impacts to water quality less than significant.

**Significance Without Mitigation:** Less than significant.

**HYDRO-2**

Implementation of the proposed project would not 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).

Implementation of the proposed project could result in a significant impact if potential future development would substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The city is served by the Santa Rosa Water Department, which obtains 90 to 95 percent of its water supply from the SCWA; the Agency uses surface water from the Russian River. The remaining 5 to 10 percent comes from the City’s two municipal groundwater production wells. According to the City’s 2015 Urban Water Management Plan, the City has sufficient water supplies for normal, single-dry, and multiple dry years through 2040. Therefore, implementation of the project should not interfere with groundwater recharge.

The new trail, bike path, and recreational space associated with the proposed project would not lead to an increase in water demand. Future potential development of a joint school facility, plazas/trailheads, public gathering place, urban agriculture, and commercial and residential uses associated with the proposed project would create additional water demand. Additional discussion of the impacts associated with water supply is provided in Chapter 4.14, Utilities and Service Systems, of this Draft EIR. In addition, the proposed project would protect onsite groundwater recharge areas, including creeks and riparian corridors in accordance with General Plan 2035 Policy OSC-I-6, and implement LID features that prioritize infiltration. Additionally, proposed Land Use and Livability Policy LUL-NN-3 requires the City to increase stormwater infiltration and groundwater recharge in the Southeast Greenway Area. This would allow for percolation, groundwater recharge, and minimize stormwater runoff from the site, thus further reducing potential impacts to groundwater recharge.

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Future potential construction activities could result in short-term impacts to groundwater if the water table is high and construction dewatering was required. SWRCB’s Geotracker website indicates that groundwater in the vicinity of the project site is approximately 13.5 to 18.5 feet bgs\(^2\). The trail, bike path, and recreational portion of the project would involve minimal grading and/or excavation and groundwater should not be encountered during construction activities. Groundwater may be encountered during construction associated with the residential and/or commercial aspects of the project. If temporary dewatering is necessary with discharge to surface water, then compliance with the North Coast RWQCB Order No. R1-2009-0045 is required. For discharge to the sanitary sewer, a short-term (one year) industrial wastewater discharge permit must be obtained from the City. Construction dewatering would be a temporary impact and the shallow aquifer is not used for potable water supply. Therefore, the impact to groundwater recharge would be less than significant.

There is sufficient water in future years for the city and if construction dewatering is necessary, it would be a short-term, temporary impact. Therefore, implementation of the proposed project would have a less-than-significant impact with respect to groundwater supplies and groundwater recharge and no mitigation measures are required.

**Significance Without Mitigation:** Less than significant.

**HYDRO-3**

Implementation of the proposed project would not 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 amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site.

Potential future development under the proposed project would not involve the alteration of a stream or river but could result in pathways, commercial, and residential uses near three existing creeks, including Matanzas Creek, Spring Creek, and Sierra Park Creek. Ground disturbance during future potential construction could result in a temporary alteration in drainage patterns. However, construction would be subject to the requirements of the GCP and would require preparation of a SWPPP to minimize erosion and siltation impacts. Pursuant to the MRP, any future projects would be required to implement construction phase BMPs, post-construction design measures that encourage infiltration in pervious areas, and post-construction source control measures to help keep pollutants out of stormwater. In addition, post-construction stormwater treatment measures are required for projects that create or replace 10,000 square feet or more of impervious surface.

Further, any potential future development under the proposed project would be required to comply with the General Plan 2035’s following policies. In general, the policies serve to protect water resources in the city, including streams and drainage areas onsite.

- **Policy PSF-A-20:** Encourage multiple use of waterways, including:
  - Flood control;

With implementation of these erosion and sediment control measures and regulatory provisions to limit runoff, the proposed project would not result in significant increases in erosion and sedimentation and impacts would be *less than significant*.

Given the nature of the proposed project, there is limited potential for erosion or siltation to occur once future potential projects are constructed. In addition, the requirements to implement LID and BMP features, including source control and design measures to control stormwater runoff, would further reduce the potential for erosion or siltation. In addition, any future potential projects would be required to implement stormwater treatment measures to contain site runoff, using specific numeric sizing criteria based on volume and flow rates.

Pursuant to the MRP, any future potential projects would be required to implement construction phase BMPs, post-construction design measures that encourage infiltration in pervious areas, and post-construction source control measures to help keep pollutants out of stormwater. In addition, post-construction stormwater treatment measures are required for projects that create or replace 10,000 square feet or more of impervious surface. With implementation of these erosion and sediment control measures and regulatory provisions to limit runoff, any future potential development associated with the proposed project would not result in significant increases in erosion and sedimentation and impacts would be *less than significant*.

**Significance Without Mitigation:** Less than significant.

**HYDRO-4**

*Implementation of the proposed project would not 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.*

As described above under impact discussion HYDRO-3, the proposed project would not alter the course of a stream or river but will allow the future potential construction of a pathway and commercial and residential buildings near the existing creeks onsite, including Matanzas Creek, Spring Creek, and Sierra Park Creek. Potential future development under the proposed project would take place along the CalTrans right-of-way, which is currently undeveloped and thus would result in an increase in impervious surfaces with construction of buildings and associated landscaping and surface cover. However, as shown on Figure...
3-9 in Chapter 3, Project Description, of this Draft EIR, this change in impervious surfaces would be limited and therefore would not significantly change drainage patterns or the rate and amount of surface runoff. In compliance with the provisions of the MRP, the project would implement site design, source control, and stormwater treatment measures to control the amount of stormwater runoff and therefore minimize the potential for on- or off-site flooding.

Further, the General Plan 2035 includes the following goals and policies with which potential future development under the proposed project would be required to comply. In general, the policies serve to prevent flooding and maintain the hydrological role of creeks and rivers in Santa Rosa.

- **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.

- **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. Creek beds that are dry most of the year can provide flood retention needed for public safety.

- **Policy NS-D-4:** Incorporate features and appropriate standards that reduce flooding hazards.

- **Policy NS-D-6:** Evaluate flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated flood zone. Ensure that new development within flood zones is designed to be protected from flooding without negatively affecting adjacent areas.

Compliance with the MRP along with the General Plan 2035 policies listed above would ensure that the rate and/or volume of surface runoff would not be substantially increased in a manner that results in on-site or off-site flooding and therefore, this impact is *less than significant*.

**Significance Without Mitigation:** Less than significant.

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**HYDRO-5**

Implementation of the proposed project would not 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.

Potential future commercial, residential and school facilities land uses would not cover substantial portions of the 57-acre Southeast Greenway Area and therefore, the increase in impervious surfaces would not be significant. In addition, once detailed engineering drawings have been drafted and submitted for future projects, the City of would review the future proposal’s planned connection to the City’s storm drain system and will determine whether the storm drain can accept the stormwater runoff from the site without exceeding the capacity of the storm drain system. With the implementation of stormwater treatment control measures in accordance with the MRP and LID guidelines, the amount of stormwater runoff from the site would be controlled. Therefore the impact on the capacity of existing or planned storm drain systems would be *less than significant*. 
Runoff from the trail portions of the site is expected to drain via sheetflow to adjacent vegetated or undeveloped areas where it would infiltrate into the soil. Therefore, stormwater runoff would not require a connection to the existing storm drain system. The proposed project will cross several small drainage courses and the project will be designed to allow water to continue draining along its existing natural course. Such improvements would not change the capacity of the existing drainage channels or stormwater conveyance systems. Therefore, the Project would not result in stormwater runoff volumes that could exceed the capacity of existing or planned stormwater drainage systems, and the impact would be less than significant.

In addition, potential future development under the proposed project would comply with the following General Plan 2035 policies aimed at decreasing polluted runoff and maintaining the quality of the stormwater drainage systems in the city.

- **Policy PSF-I-1**: Require dedication, improvement, and maintenance of stormwater flow and retention areas as a condition of approval.
- **Policy PSF-I-4**: Require measures to maintain and improve the storm drainage system, consistent with goals of the Santa Rosa Citywide Creek Master 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 North Coast Regional Water Quality Control Board to conduct 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 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.
- **Policy OSC-E-1**: Maintain creek areas using practices that protect and support fish and wildlife as well as help retain hydraulic capacity.
- **Policy NS-D-5**: Apply design standards and guidelines to new development that help reduce project runoff into local creeks, tributaries, and drainage ways.

As previously discussed, BMP and LID features will be implemented during any future construction and project operation that will control and reduce the potential for sediment, debris, and other pollutants to be discharged into the storm drain or creeks. With implementation of these measures, the project would not result in substantial additional sources of polluted runoff and impacts would be less than significant.

**Significance Without Mitigation**: Less than significant.

**HYDRO-6**  
Implementation of the proposed project would not otherwise substantially degrade water quality.

As described under impact discussions HYDRO-1, BMPs and LID measures will be implemented across the Southeast Greenway Area during future potential construction and operation of the proposed project. These measures will control and prevent the release of sediment, debris, and other pollutants into the storm drain system. Implementation of BMPs during future construction will be in accordance with the
provisions of the SWPPP, which will minimize the release of sediment, soil, and other pollutants. In addition, the multi-use trail would be used by pedestrians, bicyclists, and equestrians with no motorized travel (except for routine maintenance). Therefore, this portion of the project would not generate pollutants, such as motor oil, trace metals, grease, and fuels associated with road contaminants. The trail would require minimal maintenance so the potential for the discharge of pollutants such as nutrients, organic compounds, or pesticides/herbicides that could impact stormwater runoff would be minimal.

Operational BMPs will be required to meet the MRP and the General Plan 2035 policies. These policies provide requirements to maintain water quality in Santa Rosa through the incorporation of site design, source control, and treatment control measures to treat and control runoff before it enters the storm drain system.

- **Policy NS-D-3**: Require that new development and redevelopment projects meet the requirements of the Storm Water Low Impact Development Technical Design Manual to reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include:
  - Additional landscape areas;
  - Vegetated swales with bioretention;
  - Rain gardens; and
  - Pervious pavement.

- **Policy OSC-D-2**: Protect high quality wetlands and vernal pools from development or other activities as determined by the Vernal Pool Ecosystem Preservation Plan.

- **Policy OSC-E-3**: Continue to support efforts towards healthy, clean, and safe creeks.

- **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.

Compliance with the MRP, implementation of BMP and LID features, and adherence to the City’s General Plan policies would ensure that the project does not substantially degrade water quality and the impact would be less than significant.

**Significance Without Mitigation**: Less than significant.
4.8.4 CUMULATIVE IMPACTS

HYDRO-7

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hydrology and water quality.

The geographic context used for the cumulative assessment of water quality and hydrology impacts is the Laguna De Santa Rosa Watershed, which encompasses the entire city of Santa Rosa and the Southeast Greenway Area. Cumulative impacts can occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area.

As discussed previously, future potential development within the Southeast Greenway Area would require conformance with State and local policies that would reduce hydrology and water quality impacts to less than significant levels. Any new development within the city would be subject, on a project-by-project basis, to independent CEQA review, if necessary, as well as policies in the General Plan 2035, design guidelines, zoning codes, adherence to the City’s Storm Water Ordinance and other applicable City requirements that reduce impacts related to hydrology and water quality. More specifically, potential changes related to stormwater quality, stormwater flows, drainage, impervious surfaces, and flooding would be minimized via the implementation of stormwater control measures, retention, and LID measures, and review by City personnel to integrate measures to reduce potential flooding impacts.

Compliance with the City’s Storm Water Ordinance, Sonoma County’s LID regulations, and the North Coast RWQCB’s MRP would require BMPs and LID features to be included in any proposed project. These BMPs include site design, source control, and treatment control measures that provide both flow control and treatment to runoff before it enters the storm drain system or receiving water bodies. In addition, all projects that disturb over 1 acre or more would be required to prepare a SWPPP with erosion and sediment controls that address construction impacts. Projects would also be required to mitigate potential water quality impacts through preparation and implementation of a project-specific SUSMP.

All cumulative projects would be subject to similar permit requirements. The water quality regulations implemented by the North Coast RWQCB take a basin-wide approach and consider water quality impairment in a regional context. For example, the NPDES Construction Permit ties receiving water limitations and basin plan objectives to terms and conditions of the permit, and the MRP works with all municipalities to manage stormwater systems to be collectively protective of water quality. For these reasons, impacts to water quality for the Southeast Greenway Area are not cumulatively considerable and the cumulative impact would be less than significant.

Significance Without Mitigation: Less than significant.
4.9 LAND USE AND PLANNING

This chapter describes the land use character of the Southeast Greenway Area and evaluates the potential environmental impacts associated with future development that could occur by adopting and implementing the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of potential impacts the proposed project and cumulative impacts.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

Regional Regulations

Plan Bay Area

The Metropolitan Transportation Commission (MTC) and ABAG’s Plan Bay Area is the Bay Area’s Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). Plan Bay Area was prepared by MTC in partnership with the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC) and adopted on July 18, 2013.¹ An update to Plan Bay Area, Plan Bay Area 2040, is currently underway. The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas (GHG) emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board (CARB). An overarching goal of Plan Bay Area is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. Implementation of Plan Bay Area would achieve a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions.²

Local Regulations

General Plan 2035

The City of Santa Rosa’s General Plan 2035 is a legal document, required by state law, which serves as the City’s “constitution” for development and the use of its land. It is a comprehensive, long-range document, detailing proposals for the physical development of the city, and of any land outside its boundaries, but

¹ It should be noted that the Bay Area Citizens filed a lawsuit on MTC’s and ABAG’s adoption of Plan Bay Area.
² Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013, Final Plan Bay Area, Strategy for a Sustainable Region, page 96.
within its designated Planning Area. Under State law, a city’s general plan is the primary planning document and all other city plans and policies must be consistent with the adopted general plan.

The general plan is required to address the specified provisions of each of seven mandated elements including land use, circulation, housing, conservation, open space, noise and safety, to the extent that the provisions are locally relevant. The General Plan 2035 is a dynamic document addressing issues related to physical development, growth management, transportation services, public facilities, community design, energy efficiency, greenhouse gas reduction strategies, and conservation of resources in the Planning Area. The General Plan 2035 includes 12 elements that establish long-term goals and policies to guide daily decision-making for development and conservation in Santa Rosa through the year 2035. The elements of the General Plan 2035 are listed below:

- Land Use and Livability
- Urban Design
- Housing
- Transportation
- Public Services and Facilities
- Open Space and Conservation
- Growth Management
- Youth and Family
- Economic Vitality
- Historic Preservation
- Noise and Safety
- Arts and Culture

All development in the city must conform to the land use designations outlined in the General Plan 2035. Goals and policies contained in the Land Use and Livability Element of the General Plan 2035 provide guidance on how land use designations should be developed to contribute to the overall character of Santa Rosa.

**Santa Rosa City Code**

The *Santa Rosa City Code* (SRCC) contains all ordinances for the city, and identifies land use categories, site development regulations, and other general provisions that ensure consistency between the General Plan and proposed development projects. Besides the General Plan, the SCRR’s Title 20, Zoning, is the primary tool that regulates physical development in Santa Rosa. The Zoning Code implements the goals and polices of the General Plan 2035 by classifying and regulating the uses of land and structure within the city. Per SRCC Section 20-10.020, Purposes of Zoning Code, the purpose of the Zoning Code is to provide standards for orderly growth and development of the city, and guide and control the use of land to provide a safe, harmonious, attractive, and sustainable community; implement the uses of land designated by the General Plan 2035 and avoid conflicts between land uses; maintain and protect the value of property; conserve and protect the open space, scenic beauty, and other natural resources of the city; protect the character, and social and economic stability of residential, commercial, and industrial areas; assist in maintaining a high quality of life without causing unduly high public or private costs for development or unduly restricting private enterprise, initiative, or innovation in design; and provide for appropriate citizen participation in the decisions. While other parts of the SRCC address specific technical issues that also affect land use and development, these are summarized where relevant in other chapters of this Draft EIR. For example, Title 16, Storm Water Enterprise, which deals with controlling and reducing flooding, is described in Chapter 4.8, Hydrology and Water Quality, and Chapter 17-16, Noise (in the SRCC) contains the noise standards that are discussed in Chapter 4.10, Noise, of this Draft EIR.
Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan (BPMP), adopted in 1994 and updated in 2010, provides an overview of the existing bicycle and pedestrian facilities within Santa Rosa, a recommended pedestrian and bikeway network, and design guidelines. The BPMP also includes goals and policies that promote walking and bicycling as viable, attractive, non-polluting forms of transportation and convenient pedestrian and bicycle access to all areas of the city. The BPMP serves as a tool for guiding City staff and the development community in building a multi-modal transportation system that is pedestrian and bicycle “friendly” and encourages residents to use multi-modal forms of transportation. This plan is in alignment with the Transportation Element of the 2035 General Plan’s goals and policies.

Citywide Creek Master Plan

The Citywide Creek Master Plan (CCMP), adopted in 2007 and updated in 2013, provides guidelines for the care, management, restoration, and enhancement of the network of creeks and waterways that flow through Santa Rosa. The CCMP is organized into six chapters; Introduction; Goals, Objectives, and Policies; Plan Concepts; Watershed-Specific Recommendations; Implementation Strategy; and References. Each chapter provides guidelines to aid the City’s decision-making when planning creek enhancement and restoration activities, coordinating and expanding creekside trail systems, making broader land-use planning decisions concerning creeks, and in the development approval process for projects proposed adjacent to waterways.

Santa Rosa Plain Conservation Strategy

The purpose of the Santa Rosa Plain Conservation Strategy (Conservation Strategy) is to create a long-term conservation program sufficient to mitigate potential adverse effects on federally listed species and their habitat due to future development within the Santa Rosa Plain which is located in central Sonoma County. The Conservation Strategy study area boundaries encompass the following cities: Cotati, Rohnert Park, and portions of Windsor, Sebastopol, and Santa Rosa. The Conservation Strategy serves as a guidance document for the United States Fish and Wildlife Service and California Department of Fish and Wildlife to use in conjunction with their review of permits. Development projects within the Santa Rosa Plain area are individually required to mitigate impacts on the species covered in the Conservation Strategy if the project would affect the covered species. The Conservation Strategy was drafted in 2005; however, the document has not been adopted by either the City of Santa Rosa or Sonoma County.

4.9.12 EXISTING CONDITIONS

Existing Land Use Designations and Zoning Districts

The Southeast Greenway Area is comprised of approximately 57 acres of land located in southeast Santa Rosa that follows a 1.9-mile linear path from the Farmers Lane/Highway 12 intersection to Spring Lake.
Regional Park. The project site is currently owned by the California Department of Transportation (Caltrans) and is therefore not accessible to the public. As shown on Figure 3-6 in Chapter 3, Project Description, of this Draft EIR, the project site does not currently have a General Plan land use designation. Under State law, all parcels are required to be zoned consistent with the City’s General Plan 2035. As shown on Figure 3-7 in Chapter 3, Project Description, of this Draft EIR, the Southeast Greenway Area is comprised of various zoning districts including various types of residential, planned development and public facilities. However, these zoning districts were mere extensions of surrounding zoning districts that predate General Plan 2035. Given that the project site does not have any General Plan land use designation, the preliminary or “remnant” zoning districts do not authorize specific land uses.

**Existing Land Uses**

The existing land uses in the Southeast Greenway Area are described by three subareas below.

**West Subarea**

The 18.3-acre West Subarea is comprised of four parcels following a lineal path from Farmers Lane to Wanda Way and Camden Court. The West Subarea is primarily composed of grassland with numerous swales, potential wetlands, and Matanzas Creek. An underground stormwater conduit, called the Spring Creek Diversion is also located along the southern edge of the Southeast Greenway Area from Franquette Avenue in this subarea to Summerfield road at the eastern edge of the Central subarea. Surrounding land uses include retail, office, multi-family residential uses, and Montgomery High School to the north; the continuation of the project site to the east; retail, senior housing, and Matanzas Creek to the south; and Farmers Lane/SR 12 to the west.5

**Central Subarea**

The 22.6-acre Central Subarea is comprised of three parcels following a lineal path from Wanda Way and Camden Court to Summerfield Road. The Central Subarea is primarily composed of undeveloped land and remnant walnut orchard on the eastern portion of the site. Sierra Park Creek and Spring Creek, tributaries of Matanzas Creek, flow through this subarea. Surrounding land uses include single- and multi-family residential, and retail to the north and south, religious institutional/school facilities to the north, and the continuation of the project site to the east and west.6

**East Subarea**

The 16.3-acre East Subarea is comprised of two parcels following a linear path from Summerfield Road to Spring Lake Regional Park. The East Subarea is primarily composed of grassland and rocky outcroppings, oak woodlands, two potential wetlands, and a small remnant walnut orchard. Surrounding land uses

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4 California Government Code, Title 7, Planning and Land Use, Division 1, Planning and Zoning, Chapter 4, Zoning and Regulations, Article 2, Adoption and Regulations, Section 65860.
5 City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 13 to 26.
6 City of Santa Rosa, Southeast Greenway, Existing Conditions, Opportunities, and Constraints, September 15, 2015, pages 27 to 38.
include single- and multi-family residential to the north and south, Spring Lake Regional Park to the east, and the continuation of the project site to the west. 7

4.9.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact related to land use and planning if it would:

1. Physically divide an established community.

2. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the proposed project (including, but not limited to, the General Plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.9.3 IMPACT DISCUSSION

LU-1 Implementation of the proposed project would not physically divide an established community.

The physical division of an established community typically refers to the construction of a physical feature (such as a wall, interstate highway, airport, roadway, or railroad tracks) or the removal of a means of access (such as a local road or bridge) that could impair mobility or constrain travel within an existing community, or between a community and outlying areas.

As discussed in Chapter 3, Project Description, of this Draft EIR, the proposed project includes changes to the Land Use and Livability, Transportation, and Public Services and Facilities elements of the General Plan 2035 and also includes an amendment to the City's Zoning Ordinance for the Southeast Greenway Area, including assigning zoning districts and revising permitted uses, to ensure consistency with the General Plan 2035. Specifically, the Circulation Concept contains descriptions of multi-modal access points, crossings, and connections throughout the Southeast Greenway Area. The proposed pedestrian and bicycle connections would increase connectivity from Spring Lake Regional Park to downtown Santa Rosa and between neighborhoods located north and south of the Southeast Greenway Area.

Implementation and adoption of the proposed project would result in new development potential up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space, in the Southeast Greenway Area only. As discussed under Section 4.9.1.2, Existing Conditions, the Southeast Greenway Area is composed of undeveloped parcels that are owned by Caltrans and are not publically accessible and is surrounded by residential, retail, and religious institutional/school facilities land uses. One of the objectives of the proposed project is to provide a continuous pedestrian, bicycle, and non-motorized transportation connections from Spring Lake Regional...
LAND USE AND PLANNING

Park to Farmers Lane and links to downtown Santa Rosa, surrounding neighborhoods and schools, and the regional trail system. Future development under the proposed project would retain the existing roadway patterns and would include circulation improvements such as multi-modal access points, crossings, and connections that are intended to improve multi-modal access within the Southeast Greenway. These improvements do not propose any new major roadways or other physical features that would create new barriers on the project site. In addition, as described in Chapter 3, Project Description, the proposed project includes Land Use policies that promote orderly development and land use compatibility with surrounding neighborhoods. Therefore, the proposed project would not divide an existing established community. Impacts related to the division of an existing community would be less than significant.

Significance Without Mitigation: Less than significant.

LU-2 Implementation of the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

This section discusses future development consistency with the General Plan 2035 and how the proposed project is consistent with other applicable land use plans, policies, and regulations that concentrate on land use and planning.

General Plan 2035 and Santa Rosa City Code

The General Plan 2035 and SRCC Title 20, Zoning Code, are the primary planning documents for the City of Santa Rosa. The proposed project would amend the General Plan 2035 to assign new General Plan land use designations and rezone the land within the Southeast Greenway Area to conform to the new land use designations. The proposed amendment is intended to ensure consistency between the General Plan 2035 and SRCC’s Title 20, Zoning Code. Given that the General Plan is the overriding planning document for the City, and because the proposed project involves amending the General Plan and SRCC to increase consistency; the proposed project would result in a less-than-significant impact with respect to consistency with these planning documents.

Other Land Use Plans

The proposed Land Use, Transportation, and Public Service and Facilities goals and policies would be adopted as part of the proposed project and would require local planning and development decisions to consider land use impacts. This section describes the goals and policies that future development within the Southeast Greenway Area would be required to abide by, thereby ensuring the proposed project would be consistent with the applicable land use regulations adopted for the purpose of avoiding or mitigating an environmental effect.
Plan Bay Area

As described above, one of the overarching goals of the Plan Bay Area is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The proposed project includes the following goals and policies that would encourage the reduction of vehicle usage and promote non-vehicular travel in order to decrease GHG emissions, thereby ensuring consistency with Plan Bay Area:

Land Use and Livability Policies

**Goal LUL-OO**  
**Develop the Southeast Greenway to support a walkable, livable neighborhood, promote economic vitality, and encourage social equity.**

Policy LUL-OO-1  
Develop the site between Hoen Avenue Frontage Road and the Highway 12 onramp with a mix of residential and commercial development. Residential uses are required on this site and should be maximized. Lodging uses are allowed. Development of the site will require provision of pedestrian and bicycle access to the Southeast Greenway trails to the north.

Policy LUL-OO-2  
Create a Southeast Greenway gateway on the western edge of the Greenway that offers a prominently visible entrance to the open space and increases visitor awareness of the amenity.

Policy LUL-OO-3  
During the next General Plan update, consider a future planning effort for the area south of the Southeast Greenway between Franquette Avenue and Summerfield Road to identify land uses which would enable these properties to redevelop to improve the interface with the Greenway.

Policy LUL-OO-4  
Seek opportunities for shared parking to serve the Southeast Greenway. These include Montgomery High School, Spring Lake Regional Park, and adjacent non-residential uses.

**Goal LUL-PP**  
**Design uses on the Southeast Greenway to maximize the Greenway’s safety, accessibility, and respect for adjacent neighborhoods.**

Policy LUL-PP-1  
Require all new development on or abutting the Southeast Greenway to front the Greenway with windows and entries, and limit fencing height and material to ensure views from private property into the Greenway to enhance public safety.

Policy LUL-PP-2  
Locate new residential uses at select locations along the Southeast Greenway where they can access existing streets and infrastructure. These new uses should be sensitively designed to consider the scale of neighboring residential areas, maintain public views of the hills, and limit shade on the Greenway’s recreation areas.
Transportation Goals and Policies

Goal T-N  
Provide a continuous pedestrian, bicycle, and non-motorized transportation connection from Spring Lake Regional Park to Farmers Lane and link to downtown Santa Rosa, surrounding neighborhoods and schools, and the regional trail system.

Policy T-N-1  
Provide separate trails for bicycle and pedestrian use, and permit them to meander to respond to topographic or other features in the Southeast Greenway. Separate bicycle and pedestrian facilities should join together to cross streets and creeks for safety and habitat protection.

Policy T-N-2  
Provide multi-use path crossings where the Southeast Greenway intersects with Hoen Avenue, Franquette Avenue, Yulupa Avenue, and Summerfield Road to enhance the crossings for cyclists and pedestrians at these locations. These could include enhanced crosswalks, median refuges, pedestrian and bicyclist activated signals and warning signage for drivers.

Policy T-N-3  
Identify and sign a bicycle route from the Southeast Greenway to Downtown that is direct, well-marked, and easy to navigate, while ensuring multiple connections. Consideration should be given to the following routes as identified in the Bicycle and Pedestrian Master Plan to determine the highest priority for improvement: Franquette to Sonoma Avenue; Hoen Avenue to Sonoma Avenue; Hoen Avenue to Hahman Drive to Sonoma Avenue; and Vallejo Street to E Street.

Policy T-N-4  
Ensure additional bicycle facilities connect to the Southeast Greenway as proposed in the Bicycle and Pedestrian Master Plan.

Policy T-N-5  
Provide for parking on the Southeast Greenway and seek shared parking opportunities in adjacent non-residential uses, such as Montgomery High School, the Friedman Center, and Spring Lake Regional Park in future design phases of the project to maximize a park once experience and minimize parking in surrounding neighborhoods.

Public Services and Facilities Goals and Policies

Goal PSF-J  
Provide natural open space, educational and cultural opportunities, and active and passive recreation for residents and visitors.

Policy PSF-J-1  
Coordinate with Santa Rosa City School District and Montgomery High School to share educational, recreational and parking facilities to the greatest extent feasible.

Policy PSF-J-2  
Site the locations of community gardens as closely as possible to access points from neighboring residential areas to encourage use and activity.

Implementation and adoption of the aforementioned goals and policies would ensure consistency with the Plan Bay Area by promoting non-vehicular travel in order to decrease GHG emissions. Therefore,
implementation of the proposed project would not conflict with the *Plan Bay Area* and the impact would be *less than significant*.

**Bicycle and Pedestrian Master Plan**

As described above, the BPMP serves as a tool to promote and develop a convenient multi-modal transportation system for pedestrians and bicyclists within the City of Santa Rosa. The proposed project includes Transportation goals and policies (listed above) that would provide a variety of multi-modal transportation facilities within the Southeast Greenway Area and connections to existing bicycle facilities in Santa Rosa. Implementation and adoption of these aforementioned policies would ensure consistency with the BPMP by providing multi-modal transportation opportunities. Therefore, implementation of the proposed project would not conflict with the BPMP and the impact would be *less than significant*.

**Citywide Creek Master Plan**

The CCMP provides guidelines for the care, management, restoration, and enhancement of the network of creeks and waterways that flow through Santa Rosa. In addition, the CCMP serves as a tool to aid the City’s decision-making during the development approval process for projects proposed adjacent to waterways. The proposed project includes the following goal and policies that would promote the restoration of the areas surrounding the creeks that traverse the project site:

**Land Use and Livability Policies**

**Goal LUL-NN**  *Develop the Southeast Greenway sustainably to enhance and protect wetlands, wildlife habitat, groundwater and air quality.*

Policy LUL-NN-1  Restore or enhance the areas around the three creeks that cross the Southeast Greenway: Matanzas Creek, Sierra Park Creek, and Spring Creek, consistent with the Citywide Creek Master Plan.

Policy LUL-NN-2  Maximize open space and native plantings in the Southeast Greenway to provide a wildlife corridor to the greatest extent possible and reduce maintenance costs with the use of self-sustaining plant species.

Policy LUL-NN-3  Increase stormwater infiltration and groundwater recharge.

Implementation and adoption of these aforementioned goal and policies would ensure consistency with the CCMP by requiring the restoration of areas surrounding the tree creeks that traverse the project site and maximizing park and recreational opportunities throughout the Southeast Greenway Area. Therefore, implementation of the proposed project would not conflict with the CCMP and the impact would be *less than significant*. 
Summary

As discussed above, the proposed project would not conflict with the applicable land use plans adopted for the purpose of avoiding or mitigating an environmental impact in the Planning Area. Therefore, the impact would be less than significant.

**Significance Without Mitigation:** Less than significant.

**LU-3**

*Implementation of the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.*

As described above under Section 4.9.1.1, Regulatory Framework, the Conservation Strategy has not been formally adopted by the City of Santa Rosa. Although portions of the City are located within the Conservation Strategy study area, the project site is located outside of these boundaries. Given, that there are no habitat conservation plans or natural community conservation plans in force which would apply to the proposed project, there would be no impact with respect to conservation plan conflicts.

**Significance Without Mitigation:** No impact.

**4.9.4 CUMULATIVE IMPACTS**

**LU-4**

*Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to land use and planning.*

As described in Chapter 4.0, Environmental Evaluation, of this Draft EIR, the cumulative impact for land use and planning includes potential future development under the proposed project combined with effects of development on lands within the city. A cumulative impact would be considered significant if, taken together with past, present and reasonably foreseeable projects in the identified area, would conflict with applicable land use plans, policies, or regulations.

As discussed above the proposed project would not conflict with any applicable land use plans, policies, or regulations. In addition, the proposed project would not physically divide an existing community, nor would the proposed project conflict with an adopted conservation plan. Therefore, the proposed project would not contribute to a cumulative land use and planning impact and the impact would be *less than significant*.

**Significance Without Mitigation:** Less than significant.

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8 Santa Rosa Plain Conservation Strategy, Figure 1, Santa Rosa Plain Conservation Strategy Study Area, https://www.fws.gov/sacramento/es/recovery-planning/Santa-Rosa/Documents/Fig1_StudyAreaOverview.pdf.pdf, accessed on June 23, 2017.
4.10 NOISE

This chapter includes an evaluation of the potential environmental consequences from adoption and implementation of the proposed project related to noise generation. Additionally, this chapter describes the environmental setting, including regulatory framework and existing noise conditions in the project area, and identifies mitigation measures, if required, that would avoid or reduce significant impacts. The technical data used for the analysis in this chapter is located in Appendix F, Noise Data, of this Draft EIR.

This evaluation uses procedures and methodologies as specified by the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA).

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 OVERVIEW OF NOISE FUNDAMENTALS

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A vibratory disturbance that, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Hertz (Hz).** A unit of frequency of change in state or cycle in a sound wave. The nearly universal usage is one (complete) cycle in one second. The unit ‘Hertz’, named after the German physicist Heinrich Hertz (1857-1894) replaces the previous ‘cycles per second (cps)’ nomenclature.

- **Decibel (dB).** A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals (20 µPa).

- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second (1x10^-6 in/sec).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels which approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the $L_{eq}$ metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the $L_{50}$ level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the
“median sound level.” The $L_{10}$ level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The $L_{90}$ is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

- **Day-Night Level ($L_{dn}$ or DNL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. For general community/environmental noise, CNEL and $L_{dn}$ values rarely differ by more than 1 dB. As a matter of practice, $L_{dn}$ and CNEL values are interchangeable and are treated as being equivalent in this assessment.

- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

### Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves. Sound is described in terms of loudness or amplitude (measured in dB), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration or time variations (measured in seconds or minutes).

#### Amplitude

Noise is measured on a logarithmic scale, which has a more manageable range of numbers, and a decibel is the standard unit for measuring sound pressure amplitude. All noise levels in this analysis, reported in terms of dB, are relative to the industry-standard reference sound pressure of 20 micropascals.

On a logarithmic scale, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound. These relationships are summarized in Table 4.10-1.

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1. The commonly held threshold of audibility is 20 micropascals, and the threshold of pain is around 200 million micropascals, a ratio of one to 10 million. By converting these pressures to a logarithmic scale (i.e., decibels), the range becomes a more convenient 0 dB to 140 dB.
Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are “felt” more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The term "A-weighted" refers to a filtering of the noise signal in a manner corresponding to the way the human ear perceives sound. The A-weighted noise level has been found to correlate well with people’s judgments of the “noisiness” of different sounds and has been used for many years as a measure of community and industrial noise.

Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 4.10-2 shows typical noise levels from common noise sources.

**Table 4.10-1  Noise Perceptibility**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>± 3 dB</td>
<td>Threshold of human perceptibility</td>
</tr>
<tr>
<td>± 5 dB</td>
<td>Clearly noticeable change in noise level</td>
</tr>
<tr>
<td>± 10 dB</td>
<td>Half or twice as loud</td>
</tr>
<tr>
<td>± 20 dB</td>
<td>Much quieter or louder</td>
</tr>
</tbody>
</table>

Source: Bies and Hansen 2009.

**Table 4.10-2  Typical Noise Levels**

<table>
<thead>
<tr>
<th>Common Outdoor Activities</th>
<th>Noise Level (dBA)</th>
<th>Common Indoor Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset of physical discomfort</td>
<td>120+</td>
<td>Rock Band (near amplification system)</td>
</tr>
<tr>
<td>Jet Flyover at 1,000 feet</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Gas Lawn Mower at three feet</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Diesel Truck at 50 feet, at 50 mph</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Food Blender at 3 feet</td>
<td>80</td>
<td>Garbage Disposal at 3 feet</td>
</tr>
<tr>
<td>Noisy Urban Area, Daytime</td>
<td>70</td>
<td>Vacuum Cleaner at 10 feet</td>
</tr>
<tr>
<td>Commercial Area</td>
<td>70</td>
<td>Normal speech at 3 feet</td>
</tr>
<tr>
<td>Heavy Traffic at 300 feet</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>
**TABLE 4.10-2  **  **TYPICAL NOISE LEVELS**

<table>
<thead>
<tr>
<th>Common Outdoor Activities</th>
<th>Noise Level (dBA)</th>
<th>Common Indoor Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiet Urban Daytime</td>
<td>50</td>
<td>Dishwasher Next Room</td>
</tr>
<tr>
<td>Quiet Urban Nighttime</td>
<td>40</td>
<td>Theater, Large Conference Room (background)</td>
</tr>
<tr>
<td>Quiet Suburban Nighttime</td>
<td>30</td>
<td>Library</td>
</tr>
<tr>
<td>Quiet Rural Nighttime</td>
<td>20</td>
<td>Bedroom at Night, Concert Hall (background)</td>
</tr>
<tr>
<td>Extremely Remote Area</td>
<td>10</td>
<td>Broadcast/Recording Studio</td>
</tr>
<tr>
<td>Lowest Threshold of Human Hearing</td>
<td>0</td>
<td>Lowest Threshold of Human Hearing</td>
</tr>
</tbody>
</table>

Source: Caltrans 2009.

Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

**Temporal Effects**

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called $L_{eq}$), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the $L_{50}$ noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the $L_2$, $L_8$ and $L_{25}$ values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These “n” values are typically used to demonstrate compliance for stationary noise sources with many cities’ noise ordinances. Other values typically noted during a noise survey are the $L_{min}$ and $L_{max}$. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law and many local jurisdictions use an adjusted 24-hour noise descriptor called the
Community Noise Equivalent Level (CNEL) or Day-Night Noise Level ($L_{dn}$). The CNEL descriptor requires that an artificial increment (or “penalty”) of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The $L_{dn}$ descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 p.m. and 10:00 p.m. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or $L_{dn}$ metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as “spreading loss.” For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is conservative and is appropriate for noise generated by onsite operations from stationary equipment/activities at a project site. This approach is commonly used for construction equipment noise evaluations. For more detailed assessments, if ground-level absorptive vegetation or other “soft site” conditions are considered, the distance attenuation (drop-off) rate would be increased by 1.5 dB per distance doubling; for a total of 7.5 dB per propagation distance doubling.

If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective (‘hard site’) surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by 4.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA would result in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. When the noise level reaches 120 dBA, an unpleasant ‘tickling’ sensation occurs in the human ear; even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium. In comparison, for community environments, the ambient or background noise problem is widespread, though generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance.
Loud noise can be annoying and it can have negative health effects.\(^2\,^3\,^4\) The effects of noise on people can be listed in three general categories:
- Subjective effects of annoyance, nuisance, dissatisfaction.
- Interference with activities such as speech, sleep, learning.
- Physiological effects such as startling and hearing loss (both temporary and permanent).

In most cases, environmental noise produces effects in the first two categories only. However, unprotected workers in some industrial work settings may experience noise effects in the last category.

**Fundamentals of Vibration**

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers.

Like noise, vibration is transmitted in waves, but through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard. Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, or man-made as from explosions, the action of heavy machinery or heavy vehicles such as trains. Both natural and man-made vibration may be continuous such as from operating machinery, or transient as from an explosion. As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways: displacement, velocity, and acceleration.

Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal, and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, and RMS is typically more suitable for evaluating human response.

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The units for PPV and RMS velocity are normally inches per second (in/sec). However, vibration is often presented and discussed in dB units in order to compress the range of numbers (in a similar fashion as for sound energy). In this study, PPV and RMS velocities are in in/sec, and vibration levels are in dB relative to 1 micro-inch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Man-made vibration problems are therefore usually confined to relatively short distances from the source (500 to 600 feet or less).

Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

The way in which vibration is transmitted through the earth is called propagation. Propagation of groundborne vibrations is complicated and difficult to predict because of the endless variations in the soil and rock through which waves travel. There are three main types of vibration propagation: surface, compression and shear waves. Surface waves, or Raleigh waves, travel along the ground’s surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. Compression waves, or P-waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e. in a “push-pull” fashion). P-waves are analogous to airborne sound waves. Shear waves, or S-waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or “side-to-side and perpendicular to the direction of propagation.” As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 4.10-3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

### Table 4.10-3 Human Reaction to Typical Vibration Levels

<table>
<thead>
<tr>
<th>Vibration 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>Vibrations unlikely to cause damage of any type</td>
</tr>
<tr>
<td>0.08</td>
<td>Vibrations readily perceptible</td>
<td>Recommended upper level of vibration to which ruins and ancient monuments should be subjected</td>
</tr>
<tr>
<td>0.10</td>
<td>Level at which continuous vibration begins to annoy people</td>
<td>Virtually no risk of “architectural” (i.e. not structural) 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 to “architectural” damage to normal dwelling —</td>
</tr>
</tbody>
</table>
**Table 4.10-3  Human Reaction to Typical Vibration Levels**

<table>
<thead>
<tr>
<th>Vibration Level, PPV (in/sec)</th>
<th>Human Reaction</th>
<th>Effect on Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4–0.6</td>
<td>Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges</td>
<td>Vibrations at a greater level than normally expected from traffic, but would cause &quot;architectural&quot; damage and possibly minor structural damage</td>
</tr>
</tbody>
</table>


Human response to ground vibration has been correlated best with the velocity of the ground, typically expressed in terms of the vibration decibel of VdB. The U.S. Federal Transit Administration (FTA) has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are primarily based on experience with rapid transit and commuter rail systems. Railroad and transit operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of track. Trains generate substantial vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

Similarly, construction operations generally include a wide range of activities that can generate groundborne vibration, which varies in intensity. In general, blasting and demolition as well as pile driving and vibratory compaction equipment generate the highest vibrations. Because of the impulsive nature of such activities, PPV is used to measure and assess groundborne vibration and assess the potential of vibration to induce structural damage and annoyance for humans. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions.

### 4.10.1.2 REGULATORY FRAMEWORK

**Federal Regulations**

U.S. Environmental Protection Agency

In addition to FHWA standards, the U.S. Environmental Protection Agency (USEPA) has identified the relationship between noise levels and human response. The USEPA Office of Noise Abatement and Control...
issued the Federal Noise Control Act of 1972, which set programs and guidelines to identify and address the effects of noise on public health and welfare, and the environment. Although the primary responsibility of regulating noise was transferred to state and local governments in 1982, the USEPA provided guidelines for noise levels that would be considered safe for community exposure without the risk of adverse health or welfare effects. The USEPA found that to prevent hearing loss over the lifetime of a receptor, the yearly average $L_{eq}$ should not exceed 70 dBA. Interference with activity and annoyance will not occur if exterior levels are maintained at an $L_{eq}$ of 55 dBA and interior levels at or below 45 dBA. While these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community. The USEPA also set 55 dBA $L_{dn}$ as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA $L_{dn}$, have settled on the 65 dBA $L_{dn}$ level as their standard. At 65 dBA $L_{dn}$, activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

**Occupational Health and Safety Administration**

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the USEPA. Such limitations would apply to the operation of construction equipment and could also apply to any proposed industrial land uses. Noise exposure of this type is dependent on work conditions and is addressed through a facility’s Health and Safety Plan, as required under OSHA, and is therefore not addressed further in this analysis.

**U.S. Department of Housing and Urban Development**

The U.S. Department of Housing and Urban Development (HUD) has set a goal of 65 dBA $L_{dn}$ as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provides in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior $L_{dn}$ should not exceed 45 dBA.

**State Regulations**

The California Department of Health Services’ Office of Noise Control (ONC) has studied the correlation of noise levels and their effects on various land uses. As a result, a set of generalized exterior and interior noise standards was generated for residential, commercial, institutional/public, and open space land uses. These noise standards, in terms of the CNEL noise metric, are summarized in Appendix F of this Draft EIR. The ONC also prepared a land use compatibility chart for community noise which is intended to

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9 Residential’ includes single and multifamily, duplex, and mobile homes; ‘Commercial’ includes hotel, motel, transient housing, commercial retail, bank, restaurant, office building, research and development, professional offices, amphitheater, concert hall, auditorium, movie theater, gymnasium (multipurpose), sports club, manufacturing, warehouse, wholesale, utilities, and movie theaters uses; ‘Institutional / Public’ includes, hospital, school classrooms/playground, church, and library uses; and ‘Open Space’ includes parks.
provide urban planners with a tool to gauge the compatibility of land uses relative to existing and future noise levels. The table identifies ‘normally acceptable’, ‘conditionally acceptable’, ‘normally unacceptable’ and ‘clearly unacceptable’ noise levels for various land use types. A ‘conditionally acceptable’ or ‘normally unacceptable’ designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a ‘normally acceptable’ designation indicates that standard construction can occur with no special noise reduction requirements. These noise compatibility guidelines, also in terms of the CNEL noise metric, are shown in Table 4.10-4.

### Table 4.10-4 Land Use Compatibility for Community Noise Environments

<table>
<thead>
<tr>
<th>Land Uses</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Residential – Low Density</td>
<td></td>
</tr>
<tr>
<td>Single-Family, Duplex, Mobile Homes</td>
<td></td>
</tr>
<tr>
<td>Residential – Multiple-Family</td>
<td></td>
</tr>
<tr>
<td>Transient Lodging, Motels, Hotels</td>
<td></td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td></td>
</tr>
<tr>
<td>Auditoriums, Concert Halls, Amphitheaters</td>
<td></td>
</tr>
<tr>
<td>Sports Arena, Outdoor Spectator Sports</td>
<td></td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td></td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water Recreation, Cemeteries</td>
<td></td>
</tr>
<tr>
<td>Office Buildings, Businesses, Commercial and Professional</td>
<td></td>
</tr>
<tr>
<td>Industrial, Manufacturing, Utilities, Agricultural</td>
<td></td>
</tr>
</tbody>
</table>

**Normally Acceptable:** Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

**Normally Unacceptable:** New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

**Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

**Clearly Unacceptable:** New construction or development generally should not be undertaken.

Since all city or county jurisdictions must include a noise element in their general plans, many jurisdictions have simply adopted the state compatibility guidelines, while other authorities modify the state chart to have a customized set of guidelines for their locale. The City uses the State of California’s Land Use Compatibility Guidelines as shown in Table 4.10-4 above.

The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requires that residences’ interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level ($L_{dn}$) or the community noise equivalent level (CNEL); using the noise metric that is consistent with the noise element of the particular local general plan.

The California Green Building Standards Code (CALGreen), Chapter 5, Division 5.5, has additional requirements for insulation that affect exterior-interior noise transmission for non-residential structures (which include multi-family structures 4 stories or greater). Pursuant to Section 5.507.4.1, Exterior Noise Transmission, Prescriptive Method, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet:

- A composite sound transmission class (STC) rating of at least 50, or
- A composite outdoor-indoor transmission class (OITC) rating of no less than 40 with exterior windows of a minimum STC of 40, or OITC of 30 if the project location is within the 65 dBA CNEL or $L_{eq}$ noise contour of an airport (military, public, private, or heliport), freeway, expressway, railroad, industrial source, or fixed-guideway source (as determined by the noise element of the general plan). Where noise contours are not readily available, projects exposed to a noise level of 65 dBA $L_{eq}$ during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum of STC 40 (or OITC 30).

Residential structures within the noise contours identified above require an acoustical analysis showing that the structure has been designed to limit intruding noise in the prescribed allowable levels. To comply with these regulations, future applicants for new residential projects are required to submit an acoustical analysis report. The acoustical analysis report is required to show topographical relationship of noise sources and dwelling site, identification of noise sources and their characteristics, predicted noise spectra at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met. If interior allowable noise levels are met by requiring that windows be un-openable or closed, the design for the structure must also specify the means that will be employed to provide ventilation and cooling, if necessary, to provide a habitable interior environment.

Local Regulations

General Plan 2035

The Noise and Safety (NS) element of the General Plan 2035 discusses sources of noise within the city, projected increases in noise levels, and a noise contour map of traffic-generated noise levels. The Land Use Compatibility Standards (Figure 12-1 on page 12-4 of the Element) establishes the same standards
presented in the State of California’s Land Use Compatibility Guidelines (Table 4.10-4 above). The NS element includes the following goals and policies specific to noise and applicable to the proposed project:

- **Goal NS-B**: Maintain an acceptable community noise level to protect the health and comfort of people living, working and/or visiting in Santa Rosa, while maintaining a visually appealing community.
  - **Policy NS-B-1**: Do not locate noise-sensitive uses in proximity to major noise sources, except residential is allowed near rail to promote future ridership.
  - **Policy NS-B-2**: Encourage residential developers to provide buffers other than sound walls, where practical. Allow sound walls only when projected noise levels at a site exceed land use compatibility standards in Figure 12-1.

  In some established neighborhoods and subdivisions, sound walls may provide the only alternative to reduce noise to acceptable community standards. The Design Review process shall evaluate sound wall aesthetics and landscaping to ensure attractiveness along with functionality.

- **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.

  The Land Use Compatibility Standards specify normally acceptable levels for community noise in various land use areas.

- **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 60 dBA DNL. Mitigation shall be sufficient to reduce noise levels below 45 dBA DNL in habitable rooms and 60 dBA 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-6**: Do not permit existing uses to generate new noises exceeding normally acceptable levels unless:
  - Those noises are mitigated to acceptable levels; or
  - The activities are specifically exempted by the City Council on the basis of community health, safety, and welfare.

- **Policy NS-B-7**: Allow reasonable latitude for noise generated by uses that are essential to community health, safety, and welfare. These include emergency medical helicopter and vehicle operations, and emergency vehicle sirens.

- **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-11:** Work with CalTrans to assign a high priority to traffic noise mitigation programs. Support construction of attractive sound walls, as necessary along Highway 101 and Highway 12.
- **Policy NS-B-12:** Cooperate with Santa Rosa Memorial Hospital, Sutter Medical Center, and other hospitals proposing helipads. Minimize the noise and safety impacts of medical emergency helicopters through location and design of landing pads, regulation of flight times and frequency and, if necessary, sound attenuating alterations to nearby residences.
- **Policy NS-B-13:** Prohibit new helipads in developments of industrial, commercial, office, or business park uses. The City may make an exception if the helipad will provide a significant benefit for community health, safety, and welfare.
- **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.

**Santa Rosa City Code**

The City regulates noise through Chapter 17-16, Noise, of the Santa Rosa City Code (SRCC). The City’s noise ordinance is designed to protect people from non-transportation noise sources such as construction activity, machinery, air conditioners, maintenance, and landscaping activities.

**General Stationary Noise Sources**

SRCC Section 17-16.030 establishes that the following criteria (in Table 4.10-5) will be used as a base (ambient noise level) from which noise levels can be compared.

Section 17-16.040, Standards for Determining Violation, provides a list of qualitative variables to take into account when determining whether a noise disturbs the peace and quiet of a neighborhood, including background noise levels, proximity to residences, time of day, and duration. More specifically, Section 17-16.120, Machinery and Equipment, states that noise produced by machinery, equipment, pumps, fans, heating, ventilation and air conditioning (HVAC), and similar mechanical devices is not to exceed the ambient base noise level by more than 5 dB at receiving properties. Other sections discuss restrictions on noise sources such as leaf blowers and sound-amplifying equipment.
TABLE 4.10-5    AMBIENT BASE NOISE LEVEL CRITERIA

<table>
<thead>
<tr>
<th>Zone</th>
<th>Time</th>
<th>Sound Level A (decibels) Community Environment Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10:00 pm to 7:00 am</td>
</tr>
<tr>
<td>R-1 and R-2</td>
<td>7:00 pm to 10:00 pm</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>7:00 am to 7:00 pm</td>
<td>55</td>
</tr>
<tr>
<td>Multi-family</td>
<td>10:00 pm to 7:00 am</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>7:00 am to 10:00 pm</td>
<td>55</td>
</tr>
<tr>
<td>Office &amp; Commercial</td>
<td>10:00 pm to 7:00 am</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7:00 am to 10:00 pm</td>
<td>60</td>
</tr>
<tr>
<td>Intensive Commerciala</td>
<td>10:00 pm to 7:00 am</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7:00 am to 10:00 pm</td>
<td>65</td>
</tr>
<tr>
<td>Industrial</td>
<td>Anytime</td>
<td>70</td>
</tr>
</tbody>
</table>

Notes:

a See Appendix B of the City Clerk’s file as set forth on a map on file in the office of the City clerk.

Source: Santa Rosa City Code, Section 17-16.030.

Construction Noise

The SRCC does not specifically contain limitations on the hours of operation for construction equipment. Additionally, there are no quantified limits on specific construction noise level emissions. However, as stated above, Section 17.16-120, Machinery and Equipment, sets standards for operating machinery and equipment, which could include construction-related equipment, not to exceed ambient base noise level by more than 5 dB at receiving properties. Furthermore, it is the City’s standard practice to limit construction hours from 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. on Saturdays, and construction is prohibited on Sundays and all City-recognized holidays.

Project-Applicable Vibration Standards

The SRCC does not include quantitative thresholds for vibration. In lieu of such quantified thresholds, it is common practice to rely on published information from the FTA. The FTA provides criteria for acceptable levels of ground-borne vibration for various types of special buildings that are sensitive to vibration. The FTA criteria are often used to evaluate vibration impacts during construction and are used herein for impact assessment thresholds. FTA Noise and Vibration Impact Guidelines for construction impact identifies that an impact would occur if construction activities generate vibration that is strong enough to (a) physically damage buildings or (b) cause undue annoyance at sensitive receptors. The threshold for human annoyance at residential receptors during the daytime is 78 VdB. The threshold for vibration-induced architectural damage is 0.2 peak particle velocity (PPV) in inches per second (in/sec) for typical wood-framed buildings.10

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Vibration-Related Annoyance

The human reaction to various levels of vibration is highly subjective and varies from person to person. The FTA criteria for annoyance are shown below in Table 4.10-6. These criteria are based on the work of many researchers that suggested that humans are sensitive to vibration velocities in the range of 8-80 Hz.

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Max $L_v$ (VdB)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop</td>
<td>90</td>
<td>Distinctly felt vibration. Appropriate to workshops and non-sensitive areas</td>
</tr>
<tr>
<td>Office</td>
<td>84</td>
<td>Felt vibration. Appropriate to offices and non-sensitive areas.</td>
</tr>
<tr>
<td>Residential – Daytime</td>
<td>78</td>
<td>Barely felt vibration. Adequate for computer equipment.</td>
</tr>
<tr>
<td>Residential – Nighttime</td>
<td>72</td>
<td>Vibration not felt, but groundborne noise may be audible inside quiet rooms.</td>
</tr>
</tbody>
</table>

Notes:
- $L_v$ is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

Vibration-Related Architectural Damage

Structures amplify groundborne vibration and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 4.10-7.

<table>
<thead>
<tr>
<th>Building Category</th>
<th>PPV (in/sec)</th>
<th>$L_v$ (VdB)$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Reinforced concrete, steel, or timber (no plaster)</td>
<td>0.5</td>
<td>102</td>
</tr>
<tr>
<td>II. Engineered concrete and masonry (no plaster)</td>
<td>0.3</td>
<td>98</td>
</tr>
<tr>
<td>III. Non-engineered timber and masonry buildings</td>
<td>0.2</td>
<td>94</td>
</tr>
<tr>
<td>IV. Buildings extremely susceptible to vibration damage</td>
<td>0.12</td>
<td>90</td>
</tr>
</tbody>
</table>

Notes:
- $^a$RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

4.10.1.3 EXISTING NOISE ENVIRONMENT

Project and Nearby Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. In general, these uses include residences, schools, hospital facilities, houses of worship, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial uses are not considered noise- or vibration-sensitive uses.

The Southeast Greenway Area (project site) is currently undeveloped land. Land uses surrounding the project area consist primarily of residential and commercial uses. Sensitive receptors near the project site
include residences, schools, and churches in neighborhoods adjacent to the Project site. Medical uses at Sutter Pacific Memorial Foundation are also considered sensitive receptors. The nearest schools to the project area are Merryhill School (on Mayette Avenue), Spring Creek Elementary School (on Mayette Avenue), and Montgomery High School (on Hahman Drive). Classrooms at these schools lie within 430 feet of the nearest boundary of the Southeast Greenway Area.

**On-Road Vehicles**

Noise from motor vehicles is generated by engine vibrations, the interaction between tires and the road, and the exhaust system. Reducing the average motor vehicle speed reduces the noise exposure of receptors adjacent to the road. Each reduction of five miles per hour reduces noise by about 1.3 dBA.

Given the existing of mobile-source noise in the vicinity of the project, it is necessary to determine the noise currently generated by vehicles traveling through the Southeast Greenway Area. Average daily traffic volumes were based on the existing daily traffic volumes calculated using peak hour intersection movements provided by W-Trans Transportation Consultants.

The traffic noise levels for this project were estimated using a version of the FHWA Highway Traffic Noise Prediction Model. The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from the roadway, length of exposed roadway, and noise shielding. Vehicle speeds on each roadway were assumed to be the posted speed limit, and no reduction in speed was assigned due to congested traffic flows. Current roadway characteristics, such as the number of lanes and speed limits, were determined from field observations and according to roadway classification.

The results of this modeling indicate that average noise levels along arterial segments currently range from approximately 60 dBA to 74 dBA CNEL (as calculated at a distance of 50 feet from the centerline of the road). The segment “Farmers Lane south of Bennett Valley Road” is planned to be constructed under the General Plan 2035 before the future buildout scenario year 2040. The segments “New east of Farmers Lane” and “New north of Hoen Avenue Frontage Road” are projections for a roadway that would be constructed with implementation of the proposed project. These future and project-related segments have been included in the table below for consistency with other traffic noise tables in this section. Noise levels for existing conditions along analyzed roadways are presented in Table 4.10-8.
## TABLE 4.10-8  EXISTING CONDITIONS TRAFFIC NOISE LEVELS

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Segment</th>
<th>Daily Traffic Volumes</th>
<th>Noise Level at 50 Feet (dBA CNEL)</th>
<th>Distance to Noise Contour (feet)</th>
<th>70 dBA CNEL</th>
<th>65 dBA CNEL</th>
<th>60 dBA CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers Lane</td>
<td>North of 4th Street</td>
<td>3,190</td>
<td>61.8</td>
<td>14</td>
<td>31</td>
<td>66</td>
<td></td>
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<td>Townview Avenue to New</td>
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<td>Hoen Avenue /Cypress Way to Franquette Avenue</td>
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TABLE 4.10-8  EXISTING CONDITIONS TRAFFIC NOISE LEVELS

<table>
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<tr>
<th>Roadway</th>
<th>Segment</th>
<th>Daily Traffic Volumes</th>
<th>Noise Level at 50 Feet (dBA CNEL)</th>
<th>Distance to Noise Contour (feet)</th>
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<td>Hahman Drive to Hoen Avenue Frontage Road</td>
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<td>61.0</td>
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<tr>
<td>Mayette Avenue</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>Yulupa Avenue</td>
<td>Spring Creek Drive to Mayette Avenue</td>
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<td></td>
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</tr>
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<td>Yulupa Avenue</td>
<td>Mayette Avenue to Hoen Avenue</td>
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<td>67.2</td>
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<td></td>
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<td></td>
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<td>151</td>
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<td>Yulupa Avenue</td>
<td>Hoen Avenue to Sacramento Avenue</td>
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<td>67.4</td>
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</tbody>
</table>

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by W-Trans in June 2017. Calculations included in Appendix F of this Draft EIR.

Stationary Source Noise

Stationary sources of noises may occur from all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Office and commercial uses would generate noise from ventilation systems, loading docks, parking lot activities, and other sources. Noise generated by residential, office, or commercial uses are generally short and intermittent. For the developed land surrounding the project site, land uses are primarily residential and commercial. Noise from stationary sources is regulated through the SRCC.

Airport Noise

The nearest public airport is the Sonoma County Airport, located approximately 9 miles northwest of the project area. The nearest heliport is at the Santa Rosa Memorial Hospital, located approximately one mile northwest of the project site. The nearest private airport is Graywood Ranch Airport, located approximately 6 miles to the southeast of the project area.
4.10.1 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact if it would:

1. Expose people to, or generation of, noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies.

2. Expose people to, or generation of, excessive groundborne vibration or groundborne noise levels.

3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

5. Expose people residing or working in the vicinity of the project site to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

6. Expose people residing or working in the project site to excessive noise levels, for a project within the vicinity of a private airstrip.

4.10.2 ENVIRONMENTAL IMPACTS

| NOISE-1 | Implementation of the proposed project would not cause exposure of people to, or generation of, noise levels in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies. |

A significant impact would occur if future development under the proposed project would result in an increase of traffic noise levels of 5 dBA if their resultant noise level were to remain within the objectives of the General Plan 2035 (e.g., 60 dBA CNEL at single-family residential, 65 dBA CNEL at multi-family residential) or with an increase of 3 dBA if the resultant level were to meet or exceed the objectives of the General Plan 2035. A significant stationary-source impact would occur if the activities or equipment at the project site produce noise levels at nearby sensitive receptors in excess of local standards.

Traffic Noise

Future development under the proposed project would cause increases in traffic along local roadways. A substantial increase is defined as a noise increase greater than 3 dBA over existing conditions. Sensitive land uses include residential, schools, churches, nursing homes, hospitals, and open space/recreation areas. Commercial and industrial areas are not considered noise sensitive and generally have higher tolerances for exterior and interior noise levels.

The traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model. The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of...
exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of proposed project site are included in Appendix F of this Draft EIR.

Table 4.10-9 presents the noise level increases on roadways over existing conditions at 50 feet from the centerline of each roadway segment due to the project. The “Future plus Project” traffic noise levels include effects of future regional ambient growth and growth due to the project, evaluated for the year 2040. “Project Contribution” represents the effect the project would have on future noise levels by comparing the difference between “Future plus Project” noise levels and future noise levels due exclusively to ambient growth. Appendix F of this Draft EIR includes tables showing traffic noise levels for all four scenarios: Existing, Existing plus Project, Future, and Future plus Project.

<table>
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<tr>
<th>Roadway</th>
<th>Segment</th>
<th>Existing</th>
<th>Future + Project</th>
<th>Overall Increase</th>
<th>Project Contribution</th>
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<td>72.3</td>
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<td>Shortt Road to Farmers Lanr</td>
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<td>66.4</td>
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<td>70.5</td>
<td>71.0</td>
<td>0.5</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Table 4.10-9  Project Buildout Traffic Noise Increases

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Segment</th>
<th>Existing</th>
<th>Future + Project</th>
<th>Overall Increase</th>
<th>Project Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenue Frontage Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoen Avenue Frontage Road</td>
<td>Farmers Lane to Townview Avenue</td>
<td>66.8</td>
<td>67.9</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Hoen Avenue Frontage Road</td>
<td>Townview Avenue to New</td>
<td>66.8</td>
<td>67.9</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Hoen Avenue Frontage Road</td>
<td>New to Hoen Avenue/ Cypress Way</td>
<td>70.0</td>
<td>70.5</td>
<td>0.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Hoen Avenue Frontage Road</td>
<td>Hoen Avenue /Cypress Way to Franquette Avenue</td>
<td>70.0</td>
<td>70.5</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Hoen Avenue</td>
<td>Franquette Avenue to Yulupa Avenue</td>
<td>69.5</td>
<td>70.0</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Hoen Avenue</td>
<td>Yulupa Avenue to Summerfield Road</td>
<td>67.4</td>
<td>68.0</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Hoen Avenue</td>
<td>Summerfield Road to Newanga Avenue</td>
<td>61.1</td>
<td>61.4</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Bennett Valley Road</td>
<td>Gordon Lane to Farmers Lane</td>
<td>66.9</td>
<td>66.2</td>
<td>-0.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Bennett Valley Road</td>
<td>Farmers Lane to Holland Drive</td>
<td>68.4</td>
<td>68.8</td>
<td>0.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Townview Avenue</td>
<td>Hoen Avenue Frontage Road to Townview Lane</td>
<td>56.7</td>
<td>56.3</td>
<td>-0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>New</td>
<td>North of Hoen Avenue Frontage Road</td>
<td>-</td>
<td>59.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hoen Avenue</td>
<td>Hahman Drive to Hoen Avenue Frontage Road</td>
<td>63.6</td>
<td>65.2</td>
<td>1.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Cypress Way</td>
<td>Hoen Avenue Frontage Road to Creekside Road</td>
<td>61.0</td>
<td>62.6</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Franquette Avenue</td>
<td>Mayette Avenue to Hoen Avenue</td>
<td>60.2</td>
<td>61.4</td>
<td>1.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Mayette Avenue</td>
<td>Franquette Avenue to Yulupa Avenue</td>
<td>61.0</td>
<td>62.5</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Mayette Avenue</td>
<td>Yulupa Avenue to Summerfield Road</td>
<td>63.7</td>
<td>64.6</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Yulupa Avenue</td>
<td>Spring Creek Drive to Mayette Avenue</td>
<td>66.5</td>
<td>67.3</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Yulupa Avenue</td>
<td>Mayette Avenue to Hoen Avenue</td>
<td>67.2</td>
<td>67.8</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Yulupa Avenue</td>
<td>Hoen Avenue to Sacramento Avenue</td>
<td>67.4</td>
<td>67.7</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Summerfield Road</td>
<td>Mayette Avenue to Hoen Avenue</td>
<td>69.5</td>
<td>69.9</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Summerfield Road</td>
<td>Hoen Avenue to Parctrail Drive</td>
<td>67.7</td>
<td>67.9</td>
<td>0.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by W-Trans (June 2017). Calculations in Appendix F of this Draft EIR.

Table 4.10-9 shows that traffic noise increases resulting from the project contribution would range from 0.0 to 0.5 dBA CNEL, and overall increases due to both the project and regional growth would range from -0.7 to 2.8 dBA CNEL. The segment “Farmers Lane south of Bennett Valley Road” is planned to be constructed under the existing General Plan 2035 before the future buildout scenario year 2040. The segments “New east of Farmers Lane” and “New north of Hoen Avenue Frontage Road” are projections for a roadway that would be constructed with implementation of the proposed project. Therefore, there is no “Existing” baseline for these three segments. Future traffic on the new segments planned as part of
the proposed project would generate noise levels below 60 dBA CNEL and would not exceed the standards of the General Plan 2035.

No segments would experience substantial noise increases greater than 3 dBA over existing conditions. Therefore, impacts would be less than significant.

**Stationary-Source Noise**

SRCC Section 17-16.125 states that noise produced by machinery, equipment, pumps, fans, HVAC, and similar mechanical devices is not to exceed the ambient base noise level (listed above in Table 4.10-5) by more than 5 dB at receiving properties. SRCC Section 17-16.170 regulates hours of operation for sound-amplifying equipment and sets a noise level threshold of 15 dB above the ambient base noise level. Additionally, SRCC Section 17-16.040 provides a list of qualitative variables to take into account when determining whether a noise disturbs the peace and quiet of a neighborhood, including background noise levels, proximity to residences, time of day, and duration.

Onsite ventilation units and associated equipment at residential and mixed-use sites would be acoustically engineered with appropriate procurement specifications, sound enclosures, and parapet walls to minimize noise—all in accordance with City’s stationary noise requirements—to ensure that such equipment does not exceed allowable noise limits. Other stationary sources for residential and mixed-use areas include landscaping, maintenance, truck deliveries, trash pickup, and parking lot activity. These sources are generally short and intermittent, and are not a substantial source of noise.

Outdoor recreational facilities that may be developed in the School Facilities designation adjacent to Montgomery High School in the West Subarea could include a swim center, running tracks, basketball courts and/or tennis courts, which would be available for use by Montgomery High School, other schools, and the community. Noise generated by these uses could include coaching, cheering, players yelling, and announcements. Since these facilities would be located adjacent to existing Montgomery High School sports facilities—including a football stadium—development of these new uses would not introduce any new types or concentrations of noise to the area that would be markedly different than the current conditions.

A potential future Community Gathering Place near Montgomery High School in the West Subarea could include a space for “large organized community events like festivals and concerts or a small amphitheater.” Noise generated by outdoor festivals and common community events (i.e., farmer’s markets and craft festivals) would primarily consist of conversation between attendees, which would be overshadowed by traffic noise along Hoen Avenue and other roadways in the vicinity. Concerts or other large events may include amplified sound from speakers and may take place during evening hours. Noise levels may be audible at nearby residences; however, amplified sound would be required to comply with the standards set by SRRC Section 17-16.170. Additionally, since events would be limited to a few hours in length, and would only occur periodically, they would not result in any significant increases to CNEL noise levels in the vicinity.

Noise sources associated with Public Plaza, Greenway, and Urban Agriculture designations (which may include trails, gardens, seating, and parking lots) would be limited to talking, landscape maintenance, and
light parking lot activity. These noise sources would generally be overshadowed by traffic noise, and would not noticeably increase ambient noise levels in the vicinity.

Since noise generated by stationary sources would be subject to the restrictions set by the SRRC, would not exceed the standards set in the General Plan 2035 listed in Section 4.10.1.2, Regulatory Framework, above, and would not result in substantial increases in ambient noise levels, impacts due to stationary noise would be less than significant.

As implementation of the proposed project would not result in significant increases in traffic or stationary-source noise, long-term operational noise levels would not exceed local standards, and the impact would be less than significant.

Significance Without Mitigation: Less than significant.

**NOISE-2**  Implementation of the proposed project would not cause exposure of people to, or generation of, excessive groundborne vibration or groundborne noise levels.

The potential vibration impacts resulting from potential future development under the proposed project are addressed in this impact.

**Construction Vibration Impacts**

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site depends on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 4.10-10 lists vibration levels for construction equipment.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Approximate Velocity Level at 25 Feet (V(dB))</th>
<th>Approximate RMS velocity at 25 Feet (in/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pile Driver (impact) Upper Range</td>
<td>112</td>
<td>1.518</td>
</tr>
<tr>
<td>Pile Driver (impact) Lower Range</td>
<td>104</td>
<td>0.644</td>
</tr>
<tr>
<td>Pile Driver (sonic) Upper Range</td>
<td>105</td>
<td>0.734</td>
</tr>
<tr>
<td>Pile Driver (sonic) Lower Range</td>
<td>93</td>
<td>0.170</td>
</tr>
<tr>
<td>Large Bulldozer</td>
<td>87</td>
<td>0.089</td>
</tr>
<tr>
<td>Caisson Drilling</td>
<td>87</td>
<td>0.089</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>79</td>
<td>0.035</td>
</tr>
</tbody>
</table>
As shown in Table 4.10-10, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA criteria of 78 VdB for human annoyance and 0.200 in/sec for structural damage. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers. Construction details and equipment for potential future development under the proposed project are not known at this time and therefore, are not evaluated in this Draft EIR.

While construction noise and vibration activities can be very loud and/or jarring/annoying resulting in disturbance to adjacent receptors, such activities are typically considered to be short-term. Future development under the proposed project with the potential to result in the use of vibration-causing equipment would be required to comply with the General Plan 2035 policies that are aimed at reducing noise-related impacts. Specifically, SRCC Section 17.16-120, Machinery and Equipment, standards for operating machinery and equipment, which could include construction-related equipment, would not be permitted to exceed ambient base noise level by more than 5 dB at receiving properties. Furthermore, compliance with General Plan 2035 Policy NS-B-4 requires future new projects that could generate noise impacts that would be greater than normally acceptable to submit an acoustical study prepared by a qualified acoustical consultant. Additionally, it is standard practice within the city that construction permits also require contractors to use best management practices such as the following:

- Post a construction site notice near the construction site access point or in an area that is clearly visible to the public. The notice shall include the following: job site address; permit number, name, and phone number of the contractor and owner; dates and duration of construction activities; construction hours allowed; and the City of Santa Rosa Community Development Director and construction contractor phone numbers where noise complaints can be reported and logged.
- Limit construction activities to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. on Saturdays, and prohibit construction on Sundays and all City-recognized holidays.
- Consider the installation of temporary sound barriers for construction activities immediately adjacent to occupied noise-sensitive structures.
- Restrict haul routes and construction-related traffic to the least noise-sensitive times of the day.
- Reduce non-essential idling of construction equipment to no more than five minutes.
- Ensure that all construction equipment is monitored and properly maintained in accordance with the manufacturer’s recommendations to minimize noise.
- Fit all construction equipment with properly-operating mufflers, air intake silencers, and engine shrouds, no less effective than as originally equipped by the manufacturer, to minimize noise emissions.

- If construction equipment is equipped with back-up alarm shut offs, switch off back-up alarms and replace with human spotters, as feasible.

- Stationary equipment (such as generators and air compressors) and equipment maintenance and staging areas shall be located as far from existing noise-sensitive land uses, as feasible.

- To the extent feasible, use acoustic enclosures, shields, or shrouds for stationary equipment such as compressors and pumps.

- Shut off generators when generators are not needed.

- Coordinate deliveries to reduce the potential of trucks waiting to unload and idling for long periods of time.

- Grade surface irregularities on construction sites to prevent potholes from causing vehicular noise. Minimize the use of impact devices such as jackhammers, pavement breakers, and hoe rams. Where possible, use concrete crushers or pavement saws rather than hoe rams for tasks such as concrete or asphalt demolition and removal.

The implementation of these policies, future acoustical studies, and standard permitting practices would ensure that construction-related vibration impacts would be less than significant.

**Operational Vibration Impacts**

Typically, only industrial uses that use heavy machinery or rail projects where passing trains could generate perceptible levels of vibration would result in vibration concerns. Potential future development under the proposed project could result in mixed-use, residential uses and park and recreational uses, which do not contain sources that would generate substantial levels of vibration. Therefore, operational vibration impacts due to potential future development under the proposed project would be less than significant.

**Significance Without Mitigation:** Less than significant.

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**NOISE-3**

Implementation of the proposed project would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project.

As presented in impact discussion NOISE-1 above, project-generated operational noise from traffic, stationary noise sources (i.e., mechanical systems), and operational activities will not result in a substantial permanent increase in ambient noise levels. Therefore, these on-going activities would generate less-than-significant noise impacts and no mitigation measures are needed.

**Significance Without Mitigation:** Less than significant.
NOISE-4 Implementation of the proposed project would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Given this analysis is based on future development potential under the proposed project, a generalized, program-level set of assumed construction activities were used for the construction noise assessment. Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Sensitivity to noise is based on the location of the equipment relative to sensitive receptors, time of day, and the duration of noise-generating activities.

Implementation of the proposed project would result in up to 244 multi-family residential units and 12,000 square feet of commercial space within the Southeast Greenway Area, as well as recreational and park uses. This impact discussion describes the potential construction-related noise impacts resulting from future development that would be accommodated by the proposed project.

Two types of temporary noise impacts could occur during future construction activities associated with development that could occur under the proposed project. First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads. The second type of temporary noise impact is related to demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment and noise characteristics. Table 4.10-11 lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and noise receptor.

**Table 4.10-11 Construction Equipment Noise Emission Levels**

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>Typical Max Noise Level (dBA $L_{max}$)</th>
<th>Construction Equipment</th>
<th>Typical Max Noise Level (dBA $L_{max}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Compressor</td>
<td>81</td>
<td>Pile-Driver (Impact)</td>
<td>101</td>
</tr>
<tr>
<td>Backhoe</td>
<td>80</td>
<td>Pile-Driver (Sonic)</td>
<td>96</td>
</tr>
<tr>
<td>Ballast Equalizer</td>
<td>82</td>
<td>Pneumatic Tool</td>
<td>85</td>
</tr>
<tr>
<td>Ballast Tamper</td>
<td>83</td>
<td>Pump</td>
<td>76</td>
</tr>
<tr>
<td>Compactor</td>
<td>82</td>
<td>Rail Saw</td>
<td>90</td>
</tr>
<tr>
<td>Concrete Mixer</td>
<td>85</td>
<td>Rock Drill</td>
<td>98</td>
</tr>
<tr>
<td>Concrete Pump</td>
<td>71</td>
<td>Roller</td>
<td>74</td>
</tr>
<tr>
<td>Concrete Vibrator</td>
<td>76</td>
<td>Saw</td>
<td>76</td>
</tr>
<tr>
<td>Crane, Derrick</td>
<td>88</td>
<td>Scarifier</td>
<td>83</td>
</tr>
<tr>
<td>Crane, Mobile</td>
<td>83</td>
<td>Scraper</td>
<td>89</td>
</tr>
<tr>
<td>Dozer</td>
<td>85</td>
<td>Shovel</td>
<td>82</td>
</tr>
<tr>
<td>Generator</td>
<td>81</td>
<td>Spike Driver</td>
<td>77</td>
</tr>
<tr>
<td>Grader</td>
<td>85</td>
<td>Tie Cutter</td>
<td>84</td>
</tr>
<tr>
<td>Impact Wrench</td>
<td>85</td>
<td>Tie Handler</td>
<td>80</td>
</tr>
</tbody>
</table>
As shown in Table 4.10-11, construction equipment generates high levels of noise, with maximums ranging from 71 dBA to 101 dBA. Construction of individual future development projects that could occur under the proposed project would temporarily increase the ambient noise environment and would have the potential to affect noise-sensitive land uses in the vicinity of that future project.

Significant noise impacts may occur from operation of heavy earthmoving equipment and truck hauling that would occur with construction of individual development projects. Implementation of the proposed project would result in an increase in development intensity throughout the Southeast Greenway Area. Construction noise levels depend on the specific locations, site plans, and construction details of individual development projects, which are not known at this time. Construction-related noise would be localized and would occur intermittently for varying periods of time. Per the City's standard conditions of approval, all construction activities would be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. on Saturdays, and prohibit construction on Sundays and all City-recognized holidays.

Because specific project-level information for potential future development is not available at this time, the construction noise impacts at specific off-site or on-site sensitive receptors has not been quantified in this Draft EIR. Construction of future individual development projects that could occur under the proposed project would temporarily increase the ambient noise environment in the vicinity of each future development project, potentially affecting existing and future sensitive uses in the vicinity. Future development under the proposed project would be required to provide project-specific data to the City, and would be required to comply with the City’s regulations to reduce any potential construction-related noise impacts to a less-than-significant level. Specifically, compliance with SRCC Section 17.16-120, Machinery and Equipment, standards for operating machinery and equipment, which could include construction-related equipment, would not be permitted to exceed ambient base noise level by more than 5 dB at receiving properties. Furthermore, General Plan 2035 Policy N5-B-4 requires new projects that could generate noise impacts that would be greater than normally acceptable to submit an acoustical study prepared by a qualified acoustical consultant. Additionally, implementation of the best management practices listed under impact discussion NOISE-2 would insure construction-related noise impacts are reduced. The implementation of these policies, future acoustical studies, and standard permitting practices would ensure that construction-related noise impacts be less than significant.

Significance Without Mitigation: Less than significant.
NOISE

NOISE-5 Implementation of the proposed project would not cause exposure of people residing or working in the vicinity of the study area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

The nearest public airport is the Sonoma County Airport, located approximately 9 miles northwest of the project area. Future development in the Southeast Greenway Area would not expose people onsite to excessive airport-related noise levels. Therefore, no impact would occur.

Significance Without Mitigation: No Impact.

NOISE-6 Implementation of the proposed project would not cause exposure of people residing or working in the project site to excessive noise levels, for a project within the vicinity of a private airstrip.

The nearest heliport is at the Santa Rosa Memorial Hospital, located approximately one mile northwest of the project site. While operations may, at times, be audible at the site, the relatively limited and sporadic use of this heliport would result in a negligible contribution to overall noise levels in the project area. The nearest private airport is Graywood Ranch Airport, located approximately 6 miles to the southeast of the project area. Future development under the proposed project would not expose people onsite to excessive noise levels from aircraft approaching or departing these aircraft facilities and no impact would occur.

Significance Without Mitigation: No Impact.

4.10.3 CUMULATIVE IMPACTS

NOISE-7 Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impacts with respect to noise.

Operational Noise

To specifically estimate the proposed project’s contribution to traffic noise, existing noise levels were compared to those projected with buildout of the proposed project. As demonstrated above, the proposed project’s contribution to increases in ambient noise levels and vibration would be less than significant, even when accounting for traffic increases forecast in the Southeast Greenway Area.

As discussed above, potential new stationary sources resulting from future development under the proposed project would not be expected to substantially increase ambient noise levels in the area. Additionally, HVAC, amplified sound, and other stationary noise sources would be required to comply with the restrictions set in the SRCC. Of particular note with all existing and future stationary sources associated with the project is that they are generally localized in nature (as opposed to more area-wide...
sources such as roadways and freeways). For example, a single, roof-top ventilation unit or a single lawn-mower will only potentially affect listeners in the immediate vicinity; say within 100 feet (for discussion purposes). Given this relatively limited sphere of influence for any individual stationary source, the aggregation of stationary sources due to the proposed project and other future projects within the city would not be expected to be cumulatively considerable. Thus, cumulative impacts from project-related stationary noise sources would be \textit{less than significant}.

\textbf{Construction Noise}

Construction activities may occur simultaneously and in close proximity to noise-sensitive receptors, resulting in potentially significant impacts. However, it cannot be determined whether other, close-proximity projects will be conducted simultaneously or what the extent of their potential noise emissions might be, since details of future individual development projects in the vicinity of the Southeast Greenway Area are currently unknown. With implementation of the pertinent General Plan 2035 policies, future acoustical studies, and standard permitting practices, the potential for excessive noise and/or vibration from construction activities would be reduced to a \textit{less-than-significant} level.

\textbf{Significance Without Mitigation:} Less than significant.
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4.11 POPULATION AND HOUSING

This chapter describes the existing population and housing characteristics in Santa Rosa and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts.

4.11.1 ENVIRONMENTAL SETTING

4.11.1.1 REGULATORY FRAMEWORK

State Regulations

California Housing Element Law

California Housing Element Law includes provisions related to the requirements for housing elements of local government General Plans. Among these requirements, some of the necessary parts include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. Additionally, in order to assure that counties and cities recognize their responsibilities in contributing to the attainment of the State housing goals, this section of the Government Code calls for local jurisdictions to plan for, and allow the construction of a share of the region’s projected housing needs.

Regional Regulations

Association of Bay Area Governments Projections 2013

The Association of Bay Area Governments (ABAG) is the official regional planning agency for the San Francisco Bay Area region, which is composed of the nine Counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, and contains 101 cities, including Santa Rosa. ABAG produces growth forecasts on four-year cycles so that other regional agencies, including the Metropolitan Transportation Commission (MTC) and the Bay Area Air Quality Management District (BAAQMD), can use the forecasts to make project funding and regulatory decisions.

Local Regulations

General Plan 2035

The Housing (H) element of the General Plan 2035 includes the following goals and policies specific to housing and applicable to the proposed project:

1 Government Code Section 65580-65589.8.
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, throughout the City, such as single- and multifamily units, mobile homes, transitional housing, and homeless shelters.

- **Policy H-A-2**: Pursue the goal of meeting Santa Rosa’s housing needs through increased densities, when compatible with existing neighborhoods. Development of existing and new higher-density sites must be designed in context with existing, surrounding neighborhoods. The number of affordable units permitted each year and the adequacy of higher-density sites shall be reported as part of the General Plan Annual Review report.

### 4.11.1.2 Existing Conditions

Santa Rosa is home to an estimated 175,667 residents with an average of 2.59 persons per household. Between 2015 and 2016, Santa Rosa experienced a 0.7 percent population increase, compared to the 0.4 percent increase in Sonoma County as a whole. There are a total of 68,803 housing units in the city with a 3.5 percent vacancy rate, compared to the 7.4 percent vacancy rate countywide. Per the General Plan 2035, the city is expected to grow to 237,000 residents, with 96,295 housing units, and 125,180 employees by the horizon year 2035.

As described in Chapter 3, Project Description, of this Draft EIR the Southeast Greenway Area is comprised of vacant parcels. As such, no housing units or residents currently exist on the project site.

### 4.11.2 Standards of Significance

Implementation of the proposed project would result in a significant impact to population and housing if it would:

1. Induce substantial population growth, or growth for which inadequate planning has occurred, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

2. Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.

3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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3 California Department of Finance, Table 2: E-5 City/County Population and Housing Estimates, January 1, 2016.
4.11.3 IMPACT DISCUSSION

POP-1 Implementation of the proposed project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Implementation and adoption of the proposed project could result in the potential future development of up to 244 multi-family housing units, which could generate up to 632 new residents, assuming an average household size of 2.59 persons per household.\(^4\) In addition, the 12,000 square feet of commercial land use could generate up to 40 employees.

As discussed in Chapter 4.9, Land Use and Planning, the proposed project would amend the General Plan 2035 to assign land use designations and conforming zoning to the Southeast Greenway Area. As such, once the proposed project is adopted, the proposed development potential would conform to the standards and regulations set forth in the General Plan 2035 and the Santa Rosa City Code (SRCC).

The project site is well-served by utility and transportation infrastructure and therefore, implementation of the proposed project would not require significant off-site infrastructure improvements. As described in Chapter 3, Project Description, of this Draft EIR, the proposed project would accommodate the installation of a pipeline through the Southeast Greenway Area in order to provide needed redundancy in the regional water system and existing and new water and sewer lines through the area. However, this pipeline improvement is not part of the proposed project and specific details associated with the installation of future utilities are not known at this time; thus, are not evaluated in this Draft EIR. Once utility and pipeline projects are planned and the details are known, additional environmental review may be required. Therefore, the proposed project would not indirectly induce substantial growth through the extension of roads or other new infrastructure that would lead to additional growth outside the project site. Accordingly, indirect impacts related to substantial population growth would be less than significant.

Per the General Plan 2035, the city is expected to grow to 237,000 residents, with 96,295 housing units, and 125,180 employees by the horizon year 2035. The future 244 multifamily residential units and associated 632 new residents and the 12,000 square feet of commercial development and associated 40 new employees of the proposed project represent less than one percent of the projected growth in the city. Accordingly, this does not represent substantial population growth in the city or region.

As discussed in other chapters of this Draft EIR, implementation and adoption of the proposed project would not result in physical impacts to the environment as a result of introducing new housing and population on the project site. While implementation of the proposed project could result in new housing and population, it would not substantially induce new population growth either directly or indirectly. In addition, the proposed project would be required to comply with the General Plan Housing Policies (listed above) which seek to provide adequate housing opportunities for all residents and meet the City’s

\(^4\) 244 dwelling units \(\times\) 2.59 persons per household = 631.9 total residents.
housing needs through increased densities. Accordingly, impacts related to substantial population growth would be less than significant.

**Significance Without Mitigation:** Less than significant.

<table>
<thead>
<tr>
<th>POP-2</th>
<th>Implementation of the proposed project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.</th>
</tr>
</thead>
</table>

As described above under Section 4.11.1.2, Existing Conditions, the project site is comprised of vacant parcels and does not contain any residential units. As such, implementation of the proposed project would not displace existing housing or people and no impact would occur.

**Significance Without Mitigation:** No impact.

<table>
<thead>
<tr>
<th>POP-3</th>
<th>Implementation of the proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.</th>
</tr>
</thead>
</table>

As described above under Section 4.11.1.2, Existing Conditions, the project site is comprised of vacant parcels and no residents currently occupy the site. As such, implementation of the proposed project would not result in the displacement of people and no impact would occur.

**Significance Without Mitigation:** No impact.

### 4.11.4 CUMULATIVE IMPACTS

<table>
<thead>
<tr>
<th>POP-4</th>
<th>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impact with respect to population and housing.</th>
</tr>
</thead>
</table>

The methodology used for cumulative impact analysis is described in Chapter 4.0, Environmental Evaluation, of this Draft EIR. Impacts of cumulative growth are considered in the context of their consistency with regional planning efforts. As described above, the proposed project would not induce a substantial amount of growth or require the construction of replacement housing elsewhere. Although the proposed project would increase the residential development potential by 244 multi-family units compared to the development scenario assumed under the General Plan 2035, the proposed would amend the General Plan 2035 in order to account for this growth. Thus, the proposed project would not contribute to cumulative growth that would not displace substantial numbers of people or housing or exceed planned levels of growth. Therefore, cumulative impacts would be less than significant.

**Significance Without Mitigation:** Less than significant.
4.12 PUBLIC SERVICES AND RECREATION

This chapter describes the regulatory framework and existing conditions in the Southeast Greenway Area related to public services and recreation facilities and evaluates the potential impacts to public services and recreation from future development that could occur by adopting and implementing the proposed project.

4.12.1 FIRE PROTECTION SERVICES

4.12.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations, commonly referred to as the “California Building Code” (CBC). The CBC is located in Part 2 of Title 24. The CBC is updated every three years, and the current 2016 CBC went into effect in January 2017. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The 2016 CBC has been adopted for use by the City of Santa Rosa in Chapter 18-16, California Building Code, of the Santa Rosa City Code (SRCC).

Commercial and residential buildings are plan-checked by local City and County building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all buildings in accordance with State and City codes; the establishment of fire resistance standards in accordance with State and City codes, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

Part 9 of the CBC contains the California Fire Code (CFC), which includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include: installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas. Like the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The 2016 CFC has been adopted for use by the City of Santa Rosa in Chapter 18-14, California Fire Code, of the SRCC.
Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) and Noise and Safety (NS) elements of the General Plan 2035 includes the following goals and policies specific to fire protection services and applicable to the proposed project:

- **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.
    1. The Fire Department shall achieve 90 percent performance of arrival of the first fire company at an emergency within 5 minutes of notification by the dispatch center.
    2. The Fire Department shall achieve 90 percent performance of arrival of all units on first alarm fire suppression incidents within 9 minutes of notification by the dispatch center.
  - **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 a new fire station in southeast Santa Rosa.
  - **Policy PSF-E-7**: To better serve the community, move the fire station on Parker Hill Road to a new location near Fountaingrove Parkway and Parker Hill Road and move the fire station on Burbank Avenue to a new location near Sebastopol Road and Timothy Road.

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

Santa Rosa City Code

The Santa Rosa City Code (SRCC) includes Title 18, Buildings and Construction, which is relevant to the provision of public services, including fire protection under Chapter 18-16, California Building Code and Chapter 18-44, California Fire Code. As described under State Regulations above, the SRCC adopted the 2016 CBC and 2016 CFC, which includes, but is not limited to, the provisions and standards for the installation of sprinklers in all buildings in accordance with State and City codes, establishment of fire resistance standards in accordance with State and City codes, building materials, and particular types of construction, the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas, emergency planning and preparedness, fire service features, fire
protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution.

Existing Conditions

The Santa Rosa Fire Department (SRFD) provides fire protection services, including paramedic emergency medical service, and rescue and hazardous materials response services to Santa Rosa and the Roseland Fire Protection District. The SRFD also has an agreement with the Rincon Valley Fire District.¹

The SRFD responds to more than 25,000 calls for service per year specific to fire, emergency medical, rescue, operations-level hazardous materials response, fire-prevention, and life-safety services. SRFD serves 42 square miles within the service area, which includes a population of over 181,000 residents.²

The SRFD has 10 engines with a captain, engineer and firefighter, and two truck companies with a captain, two engineers, and a firefighter. The SRFD is staffed with a total of 123 firefighters/emergency medical technicians (EMTs) and daily staffing includes 42 firefighter/EMTs. The Southeast Greenway Area would be served by the following three fire stations: Fire Station 1, located at 955 Sonoma Avenue; Fire Station 4, located at 1775 Yulupa Avenue; and Fire Station 6, located at 205 Calistoga Road.³

The City Council has set a goal for the SRFD of responding to 80 percent of all calls for service within 4 minutes or less, to 90 percent of all calls for service within 5 minutes or less, and to all calls for service within 6 minutes or less. According to the SRFD 2016 Strategic Plan, which includes the SRFD’s goals and strategies to provide fire protection services, the SRFD’s response times are at 5 minutes 55 seconds, 90 percent of the time.⁴ In 2007, 28.46 percent of Code 3 calls were responded to within 4 minutes; 54.62 percent of these calls were responded to within 5 minutes; 77.86 were responded to within 6 minutes or less, and 22.14 percent of Code 3 calls were responded to in more than 6 minutes.⁵

The Fire Department Budget for 2016 to 2017 was $34,800,000. The cost to Santa Rosa citizens is $198 per person per year for 8,760 hours of all risk fire and emergency service provided 24-hours a day, 365 days a year.⁶

The Insurance Services Organization (ISO) is an advisory organization that, amongst other things, collects information on municipal fire-protection efforts in communities throughout the United States.⁷ In each of those communities, ISO analyzes the relevant data using their Fire Suppression Rating Schedule (FSRS). The ISO then assigns a Public Protection Classification from 1 to 10. Class 1 generally represents superior

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¹ City of Santa Rosa, 2009. Santa Rosa General Plan 2035, Chapter 6 (Public Services and Facilities), pages 6-8, November.
³ Moon, Scott, Fire Marshall, Santa Rosa Fire Department, Personal communication with PlaceWorks, May 24, 2017.
⁵ City of Santa Rosa, 2009. Santa Rosa General Plan 2035 Draft EIR, Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures), Section I, (Public Services), pages 4-I-1, March.
property fire protection, and Class 10 indicates that the area’s fire-suppression program does not meet ISO’s minimum criteria.\(^8\) The ISO rating is used by the SRFD to evaluate their public fire-protection services. As of December 2016, the SRFD has been upgraded from a Class 3 rating to a Class I rating. The ISO evaluates over 40,000 Fire Departments Nationwide, with only 178 earning the Class I Rating as of 2016.\(^9\)

**4.12.1.2 STANDARD OF SIGNIFICANCE**

Implementation of the proposed project would have a significant impact related to fire protection and emergency services if, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services, it would result in new or physically altered fire protection facilities, or the need for new or physically altered facilities, the construction of which could cause significant environmental impacts.

**4.12.1.3 IMPACT DISCUSSION**

| PS-1 | Implementation of the proposed project would not result in the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. |

The proposed project has the potential to add 244 multi-family residential units and 12,000 square feet of commercial development into the SRFD’s service area. Potential future development could result in approximately 632 new residents and 40 employees\(^{10}\) that would increase fire protection demands on the SRFD. As such, this represents an increase in population of 0.27 percent, which would not likely warrant the construction of a new fire station or require modifications to an existing station that could result in future environmental impacts.\(^{11}\) In addition, General Plan buildout would occur over an 18-year horizon, which would result in an incremental increase in demand for fire protection services to be accommodated by the SRFD.

According to the SRFD, potential future construction and operation as a result of the proposed project would not prevent the SRFD from maintaining acceptable service ratio, response times, or other

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\(^{10}\) Assumes 2.59 persons per household per Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2016. (244 units x 2.59 person per household = 632 residents); 300 square feet (sf) per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6 (12,000 sf commercial/300 sf per employee = 40 employees).

\(^{11}\) Percent population increase is calculated by dividing the number of new residents by the number of total residents in the city of Santa Rosa under the General Plan 2035 projections multiplied by 100 ((632 new residents/233,520 population) X 100 = 0.27 percent.)
performance objectives that would require the new construction of or modifications to an existing fire station. There are plans for expansion and construction of new facilities in the city, however, not as a result of the proposed project.  

Future development under the proposed project would be required to comply with the City’s Fire Code (SRCC Chapter 18-44) and Building Code (SRCC Chapter 18-16), including installation of sprinklers, proper protection systems such as fire extinguishing systems and alarms, fire hydrants, water fire flow requirements, and access points to accommodate fire equipment. Compliance with the SRCC would also be required to ensure the SRFD standards to provide the minimum access and water supplies would be met for any future development on the project site.  

The ongoing compliance with the existing General Plan 2035 policies identified in the local regulations sections above would ensure risks associated with fire hazards in the Southeast Greenway Area and the SRFD service area would be minimized. In addition, the proposed Land Use and Livability Policy LUL-PP-3 would require the design of all structures, utilities and access roads in the Southeast Greenway Area to maximize public safety.

Therefore, with compliance with regulations related to fire protection, impacts to fire protection services as a result of implementing the proposed project would be less than significant and no mitigation measures are required.

**Significance Without Mitigation:** Less than significant.

### 4.12.1.4 CUMULATIVE IMPACTS

**PS-2** Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to fire protection services.

The cumulative setting for fire protection services consists of the current service area boundaries of the SRFD, which include the current city limits. The proposed project, in combination with other reasonably foreseeable development, would increase the population of Santa Rosa, and subsequently the SRFD service area, and could contribute to the need for expanded fire protection and emergency medical services that could cause significant physical impacts to the environment. As described in impact discussion PS-1, the proposed project’s contribution to this cumulative impact would be less than cumulatively considerable. Furthermore, the General Plan 2035 EIR evaluated potential impacts to public safety services resulting from buildout of Santa Rosa and the City’s Urban Growth Boundary. The General Plan 2035 EIR determined that with implementation of the goals and policies in the General Plan 2035, potential cumulative impacts to fire protection services would be less than significant.  

Like future development under the proposed project, all future development in the city would be required to comply  

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with regulations established to reduce adverse impacts from fire hazards. For these reasons, the cumulative impact on the provision of fire services would be less than significant.

Significance Without Mitigation: Less than significant.

4.12.2 POLICE SERVICES

4.12.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

There are no federal or State regulations pertaining to law enforcement that apply to the proposed project.

Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) and Noise and Safety (NS) elements of the General Plan 2035 include the following goals and policies specific to police services and applicable to the proposed project:

- **Goal PSF-E**: Provide fire and police services that ensure the safety of the community.
  - **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.

- **Goal Youth and Family (YF)-A**: Create an environment where children can grow and develop in secure and supportive families and neighborhoods.
  - **Policy YF-A-4**: Expand the placement of police officers at middle and high schools to positively interact with students.

- **Goal Noise and Safety (NS)-A**: Prepare for disasters.
  - **Policy NS-A-3**: Establish community programs which train volunteers to assist police, fire, and civil defense personnel during and after disaster.

Existing Conditions

The Santa Rosa Police Department (SRPD) provides law enforcement services in Santa Rosa including neighborhood-oriented policing services via patrol operations and traffic enforcement. The SRPD has 251 employees working within the community to provide public safety services, and 165 sworn officers.15 The

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SRPD is organized into four areas: Administrative; Field Services (patrol); Special Services (Investigations Bureau and Support Bureau); and Technical Services (Communications Bureau and Records Bureau). Officers comprise eight patrol teams, which are divided among nine beats. Under the field services division, officers are assigned to a beat for six months at a time. The patrol teams are managed by a lieutenant and staffed with sergeants, patrol officers, and field and evidence technicians.16 The Southeast Greenway Area is located within Beat 6, located in the eastern area of the city. All SRPD employees work from a central location at 965 Sonoma Avenue, in Santa Rosa.17

In 2016, the SRPD received 137,140 patrol calls. The average response time for emergency calls (Priority 1) was 6.25 minutes, the average response time for urgent calls (Priority 2) was 10.47 minutes, and the average response time for routine calls (Priority 3) was 21.33 minutes. The total number of crime incidents (majority of types of crimes) for the same time period was 4,956. The total number of arrests for the same time period was 8,522.18 Response time to calls for service from SRPD varies depending on the activity level at the time of the call is received. The average response times for SRPD are currently in line with national standards.19

### 4.12.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact related to police protection services if, in order to maintain acceptable service ratios, response times, or other performance objectives for police services, it would result in new or physically altered facilities, or the need for new or physically altered facilities, the construction or operation of which could cause significant environmental impacts.

### 4.12.2.3 IMPACT DISCUSSION

**PS-3**

Implementation of the proposed project would not result in the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

The proposed project has the potential to add 244 multi-family residential units and 12,000 square feet of commercial development into the SRFD’s service area. Potential future development could result in approximately 632 new residents and 40 employees20 that would increase police protection demands on
the SRPD. As such, this represents an increase in population of 0.27 percent, which would not likely warrant the construction of a new police station or require modifications to an existing station that could result in future environmental impacts.\textsuperscript{21} In addition, General Plan buildout would occur over an 18-year horizon, which would result in an incremental increase in demand for police services to be accommodated by the SRPD.

The SRPD has confirmed that future development under the proposed project would not result in the need for expansion or addition of facilities.\textsuperscript{22} In addition, while the number of calls for services as a result of future development under the proposed project can be hard to predict, city management continually evaluates the need to increase services to its citizens, including the need to add law enforcement personnel.\textsuperscript{23}

Ongoing compliance with the existing General Plan 2035 policies identified in the local regulations sections above would ensure adequate police protection services are available for the existing and future residents of Santa Rosa. In addition, the proposed Land Use and Livability Policy LUL-PP-3 would require the design of all structures, utilities and access roads in the Southeast Greenway Area to maximize public safety. Therefore, with compliance with regulations related to police protection, impacts to police services as a result of implementing the proposed project would be \textit{less than significant} and no mitigation measures are required.

\textbf{Significance Without Mitigation:} Less than significant.

\textbf{4.12.2.4 CUMULATIVE IMPACTS}

\textbf{PS-4} The proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to police services.

The cumulative setting for police services consists of the current service area boundaries of the SRPD, which include the current city limits. The proposed project, in combination with other reasonably foreseeable development, would increase the population of Santa Rosa, and subsequently the SRPD service area, and could contribute to the need for expanded police services that could cause significant physical impacts to the environment. As described in impact discussion PS-3, the proposed project’s contribution to this cumulative impact would be less than cumulatively considerable. Furthermore, the General Plan 2035 EIR evaluated potential impacts to public safety services resulting from buildout of Santa Rosa and the City’s Urban Growth Boundary. The General Plan 2035 EIR determined that with implementation of the goals and policies in the General Plan 2035, potential cumulative impacts to police services...

\textsuperscript{21} Percent population increase is calculated by diving the number of new residents by the number of total residents in the city of Santa Rosa under the General Plan 2035 projections multiplied by 100 ((632 new residents/233,520 population) X 100 = 0.27 percent.)

\textsuperscript{22} Kohut, Richard, Lieutenant, City of Santa Rosa. Personal communication with PlaceWorks. May 26, 2017.

\textsuperscript{23} Kohut, Richard, Lieutenant, City of Santa Rosa. Personal communication with PlaceWorks. May 26, 2017
For these reasons, the cumulative impact on the provision of police services would be less than significant.

**Significance Without Mitigation:** Less than significant.

### 4.12.3 SCHOOLS

#### 4.12.3.1 ENVIRONMENTAL SETTING

**Regulatory Framework**

**State Regulations**

The following sections explain State of California regulations pertaining to schools, relevant to the proposed project.

**Senate Bill 50**

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding and whether the school district meets certain additional criteria involving bonding capacity, year-round school and the percentage of moveable classrooms in use.

**California Government Code Section 65995 to 65998 (School Facilities)**

The California Government Code Section 65996 specifies that an acceptable method of offsetting a project’s effect on the adequacy of school facilities is the payment of a school impact fee prior to issuance of a building permit. Sections 65995 to 65998 set forth provisions for the payment of school impact fees by new development by “mitigating impacts on school facilities that occur (as a result of) the planning, use, or development of real property” [Section 65996(a)]. The legislation goes on to say that the payment of school impact fees “are hereby deemed to provide full and complete school facilities mitigation” under CEQA [Section 65996(b)]. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. In accordance with California Government Code Section 65996, developers pay a school impact fee to the school district to offset the increased demands on school facilities caused by their proposed residential development project.
Local Regulations

General Plan 2035

The Land Use and Livability (LUL) and Public Services and Facilities (PSF) elements of the General Plan 2035 include the following goals and policies specific to school services and applicable to the proposed project:

- **Goal LUL-E**: Promote livable neighborhoods by requiring compliance with green building programs to ensure that new construction meets high standards of energy efficiency and sustainable material use. 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.

- **Goal PSF-C**: Provide superior education opportunities for children and all members of the community.
  - **Policy PSF-C-1**: Assist the various school districts in developing school sites and facilities to serve all neighborhoods in the city, and to respond to the educational needs of various sectors of the population.
  - **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.

Existing Conditions

The Southeast Greenway Area is located within the Santa Rosa City School District (SRCSD), and the Rincon Valley Union School District (RVUSD). The following subsections provide a brief summary of each school district’s enrollment trends, capacity, and financing.

Santa Rosa City School District

The SRCSD includes 14 elementary schools, including four charter schools. In the 2016 to 2017 school year, the elementary schools had a total of 5,422 elementary school students from kindergarten through eighth grade. The SRCSD also includes 19 schools, including middle schools, high schools, necessary schools, and continuing education schools. In the 2016 to 2017 school year, the high schools had a total of 11,295 high school students from ninth to twelfth grade.25

Enrollment and Capacity

The SRCSD schools that serve the Southeast Greenway Area are as follows:

- **Brook Hill Elementary School**: This school serves kindergarten through sixth grade and is located at 1850 Vallejo Street in Santa Rosa. According to information provided in the Santa Rosa City Schools Facilities Master Plan, Brook Hill Elementary School has capacity for 525 students and a projected student enrollment of 392 for the year 2020. In 2015, there were 494 students enrolled at this elementary school.26

- **Herbert Slater Middle School**: This school serves seventh through eighth grade and is located at 3500 Sonoma Avenue in Santa Rosa. According to information provided in the Santa Rosa City Schools Facilities Master Plan, Herbert Slater Middle School has capacity for 787 students and a projected student enrollment of 784 for the year 2020. In 2015, there were 759 students enrolled at this middle school.27

- **Montgomery High School**: This school serves ninth through twelfth grade and is located at 1250 Hahman Drive in Santa Rosa. According to information provided in the Santa Rosa City Schools Facilities Master Plan, Montgomery High School has capacity for 1,853 students and a projected student enrollment of 1,641 for the year 2020. In 2015, there were 1,626 students enrolled at this high school.28

**Student Generation Rates**

When analyzing the impacts of future residential development, student generation factors are used to estimate the number of students the SRCSD can expect from a planned development. The data is used to determine if and when new school facilities will be needed and to make critical facility decisions, such as potential boundary adjustments or the addition of new classrooms to existing sites. Additionally, the number of years a new development will take to be completed is calculated with the projected number of students from various housing types, including detached units, attached units and apartments, to determine how many students from each grade level will be generated over the build-out of the new community. The SRCSD uses a blended transitional kindergarten through sixth grade of 0.147 students per household29 and a blended seventh through twelfth grade factor of 0.148 students per household.30

**Developer Impact Fees**

The Santa Rosa City School District collects residential developer fees for elementary and secondary schools at a rate of $3.34 per square foot and $1.87 per square foot, respectively. If the development is in both the elementary and the secondary school district boundaries, future developers would be subject to the total fee of $5.21 per square foot. Commercial development is collected at a rate of $0.51 per square foot.31

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26 Santa Rosa City Schools Facilities Master Plan, Existing Conditions Summary, Approved April 27, 2016, page 74.
27 Santa Rosa City Schools Facilities Master Plan, Existing Conditions Summary, Approved April 27, 2016, page 222.
28 Santa Rosa City Schools Facilities Master Plan, Existing Conditions Summary, Approved April 27, 2016, page 327.
29 Santa Rosa City Schools Facilities Master Plan, Existing Conditions Summary, Approved April 27, 2016, Appendix 2, Demographics and Capacity Analysis, page 545.
30 Santa Rosa City Schools Facilities Master Plan, Existing Conditions Summary, Approved April 27, 2016, Appendix 2, Demographics and Capacity Analysis, page 453.
Rincon Valley Union School District

The RVUSD is located in the eastern part of Santa Rosa and is comprised of eight elementary schools and one charter school for seventh and eighth grade students. In the 2016 to 2017 school year, this district had 3,571 students from transitional kindergarten through twelfth grade.

Enrollment and Capacity

The RVUSD schools that serve the Southeast Greenway Area are as follows:

- **Spring Creek Elementary School**: This school serves transitional kindergarten through third grades and is located at 4675 Mayette Avenue. Spring Creek Elementary School has a capacity for 374 general education students and current enrollment is 318 general education students. Spring Creek Elementary also houses two special education classes with a capacity of 24 students and current enrollment of 19 special education students.

- **Matanzas Elementary School**: This school serves fourth through sixth grades and is located at 1687 Yulupa Avenue. Matanzas Elementary School has a capacity for 270 general education students and current enrollment is 235 general education students. Matanzas Elementary School also houses two special education classes with a capacity of 24 students with current enrollment of 19 special education students and a home school program with a current enrollment of 45 students.

- **Rincon Valley Charter School**: This is an alternative middle school program housed at Matanzas Elementary that serves seventh through eighth grades. The Rincon Valley Charter School has a capacity of 180 students with a current enrollment of 164 students.

The enrollment capacities listed above assume 22 students per grade level for transitional kindergarten through third grade and 30 students per grade level in fourth through eighth grades. The RVUSD prefers to keep primary grades at 20 students; therefore, the capacity is actually slightly greater than the optimal class loads. The teacher to student ratio is 20 to 1 for primary grades and 30 to 1 for upper grades. The RVUSD does not consistently meet this standard.

Student Generation Rate

The elementary school student generation rate for the RVUSD is 0.75 students per multi-family unit.

Developer Impact Fees

The Rincon Valley Union School District adopted budget for the 2016 to 2017 school year is over $39 million, which provides resources to educate, transport, provide food service, day care and other ancillary services.

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32 City of Santa Rosa, 2009. Santa Rosa General Plan 2035 Draft EIR, Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures), Section I, (Public Services), pages 4-I-2, March.
34 Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017
35 Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017
36 Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017.
programs, as well as build new and maintain and modernize existing facilities.\textsuperscript{37} Rincon Valley Union School District collects development impact fees, which fund improvements and new facilities to mitigate impacts from new development. Rincon Valley Union School District collects developer fees of $2.44 per square foot for residential and $0.39 per square foot of commercial development.

\textbf{4.12.3.2 STANDARDS OF SIGNIFICANCE}

Implementation of the proposed project would have a significant impact related to school services if, in order to maintain acceptable service ratios or other performance objectives for school services, it would result in new or physically altered school facilities, or the need for new or physically altered facilities, the construction of which could cause significant environmental impacts.

\textbf{4.12.3.3 IMPACT DISCUSSION}

\begin{itemize}
  \item[PS-5] Implementation of the proposed project would not result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.
\end{itemize}

This section reviews the need for existing school facilities to accommodate any increases in public school enrollment due to the proposed project. However, the California State Legislature, under Senate SB 50, has determined that payment of school impact fees shall be deemed to provide full and complete school facilities mitigation. All new developments proposed pursuant to the adoption of the proposed project will be required to pay the school impact fees adopted by each school district. According to California Government Code Section 65995(3)(h), the payment of statutory fees is “deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...on the provision of adequate school facilities.”

As described in Chapter 3 of this Draft EIR, the potential future development associated with the proposed project could generate as many as 244 new residential units on three separate parcels in the Southeast Greenway Area that could provide housing for families with school-aged children. Two of the parcels (4.7-acre parcel and 3.7-acre parcel) are located in the SRCSD and one of the parcels (1.2 acres) is located in the RVUSD. As some of the multi-family units could be studio and one-bedroom units accommodating single residents and/or couples without children, it is likely that the student generation estimates are high, thereby, allowing for a conservative analysis of potential impact to schools. All 244 multi-family units would be in the Montgomery High School and Herbert Slater Middle School attendance area. It is possible that some middle school students could attend Rincon Valley Charter School; however, Herbert Slater Middle School is the middle school option for most students.\textsuperscript{38} The elementary students

\textsuperscript{38} Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017.
would be distributed between the SRCSD and RVUSD. The distribution of the proposed housing potential by the two school districts is described below.

Santa Rosa City School District

The 4.7-acre site designated for 2- to 3-story units at the terminus of State Route 12 (SR 12), bordered by Farmers Lane, Hoen Frontage Road and the SR 12 on-ramp would have Medium High Density Residential and Retail and Business Services General Plan land use designations and would be zoned Commercial General (CG) under the proposed project with a density restriction of 18 to 30 dwelling units per acre. Additionally, this location of the Southeast Greenway Area also includes a 3.7-acre site that would have a 2- to 3-Story Attached Housing land use designation and would be zoned Multi-Family Residential (R-3-18) with a density restriction of 8 to 18 dwelling unit per acre. To see where these proposed designations would be allowed, see Figure 3-9 in Chapter 3, Project Description. Applying these proposed density ranges for each of the two sites, the 4.7-acre site could result in 85 to 142 multi-family dwelling units and the 3.7-acre site could result in up to 30 to 67 attached housing units. When combined, the total residential build-out range in the SRCSD would be 115 to 209 multi-family units under future development that could house families with elementary school children.

Elementary Schools

Applying the SRCSD blended transitional kindergarten through sixth grade student generation rate of 0.147 students per unit to the maximum 209 potential multi-family units in the SRCSD, future development could generate up to 31 elementary students. As previously stated, the Brook Hill Elementary School has the capacity for 525 students and is projected to have 392 students by 2020. Therefore, it is not likely that the addition of 31 additional students from the proposed project would not cause Brook Hill Elementary School to exceed capacity in the near future (2020) or by the General Plan 2035 buildout horizon.

Middle and High Schools

Applying the SRCSD blended seventh through twelfth grade student generation rate of 0.148 students per unit to the maximum 244 potential multi-family units in the SRCSD, future development could generate up to 37 middle school and high school students. As previously stated, Herbert Slater Middle School has the capacity for 787 students and is projected to have 784 students by 2020 and Montgomery High School has the capacity for 1,853 students and is projected to have 1,641 students by 2020. Therefore, it is not likely that the addition of 37 additional middle and high school students from the proposed project would not cause either of these schools to exceed capacity in the near future (2020) or by the General Plan 2035 buildout horizon. While Herbert Slater Middle School would near its capacity limits by 2020 according to the SRCSD’s projections, it is likely that not all 37 students would be of middle-school age and would only attend Herbert Middle School. As described above, it is possible that some middle school students could attend Rincon Valley Charter School.

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39 209 multi-family units 0.147 students per unit = 30.723 elementary school students.
40 244 multi-family units 0.148 students per unit = 36.112 middle and high school students.
Rincon Valley Union School District

The 1.2-acre site off of Yulupa Avenue would have Medium High Density Residential and Retail and Business Services General Plan land use designations and would be zoned Neighborhood Commercial (CN) under the proposed project. See Figure 3-9 in Chapter 3. Under these proposed designations, a density of 18 to 30 dwelling units per acre would be allowed. Therefore, the 1.2-acre site could result in 21 to 35 multi-family dwelling units under a future development proposal that could house families with elementary school children. Applying the RVUSD student generation rate of 0.75 students per unit to the maximum number of potential units, a future project could generate up to 26 elementary students. As described by RVUSD, the students could be accommodated within existing facilities since enrollment at both Spring Creek Elementary and Matanzas Elementary is under capacity. A slight shifting of attendance boundaries might be necessary, and if students are out of proportion within grade levels, then additional classrooms may become necessary. The RVUSD is considering the purchase of 15 acres to accommodate a future school when enrollment increases to the degree a new school is needed. When all RVUSD schools exceed their capacity, new or expanded facilities to serve the overflow would be required, and a separate project-specific environmental analysis would be completed under the authority of RVUSD.

In summary, under Section 65996 of the California Government Code, the payment of the developer fees for residential and commercial development required for any future residential development in the SRCSD and the RVUSD would fully mitigate the impacts of new development on school facilities. Therefore, overall, impacts related to schools would be less than significant.

Significance Without Mitigation: Less than significant.

4.12.3.4 CUMULATIVE IMPACTS

Cumulative projects would add new students to the SRCSD and RVUSD, in addition to those generated by potential future development under the proposed project, which could result in the need for new or expanded school facilities. However, like the proposed project, these cumulative projects would also be subject to the school mitigation fees regulated by State law. Under Section 65996 of the California Government Code, the payment of impact fees is deemed to fully mitigate the impacts of new development on school facilities. Therefore, cumulative impacts related to school facilities would be less than significant.

Significance Without Mitigation: Less than significant.

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41 35 multi-family units x 0.75 students per unit = 26 elementary students.
42 Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017
43 Roehrick, Tony, Superintendent of RVSD, City of Santa Rosa. Personal communication with PlaceWorks. May 19, 2017
4.12.4 LIBRARIES

4.12.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

There are no federal or State regulations pertaining to library services that apply to the proposed project.

Regional Regulations

Sonoma County Library Strategic Plan 2015-2020

The Sonoma County Library Joint Powers Authority (Library JPA) adopted the Sonoma County Library Strategic Plan: 2015-2020. This Strategic Plan is intended to provide a framework for better library services by establishing a vision, mission, goals, and objectives. The Sonoma County Library Strategic Goals contained in the Strategic Plan are listed below.44

- **People First**: The library’s positive organizational culture, commitment to customer service, and collaborative approach to serving all members of our community results in an outstanding library experience for everyone.
- **Welcoming Place and Spaces**: Inside and outside, the library’s facilities and grounds exemplify our mission and enhance the customer experience with functional, appealing, creative, and fun design.
- **A World of Information**: Library staff connects our residents to information, experiences, and experts that help learn, relax and interact with others.
- **A Partner in Education**: The library is an integral part of the K-12 and post-secondary education system in Sonoma County. Our partnerships with academic and other libraries ensure success as an education institution.
- **A leader in Health**: We provide our communities’ most vulnerable populations—the homeless, the unemployed and underemployed, and people with disabilities—with tools and resources that support independence, individual achievement and equity.
- **Service Delivery Innovation**: We develop innovative services and embrace technologies that improve our libraries.
- **A Risk–Taking Culture**: We are a national leader in developing and delivering outstanding public programs and services, community engagement activities, and staff development opportunities that improve our libraries and our communities.
- **Going Green**: We utilize proven methods and explore innovative, eco-friendly practices that move the library to the forefront of positive environmental stewardship in the county.
- **Powerful Partnerships**: We build and maintain strong partnerships throughout the community to meet the needs of all Sonoma County residents.
- **A Visible Community Asset**: The library and its staff are a vital part of our community and are recognized by the public and our local leaders for our service and contributions to our community.

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- **Citizen Engagement**: We engage community members through meaningful volunteer opportunities and community activities that contribute to the library’s mission and the betterment of our community.
- **Solid Financial Policies**: The library’s financial strategies are based on sound financial policies and procedures, thoughtful decision-making, and ongoing financial sustainability.
- **Working Smart**: We continuously improve processes and remove barriers to effective customer service.
- **A Savvy Organization**: We develop financially savvy leaders within our organization who are visible in our communities and actively engaged with our residents.

**Local Regulations**

**General Plan 2035**

The Public Services and Facilities (PSF) element of the General Plan 2035 includes the following goal and policies specific to library services and applicable to the proposed project:

- **Goal PSF-D**: Provide library facilities necessary to meet the needs of the community.
  - **Policy PSF-D-1**: Provide a wide range of library services through a strong central facility and local branches needed to serve a growing and varied population.
  - **Policy PSF-D-2**: Develop additional library facilities and assist the library administration in its attempts to secure state and federal funds for facilities and services.
  - **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.
  - **Policy PSF-D-4**: Explore new ways in which the city can support the goal of expanded facilities and services.

**Existing Conditions**

Santa Rosa is part of the Sonoma County Library System which has 14 branches. The county-wide library system serves approximately 495,000 residents in Cloverdale, Cotati, Guerneville, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor. The Central Santa Rosa Library, Northwest Santa Rosa Library and the Rincon Valley Library serve the residents of Santa Rosa.

The Central Santa Rosa Library, located at 211 East Street, has been providing library services since 1859. This library provides reader seats, computers, printers, copy machines, research stations, and microfilm reader printers.\(^{45}\) The Northwest Santa Rosa Library located on 150 Coddington Center, is an 8,000 square foot one-story building with a collection of 13,000 books. The library provides reader seats, copy machines, research stations, printers and copiers.\(^{46}\) The Rincon Valley Library has served the northeastern

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Santa Rosa communities of Rincon Valley, Bennett Valley, and Oakmont since 1994. The library provides reader seats, computers, printer, copy machines, bilingual early learning stations, a CD listening station, and a research station. On November 8, 2017, 72 percent of the voters in Sonoma County voted to support Sonoma County Library by passing Measure Y to increase sales taxes by an eighth of a cent. The increased revenue will be used to restore, and enhance library services including both materials and facilities throughout Sonoma County. As of July 2015, the library operates with a budget of approximately $17.8 million and 130 full time employees. The current ratio of square feet of library space per number of population is 2.54 persons per square feet. More staff will be added to increase the level of service to accomplish the goals and objectives of the Library’s 5-year Strategic Plan.

**4.12.4.2 STANDARD OF SIGNIFICANCE**

Implementation of the proposed project would have a significant impact related to library services if, in order to maintain acceptable service ratios or other performance objectives, the proposed project would result in new or physically altered facilities, or the need for new or physically altered facilities, the construction or operation of which could cause significant environmental impacts.

**4.12.4.3 IMPACT DISCUSSION**

The proposed project would not result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

Potential future development under the proposed project could generate approximately 244 new housing units, including 632 new residents and 40 employees. The permanent new residents could increase the demand for the library services at the Sonoma County Library. General Plan 2035 Goal PSF-D requires the City to retain and enhance the high quality library service at the Sonoma County Library, and explore ways to improve service such as developing existing facilities. Sonoma County Library staff indicated that increased demand from the proposed project would not require physical expansion of new library facilities. Therefore, a less-than-significant impact would occur with respect to the need for new or physically altered library facilities.

**Significance Without Mitigation:** Less than significant.

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50 Okazaki, Kiyo, Public Services Division Manager, Sonoma County Library. Personal communication with PlaceWorks. May 30, 2017
51 Okazaki, Kiyo, Public Services Division Manager, Sonoma County Library. Personal communication with PlaceWorks. May 30, 2017
4.12.4.4 CUMULATIVE IMPACTS

PS-8 The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to the construction of other public facilities.

Future growth within the Sonoma County Library service area would increase the demand for library services and facilities. The Sonoma County Strategic Plan: 2015 to 2020 accounts for the entire Sonoma County Library service area and provides a framework for continuous improvement of library services. This effort would ensure that Sonoma County libraries are adequate to fulfill demand and that the plans for future improvements are in coordination with its member communities.

As discussed above, the proposed project would not require the need for new or altered library facilities. Accordingly, the proposed project’s contribution would not be cumulatively considerable and cumulative impacts to library services would be less than significant. Furthermore, if and when new or expanded facilities do become necessary due to cumulative development projects in the service area, construction or expansion projects would be subject to separate CEQA review in order to identify and mitigate potential environmental impacts. Therefore, a less-than-significant cumulative impact associated with libraries would occur.

Significance Without Mitigation: Less than significant.

4.12.5 PARKS AND RECREATIONAL FACILITIES

4.12.5.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

The Quimby Act

The Quimby Act of 1975 authorizes cities and counties to pass ordinances requiring developers to set aside land, donate conservation easements or pay fees for park improvements. The Quimby Act sets a standard park space to population ratio of up to 3 acres of park space per 1,000 persons. Cities with a ratio of higher than three acres per 1,000 persons can set a standard of up to 5 acres per 1,000 persons for new development. 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. A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public

need for a recreation facility or park land, and the type of development project upon which the fee is imposed.

Local Regulations

General Plan 2035

The Land Use and Livability (LUL), Urban Design, (UD) and Public Services and Facilities (PSF) elements of the General Plan 2035 include goals and policies relevant to parks and recreation, and are applicable to the proposed project:

- **Goal LUL-E:** Promote livable neighborhoods by requiring compliance with green building programs to ensure that new construction meets high standards of energy efficiency and sustainable material use. 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.

- **Goal LUL-S:** Develop an attractive, safe, and extensive network for pedestrian and bicyclist movements
  - **Policy LUL-S-3:** Link pedestrian and bicycle paths to community destinations (parks, etc.), the surrounding rural countryside trail system, and the downtown area.
  - **Policy LUL-S-4:** Coordinate with the Sonoma County Parks Department regarding potential linkages to the rural countryside.

- **Goal LUL-BB:** Enhance quality of life in the project area by providing parks, trails, and recreational and cultural opportunities.

- **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.
  - **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.
  - **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 PSF:** Provide recreational facilities and parks for all sectors of the community
  - **Policy PSF-A-1:** Provide recreation and park facilities and services needed by various segments of the population – including specific age groups, persons with special physical requirements, and groups interested in particular activities – and make these facilities and services easily accessible and affordable to all users.
  - **Policy PSF-A-2:** Acquire and develop new park facilities to achieve a citywide standard of 6 acres of parkland per thousand residents:
    - 3.5 acres of city park land;
    - 1.4 acres of publicly accessible school recreational park land (defined as parkland that is open to the public during standard park hours when school is not in session);
    - 1.1 acres of public serving open space.
This will require a total of 1,401 acres of city parks, publicly accessible school recreation areas, and open space to be available in 2035.

**Policy PSF-A-3:** Develop a balanced park system throughout the city by incorporating the following parkland classification system into the 3.5 acres per thousand residents of city park land.

- Neighborhood Parks: generally more than two acres but less than ten acres; provide spaces for informal or casual play, family or small group activities such as picnics, community gardens, children’s play areas, a special feature such as a splash area, hard court or multiuse field space for fitness, and passive natural areas. The city aims to provide access to neighborhood parks within one-half mile of residential neighborhoods.
- Community Parks: generally 10 to 25 acres; provide spaces for organized sports, larger group events, several unique features, pathways and natural areas, community gardens, and recreational facilities such as community centers. The city aims to provide access to community parks within one mile of residential neighborhoods.
- Citywide Parks: generally larger than 25 acres; include special signature elements such as lakes, sports complexes, amphitheaters, lighted features, recreational facilities and buildings, large play structures, and spaces for large play structures, and spaces for large group activities such as citywide camps or corporate picnics.
- Special Purpose Parks and Facilities: park lands generally designated for single use such as golf courses, heritage museums, botanical gardens, and environmental interpretive experiences.

**Policy PSF-A-4:** Continue planning efforts to acquire and develop parklands for all Santa Rosa residents, families, and neighborhoods that promote and encourage access by a variety of alternative methods such as biking and walking, and connect public spaces using the following guidelines:

- Provide access to public plazas and gathering places within one-quarter mile of residential neighborhoods.
- Provide access to neighborhood parks within one-half mile of residential neighborhoods.
- Provide access to community parks within one mile of residential neighborhoods.

**Policy PSF-A-5:** Developing areas of the city (e.g., southwest Santa Rosa) should be given a higher priority for new park development, and underserved neighborhoods should be given priority during redevelopment and renovation of the park system. Priority for park development should also be given to areas of greatest density and areas that allow for safe and easy access and visibility. Priority should also be given to locations that minimize impacts to sensitive environmental resources that could require extensive and expansive mitigation; the most sensitive environmental resource areas should generally be preserved for more passive recreation that assures their protection.

**Policy PSF-A-6:** 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. Develop joint use agreements to ensure public access and provide for sustainable resources to maintain parks.

**Policy PSF-A-8:** Integrate the bicycle and pedestrian path networks envisioned in both the Citywide Creek Master Plan and 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.
Policy PSF-A-9: When building new parks, consider expanding existing parks or consolidating proposed parks to provide larger acreage and greater range of recreation activities, while maintaining park standards.

Policy PSF-A-10: Schedule activities in Prince Memorial Greenway, the Santa Rosa Creek park/promenade connecting downtown to Railroad Square.

Policy PSF-A-12: Hold neighborhood meetings when new facilities are proposed to discuss major recreation and parks issues and solicit comments from groups and individuals with special needs, including those unable to attend public meetings. Incorporate the community sentiments into ongoing recreation and parks planning, and General Plan updates.

Policy PSF-A-17: Develop special purpose parks and facilities for each recreation and park planning area throughout the city, including but not limited to multi-generational recreational centers, aquatic centers, education and community service centers and other unique facilities, with priority given to areas experiencing high growth.

Policy PSF-A-18: Develop multi-use pathways and linear parks along creeks designated by the Santa Rosa Citywide Creek Master Plan. Create a system of interconnected linear parks that provide access to parks used for active recreation as well as to open space preserve areas that are used primarily for more passive recreation such as hiking and wildlife viewing.

Goal PSF-B: Ensure adequate funding for recreation and parks improvements and maintenance.

Policy PSF-B-1: Project acquisition and maintenance costs for new park facilities, and ensure that sustainable resources and funding mechanisms are available to meet approved maintenance management plans and acceptable levels of maintenance services.

Policy PSF-B-2: Annually evaluate the in-lieu fees allowed under the Quimby Act for park acquisition to ensure sufficient funds to acquire parks consistent with General Plan acreage totals.

Policy PSF-B-3: Annually evaluate Park Impact Fees to ensure sufficient funds for park acquisition and development from proposals that do not meet Quimby guidelines.

Policy PSF-B-3: Establish and annually evaluate mitigation fees for environmentally sensitive resource lands and/or endangered species habitat areas that are subject to development, and apply mitigation fees according to the quadrant of the city where these issues are applicable. Evaluate fees annually to update land costs and mitigation ratios.

Policy PSF-B-6: Develop a citywide Resource Management Plan for park and facility maintenance that addresses core versus non-core services, appropriate levels of service, and factors that affect park maintenance practices.

Santa Rosa City Code

Chapter 19.70, Park and Recreation Land and Fees, outlines the requirements for the dedication of land or payment of fees for park and recreational services and land for public right of access. Under Section 19-70.090 a fee shall be paid for park development by the developer of each new dwelling unit irrespective of whether the developer is required to dedicate land or pay fees in lieu of land dedication. This fee shall be used to pay for those improvements including, but not limited to, landscaping, and installation of recreational facilities. The fee shall be determined by the residential formula listed under Section 19-70-040, which is based on 6 acres per 1,000 persons. When a fee is to be paid in lieu of land dedication, the amount of the fee shall be based on the fair market value of the amount of land which would otherwise be required by dedication pursuant to Section 19-70-040 plus 20 percent towards costs of off-site...
improvements, such as extension of utility lines. The formula is the number of dwelling units multiplied by the population per dwelling units.

**Recreation and Parks Business and Strategic Action Plan**

In 2008, the City developed the *Santa Rosa Recreation and Parks Business and Strategic Action Plan* to identify and assess current and anticipated parks and recreation needs and priorities as well as to provide practical and strategic direction for meeting these needs and prepare a financial plan for the financing and funding of parks and recreation. This plan outlines several goals that are relevant to the proposed project:

- **Goal 1 - Park Development Standards**
  - **Strategy 1.2:** Pursuant to the General Plan, apply the standard of six acres of parkland per 1,000 residents to all development projects and ensure the following allocation is met:
    - 3.5 acres of parkland designated as city parks,
    - 1.4 acres of parkland as accessible school recreational land, and
    - 1.1 acres of public serving open space.
  - **Strategy 1.3:** Redefine access to park and public spaces for all residents to meet the following:
    - within ¼ mile to public plazas and gathering spaces,
    - within ½ mile to neighborhood parks, and
    - within 1 mile to community parks.

- **Goal 4 - Facilities**
  - **Strategy 4.2:** Continue ongoing efforts to locate new facilities throughout the community and not concentrated in one planning area.
  - **Strategy 4.3:** Provide a balance of new facility types in all recreation and park planning areas.

- **Goal 5 - Connectivity**
  - **Strategy 5.1:** Add trails and pathways to connect destinations throughout the city such as schools, libraries and parks.
  - **Strategy 5.3:** Integrate corridors and pathways into overall community design, planning and development decisions.
  - **Strategy 5.4:** Encourage new development to include a system of internal trails and pathways within developments and identify opportunities to connect with established trails and pathways.

**Existing Conditions**

**City-owned Parks and Facilities**

The Santa Rosa Recreation and Parks Department (SRRPD) provides and manages a total of 558 acres of neighborhood and community parklands, 231.8 acres of acquired, but undeveloped land, and 150 acres of golf course for a total of 940 acres. The City categorizes parks into a two-tier classification system: neighborhood parks and community parks. Neighborhood parks are between 2 and 10 acres in size and

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are located about 0.05 miles from the residents they serve. Facilities at neighborhood parks typically include picnic areas, playground equipment, and basketball courts. Community parks are 10 to 25 acres in size and contain more space and have cost intensive recreational facilities, such as ball fields and tennis courts. The SRRPD has 52 neighborhood parks and ten community parks. In addition to neighborhood and community parks, Santa Rosa has two community centers, two aquatic facilities, the Bennett Valley Golf Course, and the Senior Center on Bennett Valley Road. The city also owns two clubhouse facilities at Doyle Park and Franklin Park.  

The General Plan 2035 has established level of service benchmarks for parks and community centers. The City has a service objective of 6 acres of parkland per 1,000 residents. Within the standard, the ratio of city parks, school recreation land, and open space is determined by City Council resolution. Currently, the City’s standard includes 3.5 acres of city parks, (neighborhood, community, citywide and special purpose parks and facilities) per 1,000 residents, plus 1.4 acres of publicly accessible school recreational land, and 1.1 acres of public-serving open space.  

As of January 2015, Santa Rosa had an estimated population of 172,066 and therefore, had approximately 5 acres of parkland per 1,000 residents.  

Regional Parks and Preserves  

Larger open space areas in the city are generally developed in association with the Sonoma County Agricultural Preservation and Open Space District and the Sonoma County Water Agency under joint acquisition and maintenance agreements. These spaces allow some public access for hiking and wildlife viewing. These areas are counted as part of the standard of 1.1 acres of public-serving open space per 1,000 residents described above.  

In addition, Spring Lake County Park is operated by Sonoma County Regional Parks and includes 320 acres for walking, hiking, bicycling, horseback riding, swimming, boating, fishing, camping, access to picnic areas and access to the Environmental Discovery Center. Spring Lake County Park is located in northeast Santa Rosa which connects to the eastern part of the project site.

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54 City of Santa Rosa, 2009. Santa Rosa General Plan 2035 Draft EIR, Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures), Section P, (Parks and Recreation), pages 4-P-1, March.  
55 City of Santa Rosa, 2009. Santa Rosa General Plan 2035, Chapter 6 (Public Services and Facilities), pages 6-2, November.  
57 940 acres divided by 172 ([172,066/1000]) =5 acres per thousand resident.  
Trione-Annadel State Park operated by the California Department of Parks and Recreation includes 5,000 acres and offers bike trails, hiking trails, horseback riding, fishing, interpretive exhibits, vista points, nature and wildlife viewing, picnic areas, and an environmental learning and visitor center. The park is adjacent to Spring Lake Regional Park and provides connections to both Sonoma County Regional Park system as well as to the proposed project. While both Spring Lake Regional Park and Trione-Annadel State Park are not operated by the City of Santa Rosa, they provide additional recreational opportunities for residents of Santa Rosa.  

4.12.5.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact related to parks if it would:

1. Result in new or physically altered park facilities, or the need for new or physically altered facilities, the construction or operation of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and recreational facilities.

2. 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.

3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.12.5.3 IMPACT DISCUSSION

PS-9 Implementation of the proposed project would not result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

As described in Chapter 3, Project Description, of this Draft EIR, potential future development under the proposed project is expected to generate approximately 244 new housing units, which could result in 632 permanent residents that would likely use City parks. While the routine use of the parks and recreational facilities by the 40 estimated future employees from the 12,000 square feet of potential commercial development is not anticipated, the new permanent residents could increase the demand for the parks and recreational facilities in the city.

Implementation of the proposed project would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities.

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59 City of Santa Rosa, 2009. Santa Rosa General Plan 2035, Chapter 6 (Public Services and Facilities), pages 6-2, November.
60 Assumes 2.59 persons per household per Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2016. (244 units x 2.59 person per household = 632 residents).
61 Assumes 300 square feet (sf) per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6 (12,000 sf commercial/300 sf per employee = 40 employees).
facilities in order to maintain the City’s adopted ratio of 6 acres of parkland per 1,000 residents are required. The 632 residents would require approximately 3.8 acres of parkland.\(^\text{62}\)

As described under Existing Conditions, the City currently does not meet its standard of 6 acres per 1,000 residents. However, the proposed project would add 47.2 acres of park and recreational uses including open space to the city. As described in Chapter 3, Project Description, public open space would be areas with a mostly natural appearance and would maintain a minimum width of 100 feet (but often wider) for the length of the Greenway (1.9 miles), and would include pathways for pedestrians, bicyclists, and non-motorized access; native plantings; and some areas dedicated to play areas, picnic areas near access points, restored orchards, and community gardens. Within the park and recreational uses including open space, select areas are appropriate for the following uses:

- **Public Plaza.** Locations for small gatherings, trailheads, and gateways. These areas would include signage and seating, and could include restrooms, kiosks, public art, and public parking. (4 plazas times 0.25 each equals 1.0 acres)

- **Natural Open Space.** These areas would be for wildlife habitat and planted with appropriate native plants. (17.8 acres)

- **Creek Restoration.** Areas around creeks would be restored with riparian vegetation where appropriate. Aside from designated trails, these areas would have minimal access. (3.1 acres)

- **School Facilities.** This is intended to be an area for joint-use active recreational uses (swim center, running tracks, basketball or tennis courts), “outdoor classrooms,” and associated restrooms and lighting that could serve as an extension of Montgomery High School. The area could be usable by other schools, as well as the community at-large, and could benefit from sharing the school’s existing parking lots. (1.4 acres)

- **Community Gathering Place.** This space would benefit from its proximity to the school facilities, potentially sharing Montgomery High School’s existing parking lot and would allow facilities for large, organized community events like celebrations, festivals and concerts. It could include a small amphitheater. (0.5 acres)

- **Urban Agriculture.** These areas would allow community gardens or working farms, including orchards. They are primarily located near pedestrian/bicycle cross intersections and new housing. Community gardens serve the neighborhood and bring more “eyes to the Greenway” enhancing the safety for all users. They would be sited at pedestrian pathways to neighboring residential areas. (5.1 acres)

Because the proposed project includes publically accessible park and recreational uses including open spaces up to 47.2 acres, this would contribute to the City’s goals for providing recreational opportunities to the residents of Santa Rosa and impacts be \textit{less than significant} impacts.

\textbf{Significance Without Mitigation:} Less than significant.

\(^{62}\) 632 residents x 0.006 (6 acres of parkland per 1,000 residents) = 3.792 acres.
PS-10  Implementation of the proposed project would not 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.

The park and recreational opportunities under the proposed project combined with the wide range of parks and recreational facilities available for public use in Santa Rosa and the surrounding area would not be expected to increase the use of recreational facilities to the extent that substantial deterioration would occur. As described under impact discussion PS-9, the proposed project would introduce recreational facilities in Santa Rosa and the region. In addition, Sonoma County Regional Parks has identified five new improvements and extensions to existing parks in the southeast park planning quadrant, which is located southeast of the intersection of Highway 101 and SR 12, adding to the existing regional park facilities. Consequently, the proposed project would not result in substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities, and a less-than-significant impact would occur.

Significance Without Mitigation: Less than significant.

PS-11  The proposed project would include recreational facilities and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

As described under impact discussion PS-9, implementation of the proposed project would include park and recreational facilities up to 47.2 acres that would contribute to an increase in access to recreation facilities for residents of Santa Rosa and the region. For this reason, implementation of the propose project would not warrant the construction of recreational facilities elsewhere that could result in physical impacts to the environment. Therefore, implementation of the proposed project would not require the expansion of an existing facility, nor would it require the addition of new parks in Santa Rosa or the surrounding area and impacts would be less than significant.

Significance Without Mitigation: Less than significant.

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63 Ehret, Steve, Planning Manager, City of Santa Rosa. Personal communication with PlaceWorks. June 7, 2017.
4.12.5.4 CUMULATIVE IMPACTS

The proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to parks.

Implementation of the proposed project would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities in order to maintain the City’s adopted ratio of 6 acres of parkland per thousand residents.

While cumulative growth in the resident and employee population would result in increased use of neighborhood and regional parks and recreational facilities, buildout of the reasonably foreseeable projects in Santa Rosa would not result in substantial adverse impacts to parks and recreational facilities in Santa Rosa. The new residents and employees that would be generated by cumulative development would use existing local and regional parks and recreational facilities, and continued implementation of the parkland dedication requirements established in the SRCC would ensure that existing parks or public facilities are well-maintained and improved as needed, avoiding substantial physical deterioration of recreational facilities.

Overall, implementation of the proposed project, in combination with other past, present, and reasonably foreseeable projects, would result in a less-than-significant cumulative parks and recreation impact.

**Significance Without Mitigation:** Less than significant.
4.13 **TRANSPORTATION AND CIRCULATION**

This chapter describes the existing conditions related to transportation and circulation in the Southeast Greenway Area and evaluates the potential environmental consequences of potential future development that could occur by adopting and implementing the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts. The analysis in this chapter is based on a Traffic Impact Study prepared by W-Trans on July 10, 2017. The Traffic Impact Study is included in Appendix H of this Draft EIR.

4.13.1 **ENVIRONMENTAL SETTING**

4.13.1.1 **REGULATORY FRAMEWORK**

**State Regulations**

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled and thereby contribute to the reduction of greenhouse gas emissions, as required by the California Global Warming Solutions Act of 2006 (Assembly Bill 32).

SB 743 started a process that will likely change transportation impact analysis as part of CEQA compliance. Changes include the elimination of auto delay, level of service, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts in many parts of California (if not Statewide). The new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code Section 21099(b)(1)). On January 20, 2016, the Governor’s Office of Planning and Research (OPR) released revisions to its proposed Draft CEQA guidelines for the implementation of SB 743. Once the guidelines are prepared and certified, “automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment” (Public Resources Code Section 21099(b)(2)). Certification and implementation of the guidelines are expected towards the end of 2017 or early 2018. Since OPR has not yet amended the CEQA Guidelines to implement this change, automobile delay is still considered a significant impact, and the City of Santa Rosa will continue to use the established level-of-service (LOS) criteria (e.g., LOS A through LOS F) described under local regulations below.

**Caltrans Highway 12 Transportation Concept Report**

The Caltrans 2014 State Route 12 (West) Transportation Concept Report (Transportation Concept Report) provides an evaluation of the current and projected conditions along State Route 12 (SR 12) and a vision for future development on SR 12. The Transportation Concept Report was developed with goals of increasing safety, improving mobility, providing stewardship, and meeting community and environmental
needs along the corridor. Unlike Caltrans planning documents of the past that placed a heavy emphasis on the need for vehicular capacity, this report has a strong multimodal focus and recognizes the different community and “place” types that the highway traverses. It notes that the freeway portion of SR 12 is not planned to extend beyond Farmers Lane, where it currently terminates and it is recommended that the excess right-of-way be considered together with changes to develop Farmers Lane as a more “livable street” to serve local community needs while not significantly increasing traffic in the surrounding neighborhoods. Farmers Lane, between Hoen Avenue and Fourth Street, is identified in the Transportation Concept Report as a road where complete streets changes and traffic-calming measures should be considered. The City reviewed this document and provided comments.

Regional Regulations

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county Bay Area, including Sonoma County. It also functions as the federally mandated metropolitan planning organization (MPO) for the region. Plan Bay Area is the Bay Area’s Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). Plan Bay Area, adopted jointly by Association of Bay Area Governments (ABAG) and MTC July 18, 2013,\(^1\) lays out a development scenario for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board. The final draft of Plan Bay Area 2040 was recently released and has an anticipated adoption in the fall of 2017. It would serve as a limited and focused update to Plan Bay Area 2013, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years.\(^2\) MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission. The project’s relationship to GHG emissions reductions are discussed in detail in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR.

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA), created in 1990, is governed by a twelve-member Board of Directors representing nine cities: Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sonoma, and Windsor. The SCTA serves as the entity responsible for planning and prioritizing transportation improvement projects at a county-wide level. As of 2004, the SCTA is also responsible for managing the voter approved Measure M, the Traffic Relief Act for Sonoma County which provides direct funding for local transportation projects.

As the regional transportation authority, the SCTA prepares the Comprehensive Transportation Plan (CTP) for Sonoma County. Moving Forward 2040 is the most recent CTP approved by the SCTA. Moving Forward 2040 is a 25-year plan establishes goals and objectives for improving mobility on Sonoma County’s streets, highways, transit system and bicycle/pedestrian facilities, as well as reducing transportation-related

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\(^1\) It should be noted that the Bay Area Citizens filed a lawsuit on MTC’s and ABAG’s adoption of Plan Bay Area.

impacts. Moving Forward 2040 also includes the Sonoma County Travel Model (SCTM) which can be used to forecast future travel patterns and demand-based on changes to the transportation system (new roads, changes in capacity, etc.), land use (changes in residential densities or locations, new job sites, etc.), or demographics (more or less people in a certain area).

Local Regulations

General Plan 2035

The Transportation (T) element of the General Plan 2035 includes the following goals and policies specific to transportation and circulation that are applicable to the proposed project:

- **Goal T-A**: Provide a safe and sustainable transportation system.
  - **Policy T-A-7**: Expand non-motorized and bus infrastructure throughout the city such that greater amenities exist for cyclists, pedestrians and transit users in order to promote a healthy, sustainable city and further reduce GHG emissions.

- **Goal T-D**: Maintain acceptable motor vehicle traffic flows.
  - **Policy T-D-1**: Maintain a Level of Service (LOS) D or better along all major corridors. Exceptions to meeting the standard include:
    - Within Downtown;
    - 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.
    
    The LOS is to be calculated using the average traffic demand over the highest 60-minute period.

- **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 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-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. Include pedestrian amenities to encourage and facilitate walking.
  - **Policy T-K-5**: Integrate multi-use paths into all creek corridors, railroad rights-of-way, and park designs.

Santa Rosa City Code

The Santa Rosa City Code (SRCC) includes Title 18, Buildings and Construction, which is relevant to the provision of public services, including fire protection under Chapter 18-16, California Building Code and Chapter 18-44, California Fire Code. As described under State Regulations above, the SRCC adopted the 2016 California Building Code and 2016 California Fire Code, which includes, but is not limited to, the
provisions and standards for the installation of sprinklers in all high-rise buildings, establishment of fire
resistance standards for fire doors, building materials, and particular types of construction, the clearance
of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas,
emergency planning and preparedness, fire service features, fire protection systems, hazardous materials,
fire flow requirements, and fire hydrant locations and distribution.

Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan (BPMP), adopted in 1994 and updated in 2010, provides an
overview of the existing bicycle and pedestrian facilities within Santa Rosa, a recommended pedestrian
and bikeway network, and design guidelines. The BPMP also includes goals and policies that promote
walking and bicycling as viable, attractive, and non-polluting forms of transportation and that assure safe
and convenient pedestrian and bicycle access to all areas of the city. The BPMP serves as a tool for guiding
City staff and the development community in building a multi-modal transportation system that is
pedestrian and bicycle “friendly” and encourages residents to use multi-modal forms of transportation.
This plan is in alignment with the Transportation Element of the 2035 General Plan’s goals and policies.
The BPMP classifies bikeways into the following three categories:

- **Class I Bike Path**: provides a completely separated right-of-way for the exclusive use of bicycles and
  pedestrians with cross-flow minimized.
- **Class II Bike Lane**: provides a striped lane for one-way bike travel on a street or highway.
- **Class III Bike Route**: provides for shared use with pedestrian or motor vehicle traffic.

Design and Construction Standards

The City of Santa Rosa Design and Construction Standards, adopted on January 13, 2004, provide design
criteria for the construction of city facilities. The Design and Construction Standards has eight sections
that cover Streets, Traffic, Street Lights, Storm Drains, Water, Sewer, and Landscaping. The design criteria
are used as a reference for engineers preparing plans for construction and for contractors performing the
construction. The City’s standards specify roadway cross-section criteria, such as the widths of travel
lanes, medians, landscape buffers, bicycle lanes, on-street parking, and sidewalks. The City determines
appropriate street standards, including any modifications necessary to suit existing physical constraints.

**4.13.1.2 METHODOLOGY**

**Study Periods and Scenarios**

The traffic analysis focuses on the weekday AM and PM peak hours (7:00 to 9:00 a.m. and 4:00 to 6:00
p.m., respectively). The following scenarios were analyzed:

- **Existing Conditions**: reflects current traffic levels and roadway configurations without the project.
- **Existing plus Project Conditions**: includes buildout of the Southeast Greenway Area and as well as
  implementation of circulation network improvements outlined in the Southeast Greenway.
- **Future No Project Conditions**: includes year 2040 buildout of the General Plan 2035 and planned
  roadway improvements, with no changes within the boundaries of the Southeast Greenway.
- **Future plus Project Conditions**: adds buildout of the Southeast Greenway to year 2040 buildout
  conditions.
Data Collection

Existing traffic volumes at the study intersections were obtained at various times between 2014 and 2016 while local schools were in session. Signal timing parameters were obtained from the City, and include coordinated timing changes implemented along the Farmers Lane corridor in 2017.

Future traffic volumes for conditions without the Southeast Greenway Area were obtained from the SCTA’s Sonoma County Travel Model 2010 travel demand model. The Sonoma County Travel Model 2010 assumes no growth within the Southeast Greenway Area under either existing or projected year 2040 conditions. The year 2040 projections include traffic growth from future development within Santa Rosa and the region, and assume buildout of the City’s General Plan 2035. Future transportation improvements with identified funding sources are also reflected in the model, including roadway projects, such as the Farmers Lane extension, as well as pedestrian, bicycle, and transit enhancement projects. For all scenarios, segment volumes from the model were translated to turning movement volumes at intersections throughout the study area using existing traffic counts and the “Furness” procedure. This procedure is an iterative process that employs existing turn movement data, model-obtained baseline link volumes, and model-obtained future link volumes to project likely future turning movement volumes at intersections.

Level of Service

Level of service (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 LOS A to LOS F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the level-of-service designation.

Roadway Corridors/Segments Operation

The study roadway segments were analyzed using the level-of-service methodologies published in the Transportation Research Board’s Highway Capacity Manual (HCM), 2010. Automobile level of service on roadway segments is intended to be analyzed at the corridor level, typically on roadway segments that are at least 1 mile in length, rather than on shorter segments between signalized intersections. The consideration of corridor-based level of service is called for in the General Plan 2035, with operation at LOS D considered to be the minimum acceptable operation. The HCM 2010 method does not address the capacity of a facility, but rather determines a level of service based the calculated percentage of the street’s base free-flow speed. In essence, congestion occurs as traffic volumes increase, and the overall travel speed is reduced due to increased delay. Therefore, the slower the speed, the lower that speed is as a percentage of free-flow speed, and the lower the level of service.

Automobile levels of service were determined using existing traffic volumes, current roadway configurations, phasing and timing of all traffic signals along each of the corridors, analysis in the software application Synchro, and through conducting multiple traffic simulation runs using the software application SimTraffic to determine average speeds along each corridor and its individual segments. The Synchro software is used to analyze operation at each of the signalized intersections along a roadway segment, which is where the majority of delay is encountered. The SimTraffic software is an extension of Synchro that simulates vehicle progression along a corridor, considering the operation of individual
signals, as well as influences such as interactions among signals, queue spillback, and merging activity. The average speeds of ten randomly-seeded SimTraffic runs were used to determine average travel speeds along the two study corridors. The relationships between level of service and percentages of free-flow speed, where free-flow speed is assumed to be the speed limit, are presented in Table 4.13-1.

### Table 4.13-1 Automobile Level of Service Criteria

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Travel Speed as a Percentage of Base Free-Flow Speed (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt;85</td>
</tr>
<tr>
<td>B</td>
<td>&gt;67-85</td>
</tr>
<tr>
<td>C</td>
<td>&gt;50-67</td>
</tr>
<tr>
<td>D</td>
<td>&gt;40-50</td>
</tr>
<tr>
<td>E</td>
<td>&gt;30-40</td>
</tr>
<tr>
<td>F</td>
<td>≤30</td>
</tr>
</tbody>
</table>


**Intersections**

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. The levels of service for the intersections with side-street stop controls, or those which are unsignalized and have one or two approaches stop-controlled, were analyzed using the “Two-Way Stop-Controlled” intersection capacity method from the HCM 2000. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection. The study intersections that are currently controlled by a traffic signal, or may be in the future, were evaluated using the signalized methodology from the HCM 2000. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this level of service methodology. The ranges of delay associated with various levels of service are indicated in Table 4.13-2 below.

### Table 4.13-2 Intersection Level of Service Criteria

<table>
<thead>
<tr>
<th>LOS</th>
<th>Two-Way Stop-Controlled</th>
<th>Signalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.</td>
<td>Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.</td>
</tr>
<tr>
<td>B</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>
<td>Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.</td>
</tr>
<tr>
<td>C</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>
<td>Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.</td>
</tr>
<tr>
<td>D</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>
<td>Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.</td>
</tr>
<tr>
<td>E</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>
<td>Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.</td>
</tr>
</tbody>
</table>
### Table 4.13-2  Intersection Level of Service Criteria

<table>
<thead>
<tr>
<th>LOS</th>
<th>Two-Way Stop-Controlled</th>
<th>Signalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</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>
<td>Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.</td>
</tr>
</tbody>
</table>


### 4.13.1.3 Study Area

The Traffic Impact Study area includes an analysis of two roadway corridors/segments and 16 intersections in the vicinity of the Southeast Greenway Area. The selected roadway corridors/segments and intersections are listed below and shown in Figure 4.13-1.

#### Study Roadway Corridors/Segments

This analysis focuses on the following two arterial corridors in accordance with the City of Santa Rosa General Plan 2035, which as previously stated, establishes corridor-based level-of-service standards.

1. **Farmers Lane** is a north-south corridor that extends for approximately 1.2 miles from Fourth Street to Bennett Valley Road, with a posted speed limit of 35 miles per hour (mph). The majority of Farmers Lane is a four-lane arterial with turn pockets at each intersection along the corridor and center two-way left-turn lanes at select locations. Future plans for Farmers Lane include an extension south from its current terminus at Bennett Valley Road to Petaluma Hill Road, connecting to Santa Rosa Avenue via the existing Yolanda Avenue corridor.

2. **Hoen Avenue** is an approximately 1.5-mile long east-west corridor extending from Farmers Lane to Summerfield Road, with a posted speed limit of 35 mph. Hoen Avenue is predominantly a three-lane arterial with a center two-way left-turn lane and turn pockets in select locations and at major intersections, and Class II bike lanes in each direction. Hoen Avenue becomes Hoen Avenue Frontage Road west of the Hoen Avenue/Cypress Way intersection. Hoen Avenue Frontage Road has an on-ramp to westbound SR 12 just west of Cypress Way, and forms the eastern leg of the Farmers Lane/SR 12 East Off-ramp-Hoen Avenue Frontage Road intersection.

#### Study Intersections

1. **Farmers Lane/Fourth Street-Sonoma Highway** is a four-legged signalized intersection with protected left-turn phasing on the eastbound and westbound approaches, and split phasing on the northbound and southbound approaches. The southern (Farmers Lane) and eastern (Sonoma Highway) legs of the intersection are designated as SR 12. Marked pedestrian crosswalks are provided on the north, south, and west legs.

2. **Farmers Lane/Montgomery Drive** is a four-legged signalized intersection with protected left-turn phasing on the northbound and southbound approaches and protected-permitted left-turn phasing on the eastbound and westbound approaches. Marked pedestrian crosswalks are provided on each leg.
3. **Farmers Lane/Sonoma Avenue** is a four-legged signalized intersection with protected left-turn phasing on the northbound and southbound approaches and protected-permitted left-turn phasing on the eastbound and westbound approaches. Marked pedestrian crosswalks are provided on each leg.

4. **Farmers Lane/Patio Court** is a signalized tee intersection with protected left-turn phasing on all approaches and a right-turn overlap on the westbound approach. Marked pedestrian crosswalks are provided on the north and east legs.

5. **Farmers Lane/Hoen Avenue** is a four-legged signalized intersection with permitted left-turn phasing on the northbound and southbound approaches, permitted left-turn phasing on the eastbound and westbound approaches, and marked pedestrian crosswalks on the north and west legs.

6. **Farmers Lane/Vallejo Street** is a four-legged signalized intersection with protected left-turn phasing on the northbound and southbound approaches. Marked pedestrian crosswalks are provided on the north, east, and west legs.

7. **Farmers Lane/SR 12 West On-ramp** is a signalized tee intersection with a channelized right-turn lane on the southbound approach and protected left-turn phasing on the northbound approach.

8. **Farmers Lane/SR 12 East Off-ramp-Hoen Avenue Frontage Road** is a four-legged signalized intersection with protected left-turn phasing on the southbound, eastbound, and westbound approaches. The west leg serves as the SR 12 East Off-ramp. Marked pedestrian crosswalks are provided on the south and east legs.

9. **Farmers Lane/Bennett Valley Road** is a signalized tee intersection with protected left-turn phasing on the eastbound approach and a marked pedestrian crosswalk on the north leg.

10. **Hoen Avenue Frontage Road/Townview Avenue** is an unsignalized tee intersection with stop controls on the northbound approach. A marked pedestrian crosswalk is provided on the south leg.

11. **Hoen Avenue Frontage Road/New Mixed Use Street** will be a new tee intersection with stop controls on the southbound approach.

12. **Hoen Avenue Frontage Road/Hoen Avenue-Cypress Way** is a four-legged signalized intersection with permitted left-turn phasing on all approaches. Marked pedestrian crosswalks are provided on the south and east legs.

13. **Hoen Avenue/Franquette Avenue** is an unsignalized tee intersection with stop controls on the southbound approach. A marked pedestrian crosswalk is provided on the north leg.

14. **Yulupa Avenue/Mayette Avenue** is a four-legged signalized intersection with permitted phasing and marked pedestrian crosswalks on each leg.

15. **Hoen Avenue/Yulupa Avenue** is a signalized, four-legged intersection with protected left-turn phasing on each approach. Marked pedestrian crosswalks are provided on each leg.

16. **Hoen Avenue/Summerfield Road** is a four-legged signalized intersection with protected-permitted left-turn phasing on the northbound and southbound approaches and split phasing on the eastbound and westbound approaches. Marked pedestrian crosswalks are provided on each leg.
Figure 4.13-1
Study Area and Existing Lane Configurations

Collision History

The collision histories for intersections along the two study corridors were reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System reports. The most current 5-year period available is January 1, 2012 through December 31, 2016.

Table 4.13-3 shows the calculated collision rates were compared to average collision rates for similar facilities Statewide, as indicated in 2013 Collision Data on California State Highways, California Department of Transportation (Caltrans). Of the 15 existing intersections analyzed, all intersections experienced a collision rate less than the Statewide average except Farmers Lane/SR 12 EastBound Off-ramp-Hoen Avenue Frontage Road intersection (#8). As shown on Table 4.13-3, the majority of collisions that occurred at Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) were rear-end or sideswipe crashes. Rear-end collisions were primarily caused by drivers exiting the eastbound off-ramp at unsafe speeds and colliding with vehicles stopped at the signal. Sideswipe collisions were primarily a result of unsafe lane changes. These types of collisions may be attributable to the fact that the SR 12 freeway terminates at this intersection, requiring drivers to adjust from a higher-speed freeway environment to an urban street environment. The collision rate calculations are provided in Appendix A of the Traffic Impact Study, which is included in Appendix H of this Draft EIR.

<table>
<thead>
<tr>
<th>#</th>
<th>Study Roadway Corridors/Segments</th>
<th>Number of Collisions (2012-2016)</th>
<th>Calculated Collision Rate (c/mvm)</th>
<th>Statewide Average Collision Rate (c/mvm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>20</td>
<td>0.11</td>
<td>0.27</td>
</tr>
<tr>
<td>2.</td>
<td>Farmers Lane/Montgomery Drive</td>
<td>25</td>
<td>0.18</td>
<td>0.27</td>
</tr>
<tr>
<td>3.</td>
<td>Farmers Lane/Sonoma Avenue</td>
<td>23</td>
<td>0.19</td>
<td>0.27</td>
</tr>
<tr>
<td>4.</td>
<td>Farmers Lane/Patio Court</td>
<td>8</td>
<td>0.07</td>
<td>0.21</td>
</tr>
<tr>
<td>5.</td>
<td>Farmers Lane/Hoen Avenue</td>
<td>18</td>
<td>0.16</td>
<td>0.27</td>
</tr>
<tr>
<td>6.</td>
<td>Farmers Lane/Vallejo Street</td>
<td>6</td>
<td>0.10</td>
<td>0.27</td>
</tr>
<tr>
<td>7.</td>
<td>Farmers Lane /SR 12 West On-ramp</td>
<td>6</td>
<td>0.09</td>
<td>0.21</td>
</tr>
<tr>
<td>8.</td>
<td>Farmers Lane /SR 12 EB Off-ramp-Hoen Avenue Frontage Road</td>
<td>21</td>
<td>0.32</td>
<td>0.27</td>
</tr>
<tr>
<td>9.</td>
<td>Farmers Lane /Bennett Valley Road</td>
<td>3</td>
<td>0.05</td>
<td>0.21</td>
</tr>
<tr>
<td>10.</td>
<td>Hoen Avenue Frontage Road /Townview Avenue</td>
<td>3</td>
<td>0.13</td>
<td>0.18</td>
</tr>
<tr>
<td>11.</td>
<td>Hoen Avenue Frontage Road /New Mixed Use St</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.</td>
<td>Hoen Avenue Frontage Road /Hoen Avenue-Cypress Way</td>
<td>11</td>
<td>0.12</td>
<td>0.27</td>
</tr>
<tr>
<td>13.</td>
<td>Hoen Avenue /Franquette Avenue</td>
<td>7</td>
<td>0.17</td>
<td>0.18</td>
</tr>
<tr>
<td>14.</td>
<td>Yulupa Avenue /Mayette Avenue</td>
<td>7</td>
<td>0.18</td>
<td>0.27</td>
</tr>
<tr>
<td>15.</td>
<td>Hoen Avenue /Yulupa Avenue</td>
<td>20</td>
<td>0.23</td>
<td>0.27</td>
</tr>
<tr>
<td>16.</td>
<td>Hoen Avenue /Summerfield Road</td>
<td>12</td>
<td>0.19</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Notes: c/mvm = collisions per million vehicles miles; **BOLD** indicates exceeds Statewide collision rate a. Future intersection.
**Pedestrian Facilities**

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, curb ramps, crosswalk warning devices, and streetscape amenities. Since the Southeast Greenway Area is currently vacant land, there are no formal pedestrian facilities along the project site, though there are several informal walking paths crossing it. Some sidewalks are provided on the streets that run through the greenway including Farmers Lane, Yulupa Avenue, and Summerfield Road. A continuous sidewalk is also generally provided along Hoen Avenue, parallel to the Southeast Greenway Area.

**Bicycle Facilities**

There are some existing bicycle facilities which would provide access to the Southeast Greenway planning area. There is an existing Class II bike lane on Yulupa Avenue, which runs for approximately 1.2 miles from Bennett Valley Road to Montgomery Drive and passes through the Southeast Greenway Area. There are also existing Class II bike lanes on Hoen Avenue, parallel to the Southeast Greenway Area, from Farmers Lane to Summerfield Road. Existing Class II bike lanes are also provided on Summerfield Road, extending from Bethards Drive to Montgomery Drive for about two miles. There is also an existing Class III bike route on Hahman Drive, between Montgomery Drive and Hoen Avenue.

Future bicycle facilities identified in the BPMP includes plans for a Class I multi-use path along an approximately one-mile stretch of the Southeast Greenway Area, from Hoen Avenue/Hoen Avenue Frontage Road to Spring Lake Regional Park. This path would provide interior connections to neighborhoods and connect to Montgomery High School and Montgomery Village to the west. The eastern end of the path would access Summerfield Road, providing access on surface streets to Spring Lake County Regional Park.

A Class III bike route is planned on Vallejo Street, west of Farmers Lane. This bike route would extend to Brook Hill Elementary School and Doyle Park, and then on to Brookwood Avenue and South E Street in downtown Santa Rosa. Class III routes are also planned for Hoen Avenue, west of Farmers Lane, which would connect to Doyle Park and Sonoma Avenue. There is also a planned Class III bike route on Franquette Avenue, between Hoen Avenue and Montgomery Drive.

**Public Transportation**

**Santa Rosa CityBus**

Santa Rosa CityBus (CityBus) is the primary transit provider in Santa Rosa. CityBus provides regularly-scheduled fixed-route service to residential neighborhoods, major activity centers, and transit hubs within the city limits. Seventeen fixed routes are operated with wheelchair accessible, low-floor buses which can accommodate up to two bikes on bike racks attached to the front of each bus. CityBus routes are designed around a timed-transfer method where buses serving different routes arrive and depart at designated transfer locations at routine periodic intervals.

Routes 8 and 18 provide service to the Southeast Greenway Area. Route 8 provides loop service from Bennett Valley to the Santa Rosa Transit Station with stops located along Sonoma Avenue, Yulupa Avenue, and Summerfield Road. Route 8 operates Monday through Friday with approximately one-half-hour
headways between 6:00 a.m. and 8:30 p.m. Weekend service operates with approximately one-hour headways between 6:30 a.m. and 8:30 p.m. on Saturdays and 10:30 a.m. to 5:30 p.m. on Sundays. Route 18 provides loop service from east Santa Rosa to the Downtown Transit mall, with stops along Hoen Avenue, Yulupa Avenue, and Sonoma Avenue. Route 18 operates Monday through Friday with approximately one-hour headways between 7:30 a.m. and 5:30 p.m. On weekends, service is provided with approximately one-hour headways between 10:30 a.m. and 5:30 p.m.

Paratransit

Paratransit is available for those who are unable to independently use the transit system due to a physical or mental disability. Individuals must be registered and certified as ADA-eligible before using the service. CityBus currently contracts out paratransit service which provides curb-to-curb transportation for disabled riders within city limits and in the Southeast Greenway 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 5:00 p.m. Ride reservations can be scheduled daily.

Sonoma County Transit

Sonoma County Transit (SCT) provides regional transit service throughout the County. The primary SCT transfer location in Santa Rosa is located at the downtown transit mall, where transfers to local CityBus routes can take place. There are currently no SCT routes that provide convenient access to the Southeast Greenway Area. The closest stops are along Montgomery Drive, approximately 0.75 miles north of the study area.

4.13.1.4 EXISTING CONDITIONS

Existing Level of Service

Study Roadway Segments/Corridor

As previously stated, the consideration of corridor-based level of service is called for in General Plan 2035, with operation at LOS D considered to be the minimum acceptable operation. Automobile roadway corridor/segment levels of service are currently at LOS D or better during both the AM and PM peak hours, with the exception of southbound Farmers Lane during the PM peak hour, which operates unacceptably at LOS E.

A summary of corridors/segments level of service is shown in Table 4.13-4 below. Copies of the corridors/segments-based speed projections are included in Appendix B of the Traffic Impact Study, which is included in Appendix H of this Draft EIR.
**Table 4.13-4  Existing Peak Hour Roadway Corridors/Segments Levels of Service**

<table>
<thead>
<tr>
<th>Roadway Corridors/Segments</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Free Flow Speed</td>
</tr>
<tr>
<td>Farmers Lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 12 to Fourth St-Sonoma Hwy</td>
<td>Northbound</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>Southbound</td>
<td>III</td>
</tr>
<tr>
<td>Hoen Avenue-Hoen Avenue Frontage Road</td>
<td>Eastbound</td>
<td>III</td>
</tr>
<tr>
<td>Farmers Lane to Summerfield</td>
<td>Westbound</td>
<td>III</td>
</tr>
</tbody>
</table>


**Study Intersections**

All of the study intersections are operating at LOS D or better, with the exception of the Farmers Lane/SR 12 East Off-ramp-Hoen Avenue Frontage Road intersection (#8), which is operating at LOS E during the evening peak hour. A summary of the intersection level-of-service calculations are listed below in Table 4.13-5 and shown in Figure 4.13-2.

**Table 4.13-5  Existing Peak Hour Intersection Levels of Service**

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersections/Approach</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1.</td>
<td>Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>48.9</td>
<td>D</td>
</tr>
<tr>
<td>2.</td>
<td>Farmers Lane/Montgomery Drive</td>
<td>28.4</td>
<td>C</td>
</tr>
<tr>
<td>3.</td>
<td>Farmers Lane/Sonoma Avenue</td>
<td>27.2</td>
<td>C</td>
</tr>
<tr>
<td>4.</td>
<td>Farmers Lane/Patio Court</td>
<td>11.9</td>
<td>B</td>
</tr>
<tr>
<td>5.</td>
<td>Farmers Lane/Hoen Avenue</td>
<td>9.6</td>
<td>A</td>
</tr>
<tr>
<td>6.</td>
<td>Farmers Lane/Vallejo Street</td>
<td>19.5</td>
<td>B</td>
</tr>
<tr>
<td>7.</td>
<td>Farmers Lane/SR 12 West On-ramp</td>
<td>9.0</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>Farmers Lane/SR 12 East Off-ramp-Hoen Avenue Frontage Road</td>
<td>40.6</td>
<td>D</td>
</tr>
<tr>
<td>9.</td>
<td>Farmers Lane/Bennett Valley Road</td>
<td>14.2</td>
<td>B</td>
</tr>
<tr>
<td>10.</td>
<td>Hoen Avenue Frontage Road/Townview Avenue</td>
<td>1.4</td>
<td>A</td>
</tr>
</tbody>
</table>

*Northbound Approach

| Northbound Approach | 15.9 | C   | 25.7 | C   |
TABLE 4.13-5  EXISTING PEAK HOUR INTERSECTION LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersections/Approach</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>11</td>
<td>Hoen Avenue Frontage Road/New Mixed Use Streeta</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Hoen Avenue Frontage Road/Hoen Avenue-Cypress Way</td>
<td>13.9</td>
<td>B</td>
<td>12.9</td>
<td>B</td>
</tr>
<tr>
<td>13</td>
<td>Hoen Avenue/Franquette Avenue</td>
<td>2.2</td>
<td>A</td>
<td>2.2</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Southbound Approach</td>
<td>28.4</td>
<td>D</td>
<td>24.4</td>
<td>C</td>
</tr>
<tr>
<td>14</td>
<td>Yulupa Avenue/Mayette Avenue</td>
<td>8.5</td>
<td>A</td>
<td>5.2</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>Hoen Avenue/Yulupa Avenue</td>
<td>38.8</td>
<td>D</td>
<td>43.2</td>
<td>D</td>
</tr>
<tr>
<td>16</td>
<td>Hoen Avenue/Summerfield Road</td>
<td>19.1</td>
<td>B</td>
<td>34.1</td>
<td>C</td>
</tr>
</tbody>
</table>

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; Bold indicates operation below City level-of-service standard.
a. Future intersection.

4.13.1.5 FUTURE NO PROJECT CONDITIONS

The Future No Project scenario represents buildout of the City’s General Plan 2035 and planned roadway improvements, with no changes within the Southeast Greenway Area. Under the Future No Project scenario, Caltrans would retain ownership of the land and the project site would not be accessible to the public. As such, no new trips would be generated.

Future No Project Improvements

The General Plan 2035 includes the extension of Farmers Lane from its current terminus at Bennett Valley Road to Petaluma Hill Road, connecting to Santa Rosa Avenue via the existing Yolanda Avenue corridor. The future Farmers Lane extension would provide an additional cross-town arterial for Santa Rosa traffic, connecting the eastern and southern portions of the city. Designs for the Farmers Lane extension have been completed, and indicate that the new roadway would include two vehicle travel lanes plus a bike lane in each direction, sidewalks on both sides of the street, and center median and/or turn pockets. The project is included in the regional Moving Forward 2040 and includes funding from the countywide Measure M sales tax. Environmental analysis of the Farmers Lane extension has also been completed in the City of Santa Rosa Farmers Lane Extension Draft Subsequent Environmental Impact Report (State Clearinghouse Number 1987122222). The Farmers Lane extension is factored into future conditions.

Future No Project Level of Service

Study Roadway Segments/Corridors

Under the Future No Project scenario, the level of service at the study corridors are projected to remain at LOS D or better during the AM peak hour, but during the PM peak hour the Farmers Lane corridor would be at an unacceptable LOS E in both directions. A summary of the future peak hour roadway segments levels of service is included in Table 4.13-6 below.
Figure 4.13-2

Existing Traffic Volumes

Table 4.13-6  Future No Project Peak Hour Roadway Corridors/Segments Levels of Service

<table>
<thead>
<tr>
<th>Roadway Corridors/Segments</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direction</td>
<td>Class</td>
</tr>
<tr>
<td>Farmers Lane/SR 12 to Fourth Street-Sonoma Highway</td>
<td>Northbound</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>Southbound</td>
<td>III</td>
</tr>
<tr>
<td>Hoen Avenue/Hoen Avenue Frontage Road</td>
<td>Eastbound</td>
<td>III</td>
</tr>
<tr>
<td>(Farmers Lane to Summerfield)</td>
<td>Westbound</td>
<td>III</td>
</tr>
</tbody>
</table>


Study Intersections

Under the Future No Project scenario, all study intersections except the Farmers Lane/Fourth Street intersection (#1) are expected to operate at LOS D or better overall during both peak hours. The Farmers Lane/Fourth Street intersection (#1) is projected to operate at LOS E during both AM and PM peak hours. The Hoen Avenue/Franquette Avenue intersection (#13) is projected to operate at LOS A overall, but have LOS F delays on the stop-controlled southbound approach of Franquette Avenue during the AM peak hour. Such operation is typical on minor approaches to arterial streets during peak hours and based on the City’s corridor-based level of service criteria does not represent unacceptable operation. A summary of the Future No Project peak hour intersection levels of service is included in Table 4.13-7 below.

Table 4.13-7  Future No Project Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersections/Approaches</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1.</td>
<td>Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>57.6</td>
<td>E</td>
</tr>
<tr>
<td>2.</td>
<td>Farmers Lane/Montgomery Drive</td>
<td>30.2</td>
<td>C</td>
</tr>
<tr>
<td>3.</td>
<td>Farmers Lane/Sonoma Avenue</td>
<td>30.4</td>
<td>C</td>
</tr>
<tr>
<td>4.</td>
<td>Farmers Lane/Patio Court</td>
<td>7.1</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Farmers Lane/Hoen Avenue</td>
<td>29.4</td>
<td>C</td>
</tr>
<tr>
<td>6.</td>
<td>Farmers Lane/Vallejo Street</td>
<td>11.1</td>
<td>B</td>
</tr>
<tr>
<td>7.</td>
<td>Farmers Lane/SR 12 West On-ramp</td>
<td>5.0</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>Farmers Lane/SR 12 East Off-ramp-Hoen Avenue Frontage Road</td>
<td>41.7</td>
<td>D</td>
</tr>
</tbody>
</table>
TABLE 4.13-7  FUTURE NO PROJECT PEAK HOUR INTERSECTION LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersections/Approaches</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>9</td>
<td>Farmers Lane/Bennett Valley Road</td>
<td>43.9</td>
<td>D</td>
</tr>
<tr>
<td>10</td>
<td>Hoen Avenue Frontage Road/Townview Avenue, Northbound approach</td>
<td>1.4</td>
<td>A</td>
</tr>
</tbody>
</table>
| 11   | Hoen Avenue Frontage Road/New Mixed Use Streeta  
Northbound approach | -     | -    | -     | -    |
| 12   | Hoen Avenue Frontage Road/Hoen Avenue-Cypress Way                 | 19.3  | B    | 27.2  | C    |
| 13   | Hoen Avenue/Franquette Avenue, Southbound Approach                 | 5.0   | A    | 2.6   | A    |
| 14   | Yulupa Avenue/Mayette Avenue                                       | 10.3  | B    | 6.4   | A    |
| 15   | Hoen Avenue/Yulupa Avenue                                          | 44.6  | D    | 44.1  | D    |
| 16   | Hoen Avenue/Summerfield Road                                       | 20.7  | C    | 35.0  | C    |

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics. Bold indicates operation below City level-of-service standard.
a. Future intersection.

It should be noted that at several locations, average vehicle delay decreases slightly under the Future No Project scenario when compared to Existing Conditions, even though traffic volumes are projected to increase. While this is counter-intuitive, this condition occurs when future traffic growth occurs on movements that are currently underutilized or have delays that are below the intersection average, resulting in a better balance between approaches and lower overall average delay, and/or better signal progression/coordination.

Influence of Farmers Lane Extension

As previously described, the Future No Project traffic projections are based on modeling that assumes the Farmers Lane extension to be in place. The Farmers Lane extension was included in the City’s General Plan 2035 to improve connectivity between the southern and eastern areas of the City, and its completion will ultimately help to improve the operation of the Farmers Lane corridor in the vicinity of the Southeast Greenway Area. This influence can be seen in the case of the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), where traffic shifts associated with the Farmers Lane Extension will make the intersection operate more efficiently, with a decrease in the number of higher-delay left-turn movements and an increase in the number of lower-delay through movements. In fact, the traffic analysis indicates that the intersection is currently operating at LOS E during the PM peak hour under existing conditions, but in the future is projected to operate at LOS D. The total volume of traffic passing through the intersection is projected to increase in the future, but the traffic shifts associated with the Farmers Lane extension will allow it (and this part of the Farmers Lane corridor) to operate more efficiently.
4.13.2 STANDARDS OF SIGNIFICANCE

4.13.2.1 CEQA APPENDIX G THRESHOLDS

Implementation of the proposed project would result in a significant impact if it would:

1. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit, non-motorized travel, and relevant components of the circulation system, including, but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

2. Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

3. 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.

4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5. Result in inadequate emergency access.

6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

4.13.2.2 CITY AND CALTRANS SIGNIFICANCE CRITERIA

Implementation of the proposed project would result in a significant impact if it would fail to meet the following City of Santa Rosa and Caltrans standards:

1. **City of Santa Rosa Corridors**: General Plan 2035 Policy T-D-1 (listed above), states that the City will maintain a LOS D or better along all major corridors. Exceptions to meeting this standard are allowed:
   - within downtown;
   - where attainment would result in significant environmental degradation;
   - where topography or environmental impacts makes the improvement impossible;
   - or where attainment would ensure loss of an area’s unique character.

2. **City of Santa Rosa Intersections**: Although the City’s standard does not specify criteria for intersections, for the purposes of this Draft EIR the City’s LOS D criterion was also applied to intersections. At unsignalized intersections, operation below LOS D on stop-controlled approaches was considered acceptable if:
   - the intersection’s overall level of service is acceptable, and
   - Warrant 3 “Peak Hour Volume” of the California Manual on Uniform Traffic Control Devices (CAMUTCD) is unmet.

3. **Caltrans Freeway Ramps**: Fail to maintain LOS D or better at freeway ramp terminal intersections.

Neither the City nor Caltrans specify significance thresholds for intersections that are already operating unacceptably before the addition of project traffic, so for the purposes of this analysis, criteria used by the
County of Sonoma were applied. If the intersection currently operates or is projected to operate below LOS D, the project’s impact is significant and cumulatively considerable if it causes the delay to increase by five seconds or more overall. A similar logic was applied to corridors, where a reduction of 1-mile per hour or greater on a roadway that is already projected to be operating unacceptably is considered to be a significant impact.

4.13.3 IMPACT DISCUSSION

**TRANS-1** Implementation of the proposed project would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

As discussed in Chapter 3, Project Description, of this Draft EIR, adoption and implementation of the proposed project would allow for new development potential up to 47.2 acres of open space, 244 multi-family housing units, and 12,000 square feet of commercial space in the Southeast Greenway Area.

**Trip Generation**

The trip generations for potential future uses within the Southeast Greenway Area were estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 9th Edition*, 2012. The ITE contains limited data for parks and recreational uses, so as an alternative, trip generation rates developed by SANDAG (San Diego Area Council of Governments) were also applied. The project components and applied land use trip generation is summarized in Table 4.13-8 below.

<table>
<thead>
<tr>
<th>Southeast Greenway Component</th>
<th>Description</th>
<th>Units</th>
<th>Applied Land Use for Trip Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenway</td>
<td>Open space with pathways, some play and picnic areas near access points</td>
<td>18.3 acres</td>
<td>SANDAG Regional Park (developed)</td>
</tr>
<tr>
<td>Urban Agriculture</td>
<td>Area for community gardens including orchards</td>
<td>5.1 acres</td>
<td></td>
</tr>
<tr>
<td>Public Plazas</td>
<td>Four small gathering spaces that may include trailheads, restrooms, and parking</td>
<td>1.0 acre total</td>
<td></td>
</tr>
<tr>
<td>Community Gathering</td>
<td>Adjacent to Montgomery High, allowing space for community events</td>
<td>0.5 acre</td>
<td>SANDAG City Park (with meeting rooms and sports facilities)</td>
</tr>
<tr>
<td>School Facilities</td>
<td>Joint-use active recreational serving as an extension of Montgomery High School</td>
<td>1.4 acres</td>
<td></td>
</tr>
<tr>
<td>Mixed-Use Residential</td>
<td>4.7-acre site in triangle area near SR 12/ Farmers interchange and 1.2-</td>
<td>177 units</td>
<td>ITE “Apartment” (LU #220)</td>
</tr>
</tbody>
</table>
TABLE 4.13-8  PROJECT COMPONENTS AND APPLIED LAND USE ASSUMPTIONS FOR TRIP GENERATION

<table>
<thead>
<tr>
<th>Southeast Greenway Component</th>
<th>Description</th>
<th>Units</th>
<th>Applied Land Use for Trip Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed-Use Commercial</td>
<td>acre site west of Yulupa Ave, 18-30 units/acre residential density</td>
<td>12,000 square feet</td>
<td>Equal split of ITE “Specialty Retail Center” (LU #826) and “High-Turnover Sit-Down Restaurant” (LU #932)</td>
</tr>
<tr>
<td>2-3 Story Attached Housing</td>
<td>2-3 Story Apartments or Condos on east end of Vallejo St</td>
<td>67 units</td>
<td>ITE “Apartment” (LU #220)</td>
</tr>
<tr>
<td>Natural Open Space</td>
<td>Habitat and restoration areas</td>
<td>17.8 acres</td>
<td>None</td>
</tr>
<tr>
<td>Creek Restoration</td>
<td>Restored creek areas with minimal access</td>
<td>3.1 acres</td>
<td>None</td>
</tr>
</tbody>
</table>


Implementation of the proposed project could generate an average of 3,265 trips per day, including 233 trips during the AM peak hour and 277 during the PM peak hour; these new trips represent the increase in traffic associated with adoption and implementation of the proposed project compared to existing volumes. A summary of the resulting trip generation for the proposed project is shown in Table 4.13-9 below.

TABLE 4.13-9  PROPOSED PROJECT TRIP GENERATION SUMMARY

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>Rate</th>
<th>Trips</th>
<th>Rate</th>
<th>Trips</th>
<th>Rate</th>
<th>Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenway and Urban Agriculture Regional Park</td>
<td>23.4 acres</td>
<td>20.00</td>
<td>468</td>
<td>0.80</td>
<td>19</td>
<td>1.60</td>
<td>37</td>
</tr>
<tr>
<td>Public Plazas, Community Gathering, and School Facilities City Park</td>
<td>2.9 acres</td>
<td>50.00</td>
<td>145</td>
<td>6.50</td>
<td>19</td>
<td>4.50</td>
<td>13</td>
</tr>
<tr>
<td>Mixed-Use Apartments</td>
<td>177 units</td>
<td>6.65</td>
<td>1,177</td>
<td>0.51</td>
<td>90</td>
<td>0.62</td>
<td>110</td>
</tr>
<tr>
<td>Specialty Center</td>
<td>6,000 square feet</td>
<td>44.32</td>
<td>266</td>
<td>0.96</td>
<td>6</td>
<td>2.71</td>
<td>16</td>
</tr>
<tr>
<td>High-Turnover Sit-Down Restaurant</td>
<td>6,000 square feet</td>
<td>127.15</td>
<td>763</td>
<td>10.81</td>
<td>65</td>
<td>9.85</td>
<td>59</td>
</tr>
<tr>
<td>2-3 Story Attached Housing Apartments</td>
<td>67 units</td>
<td>6.65</td>
<td>446</td>
<td>0.51</td>
<td>34</td>
<td>0.62</td>
<td>42</td>
</tr>
<tr>
<td>Total Trip Generation</td>
<td>3,265</td>
<td>233</td>
<td>277</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Vehicle Miles Traveled

The total projected vehicle miles traveled (VMT) associated with the proposed project was estimated within the SCTA regional model under existing and future conditions. VMT was analyzed at the citywide level for the “no project” and “plus project” scenarios, with the net difference being the VMT that is attributable to the project. The VMT results are shown in Table 4.13-10 below.
TABLE 4.13-10  VEHICLE MILES TRAVELED

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citywide without Project</td>
<td>3,723,824</td>
<td>4,796,169</td>
</tr>
<tr>
<td>Citywide with Project</td>
<td>3,726,963</td>
<td>4,798,482</td>
</tr>
<tr>
<td>Net Difference (Project VMT)</td>
<td>3,139</td>
<td>2,313</td>
</tr>
</tbody>
</table>


Trip Distribution

Trips were distributed in consideration of prevailing traffic patterns and with consultation with City staff; for project-related trips, consideration was also given to anticipated recreational use by both local and regional users and for residential and commercial uses, the locations of major employment and shopping areas were considered. The applied distribution assumptions and resulting trips are shown in Table 4.13-11 below. The added traffic volumes associated with the project at the 16 study intersections are shown for the AM and PM peak hours in Figure 4.13-3.

TABLE 4.13-11  TRIP DISTRIBUTION ASSUMPTIONS

<table>
<thead>
<tr>
<th>Origin/Destination</th>
<th>Open Space Recreation Related</th>
<th>Residential and Commercial Related</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 12 – west of Farmers Lane</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Fourth Street – west of Farmers Lane</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Summerfield Road – north of Mayette Avenue</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>SR 12 – east of Farmers Lane</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Yulupa Avenue – north of Mayette Avenue</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Yulupa Avenue area – south of Hoen Avenue</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Bennett Valley Rd – west of Farmers Ln</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Montgomery Village Area(^1) via Farmers Lane</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Hoen Avenue – west of Farmers Lane</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Summerfield Road – south of Hoen Avenue</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Figure 4.13-3
Project Traffic Volumes

Existing Plus Project Scenario

Study Roadway Corridor

The roadway corridor level of service on southbound Farmers Lane is projected remain at an unacceptable LOS E upon the addition of project-generated traffic. Roadway levels of service are projected to be at an acceptable LOS D or better on all other corridors. Existing plus Project roadway level of service results are summarized in Table 4.13-12. Level-of-service calculations are included in Appendix H of this Draft EIR.

<table>
<thead>
<tr>
<th>Roadway Corridor/Segment</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Existing + Project</td>
</tr>
<tr>
<td>Direction/Class</td>
<td>Free Flow Speed</td>
<td>Avg Spd</td>
</tr>
<tr>
<td>Farmers Lane</td>
<td>SR 12 to Fourth Street-Sonoma Highway</td>
<td></td>
</tr>
<tr>
<td>NB III 3S</td>
<td>22</td>
<td>63%</td>
</tr>
<tr>
<td>SB III 3S</td>
<td>16</td>
<td>46%</td>
</tr>
<tr>
<td>Hoen Avenue-Hoen Avenue Frontage Road</td>
<td>Farmers Lane to Summerfield</td>
<td></td>
</tr>
<tr>
<td>EB III 3S</td>
<td>26</td>
<td>74%</td>
</tr>
<tr>
<td>WB III 3S</td>
<td>21</td>
<td>60%</td>
</tr>
</tbody>
</table>


The studied corridors are projected to continue operating at the same levels of service with project traffic added as without it. On southbound Farmers Lane during the PM peak hour, operation would continue to be an unacceptable LOS E, though because the project would not cause the average travel speed to drop the impact is considered to be less than significant.

Significance Without Mitigation: Less than significant.

Study Intersections

Upon the addition of project-related traffic to existing volumes, all but one of the study intersections is expected to operate acceptably at LOS D or better. The level of service results are summarized in Table 4.13-13 below and shown on Figure 4.13-4. Level-of-service calculations are included in Appendix C of the Traffic Impact Study which is provided Appendix H of this Draft EIR.
Figure 4.13-4

Existing Plus Project Traffic Volumes

### Table 4.13-13  Existing plus Project Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersection/Approach</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>Existing + Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1</td>
<td>Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>48.9</td>
<td>D</td>
</tr>
<tr>
<td>2</td>
<td>Farmers Lane/Montgomery Drive</td>
<td>28.4</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>Farmers Lane/Sonoma Avenue</td>
<td>27.2</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Farmers Lane/Patio Court</td>
<td>11.9</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>Farmers Lane/Hoen Avenue</td>
<td>9.6</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>Farmers Lane/Vallejo Street</td>
<td>19.5</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td>Farmers Lane/SR 12 West On-ramp</td>
<td>9.0</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>Farmers Lane/SR 12 EastBound Off-ramp-Hoen Avenue Frontage Road</td>
<td>40.6</td>
<td>D</td>
</tr>
<tr>
<td>9</td>
<td>Farmers Lane/Bennett Valley Road</td>
<td>14.2</td>
<td>B</td>
</tr>
<tr>
<td>10</td>
<td>Hoen Avenue Frontage Road/Townview Northbound Approach</td>
<td>1.4</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.9</td>
<td>C</td>
</tr>
<tr>
<td>11</td>
<td>Hoen Avenue Frontage Road/New Mixed Use Street Northbound Approach</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Hoen Avenue Frontage Road/Hoen Avenue-Cypress Way</td>
<td>13.9</td>
<td>B</td>
</tr>
<tr>
<td>13</td>
<td>Hoen Avenue/Franquette Avenue</td>
<td>2.2</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28.4</td>
<td>D</td>
</tr>
<tr>
<td>14</td>
<td>Yulupa Avenue/Mayette Avenue</td>
<td>8.5</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>Hoen Avenue/Yulupa Avenue</td>
<td>38.8</td>
<td>D</td>
</tr>
<tr>
<td>16</td>
<td>Hoen Avenue/Summerfield Road</td>
<td>19.1</td>
<td>B</td>
</tr>
</tbody>
</table>

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; **Bold** indicates operation below City level-of-service standard.
a. Future intersection.

A shown in Table 4.13-13 above, Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) is projected to continue operating unacceptably at LOS E during the PM peak hour, with an anticipated 9.6-second increase in average delay attributable to the project. This is considered a **significant** impact.

**Impact TRANS-1a:** The Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) currently operates unacceptably at LOS E during the PM peak hour and is projected to continue...
operating at LOS E upon the addition of project-generated traffic, with increases in delay of approximately 9.6 seconds. This is considered to be a significant impact.

**Measures Considered and Determined to be Infeasible:** The City is currently planning the Farmers Lane extension between Bennett Valley Road and Petaluma Hill Road that would change traffic patterns at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), resulting in more efficient operations. This is described in more detail under the subheading “Future plus Project Scenario” below. As indicated in the “Future plus Project” intersection operation analysis below, however, with planned future infrastructure improvements elsewhere, the intersection is projected to operate acceptably at LOS D with no added improvements. This is due to the change in traffic volumes and patterns associated with the City’s planned extension of Farmers Lane between Bennett Valley Road and Petaluma Hill Road in the future, which would cause shifts in regional traffic patterns to occur. At the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), this shift in regional traffic volumes is projected to result in more through traffic on Farmers Lane and less traffic exiting the SR 12 freeway ramp, which translates to more efficient intersection operation. Therefore, while the Farmers Lane extension is expected to be complete under Future Conditions, it would not be complete in the near-term or under Existing plus Project conditions. In order to improve operation to an LOS D in the near-term, an additional eastbound through-lane onto Hoen Avenue Frontage Road could be added and Hoen Avenue Frontage Road could be widened downstream of the intersection to include two eastbound lanes. However, this would be a temporary improvement as the City is currently pursing long-range plans to improve the intersection level of service through the the Farmers Road extension project. Therefore, because the City already has long-range plans to improve the existing deficiencies at this intersection and the near-term improvements are considered to be infeasible. As a result, the project’s impact under Existing plus Project conditions would be considered significant and unavoidable until such time that the Farmers Lane extension is completed in the future.

**Significance Without Mitigation:** Significant and unavoidable.

**Future Plus Project Scenario**

**Study Roadway Segments**

Roadway segment levels of service are summarized in Table 4.13-14 below. Level–of-service calculations are included in Appendix B of the Traffic Impact Study, which is included in Appendix H of this Draft EIR.

As shown on Table 4.13-14, the Hoen Avenue corridor is projected to operate acceptably at LOS D or better in both directions both without and with the project. Corridor operation would, however, be slightly affected by the addition of a new traffic signal at the Hoen Avenue/Franquette Avenue intersection (#13), which has been identified in the analysis of study intersections (following in the section below) as potentially being warranted in the future. With the addition of this signal, average speeds on Hoen Avenue would drop slightly in some scenarios, though the corridor is still projected to operate acceptably. Therefore, impacts at this corridor would be less than significant.
### TABLE 4.13-14 FUTURE PLUS PROJECT PEAK HOUR ROADWAY CORRIDORS/SEGMENTS LEVELS OF SERVICE

| Roadway Corridor/Segment | AM Peak Hour | | | PM Peak Hour | | |
|--------------------------|--------------|--------|--------|--------------|--------|
|                          | Future       | Future + Project | Future | Future + Project | |
|                          | Free Flow Speed | Avg Spd %FFS LOS | Avg Spd %FFS LOS | Avg Spd %FFS LOS | Avg Spd %FFS LOS |
| **Direction**            | **Class**    | **35** | **24** | **69%** | **24** | **69%** | **23** | **66%** | **23** | **66%** |
| **Farmers Lane**         | **F**        | **R**   | **L**  | **S**   | **R**   | **L**  | **S**   | **R**   | **L**  | **S**   |
| SR 12 to Fourth Street-Sonoma Highway | NB | III | 35 | 20 | 57% | C | 20 | 57% | C | 12 | 34% | E | 12 | 34% | E |
|                           | SB | III | 35 | 15 | 43% | D | 14 | 40% | E | 12 | 34% | E | 11 | 31% | E |
| Hoen Avenue-Hoen Avenue Frontage Road | EB | III | 35 | 24 | 69% | B | 24 | 69% | B | 23 | 66% | C | 23 | 66% | C |
| Farmers Lane to Summerfield | WB | III | 35 | 16 | 46% | D | 16 | 46% | D | 22 | 63% | C | 22 | 63% | C |

Notes: Avg Spd = Average Speed; %FFS = Percent of free-flow speed; LOS = Level of Service. Bold indicates operation below City level-of-service standard.

a. Additional turn lanes at Farmers Lane/Fourth Street intersection and modified signal phasing at Farmers Lane/Hoen Avenue intersection.
b. Hoen Avenue/Franquette Avenue signalized (needed to achieve acceptable intersection operation)


As shown on Table 4.13-14, the corridor level of service on Farmers Lane is projected to be an unacceptable LOS E in the future in both directions during the PM peak hour, both without and with the project. The proposed project is anticipated to result in a drop in average speed of 1-mile per hour in the southbound direction. During the AM peak hour, the corridor is projected to operate acceptably at LOS D or better without the project, but with the project would drop to an unacceptable LOS E in the southbound direction. This is considered a significant impact.

**Impact TRANS-1b:** On Farmers Lane under Future plus Project conditions, the project is anticipated to cause a 1-mile per hour reduction in average southbound speeds during the PM peak hour, and is anticipated to cause operation to drop from LOS D to LOS E in the southbound direction during the AM peak hour.

**Measures Considered and Determined to be Infeasible:** The Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) could be widened in the future to include dual northbound right-turn lanes and triple left-turn lanes, including widening of Farmers Lane to provide three southbound lanes for a distance of approximately 350 feet south of the intersection, or otherwise modified as determined appropriate by the City Traffic Engineer to provide equivalent or superior operation. In addition, signal phasing at the Farmers Lane/Hoen Avenue intersection (#5) could be modified in the future to include protected-permitted left-turn phasing on Hoen Avenue, or otherwise modified as determined appropriate by the City Traffic Engineer to provide equivalent or superior operation. The City would need to collaborate with Caltrans to obtain approvals to complete this measure. This measure is consistent with those that have been identified as long-range improvements for the intersection by the City’s Department of Transportation and Public Works, it is a major project that would require a combination of local and regional funding to complete. These improvements are currently identified...
in the SCTA’s Comprehensive Transportation Plan: *Moving Forward 2040*, with an estimated cost of $7.3 million.

As shown in Table 4.13-15, with implementation of these measures, the modifications at the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) and Farmers Lane/Hoen Avenue intersection (#5), the corridor would be expected to operate acceptably at LOS D or better in both directions, both without and with the project.

**TABLE 4.13-15 FUTURE PLUS PROJECT PEAK HOUR ROADWAY CORRIDORS/SEGMENT LEVELS OF SERVICE WITH FUTURE IMPROVEMENTS**

<table>
<thead>
<tr>
<th>Roadway Corridor/Segment</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Future</td>
<td>Future + Project</td>
</tr>
<tr>
<td>Direction</td>
<td>Class</td>
<td>Free Flow Speed</td>
</tr>
<tr>
<td>Farmers Lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 12 to Fourth Street-Sonoma Highway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>III</td>
<td>35</td>
</tr>
<tr>
<td>SB</td>
<td>III</td>
<td>35</td>
</tr>
<tr>
<td>Hoen Avenue-Hoen Avenue Frontage Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers Lane to Summerfield</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB</td>
<td>III</td>
<td>35</td>
</tr>
<tr>
<td>WB</td>
<td>III</td>
<td>35</td>
</tr>
</tbody>
</table>

Notes: Avg Spd = Average Speed; %FFS = Percent of free-flow speed; LOS = Level of service, Bold indicates operation below City level-of-service service standard
a. Additional turn lanes at Farmers Ln/Fourth St and modified signal phasing at Farmers Ln/Hoen Ave
b. Hoen Ave/Franquette Ave signalized (needed to achieve acceptable intersection operation)

While both of the improvements listed above would improve intersections levels of service as shown in Table 4.13-15, there is no known funding for the measures and environmental review has also not yet commenced. For these reasons there is no certainty that the improvements can ultimately be implemented. As a result, the impact would remain *significant and unavoidable*.

**Significance Without Mitigation:** Significant and unavoidable.

**Study Intersections**

Future plus Project traffic volumes are summarized in Table 4.13-16 and shown in Figure 4.13-5. The level-of-service calculations are included in Appendix C of the Traffic Impact Study, which is provided in Appendix H of this Draft EIR. As shown in Table 4.13-16, under the Future plus Project conditions, 14 of the 16 study intersections are expected to operate acceptably at LOS D or better.
<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersection/Approach</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Future</td>
<td>Future + Project</td>
<td>Future</td>
<td>Future + Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1.</td>
<td>Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>57.6</td>
<td>E</td>
<td>58.5</td>
<td>E</td>
</tr>
<tr>
<td>2.</td>
<td>Farmers Lane/Montgomery Drive</td>
<td>30.2</td>
<td>C</td>
<td>30.5</td>
<td>C</td>
</tr>
<tr>
<td>3.</td>
<td>Farmers Lane/Sonoma Avenue</td>
<td>30.4</td>
<td>C</td>
<td>30.4</td>
<td>C</td>
</tr>
<tr>
<td>4.</td>
<td>Farmers Lane/Patio Court</td>
<td>7.1</td>
<td>A</td>
<td>7.2</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Farmers Lane/Hoen Avenue</td>
<td>29.4</td>
<td>C</td>
<td>31.1</td>
<td>C</td>
</tr>
<tr>
<td>6.</td>
<td>Farmers Lane/Vallejo Street</td>
<td>11.1</td>
<td>B</td>
<td>11.6</td>
<td>B</td>
</tr>
<tr>
<td>7.</td>
<td>Farmers Lane/SR 12 West On-ramp</td>
<td>5.0</td>
<td>A</td>
<td>5.4</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road</td>
<td>41.7</td>
<td>D</td>
<td>43.3</td>
<td>D</td>
</tr>
<tr>
<td>9.</td>
<td>Farmers Lane/Bennett Valley Road</td>
<td>43.9</td>
<td>D</td>
<td>43.9</td>
<td>D</td>
</tr>
<tr>
<td>10.</td>
<td>Hoen Avenue Frontage Road/Townview Avenue</td>
<td>1.4</td>
<td>A</td>
<td>1.4</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Northbound Approach</td>
<td>17.6</td>
<td>C</td>
<td>19.1</td>
<td>C</td>
</tr>
<tr>
<td>11.</td>
<td>Hoen Avenue Frontage Road/New Mixed Use Street</td>
<td>-</td>
<td>-</td>
<td>1.1</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Southbound Approach</td>
<td>-</td>
<td>-</td>
<td>13.2</td>
<td>B</td>
</tr>
<tr>
<td>12.</td>
<td>Hoen Avenue Frontage Road/Hoen Avenue-Cypress Way</td>
<td>19.3</td>
<td>B</td>
<td>20.0</td>
<td>C</td>
</tr>
<tr>
<td>13.</td>
<td>Hoen Avenue/Franquette Avenue</td>
<td>5.0</td>
<td>A</td>
<td>5.4</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Southbound Approach</td>
<td>53.9</td>
<td>F</td>
<td>60.0</td>
<td>F</td>
</tr>
<tr>
<td>14.</td>
<td>Yulupa Avenue/Mayette Avenue</td>
<td>10.3</td>
<td>B</td>
<td>10.6</td>
<td>B</td>
</tr>
<tr>
<td>15.</td>
<td>Hoen Avenue/Yulupa Avenue</td>
<td>44.6</td>
<td>D</td>
<td>47.0</td>
<td>D</td>
</tr>
<tr>
<td>16.</td>
<td>Hoen Avenue/Summerfield Road</td>
<td>20.7</td>
<td>C</td>
<td>20.8</td>
<td>C</td>
</tr>
</tbody>
</table>

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; Bold indicates operation below City level-of-service standard.

a. Future intersection.

b. The CAMUTCD “Peak Hour Volume” warrant would be met under all future scenarios both without and with the project.


The following discussion describes the impacts at the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) and the southbound stop-controlled approach at the intersection of Hoen Avenue/Franquette Avenue intersection (#13).
Figure 4.13-5

Future Plus Project Traffic Volumes

Farmers Lane/Fourth Street-Sonoma Highway

The Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) is projected to operate unacceptably at LOS E during both peak hours without the project, and drop to LOS F during the PM peak hour upon the addition of project-generated traffic. This is considered a significant impact.

Impact TRANS-1c: The Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) is projected to operate unacceptably at LOS E during both peak hours without the project and with the addition of project traffic would drop to LOS F during the AM peak hour.

Measures Considered and Determined to be Infeasible: As described under Impact TRANS-1b, the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) could be widened in the future to include dual northbound right-turn lanes and triple left-turn lanes, including widening of Farmers Lane to provide three southbound lanes for a distance of approximately 350 feet south of the intersection, or otherwise modified as determined appropriate by the City Traffic Engineer to provide equivalent or superior operation. As shown in Table 4.13-17 and Figure 4.14-6, with implementation of this improvement, the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) is projected to operate acceptably at LOS D.

<table>
<thead>
<tr>
<th>Study Intersection/Approach</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Future</td>
<td>Future + Project</td>
</tr>
<tr>
<td>1. Farmers Lane/Fourth St-Sonoma Hwy</td>
<td>54.2 D</td>
<td>54.4 D</td>
</tr>
</tbody>
</table>

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; Bold indicates operation below City level-of-service standard.

Although this impact could be reduced, as described under Impact TRANS-1b, the widening project described has no identified funding source and its potential environmental impacts have yet to be analyzed. Because uncertainty exists as to whether the improvement can ultimately be implemented, the impact is considered to be significant and unavoidable.

Significance With Mitigation: Significant and Unavoidable.

Hoen Avenue/Franquette Avenue intersection (#13)

The southbound stop-controlled approach at the Hoen Avenue/Franquette Avenue intersection (#13) is projected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour upon the addition of project traffic. During the AM peak hour, the project would result in a 6.1-second increase in delay on the southbound approach. The intersection would meet the CA-MUTCD “Peak Hour Volume” warrant for signalization, which for the purposes of this analysis is used as an indicator of the potential need for a future signal. This is considered a significant impact.

TABLE 4.13-17 MITIGATED FUTURE PLUS PROJECT PEAK HOUR INTERSECTION LEVELS OF SERVICE

Impact TRANS-1d: The southbound stop-controlled approach the Hoen Avenue/Franquette Avenue intersection (#13) is projected to operate at LOS F during the AM peak hour, with a 6.1-second increase in delay attributable to the project, which would meet the CA-MUTCD “Peak Hour Volume” warrant for signalization.

Mitigation Measure TRANS-1d: A traffic signal should be installed at the intersection of Hoen Avenue/Franquette Avenue in the future. The City’s Department of Transportation and Public Works should monitor operation at the intersection through field observations and review of development traffic impact studies, and add signalization of the intersection to the Capital Improvement Program once the City Traffic Engineer determines that signalization is warranted.

Significance With Mitigation: Less Than Significant. Installation of a traffic signal would entail use of standard signal equipment within the existing right-of-way, with no apparent constraints that would affect the feasibility of completing the improvement. As shown in Table 4.13-18 and Figure 4.14-6, with installation of a traffic signal, the intersection would operate acceptably at LOS B during both the AM and PM peak hours.

**Table 4.13-18  Mitigated Future plus Project Peak Hour Intersection Levels of Service**

<table>
<thead>
<tr>
<th>#</th>
<th>Study Intersection/Approach</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Future</td>
<td>Future + Project</td>
<td>Future</td>
<td>Future + Project</td>
</tr>
</tbody>
</table>

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; **Bold** indicates operation below City level-of-service standard.

Copies of the signal warrant calculations are contained in Appendix D of the Traffic Impact Study, which is included as Appendix H of this Draft EIR. Note that the installation of a signal at this intersection may result in minor traffic shifts, as residents in the surrounding neighborhood may encounter lower delays when turning from Franquette Avenue onto Hoen Avenue with a signal than they would encounter with the current stop-controls. Because the projected volumes on Franquette Avenue are projected to remain relatively low under Future plus Project conditions (approximately 288 to 314 vehicles during peak hours), and because the size of the neighborhood benefitting from the potentially lower delays is relatively small, it is reasonable to conclude that any such shifts in traffic patterns would result in no adverse environmental impacts and impacts would be less than significant with mitigation.
TRANSPORTATION AND CIRCULATION

**TRANS-2**  Implementation of the proposed project would not conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

There is currently no adopted regional congestion management program in Sonoma County, and therefore implementation of the proposed project would have no impact.

**Significance Without Mitigation:** No Impact.

**TRANS-3**  The proposed project would not 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.

The Southeast Greenway Area is not located near any airports, approach, or departure zones. Therefore, adoption and implementation of the proposed project would have no impact to air traffic.

**Significance Without Mitigation:** No impact.

**TRANS-4**  Implementation of the proposed project would not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersection) or incompatible uses (e.g. farm equipment).

Vehicular access to development and activity areas along the Southeast Greenway Area would generally take place on existing city streets. Specific access schemes would be determined as individual components of the proposed project are designed, and would undergo environmental and design review at that time. There is one location where a new public street access is specified by the proposed project, on Hoen Avenue Frontage Road to the east of Townview Avenue, which would provide primary access to the potential future mixed-use development. The new intersection created by this access was intentionally sited at this location to minimize the potential for traffic operation or safety impacts to occur. The intersection would be located on the outside of a horizontal curve on Hoen Avenue Frontage Road where sight lines in excess of 500 feet exist in both directions, which is sufficient for speeds of up to 45 miles per hour (mph) (the posted speed limit is 35 mph). Hoen Avenue Frontage Road currently includes one lane in each direction plus a two-way left-turn lane at the intersection location. The intersection also loads traffic onto Hoen Avenue Frontage Road rather than the Farmers Lane corridor, which is anticipated to operate near capacity and would be more susceptible to operational impacts created by added turning movements into and out of the mixed-use site.

As shown in Tables 4.13-13 and 4.13-16 above, under Existing plus Project and Future plus Project conditions the proposed new Hoen Avenue Frontage Road/New Mixed-Use Street intersection (#11) is projected to operate acceptably at LOS A overall, with LOS C or better operation on the stop-controlled southbound approach exiting the potential future mixed-use site.
The potential for the intersection to create queuing conflicts with the adjacent intersection at Townview Lane was evaluated using a methodology contained in “Estimating Maximum Queue Length at Unsignalized Intersections,” John T. Gard, *ITE Journal*, November 2001. Under conditions with Future plus Project traffic volumes, the maximum westbound left-turn queue at Townview Lane was determined to be two vehicles, and the maximum eastbound left-turn queue at the new Mixed-Use street was determined to be three vehicles. Assuming an average vehicle length of 25 feet, this translates to a combined storage need of 125 feet. Since the two intersections would be separated by at least 300 feet, no adverse queuing impacts are anticipated to occur. Copies of the queuing calculations are included in Appendix E of the Traffic Impact Study, which is included as Appendix H of this Draft EIR.

Adoption and implementation of the proposed project would add a new unsignalized intersection on Hoen Avenue Frontage Road to the west of Townview Lane (i.e., Hoen Avenue Frontage Road /New Mixed Use Street intersection (#11)), providing access to an area designated by the proposed project for potential future mixed-use development. The proposed new Hoen Avenue Frontage Road /New Mixed Use Street intersection (#11) is projected to operate at an acceptable level of service under near-term and long-range conditions, would be located in an area with sufficient sight distance, and is not projected to cause operational impacts to the adjacent Townview Lane intersection. The proposed new intersection design would be subject to the requirements contained in the City’s *Design and Construction Standards*. Any potential circulation impacts associated with this proposed new intersection are therefore considered to be *less than significant*.

**Significance Without Mitigation:** Less than significant.

**TRANS-5**

*Implementation of the proposed project would not result in inadequate emergency access.*

As discussed above under impact discussion TRANS-4, vehicular access to development and activity areas along the Southeast Greenway Area would generally take place on existing City streets. Development of future access road would have to undergo environmental and would be subject to the requirements contained in the City’s *Design and Construction Standards* which include requirements for emergency access. In addition, per SRCC Chapter 18-44, Fire Code, requires that roads be maintained to provide adequate space for emergency vehicle access. As a result, implementation of the proposed project would be result in a *less than* significant impact with respect to emergency access.

**Significance Without Mitigation:** Less than significant.

**TRANS-6**

*Implementation of the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

**Consistency with Adopted Pedestrian and Bicycle Plans and Policies**

The proposed multi-use pathways would serve recreational users, and would connect to existing recreational pathways at Spring Lake Regional Park. The proposed multi-use paths would also establish an
off-street, non-motorized network that would facilitate pedestrian and bicycling circulation in the surrounding area of Santa Rosa, linking neighborhoods to one another as well as to surrounding schools and shopping areas. The bicycle path running the length of the Southeast Greenway Area would also increase the viability of commuting by bicycle, and link to existing and planned bike facilities throughout Santa Rosa, including connections to downtown.

The proposed project supports and expands upon current policies regarding non-motorized transportation. It is consistent with SCTA’s *Moving Forward 2040* and supports and/or strengthens the non-motorized transportation policies set forth in the General Plan 2035. In addition, the proposed multi-use pathway is also consistent with the BPMP, which depicts an off-street (Class I) pathway between Hoen Avenue and Spring Lake Regional Park. Accordingly, implementation of the proposed project would result in a less-than-significant impact with respect to consistency with adopted policies, plans, or programs.

**Significance Without Mitigation:** Less than significant.

**Multi-Use Pathway Crossings**

As shown on Figure 3-10 in Chapter 3, Project Description, of this Draft EIR, the proposed project includes four locations where the proposed multi-use pathway would cross public streets, each of which are evaluated below. Note that the precise locations and designs of the crossings would be determined in the future, and that the evaluation focuses on the general appropriateness of the crossing locations and types of crossing amenities that may be appropriate to enhance pedestrian access. The ultimate designs of the crossings and their associated devices (if any) shall be analyzed and approved by the City’s Traffic Engineer in consideration of the physical characteristics that are present at the time.

**Summerfield Road**

The multi-use pathway would cross Summerfield Road at a mid-block location between Hoen Avenue and Sumner Lane. Summerfield Road is an arterial street with a posted 35-mph speed limit that currently carries approximately 13,000 vehicles per day. The paved width of the street is generally 64 feet. The crossing would be located 500 feet or more to the north of the traffic signal at Hoen Avenue/Summerfield Road. Given these conditions, the crossing should at a minimum include some form of active warning system such as pedestrian-activated flashing beacons or Rapid Rectangular Flashing Beacons (RRFB), along with high-visibility crosswalk markings. Depending on the design scheme chosen, the City may also wish to include a pedestrian refuge island on Summerfield Road.

**Yulupa Avenue**

A mid-block crossing would be created on Yulupa Avenue approximately mid-way between Hoen Avenue and Mayette Avenue. Yulupa Avenue is an arterial street with posted 35-mph speed limit with existing traffic volumes of approximately 20,000 vehicles per day. The paved width of the street is generally 64 feet. The crossing would be located adjacent to a small area designated by the proposed project for potential future mixed-use development. Given these conditions, the crossing should at a minimum include some form of active warning system such as pedestrian-activated flashing beacons or RRFBs, along with high-visibility crosswalk markings. The ultimate design for the crossing should consider vehicular circulation associated with access to the potential future mixed-use development, as well as the potential to add a pedestrian refuge island on Yulupa Avenue.
Franquette Avenue

The mid-block crossing on Franquette Avenue would be approximately 300 to 400 feet north of Hoen Avenue. Franquette Avenue is a collector street with posted 25-mph speed limit and existing traffic volumes of approximately 3,000 vehicles per day. The street currently has a paved width of 20 to 24 feet, though in the future could potentially be widened to a paved width of 36 feet if fully improved with curb, gutter, sidewalk, and on-street parking consistent with the City’s “Minor Street” street standard. Given these conditions, the crossing should at a minimum include high-visibility pavement markings and signs. The City may also wish to consider incorporating curb extensions into the design, particularly if the crossing is constructed simultaneously with the installation of curb, gutter, and sidewalk.

Hoen Avenue/Hoen Avenue Frontage Road-Cypress Way Intersection

The multi-use pathway would cross the northern leg of the signalized Hoen Avenue/Hoen Avenue Frontage Road-Cypress Way intersection (#12). The signal would be updated with crosswalk markings and phasing to serve the pedestrians and bicyclists using the crossing. The crossing should at a minimum include high-visibility crosswalk markings and signage alerting drivers to the presence of bike crossings, such as “Yield to Bikes” signs facing drivers making a westbound right-turn across the pathway crossing. As part of the ultimate design the City may also wish to consider amenities and treatments such as (but not limited to) curb extensions, “advance release” phasing for pedestrians and bicyclists using the crossing, or a dedicated signal phase for the crossing movement. The proposed project depicts four locations where the proposed multi-use pathway would cross public streets. Specific details regarding the precise locations and configurations of these crossings have yet to be developed, but must incorporate mitigation measures that help to maintain the safety of pedestrians and bicyclists. Therefore, this is considered to be a significant impact.

Impact TRANS-6a: The proposed multi-use pathway crossings could result in pedestrian and bicyclist safety concerns.

Mitigation Measure TRANS-6a.1: The mid-block multi-use pathway crossings on Summerfield Road and Yulupa Avenue should include, at a minimum, an active pedestrian warning system (such as, but not limited to, pedestrian-activated flashing beacons or rapid rectangular flashing beacons) as well as high-visibility crosswalk markings.

Mitigation Measure TRANS-6a.2: The mid-block multi-use pathway crossing on Franquette Avenue should include, at a minimum, high-visibility crosswalk markings and signs.

Mitigation Measure TRANS-6a.3: The multi-use pathway crossing at the Hoen Avenue/Hoen Avenue Frontage Road-Cypress Way signalized intersection should include, at a minimum, new high-visibility crosswalk markings and signal phasing to serve pedestrians and bicyclists, as well as signage (such as “Yield to Bikes” signs) alerting drivers to the presence of bike crossings.

Mitigation Measure TRANS-6a.4: The ultimate configuration of multi-use pathway street crossing designs, including selection of warning devices if appropriate, shall be determined by the City’s Traffic Engineer, in consideration of the physical characteristics of each site and best design practices that exist at the time the design is initiated.

Significance With Mitigation: Less than significant.
Pedestrian and Bicycle Access to Mixed-Use Development

The proposed mixed-use development located west of the SR 12 On-ramp would include the following two new connections to the surrounding pedestrian and bicycle network.

Hoen Frontage/New Mixed-Use Street Intersection

A pedestrian crossing would be established at the proposed new Hoen Avenue Frontage Road/New Mixed Use Street intersection (#11) that would provide primary vehicular access to the proposed mixed-use development located west of the SR 12 On-ramp. As indicated under impact discussion TRANS-1 above, this proposed new intersection is projected to operate acceptably as a stop-controlled tee intersection with stop signs on the southbound approach (see Tables 4.13-13 and 4.13-16). At this location, the Hoen Avenue Frontage Road serves approximately 15,000 vehicles per day and has an existing paved width of approximately 60 feet. Given these conditions, the intersection should at a minimum include high-visibility crosswalk markings as well as an active warning device such as a pedestrian-actuated flashing beacon or RRFB. As part of the ultimate design implemented, the City may also wish to consider the potential to incorporate curb extensions and/or a pedestrian refuge island on Hoen Avenue Frontage Road.

Crossing of SR 12 Westbound On-ramp

The proposed project identifies two potential options for establishing a pedestrian and bicycle crossing of the SR 12 Westbound On-ramp. One entails constructing an underpass for exclusive use by pedestrians and bicyclists, connecting the proposed mixed-use development to the proposed 2- to 3-story multifamily housing. This option would create an off-street connection to the proposed multi-use pathway, as well as Vallejo Street and the surrounding pedestrian and bicycle network.

The second crossing option would be to construct an at-grade crossing on the north leg of the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection. Currently, the westbound right-turn movement from Hoen Avenue Frontage Road onto the SR 12 Westbound On-ramp is a high-speed movement that is inappropriate for pedestrian crossing activity. The proposed project indicates that implementation of this option would entail modification of the intersection to create a viable location for a crossing to be installed. The intersection would need to be modified to include 1) a signal or pedestrian hybrid beacon that provides an exclusive phase for pedestrian-bicycle movements, stopping the traffic flow to the on-ramp while the phase is active, 2) horizontal realignment that geometrically regulates vehicle speeds to no greater than 35 mph at the crossing, 3) clear lines of sight between drivers and pedestrians/bicyclists on the crossing, and 4) a right-turn lane on westbound Hoen Avenue Frontage Road, if needed, to provide vehicle queue storage for the brief periods when the crossing phase is active.

As discussed above, the proposed project includes two options for connecting the proposed mixed-used development located west of Franquette Avenue to the surrounding pedestrian and bicycle network. Implementation of the first option, an underpass below the SR 12 Westbound On-ramp, would be expected to result in a less-than-significant impact. The second option, an at-grade crossing at the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection, cannot be implemented without including provisions to help maintain the safety of crossing pedestrians. This is considered to be a significant impact.
Impact TRANS-6b: Potential development of an at-grade crossing at the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection could result in pedestrian safety concerns.

Mitigation Measure TRANS-6b.1: If an at-grade pedestrian crossing is to be implemented at Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection, the intersection would need to be modified to include, at a minimum, the following components:
- Signal or pedestrian hybrid beacon with an exclusive phase for pedestrian-bicycle movements
- Horizontal realignment that regulates vehicle speeds to no greater than 35 mph at the crossing
- Maintained clear line of sight between drivers and pedestrians/bicyclists on the crossing
- Right-turn pocket on westbound Hoen Avenue Frontage Road to provide vehicle queue storage

Mitigation Measure TRANS-6b.2: The ultimate configuration of any at-grade pedestrian crossing at the Hoen Avenue Frontage Road/SR 12 Westbound On-ramp intersection shall be evaluated and determined by the City’s Traffic Engineer, in collaboration with Caltrans, and in consideration of the physical characteristics the site and best design practices that exist at the time the design is initiated. The City shall obtain an encroachment permit and design approval from Caltrans prior to implementing the new pedestrian crossing.

Significance With Mitigation: Less than significant.

Public Transportation

The proposed project does not include new transit facilities. However, the combined bike and pedestrian improvements in the area would further aid access to existing bus routes and stops in the Southeast Greenway Area. Existing bus stops are located on Hoen Avenue, Yulupa Avenue, and Summerfield Road. With new planned midblock crossings on Yulupa Avenue and Summerfield Road and new neighborhood connections to Hoen Avenue, pedestrian access to existing bus stops would be improved. The proposed project’s potential impacts to transit are therefore considered to be less than significant.

Construction-Related Impacts

Future construction activities would generate truck traffic for a variety of purposes throughout the construction schedule, including material and equipment deliveries, earthwork, etc. Future construction of the proposed project would also generate auto commute trips, though most such trips occur during non-peak traffic hours. Future construction projects may periodically require traffic detours to allow heavy equipment movements or to facilitate construction activities directly adjacent to the street, or during upgrades of the utilities infrastructure needed to support growth in the Southeast Greenway Area. The detours may temporarily affect traffic circulation, as well as re-direct pedestrian and bicycle traffic.

Impact TRANS-6c: Construction activities associated with development in the Southeast Greenway Area may temporarily affect vehicular, pedestrian, and bicycle circulation.

Mitigation Measure TRANS-6c: Prior to commencement of construction activities, applicants seeking to construct projects within the Southeast Greenway Area should submit a construction traffic control plan to the City of Santa Rosa for review and approval. The proposed project should identify the timing and routing of all major construction-related traffic to avoid potential congestion and delays on
the local street network. Any temporary road or sidewalk closures should be identified along with
detour plans. If necessary, movement of major construction equipment and materials should be
limited to off-peak hours to avoid conflicts with local traffic circulation.

Significance Without Mitigation: Less than significant.

4.13.4 CUMULATIVE IMPACTS

The analysis of the proposed project, above, addresses cumulative impacts to the transportation network
in the city and its surroundings; accordingly, cumulative impacts would be the same as proposed project-
specific impacts.
4.14 UTILITIES AND SERVICE SYSTEMS

This sub-chapter describes the existing utilities and service systems for Santa Rosa and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed project. Water supply, wastewater, solid waste, and energy conservation are each addressed in a separate section of this chapter. Stormwater as it relates to both water quality and capacity is addressed in Chapter 4.9, Hydrology and Water Quality, of this Draft EIR under impact discussion HYDRO-5. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project and cumulative impacts.

4.14.1 WATER

4.14.1.1 ENVIRONMENTAL SETTING

Regulatory Setting

State Regulations

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969 and amended in 2013, the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. This act divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Santa Rosa is overseen by the North Coast RWQCB.

California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code (Division 6, Part 2.6, Sections 10610 through 10656) requires all urban water suppliers within California to prepare and adopt an urban water management plan and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The act is intended to support conservation and efficient use of urban water supplies. The act requires that total project water use be compared to water supply sources over the next 20 years in five-year increments, that planning occur for single- and multiple-dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency’s service area along with current and potential recycled water uses. In September 2014 the act was amended by Senate Bill (SB) 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information.2

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1 Once acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.
Groundwater Management Act (1992)

The Groundwater Management Act of the California Water Code (Assembly Bill [AB] 3030), signed into law on September 26, 1992, and effective on January 1, 1993, provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. The GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities’ maintenance, and water quality.3

Sustainable Groundwater Management Act (2014)

The Sustainable Groundwater Management Act of 2014 (SGMA) consists of three legislative bills, Senate Bill (SB) 1168, AB 1739, and SB 1319. The legislation provides a framework for long-term sustainable groundwater management across California. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins will form Groundwater Sustainability Agencies (GSAs) that oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP). The City of Santa Rosa is a member of the Santa Rosa Plain GSA formed on June 1, 2017.4 Groundwater Sustainability Plans will have to be developed and in place by 2022. GSAs will have until 2040 to achieve groundwater sustainability.5

Water Conservation Act of 2009

The Water Conservation Act of 2009,6 SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing statewide per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in statewide per capita water use by 2015. Effective in 2016, urban retail water suppliers that do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. The SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards.

State Updated Model Water Efficient Landscape Ordinance

The updated Model Water Efficient Landscape Ordinance requires cities and counties to adopt updated water efficient landscape ordinances by February 1, 2016 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. The Water Efficient Landscape Policy was initially adopted by Resolution No. 21142 of the Santa Rosa City Council on December 22, 1992 and was replaced by the Santa Rosa City Code Chapter 14-30, Water Efficient Landscape, ordinance which initially went into effect in January 2010 and was revised and adopted in October 2015 and January 2016.7

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California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Part 11, Title 24, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout the State of California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent. The mandatory provisions of the CALGreen Standards became effective January 1, 2011 and are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in water efficiency and conservation, amongst others. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

California Plumbing Code

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code. The general purpose of the universal code is to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. Water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Local Regulations

Sonoma County Water Agency

The Sonoma County Water Agency (SCWA) is the water wholesaler for the County. The SWCA provides 90 to 95 percent of the City’s potable water supply through a service agreement with the City. In addition to Santa Rosa, the SCWA supplies water to the cities of Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District.

Urban Water Management Plan

The City’s 2015 Urban Water Management Plan (UWMP) was prepared in accordance with the Urban Water Management Planning Act previously described. The 2015 UWMP addresses the City’s water system and includes a description of the water supply sources, historical and projected water use, and a comparison of water supply to water demands during normal, single-dry, and multiple-dry years. The 2015 UWMP also addresses water use efficiency legislation, including the City’s 2015 and 2020 water use targets, as required by the Water Conservation Act, and the implementation plan for meeting the City’s 2020 water use targets.

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Groundwater Master Plan

Adopted by the Santa Rosa Board of Public Utilities on September 19, 2013, the overall objective of the Groundwater Management Plan (GWMP) is to provide a strategic road map for the City’s Utilities staff, Board of Public Utilities, and City Council regarding how available groundwater resources could be most effectively used to meet the needs of the City’s existing and future customers. The GWMP documents the need for additional emergency groundwater supply wells to provide for water service to residents in the event of an emergency. The Emergency Groundwater Supply Program, which seeks to design and construct new emergency wells as part of implementing the GWMP, is actively seeking to construct emergency groundwater supply facilities in the Southeast Greenway Area due to a successful test well in Southeast Greenway Area near Martha Way.

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 include the following goals and policies specific to water resources and applicable to the proposed project:

- **Goal PSF-F:** Ensure that an 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 (SWCA) 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 lines.

Santa Rosa City Code

Chapter 14-30, Water Efficient Landscape

The SRCC includes Chapter 14-30, Water Efficient Landscape, which ensures efficient water use by establishing standards for landscape design appropriate to Santa Rosa’s climate, soils, water resources, land use and resource planning. The Water Efficient Landscape Policy was initially adopted by Resolution No. 21142 of the Santa Rosa City Council on December 22, 1992 and was replaced by the Water Efficient Landscape Ordinance which initially went into effect in January 2010 and was revised and adopted in October 2015 and January 2016. The chapter applies to all new projects, public and private, with landscaping that require conditional use permit or design review by the City, or a Utilities certificate. This includes office, commercial, industrial, and institutional landscaping; park and greenbelt landscaping; developer-installed landscaping in multiple-family residential and common areas of single-family residential developments.

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Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to water conservation measures. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

On June 5, 2012, the Santa Rosa City Council adopted the Climate Action Plan (CAP), which is discussed in greater detail in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. The CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including water conservation. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 7: Water and Wastewater.** Improve the efficiency of wastewater and water operations in Santa Rosa, and continue to develop a diversified water supply portfolio, including water conservation and recycled water, in order to enhance water supply reliability.
  - **Measure 7.1: Water Conservation.** Continue to require and incentivize water conservation.
    - **Action 7.1.1:** Require new development to reduce potable water use in accordance with the Tier 1 standards of CALGreen.
    - **Action 7.1.2:** Continue and expand water conservation efforts including water-efficient landscaping, rainwater harvesting, and high-efficiency appliance and fixture installations.
    - **Action 7.1.3:** Replace water meters in Santa Rosa with meters that allow residents and businesses to track real-time water use through the City’s online web application.
    - **Action 7.1.4:** Encourage existing development and require new development to utilize smart water meters to facilitate water and cost savings.
  - **Measure 7.2: Wastewater and Water Operations.** Improve the efficiency of water and wastewater facilities and operations serving the Santa Rosa community.
    - **Action 7.2.1:** Continue to provide recycled water to the Geysers project to generate clean energy.
    - **Action 7.2.2:** Continue to develop and install innovative renewable energy projects at the Laguna Treatment Plant.
  - **Measure 7.3: Recycled Water.** Increase the use of recycled water in Santa Rosa.
    - **Action 7.3.1:** Expand the infrastructure network to deliver recycled water for use at businesses, city parks and facilities, and common area residential landscapes.
    - **Action 7.3.2:** Require new development in zones anticipated to receive future recycled water to meet on-site meter separation requirements to allow for the use of recycled water.
Existing Conditions

Water Supply Sources

The City’s Water Department is the water purveyor for residential and commercial, industrial and institutional customers within the City boundaries. The Water Department obtains 90 to 95 percent of its water supply through a service agreement with the SCWA. In addition to Santa Rosa, the SCWA supplies water to the cities of Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District. The SCWA’s primary water supply source is the Russian River. The SCWA manages water releases at the Coyote Valley Dam and Warm Springs Dam to provide adequate water supply and to maintain the required minimum flows in the Russian River. The SCWA collects water from two intake sites located near Forestville and delivers water to Santa Rosa via the Santa Rosa and Sonoma Aqueducts. The SCWA is authorized to divert a maximum of 75,000 acre-feet of water per year (AFY) at a diversion rate of 180 cubic feet per second. Per the service agreement, Santa Rosa is entitled to 29,100 AFY through June 30, 2040. Prior to distribution, the SCWA adds chlorine to its water supplies to provide residual disinfection throughout its distribution system and tests its water frequently to ensure the quality meets all required state and federal standards for potable drinking water.

In addition to surface water supplied by the SCWA, the City maintains a total of two municipal groundwater production wells within the Santa Rosa Plain subbasin of the Santa Rosa Valley Groundwater Basin. These wells are permitted for regular production of potable water and supply the City up to 2,300 AFY for consumption. Groundwater extracted from the City’s two production wells meets primary drinking water standards for municipal use. Because these wells have historically exhibited slightly elevated concentrations of both iron and manganese that exceed secondary drinking water standards for taste and odor, the City constructed and operates an on-site treatment system to remove these elements prior to introducing the groundwater to the City’s water distribution system.

The City of Santa Rosa Water Department is responsible for the operation and management of the Subregional Water Reclamation System (Subregional System) for more than 225,000 residents and 6,500 businesses in Cotati, Rohnert Park, Santa Rosa, and Sebastopol, the South Park Sanitation District and portions unincorporated Sonoma County. The Subregional System includes the Laguna Wastewater Treatment Plant (Laguna WTP), the Industrial Pretreatment Program, and the recycled water system. The Subregional System has recycled all of its treated wastewater in the past several years, with the vast majority being used for the Geysers Recharge Project. The City has recently used approximately 140 AFY of recycled water.
of recycled water for urban landscape irrigation within its jurisdiction and is not currently planning to expand the recycled water system within the City water service area for the duration of the planning period of this 2015 UWMP.  

In summary, the City has a total of 31,540 AFY existing and projected water supplies available through 2040.

Water Demand

The City describes water use by customer type, or sector, through the year 2040. The City currently delivers water to the following sectors: single-family, multi-family, commercial, industrial, institutional, and landscape irrigation customers. The remaining demand not accounted for within these sectors is captured in the distribution system loss sector. As of December 2015, the City served 53,193 water customers. Of those, 89 percent are residential customers while approximately 5 percent are commercial, institutional, or industrial customers. Actual water demand for the year 2015 was 16,539 AFY. Projected water demand through the year 2040 is shown in Table 4.14-1 below.

**Table 4.14-1**  
**Total Existing and Projected Water Demands (AFY)**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2025</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable Water</td>
<td>16,539</td>
<td>25,590</td>
<td>28,103</td>
<td>28,140</td>
</tr>
<tr>
<td>Recycled Water</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td>Total</td>
<td>16,679</td>
<td>25,730</td>
<td>28,243</td>
<td>28,280</td>
</tr>
</tbody>
</table>

Note: Projected water use is shown reported in acre-feet per year (AFY); An acre-foot is the equivalent of 325,850 gallons of water.

a: The 2015 values represent actual water demand for the year 2015.

Source: City of Santa Rosa Water, 2015 Urban Water Management Plan, Table 4-5, Total Water Demands, page 4-4.

As shown in Table 4.14-1, projected water demands for the city are expected to slightly increase through the year 2040.

**4.14.1.2 STANDARDS OF SIGNIFICANCE**

Implementation of the proposed project would have a significant impact on water service if:

1. There were insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements were needed.

2. It would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

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4.14.1.3 IMPACT DISCUSSION

**UTIL-1** Implementation of the proposed project would have sufficient water supplies available to serve the proposed project from existing entitlements and resources, and would not require new or expanded entitlements.

As described above, the City has a total of 31,540 AFY existing and projected water supplies available through 2040. As shown on Table 4.14-1 above, the projected water demand for the General Plan 2035 horizon year 2035 is 28,243 AFY. Accordingly, the City would have a total of 3,297 AFY of potable water available for future projects. As described in Chapter 3, Project Description, of this Draft EIR, implementation and adoption of the proposed project would result in up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space. The proposed project’s projected water demand was calculated using the water demand factors included in the 2014 Water Master Plan Update. The projected water demand for the proposed project is shown in Table 4.14-2 below.

### Table 4.14-2 PROPOSED PROJECT WATER DEMAND (AFY)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Water Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks and Recreation a</td>
<td>19</td>
</tr>
<tr>
<td>Multi-Family Housing b</td>
<td>16</td>
</tr>
<tr>
<td>Commercial c</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total Water Demand</strong></td>
<td><strong>36 AFY</strong></td>
</tr>
</tbody>
</table>

Notes: AFY = acre-feet per year.
An acre-foot is the equivalent of 325,850 gallons of water.
a. The parks and recreation water demand was calculated using the recommended unit water demand factor of 0.4 acre-feet/acre/year for the Low/Open Space Land Use designation.
b. The multi-family housing water demand was calculated using the recommended unit water demand factor of 211 gallons/unit/day for the Medium Density residential Land Use designation, and then converted to AFY.
c. The commercial water demand was calculated using the recommended unit water demand factor of 1.8 acre-feet/acre/year for the Retail/Med Residential Land Use designation.
Source: City of Santa Rosa, 2014 Water Master Plan Update, Executive Summary, Table ES-4, page ES-7.

As shown on Table 4.14-2, the projected water demand for the proposed project would be 36 AFY. Given that the City would have 3,297 AFY of potable water available for future projects in 2035, sufficient water supplies would be available to serve the proposed project and impacts would be less than significant. In addition, the General Plan 2035 also includes policies (listed above) which require that an adequate amount of water supply be available to serve existing and future needs of the city. The proposed project would also be required to comply with the standards for water efficient landscape design included in SRCC Chapter 14-30 in an effort to reduce water consumption in the city. To supplement these existing

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22 31,540 AFY existing water supplies – 28,243 AFY 2035 projected water demand = 3,297 AFY water available.
regulations, the proposed project includes proposed Policy LUL-NN-3, which requires increase stormwater infiltration and groundwater recharge, which will ultimately improve water supply conditions in the region. Consistency with these regulations and additional water from groundwater wells would ensure that future development under the proposed project would reduce impacts to the City’s water supply. Furthermore, as part of the City’s Emergency Groundwater Supply Program implementation discussed in the GWMP, the City would seek to design and construct emergency wells and associated facilities in the Southeast Greenway Area due to a successful test well in the Southeast Greenway Area near Martha Way.

Significance Without Mitigation: Less than significant.

**UTIL-2** Implementation of the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

The City obtains 90 to 95 percent of its water supply through a service agreement with the SWCA. Prior to delivery, the SCWA adds chlorine to its water supplies to provide residual disinfection throughout its distribution system and tests its water frequently to ensure the quality meets all drinking water standards. In addition to surface water supplied by the SWCA, the City maintains a total of two municipal groundwater production wells within the Santa Rosa Plain subbasin of the Santa Rosa Valley Groundwater Basin. Groundwater extracted from the City’s two production wells meets primary drinking water standards for municipal use. Because these wells have historically exhibited slightly elevated concentrations of both iron and manganese that exceed secondary drinking water standards for taste and odor, the City constructed and operates an on-site treatment system to remove these elements prior to introducing the groundwater to the City’s water distribution system.

As described under impact discussion UTIL-1, the proposed project’s water demand would not exceed the available potable water in the city for the year 2035. As such, the project would not require the SCWA or the City to treat additional water beyond what is currently anticipated and would therefore, not prompt the need to expand treatment facilities in order to meet the demands. In addition, the General Plan 2035 includes policies (listed above) that would require the continued improvement and maintenance of water infrastructure. Accordingly, impacts would be less than significant.

Significance Without Mitigation: Less than significant.

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4.14.1.4 CUMULATIVE IMPACTS

**UTIL-3**

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to water service.

The cumulative impact for water service is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the SCWA service area. The SCWA supplies water to Rohnert Park, Petaluma, Cotati, Sonoma, the Town of Windsor, the North Marin Water District, and the Valley of the Moon Water District.

While the proposed project would contribute to an increase in the cumulative demand for water supply, the increased demand would not exceed Santa Rosa's existing and projected water supplies as described above. In addition, per the service agreement, each jurisdiction in the SCWA service is entitled to their respective water allotments through June 30, 2040. In addition, with SB X7 7 and the State, county, and local water conservation ordinances in place, each jurisdiction would be required to conserve its water use through establishing water efficiency measures. Therefore, the cumulative water demands would not exceed planned levels of supply beyond what is currently planned and cumulative impacts would be less than significant.

**Significance Without Mitigation:** Less than significant.

4.14.2 SANITARY WASTEWATER (SEWER)

4.14.2.1 ENVIRONMENTAL SETTING

**Regulatory Setting**

**Federal Regulations**

**Clean Water Act**

The Federal Water Pollution Act of 1972, more commonly known as the Clean Water Act, regulates the discharge of pollutants into watersheds throughout the nation. It is the primary federal law governing water pollution. Under the Clean Water Act, the United States Environmental Protection Agency (USEPA) implements pollution control programs and sets wastewater standards. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

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National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the Clean Water Act 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 connections 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. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulations

State Water Resources Control Board

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sanitary Sewer Master Plan. The General Waste Discharge Requirement also requires that sanitary sewer overflows be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to the North Coast RWQCB, which issues and enforces NPDES permits applicable to the Laguna WTP wastewater collection system in Santa Rosa (discussed further below).

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The act was amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 includes the following goal and policies specific to wastewater and applicable to the proposed project:

- **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...
Utilities and Service Systems

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.

**Sanitary Sewer System Master Plan Update**

The City’s 2014 *Sanitary Sewer System Master Plan Update* was prepared to support the management, operation, capital improvements to the City of Santa Rosa sewer collection system. The 2014 *Sanitary Sewer System Master Plan Update* provides a summary of the Santa Rosa sewer system, a model analyses of existing infrastructure, and identifies recommended improvements designed to meet the City’s level of service requirements for the sewer collection system.29

**Climate Action Plan**

As described in Section 4.14.1, Water Supply, the City’s CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including wastewater facilities and use. The goals, measures, and actions in the CAP that are related to wastewater facilities and use are listed in Section 4.14.1 above.

**Existing Conditions**

The City serves as the wastewater provider within the Southeast Greenway Area. As such, the City is responsible for operation and maintenance of the collection system. Wastewater is collected from individual services into the City’s collection system.

In general, a wastewater system is comprised of two facets: 1) treatment/disposal and allocation capacity and 2) collection (mains and pump/lift stations). Below is a discussion of each of these facets as it relates to the proposed project.

**Treatment/Disposal and Allocation Capacity**

As described in existing conditions in Section 4.14.1, Water Supply, the City of Santa Rosa Water Department is responsible for the operation and management of the Subregional System that operates the Laguna WTP. Sewage generated from residential, commercial and industrial uses within the city is collected for treatment and disposal, and transported to the Laguna WTP. The wastewater conveyed to the Laguna WTP undergoes three stages of treatment prior to disinfection, storage, and reuse. Santa Rosa contributes approximately 75 percent of the wastewater quantity.30

Operation of the Laguna WTP and its wastewater collection system is regulated by Waste Discharge Requirements found in the North Coast RWQCB Order No. R1-2002-0053. The Laguna WTP has the capacity to treat a maximum of 56 MGD; however, the NPDES permit is only permitted to treat up to 21.34 MGD. The average daily dry weather flow for the Laguna WTP is 16.5 MGD.

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29 City of Santa Rosa, Sanitary Sewer System Master Plan Update, October 2014, Chapter 1, Introduction, page 6.
Reuse and disposal of all advanced treated water is accomplished through a system that combines water reclamation with discharge to surface waters during the allowable discharge period (October 1 through May 15). The primary point of discharge is via Delta Pond at the confluence of Santa Rosa Creek and the Laguna de Santa Rosa. Discharge cannot exceed 5 percent of the Russian River flow.  

**Collection**

The wastewater collection system consists of 590 miles of sanitary sewer lines, ranging in size from 6 to 66 inches in diameter, and includes 17 sewer lift stations. Wastewater flow is generally routed from northeast to southwest and delivered to the Laguna WTP. As shown in the *Southeast Greenway Existing Conditions, Opportunities, and Constraints* document prepared for the project site, the Southeast Greenway Area is surrounded by an urban environment that is well served by existing sewer infrastructure including, but not limited to, sewer mains along Hoen Avenue, Vallejo Street, Cypress Way, Franquette Avenue, Wanda Way, Yulupa Avenue, Spring Creek Diversion located within the right of way, Sierra Creek Lane, Summer Lane, and Slate Drive (See Appendix I, Existing Conditions, of this Draft EIR). As discussed in the 2014 *Sanitary Sewer System Master Plan Update*, the Los Alamos Trunk Sewer, Cross Town Trunk Sewer, and Airport Trunk Sewer require upgrades in order to meet the City’s minimum level of service requirements. The Cross Town Trunk Sewer would serve the project site. This trunk runs from Mission Boulevard to Surrey Drive and would convey the wastewater received from the existing sewer infrastructure along the Southeast Greenway Area to the Laguna WTP for treatment. Specifically, the Cross Town Trunk Sewer begins at the high flow diversion facility at the City’s municipal yard on Stony Point road and ends on the north side of Santa Rosa Creek at the junction of the Rincon Valley and Los Alamos Trunks.

### 4.14.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on wastewater service if it would:

1. Exceed wastewater treatment requirements of the applicable RWQCB.
2. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

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32 City of Santa Rosa, Sanitary Sewer System Master Plan Update, October 2014, Chapter 1, Introduction, page 8.
33 City of Santa Rosa, Sanitary Sewer System Master Plan Update, October 2014, Chapter 6, Capital Improvement Update, pages 69 to 74.
34 Amidon, Norman, Associate Civil Engineer, Santa Rosa Water Department, Personal communication with PlaceWorks, August 11, 2017.
4.14.2.3 IMPACT DISCUSSION

UTIL-4 Implementation of the proposed project would not exceed wastewater treatment requirements of the North Coast Regional Water Quality Control Board.

As discussed in Chapter 3, Project Description, of this Draft EIR, the proposed project does not include any industrial land uses. The proposed park and recreational uses, multi-family residential, and commercial uses that would result from the adoption and implementation of the proposed project would not generate wastewater of different quality and treatability than that generated by current land uses in the city. The Laguna WTP is currently in compliance with its NDPES permit requirements. As such, potential future development under the proposed project would not be expected to generate wastewater that would exceed the treatment requirements of the North Coast RWQCB. In addition, the proposed project would be required to comply with State and local regulations (listed above) to ensure that wastewater generated would not exceed the treatment requirements of the North Coast RWQCB. Therefore, the proposed project would result in a less-than-significant impact.

Significance Without Mitigation: Less than significant.

UTIL-5 Implementation of the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

As described in the existing conditions section above, the Laguna WTP is permitted to treat up to 21.34 MGD and has an average daily dry weather flow of 16.5 MGD. Accordingly, the Laguna WTP has a remaining capacity to receive and process 4.8 MGD.\(^\text{35}\) As described above under impact discussion UTIL-1, projected water demand for the proposed project would be 36 AFY or 0.032 MGD.\(^\text{36}\) As shown on Table 4.14-2, the water demand for the proposed project was calculated based on the proposed land uses. It is unlikely that the wastewater generated by the increase in water demand for the proposed park and recreational land uses would be conveyed to the Laguna WTP given that the proposed park and recreational areas would be primarily made up of pervious surfaces. However, for a conservative approach, this analysis assumes 90 percent of the net increase in water demand for the proposed project would become wastewater. Therefore the proposed project would generate 0.029 MGD of wastewater.\(^\text{37}\) This represents less than 1 percent (0.6) of the remaining Laguna WTP capacity.\(^\text{38}\) While the increase in wastewater flows from implementation of the proposed project would add to the capacity demands on the Laguna WTP, the amount of wastewater generated would not exceed the remaining capacity and no

\(^{35}\) 21.34 MGD permitted capacity – 16.5 average daily dry weather flow = 4.8 MGD remaining capacity.

\(^{36}\) (36 AFY/365 days per year = 0.099 acre-feet per day\(\text{[AFD]}\))
(0.099 AFD X 325,850 gallons per acre foot = 32,138 gallons per day)
(32,138/1,000,000 = 0.0321 MGD).

\(^{37}\) 0.0321 MGD water demand x 0.9 = 0.029 wastewater generated.

\(^{38}\) (0.029 wastewater generated/4.8 MGD remaining capacity) x 100 = 0.6 percent of the remaining capacity.
new wastewater treatment facility would need to be constructed and no expansion of the Laguna WTP would be required.

With respect to the City’s wastewater collection system, as discussed in the existing conditions section above, the Cross Town Trunk that would serve the Southeast Greenway Area requires upgrades in order to meet the City’s minimum level of service requirements under existing conditions. Therefore, because the Southeast Greenway Area was not identified for development in the City’s General Plan, any potential added flow from future development in the Southeast Greenway Area was not incorporated into the City’s current 2014 Sanitary Sewer System Master Plan Update. Accordingly, potential future development under the proposed project could exacerbate this existing condition and capacity improvements to the collection system and the Cross Town Trunk may be required. As part of the City’s project approval process, future project developers in the Southeast Greenway Area, as with other development projects in the city, would be required to demonstrate project-specific impacts to the wastewater collection system, including the Cross Town Trunk, that may require upsizing or mitigating potential project-specific impacts. Future project developers would also be required to pay the City’s wastewater fees for connecting to the sewer system to offset their fair share of impacts to the City’s wastewater conveyance system. This EIR is a program-level document and does not evaluate the specific details associated with the installation of future utilities. Once utility and pipelines projects are planned and the details are known, additional environmental review may be required. Furthermore, the General Plan 2035 includes policies (listed above) such as Policy PSF-G-2, which requires the maintenance of existing levels of wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary to ensure existing levels of wastewater service are available. For these reasons, the proposed project would result in a less-than-significant impact with respect to the need for new or expanded wastewater collection facilities and its conveyance system.

**Significance Without Mitigation:** Less than significant.

**UTILITY IMPLEMENTATION**

**UTIL-6 Implementation of the proposed project would not result in the determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.**

As described under impact discussion UTIL-5 above, the Laguna WTP has adequate capacity to serve the proposed new development potential under the proposed project; however, there are known deficiencies under existing conditions in the Cross Town Trunk that serves the Southeast Greenway Area. Future project developers would be required to demonstrate project-specific impacts to the wastewater collection system, including any potential impacts to the Cross Town Trunk. Because this EIR is a program-level document, it does not evaluate the specific details associated with the installation of future utilities. Once utility and pipelines projects are planned and the details are known, additional project-specific environmental review may be required. The development of improved wastewater collection systems could cause significant environmental effects; however, compliance with applicable regulations, as discussed above, and project-level environmental review would serve to evaluate and mitigate potential adverse physical effects from future project-level development. This combined with the ongoing compliance with General Plan 2035 Policy PSF-G-2, which requires the maintenance of existing levels of...
wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary, and payment of City’s wastewater fees for connecting to the sewer system to offset their fair share of impacts to the City’s wastewater conveyance system would ensure impacts would be less than significant.

Significance Without Mitigation: Less than significant.

4.14.2.4 CUMULATIVE IMPACTS

Util-7

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects would result in less-than-significant cumulative impacts with respect to wastewater service.

The cumulative impact for wastewater is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the Laguna WTP service area. The Laguna WTP serves Cotati, Rohnert Park, Sebastopol, and the South Park Sanitation District.

While the proposed project would contribute to an increase in the cumulative demand for wastewater treatment, the increase represents less than 1 percent (0.5) of the remaining Laguna WTP capacity.39 As described above, the proposed project would not exceed wastewater treatment requirements of the North Coast RWQCB and would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. In addition, the Laguna WTP has adequate capacity to treat the wastewater generated by the proposed project. Accordingly, cumulative impacts to sanitary wastewater service would be less than significant.

Significance Without Mitigation: Less than significant.

4.14.3 SOLID WASTE

4.14.3.1 ENVIRONMENTAL SETTING

Regulatory Setting

State Regulations

California Integrated Waste Management Act

California’s Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000 though source reduction, recycling, and composting. To help achieve this, the Act required 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 on-going landfill capacity.

39 \((0.024 \text{ wastewater generated divided by } 4.8 \text{ MGD remaining capacity}) \times 100 = 0.5 \text{ percent of the remaining capacity.}\)
In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction’s reported total disposal of solid waste divided by a jurisdiction’s population. The California Integrated Waste Management Board was replaced by the California Department of Resources Recycling and Recovery (CalRecycle) in 2010. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. In 2015, the statewide residential per capita disposal rate was 4.7 pounds per resident per day, and the statewide employee per capita disposal rate was 11.1 pound per employee per day.  

In 2011, AB 341 was passed that sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle was required to submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal. AB 341 requires any business (including schools and government facilities) that generates 4 cubic yards or more of waste per week, and multifamily buildings with five or more units to arrange for recycling services. A recycling service may include mixed waste processing that yields diversion results comparable to source separation.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act require areas in development projects to be set aside for collecting and loading recyclable materials. The act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, providing for adequate areas in development projects for the collection and loading of recyclable materials.

Mandatory Commercial Organics Recycling

In October of 2014 Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Greenhouse gas (GHG) emissions result from the decomposition of organic wastes in landfills. Mandatory recycling of organic waste is aimed at helping achieve California’s aggressive recycling and GHG emission goals.

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**Global Warming Solutions Act of 2006, Scoping Plan**

The California Global Warming Solutions Act of 2006 (also known as AB 32) was signed into law August 31, 2006. Under AB 32 the California Air Resources Board (CARB) adopted the *Climate Change Scoping Plan* (Scoping Plan); note, the most recent draft (2017) is currently out for review. The Scoping Plan includes a Mandatory Commercial Recycling Measure that focuses on diverting commercial waste as a means to reduce greenhouse gas (GHG) emissions, which CalRecycle adopted on January 17, 2012 and approved by the Office of Administrative Law on May 7, 2012. On June 27, 2012, the Governor signed SB 1018, which included an amendment requiring both businesses that generate 4 cubic yards or more of commercial solid waste per week and multi-family residences with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012.

**California Building Code: CALGreen**

As discussed in Section 4.14.1, Water, above, CALGreen established standards that apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California, unless otherwise indicated in the California Building Standards Code. CALGreen Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires future developers to have a waste management plan, for on-site sorting or construction debris, which is submitted to the City of Santa Rosa for approval. The waste management plan does the following:

- Identifies the materials to be diverted from disposal by recycling, reuse on the Project or salvage for future use or sale.
- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facility where the material collected can be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code. In addition, the City adopted CALGreen Tier 1 Standards Section 4.408. which requires 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged.

**Regional Regulations**

**Sonoma County Countywide Integrated Waste Management Plan**

The California Integrated Waste Management Act of 1989 (AB 939) requires each county to prepare and adopt a Countywide Integrated Waste Management Plan (CIWMP). The Sonoma County Waste Management Agency (SCWMA) is the joint powers authority of the nine incorporated cities, including

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Santa Rosa, and the County of Sonoma. As such, the SCWMA is the designated regional agency responsible for implementing, monitoring, and reporting programs that meet the goals of AB 939. The SCWMA operates various residential and commercial recycling, hazardous waste, composting, and green building programs throughout Sonoma County. The Sonoma County CIWMP is organized into four elements: Source Reduction and Recycling, Household Hazardous Waste, Siting, and Non-Disposal Facility.

Local Regulations

General Plan 2035

The Public Services and Facilities (PSF) element of the General Plan 2035 includes the following goals and policies specific to solid waste and applicable to the proposed project:

- **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. Expand the single-stream recycling program (all recyclables in one container) to all users.
- **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.

Santa Rosa City Code

Chapter 9-12, Refuse and Sanitation

Chapter 9-12 of the SRCC, Refuse and Sanitation, describes the responsibilities and requirements for owners, occupants and service providers regarding solid waste collection, storage, recycling and disposal.44

Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to solid waste management and diversion. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen Section A4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

As described in Section 4.14.1, Water Supply, the City’s CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including

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solid waste disposal and recycling in Santa Rosa. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 6: Waste Reduction, Recycling, and Composting.** Reduce the amount of solid waste sent to landfill from Santa Rosa.
  - **Measure 6.1:** Recycling and composting increase the amount of waste that is recycled and composted.
    - **Action 6.1.1:** Work with local waste haulers to improve the amount and types of waste that are accepted for curbside recycling and green waste pickup. Conduct outreach to and education of the public for dissemination of the information and options.
    - **Action 6.1.2:** Work with the Sonoma County Waste Management authority to encourage local restaurants to compost food and provide recyclable or compostable to-go containers.
    - **Action 6.1.3:** Increase the city's construction and demolition ordinance to require 75% diversion by 2020 and 85% diversion by 2035.

**Existing Conditions**

Collected recyclables, organics, and garbage are conveyed to the Central Disposal Site Transfer Station in Petaluma for processing. Central Disposal Site Transfer Station has a daily capacity of 2,500 tons per day and a remaining capacity of 9,076,760 cubic yards. Once processed, the refuse is transported to the Potrero Hills, Redwood Sanitary Landfill, or Keller Canyon Landfill.

The Potrero Hills Landfill is located in Suisun City, California. It has a permitted daily capacity of 4,330 tons per day. Its remaining permitted capacity is 13,872,000 cubic yards. It has an estimated “cease operation date” of February 14, 2048. In 2016, 13,008 tons of solid waste was transferred from the SCWMA service area to the Potrero Hills Landfill.

The Redwood Sanitary Landfill is located in Novato, California. It has a permitted daily capacity of 2,300 tons per day. Its remaining permitted capacity is 26,000,000 cubic yards. There is no cease of operation date listed for this landfill. In 2016, 96,829 tons of solid waste was transferred from the SCWMA service area to the Redwood Sanitary Landfill.

The Keller Canyon Landfill is located in Bay Point, California. It has a permitted daily capacity of 3,500 tons per day. Its remaining permitted capacity is 63,408,410 cubic yards. It has an estimated “cease operation

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The City has several waste reduction and recycling programs in place to divert the amount of waste that is transported to other landfills. Curb-side recycling efforts in multi-family and commercial projects, as well as single family neighborhoods, contribute to increased waste diversion. Education and outreach programs such as electronic waste programs, print brochure and advertisements, and education curriculum also assist in waste reduction.

In 2015, the SCWMA’s per capita solid waste disposal rate for residents was 4.3 pounds per day (PPD); the per capita disposal rate target for residents according to CalRecycle is 7.1 PPD. The SCWMA’s per capita solid waste disposal rate for employees in 2015 was 10.9 PPD; the CalRecycle per capita disposal rate target for employees is 18.3 PPD.

### 4.14.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on solid waste service if it would:

1. Not be served by a landfill(s) with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.
2. Not comply with federal, State, and local statues and regulations related to solid waste.

### 4.14.3.3 IMPACT DISCUSSION

As described above, the solid waste produced in Santa Rosa is collected by the North Bay Corporation and conveyed to the Central Disposal Site Transfer Station for processing. Once, processed the waste is transported to the Potrero Hills Landfill, Redwood Sanitary Landfill, or Keller Canyon Landfill. In 2016, 13,008 tons of solid waste was transferred from the SCWMA service area, which includes Santa Rosa, to the Potrero Hills Landfill, 96,829 tons of solid waste was transferred to the Redwood Sanitary Landfill, and 5,893 tons of solid waste was transferred to the Keller Canyon Landfill. Table 4.14-3 compares the maximum daily capacity and estimated closure date for each of the three facilities.

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52 City of Santa Rosa, General Plan 2035, Chapter 6, Public Services and Facilities, page 6-12.
The SCWMA’s disposal rate per residents in 2015 was 4.3 pounds per day (PPD), which was below the CalRecycle target of 7.1 PPD. The SCWMA’s per capita solid waste disposal rate for employees in 2015 was 10.9 PPD, which was below the CalRecycle target for employees of 18.3 PPD.

As shown in Table 3-1, in Chapter 3, Project Description, of this Draft EIR, the new development potential under the proposed project in the Southeast Greenway Area at buildout could generate 632 new residents and 40 employees and combined with the existing General Plan 2035 would result in 234,152 residents and 128,440 employees. For analysis purposes, solid waste generation is assumed to be the 2015 per capita generation rates of 4.3 PPD for residents and 10.9 PPD for employees. Accordingly, the solid waste generated by the proposed project’s potential future residents and employees is estimated to be 2,718 PPD and 436 PPD, respectively. Accordingly, the total estimated solid waste generation for the proposed project would be 3,154 PPD or 1.6 tons per day, which represents less than 1 percent of the daily permitted capacity for Potrero Hills Landfill, Redwood Sanitary Landfill, and Keller Canyon Landfill. In addition, the proposed project would be required to comply with State and local regulations that require the reduction of solid waste production and promote recycling and composting of materials listed above. The General Plan 2035 also includes policies that ensure the City’s solid waste disposal needs are met, while maximizing opportunities for waste reduction and recycling. Accordingly, buildout of the proposed project would have a less-than-significant impact with regard to daily capacity at each of the landfill facilities.

**Significance Without Mitigation:** Less than significant.

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55 Assumes 2.59 persons per household per Department of Finance, E-S City/County Population and Housing Estimates, January 1, 2016. (244 units x 2.59 person per household = 632 residents); 300 square feet (sf) per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6 (12,000 sf commercial/300 sf per employee = 40 employees).

56 (632 new residents x 4.3 PPD) = 2,718 PPD generated by new residents; (40 new employees x 10.9) = 436 PPD generated by new employees.

57 (3,154 PPD x 0.0005 tons) = 1.6 tons of waste per day.

58 (1.6 tons of waste per day divided by 4,330 permitted daily capacity) x 100 = 0.03 percent of the daily permitted capacity.

59 (1.6 tons of waste per day divided by 2,300 permitted daily capacity) x 100 = 0.08 percent of the daily permitted capacity.

60 (1.6 tons of waste per day divided by 3,500 permitted daily capacity) x 100 = 0.05 percent of the daily permitted capacity.
Implementation of the proposed project would comply with federal, State, and local statutes and regulations related to solid waste.

As described above under Section 4.14.3.1, Regulatory Framework, California’s Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000 though source reduction, recycling, and composting. The City has several waste reduction and recycling programs in place to divert the amount of waste that is transported to other landfills. Curb-side recycling efforts in multi-family and commercial projects, as well as single-family neighborhoods, contribute to increased waste diversion. Education and outreach programs such as electronic waste programs, print brochure and advertisements, and education curriculum also assist in waste reduction. In addition, General Plan 2035 Policies (listed above) actively encourage residential and commercial waste reduction and recycling programs.

Potential future development under the proposed project would be required to comply with existing regulations, include the General Plan 2035 policies (listed above) that have been prepared to minimize impacts related to adequate waste collection and disposal facilities. Therefore, continued compliance with State and local policies, such as AB 939, and General Plan 2035 policies would ensure that impacts are less than significant with regards to solid waste and the impact would be less than significant.

Significance Without Mitigation: Less than significant.

4.14.3.4 CUMULATIVE IMPACTS

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to solid waste.

The cumulative impact for solid waste is considered in the context of the growth from potential future development under the proposed project combined with the estimated growth in the areas served by the Potrero Hills Landfill, Redwood Sanitary Landfill, and Keller Canyon Landfill.

While the proposed project would contribute to an increase in the cumulative demand for solid waste disposal, the increase represents less than 1 percent of the remaining at the Potrero Hills Landfill, Redwood Sanitary Landfill, and Keller Canyon Landfill. As described above, the proposed project would be served by a landfill with permitted capacity and would comply with federal, State, and local statutes and regulations related to solid waste. Accordingly, cumulative impacts to solid waste would be less than significant.

Significance Without Mitigation: Less than significant.

61 City of Santa Rosa, General Plan 2035, Chapter 6, Public Services and Facilities, page 6-12.
62 (1.6 tons of waste per day divided by 4,330 permitted daily capacity) x 100 = 0.03 percent of the daily permitted capacity.
63 (1.6 tons of waste per day divided by 2,300 permitted daily capacity) x 100 = 0.08 percent of the daily permitted capacity.
64 (1.6 tons of waste per day divided by 3,500 permitted daily capacity) x 100 = 0.05 percent of the daily permitted capacity.
4.14.4 ENERGY CONSERVATION

In order to assure that energy implications are considered in project decisions, Appendix F, Energy Conservation, of the CEQA Guidelines, requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. However, no specific thresholds of significance for potential energy impacts are suggested in the State CEQA Guidelines.

This section provides a general description of the existing regulatory setting and conditions addressing electric and natural gas services and infrastructure, and supply and demand in Santa Rosa, as well as potential impacts of the proposed project with regard to energy conservation.

4.14.4.1 ENVIRONMENTAL SETTING

Regulatory Setting

Federal Regulations


Signed into law in December 2007, this act is an energy policy law that contains provisions designed to increase energy efficiency and the availability of renewable energy. The act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting, as well as residential and commercial appliance equipment.

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the Department of Transportation (DOT) to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration (PHMSA) within DOT develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation’s 2.6 million mile pipeline transportation system. DOT’s and PHMSA’s regulations governing natural gas transmission pipelines, facility operations, employee activities, and safety are found in 49CFR Part 40, 40CFR Part 190, 40CFR Part 191, 49CFR Part 192, 49CFR Part 193 and 49CFR Part 199.
National Energy Policy

Established in 2001 by the National Energy Policy Development Group, this policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

State Regulations

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California’s climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector’s five billion-plus square feet of space accounts for 38 percent of the state’s power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of state’s electricity and gas use.

The CPUC and the California Energy Commission have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.
California Building Code: Building Energy Efficiency Standards

The State provides a minimum standard for energy conservation through Title 24 of the California Code of Regulations, commonly referred to as the “California Energy Code”. The California Energy Code was adopted in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 Standards continue to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively. While the 2016 standards do not achieve zero net energy, they do get very close to the State’s goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California. The City of Santa Rosa has adopted all sections of the California Energy Code in SCRR Chapter 18-33, California Energy Code.

California Building Code: CALGreen

As discussed in Section 4.14.1, Water, above, CALGreen established standards that apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California, unless otherwise indicated in the California Building Standards Code. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in energy efficiency, amongst others. Compliance with the CALGreen Code is not a substitution for meeting the certification requirements of any green building program. CALGreen requires new buildings to install low pollutant-emitting materials. The City of Santa Rosa has adopted all sections of the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

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Governor’s Green Building Executive Order

In 2004, Executive Order (EO) S-20-04 was signed by the Governor, committing the State to take aggressive action to reduce state building electricity usage by retrofitting, building, and operating the most energy- and resource-efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded, or leased by the State and to encourage cities, counties, and schools to do the same. It also calls for State agencies, departments, and other entities under the direct executive authority of the Governor to cooperate in taking measures to reduce grid-based energy purchases for State-owned buildings by 20 percent by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include, but are not limited to:

- Designing, constructing and operating all new and renovated State-owned facilities paid for with state funds as “LEED Silver” or higher certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a USEPA Energy Star rating; and
- Purchasing or operating Energy Star electrical equipment whenever cost-effective.

Renewable Portfolio Standard

Signed into law in 2011, SB X1-2 directs the California Public Utilities Commission’s Renewable Energy Resources Program to increase the amount of electricity generated from eligible renewable energy resources per year to an amount that equals at least 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, 25 percent by December 31, 2016 and 33 percent by December 31, 2020. SB X1-2 codifies the 33 percent by 2020 renewable portfolio standard goal established pursuant to AB 32. This new renewable portfolio standard applies to all electricity retailers in the State including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new renewable portfolio standard goals as listed.

California Energy Benchmarking and Disclosure

AB 1103 (2007) requires that electric and gas utilities maintain records of the energy consumption data of all nonresidential buildings to which they provide service and that by January 1, 2009, upon authorization of a nonresidential building owner or operator, an electric or gas utility shall upload all of the energy consumption data for the specified building to the USEPA Energy Star Portfolio Manager in a manner that preserves the confidentiality of the customer. This statute further requires a nonresidential building owner or operator disclose Energy Star Portfolio Manager benchmarking data and ratings, for the most recent 12-month period, to a prospective buyer, lessee, or lender. Enforcement of the latter requirement began on January 1, 2014.

On October 8, 2015, the Governor signed AB 802 which would revise and recast the above provisions. The new law directs the California Energy Commission to establish a statewide energy benchmarking and disclosure program, and enhances the California Energy Commission’s existing authority to collect data from utilities and other entities for the purposes of energy forecasting, planning and program design. Among the specific provisions, AB 802 would require utilities to maintain records of the energy usage data of all buildings to which they provide service for at least the most recent 12 complete months. Beginning
no later than January 1, 2017, AB 802 would require each utility, upon the request and the written authorization or secure electronic authorization of the owner, owner’s agent, or operator of a covered building, as defined, to deliver or provide aggregated energy usage data for a covered building to the owner, owner’s agent, operator, or to the owner’s account in the Energy Star Portfolio Manager, subject to specified requirements. The bill would also authorize the commission to specify additional information to be delivered by utilities for certain purposes.

Local Regulations

General Plan 2035

The Open Space and Conservation (OSC) element of the General Plan 2035 includes the following goals and policies specific to energy conservation and applicable to the proposed project:

- **Goal OSC-K**: Reduce energy use in existing and new commercial, industrial, and public structures.
  - **Policy OSC-K-1**: Promote the use of site planning, solar orientation, cool roofs, and landscaping to decrease summer cooling and winter heating needs. Encourage the use of recycled content construction materials.
  - **Policy OSC-K-2**: Identify opportunities for decreasing energy use through installation of energy efficient lighting, reduced thermostat settings, and elimination of unnecessary lighting in public facilities.
  - **Policy OSC-K-3**: Identify and implement energy conservation measures that are appropriate for public buildings. Implement measures that are at least as effective as those in the retrofit ordinances for commercial and office buildings.
  - **Policy OSC-K-5**: Implement measures of the Climate Action Plan which increase energy efficiency, including retrofitting existing buildings and facilitating energy upgrades.

- **Goal OSC-L**: Encourage the development of nontraditional and distributed sources of electrical generation.
  - **Policy OSC-L-3**: Establish a city renewable energy program which will allow the city to generate or receive a significant portion of energy from renewable sources.

Santa Rosa City Code

Chapter 18-33, California Energy Code

The SRCC includes provisions that apply to buildings with regards to energy conservation. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards (Title 24, Part 6, known as the California Energy Code), which went into effect on January 1, 2017. The City of Santa Rosa has adopted all sections of the California Energy Code in SCRR Chapter 18-33, California Energy Code.

Chapter 18-42, Citation of California Green Building Standards Code

The SRCC includes provisions that apply to buildings with regards to installation of low pollutant-emitting materials. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code (Title 24, Part 11, known as “CALGreen”) as part of the California Building Standards Code (Title 24, California Code of Regulations. The City of Santa Rosa has adopted all sections of
the California Code of Regulations Title 24, Part 11, in SRCC Chapter 18-42, Citation of California Green Building Standards Code.

Climate Action Plan

As described in Section 4.14.1, Water Supply, the City’s CAP recommends various community and municipal measures for near-term and mid-term considerations organized in nine topic areas, including energy efficiency and conservation, and renewable energy. The CAP contains the following goals, measures, and actions that are applicable to the proposed project:

- **Goal 1: Energy Efficiency and Conservation.** Facilitate energy efficiency and conservation through behavior changes and retrofits.
  - **Measure 1.1: CALGreen Requirements for New Construction.** Continue to enforce and require new development to meet Tier 1 CALGreen requirements, as amended, for new nonresidential and residential development.
    - **Action 1.1.1:** Require new development to comply with the current provisions, as amended, of CALGreen, Part 11 of the California Green Building Standards Code.
    - **Action 1.1.2:** Continue to require Tier 1 standards for new development and consider adding major remodels during the next building code update.
    - **Action 1.1.3:** Require all new construction to be built with net zero electricity use, beginning in 2020.
    - **Action 1.1.4:** Evaluate potential incentives for projects that have net zero electricity use, prior to 2020.
  - **Measure 1.3: Smart Meter Utilization.** Encourage existing development and require new development to utilize PG&E’s Smart Meter system to facilitate energy and cost savings.
    - **Action 1.3.1:** Require new construction and major remodels to install real-time energy monitors that allow building users to track their current energy use.
  - **Measure 1.4: Tree Planting and Urban Forestry.** Plant and maintain trees on private property, streets, and open space areas.
    - **Action 1.4.2:** Implement the City’s tree preservation ordinance.
    - **Action 1.4.3:** Require new development to supply an adequate number of street trees and private trees.
  - **Measure 1.5: Cool Roofs and Pavements.** Require new sidewalks, crosswalks, and parking lots to be made of cool paving materials with a high solar reflectivity.
    - **Action 1.5.1:** Adopt an ordinance that requires and specifies cool paving materials for new parking lots, sidewalks, roofs, and crosswalks and integrates Low Impact Development guidelines for new construction and Capital Improvement Projects.
    - **Action 1.5.2:** Ensure the cool roof and paving ordinance includes cool roof specifications which allow for green or living roofs and address energy installations on historic structures consistent with the Secretary of Interior’s Rehabilitation Standards. Allow darker-color roofs when they meet cool roof standards.
    - **Action 1.5.3:** Create a pilot program for a Green Streets Policy.
  - **Measure 1.6: Energy-Efficient Appliances.** Facilitate the efficient use of energy for appliances in residential, commercial, and industrial buildings.
    - **Action 1.6.1:** Seek funding sources to develop a rebate program for residents and businesses to exchange inefficient appliances with Energy Star certified models.
Utilities and Service Systems

- **Measure 1.7: Appliance Electrification.** Encourage residents and businesses to switch natural-gas-powered appliances to electric power, where appropriate.
  - **Action 1.7.1:** Utilize the energy-efficient appliance rebate program to facilitate the replacement of natural gas equipment with electric-powered equipment.
  - **Action 1.7.2:** Identify opportunities to implement additional programs that will switch appliances from natural gas to electricity.

- **Goal 2: Renewable Energy.** Install and utilize renewable energy sources in Santa Rosa.
  - **Measure 2.1: Small-Scale Renewable Energy Installations.** Support the installation of small-scale renewable energy systems including solar photovoltaic, solar thermal, wind, and others.
    - **Action 2.1.1:** Update the Zoning Code to define a renewable energy strategy that removes any barriers to small-scale renewable energy systems.
    - **Action 2.1.2:** Implement a Solar Policy. Revise the permit processes and fees as appropriate to remove barriers to and incentivize the installation of renewable energy systems in accordance with applicable safety and environmental standards.
    - **Action 2.1.3:** Consider requiring new homes and businesses to be pre-wired and pre-plumbed for solar, wind, solar thermal installations, and electric vehicle charging stations.
    - **Action 2.1.4:** Create and prioritize municipal projects that incorporate or generate renewable energy.
  - **Measure 2.2: Renewable Energy Financing.** Connect property owners with low-interest financing opportunities for renewable energy installations.
    - **Action 2.2.1:** Continue to partner with Sonoma County Energy Independence Program (SCEIP) to provide Property Assessed Clean Energy (PACE) or equivalent financing for solar installations.
    - **Action 2.2.2:** Explore and advocate for a regional or statewide Feed-In Tariff (FIT) to spur the installation of mid-sized renewable energy installations.

Existing Conditions

California’s Energy Supplies

In 2016, California’s in-state supply of electricity was derived from the following sources: natural gas (49.86 percent), nuclear (9.55 percent), “large” hydroelectric (12.31 percent), renewables (27.95 percent), and coal (0.16 percent).67 Overall, electricity demand is forecast to increase an average of 0.97 percent68 annually from 2014 through 2026, even with the more aggressive building and appliance energy efficiency standards and programs.

Natural gas has become an increasingly important source of energy since the state’s power plants rely on this fuel. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and

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much of the remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors. California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply\textsuperscript{69}.

A third major source of energy for California is crude oil. Oil supply sources for the State include in-state production, Alaska, and foreign imports. For 2016, of the approximately 603 million barrels of crude oil delivered to refineries in the State, California produced 34.10 percent, while foreign sources and Alaska provided 54.49 percent and 11.41 percent, respectively\textsuperscript{70}.

**Electricity and Gas Providers**

**Sonoma Clean Power**

Sonoma Clean Power (SCP) is the public electricity provider for Sonoma and Mendocino counties. As a not-for-profit public agency, SCP is independently run by Sonoma County and the participating cities of Coverdale, Cotati, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, unincorporated Sonoma County, and the Town of Windsor. SCP provides electricity generated from renewable sources such as solar, wind, geothermal, and hydropower. Individuals residing in participating areas are automatically enrolled in SCP. Individuals residing or working within the SCP service area have are automatically enrolled in SCP.

SCP offers three program options; the CleanStart program which provides 42 percent renewable power service, the EverGreen program which provides 100 percent local renewable power service, or the OptOut program which allows individuals to continue to receive PG&E’s basic service. The electric energy provided by SCP is conveyed to customers through PG&E’s existing infrastructure. PG&E continues to maintain the grid, repair lines, and customer billing within the SCP service area.

**Pacific Gas and Electric Company**

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas services to the City. PG&E is a publicly traded utility company which generates, purchases, and transmits energy under contract with the CPUC. PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. Both gas and electrical service is available throughout the project area.

PG&E’s service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada mountain range to the Pacific Ocean. PG&E’s electricity distribution system consists of 141,215 circuit miles of electric distribution lines and 18,616 circuit miles of interconnected transmission lines. PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants or “solar farms.” “The Grid,” or bulk electric grid, is a network of high-voltage transmission lines link power plants with the PG&E system. The


distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to the individual customer.

PG&E produces or buys its energy from a number of conventional and renewable generating sources, which travel through PG&E’s electric transmission and distribution systems. The power mix PG&E provided to customers in 2015 consisted of non-emitting nuclear generation (23 percent), large hydroelectric facilities (6 percent) and eligible renewable resources (30 percent), such as wind, geothermal, biomass, solar and small hydro\(^1\). The remaining portion came from natural gas/other (25 percent) and unspecified power (17 percent). Unspecified power refers to electricity that is not traceable to specific generation sources by any auditable contract trail. In addition, PG&E has plans to increase the use of renewable power. For instance, PG&E purchases power from customers that install small scale renewable generators (e.g., wind turbines or photovoltaic cells) up to 1.5 megawatts in size.

PG&E’s natural gas (methane) pipe delivery system includes 42,141 miles of distribution pipelines, and 6,438 miles of transportation pipelines. Gas delivered by PG&E originates in gas fields in California, the US Southwest, US Rocky Mountains, and from Canada. Transportation pipelines send natural gas from fields and storage facilities in large pipes under high pressure. The smaller distribution pipelines deliver gas to individual businesses or residences.

PG&E gas transmission pipeline systems serve approximately 4.2 million gas customers in northern and central California. The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. A new program, the Pipeline 2020 program, aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely-operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders.

Regulatory requirements for efficient use of electricity and gas are contained in Title 24, Part 6, of the CCR, entitled “Energy Efficiency Standards for Residential and Nonresidential Buildings.” These regulations specify the State’s minimum energy efficiency standards and apply to new construction of both residential and nonresidential buildings. The standards regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. Compliance with these standards is verified and enforced through the local building permit process.

**Existing Energy on the Project Site**

As discussed in Chapter 3, Project Description, of this Draft EIR, the 57-acre project site is generally undeveloped. Accordingly, the project site does not currently use electricity or natural gas.

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4.14.4.2 THRESHOLDS OF SIGNIFICANCE

Appendix F, Energy Conservation, of the CEQA Guidelines, requires a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy; however, no specific thresholds of significance for potential energy impacts are published in the State CEQA Guidelines or are established by the City of Santa Rosa. Therefore, this EIR analysis determined that impacts would be significant if the proposed project, upon potential future development buildout, would result in a substantial increase in natural gas and electrical service demands that would require the new construction of energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities, paralleling the threshold determinations for other utility and service systems under Appendix G. To further the intent of Appendix F, relevant, potential impacts listed in that appendix are also incorporated in the evaluation.

Appendix F lists the following possible impacts to energy conservation that should be considered to the extent they are applicable and relevant to a particular project:

1. The project’s energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project’s projected transportation energy use requirements and its overall use of efficient transportation alternatives.

4.14.4.3 IMPACT DISCUSSION

Implementation of the proposed project would not result in a substantial increase in natural gas and electrical service demands, and would not require new energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities.

Implementation and adoption of the proposed project could result in new development potential up to 47.2 acres of park and recreational uses including open space, 244 multi-family housing units, and 12,000 square feet of commercial space in the Southeast Greenway Area. The proposed increase in development would result in a long-term increase in energy demand, associated primarily with the operation of lighting and space heating/cooling in the added building space. In addition, construction activities associated with proposed development require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as excavation, grading, demolition, and vehicle travel.
Construction Energy Impacts

Even with energy-saving practices in place, new electrical connections, switches and/or transformers would be required to serve potential new structures and/or carry additional loads. Similarly, new gas distribution lines and connections would be necessary. Most of the work would be in existing public rights-of-way or facilities. Although creation of new or re-located gas and electric lines could create short-term construction-related environmental effects (e.g., noise, dust, traffic, temporary service interruption, etc.), the work would be subject to compliance with the City’s and PG&E’s regulations and standard conditions for new construction related to infrastructure improvements. For example, these regulations and conditions would require gas and electric line construction to include best management practices that require construction areas to minimize dust generation, limit construction noise to daytime hours to limit impacts to sensitive receptors, and use modern equipment to limit emissions. Also, any such work would be subject to compliance with applicable regulations and standard conditions of approval for construction projects, including City permits/review for construction (e.g., grading permits, private development review, encroachment permits, etc.), CAP, and CALGreen Building Code per SRCC Chapter 18-42.

Construction vehicles consume fuel. As discussed in Section 4.6, Greenhouse Gas Emissions, the USEPA adopted the Heavy-Duty National Program to establish fuel efficiency and GHG emission standards in the heavy-duty highway vehicle sector, which includes combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). These standards include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model year 2018 through current rulemaking by the USEPA. While construction activities require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology and further the goal of conserving energy in the context of project development. As a result, construction impacts would be less than significant.

Significance Without Mitigation: Less than significant.

Operation Energy Impacts

The potential future development under the proposed project would result in a long-term increase in energy demand associated with the operation of lighting and space heating/cooling in the added building space, and vehicle travel. The proposed project is expected to use approximately 1,395,265 kWh of electricity and 349,000,000 kBTU of natural gas annually. The proposed project would be constructed using energy efficient modern building materials and construction practices. The new buildings also would use new modern appliances and equipment, and would comply with the current CALGreen Building Code per SRCC Chapter 18-42, which requires the use of recycled construction materials, environmentally sustainable building materials, building designs that reduce the amount of energy used in building heating and cooling systems as compared to conventionally built structures, and landscaping that incorporates water efficient irrigation systems. Therefore, operation energy impacts would be less than significant.

Significance Without Mitigation: Less than significant.

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72 This values are consistent with California Emissions Estimator Model User’s Guide of electricity and natural gas, respectively, for commercial uses, from California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model User’s Guide, Version 2013.2. 2016. Calculations are included in Appendix B, of this Draft EIR.
Transportation Energy Impacts

Chapter 4.13, Transportation and Circulation, provides an evaluation of the expected traffic and transit trips generated by the proposed project. As discussed, the proposed project would potentially generate about 2,768 trips daily trips. Based on trip summary contained in the air quality analysis (Appendix B of this Draft EIR), the total annual VMT generated by the proposed project would be 2,313 miles.

As discussed above and in Chapter 4.6, Greenhouse Gas Emissions, the USEPA adopted standards that include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model year 2018 through current rulemaking by the USEPA. While future transportation would require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology and further the goal of conserving energy in the context of project development. In addition, as concluded in Chapter 4.6, Greenhouse Gas Emissions, the proposed project would not result in any significant impacts related to GHG emissions. Further, compliance with the applicable regulations (listed above) would ensure that less-than-significant impacts would occur related to transportation energy impacts.

Significance Without Mitigation: Less than significant.

Renewable Energy Impacts

The proposed project would be within the 70,000-square-mile PG&E service territory for electricity and natural gas generation, transmission and distribution. Due to the proposed project’s size and location within an urban development, potential future buildout of the proposed project would not significantly increase energy demands within the service territory and would not require new energy supply facilities or transmission infrastructure. As a result, new energy supply facilities and transmission infrastructure, or capacity-enhancing alterations to existing facilities, would not be required. Therefore, with consideration of the applicable regulations (listed above), including the renewable energy measures in the City of Santa Rosa CAP and General Plan, impacts related to renewable energy, energy conservation and utility electrical and gas facilities would be less than significant.

Significance Without Mitigation: Less than significant.

4.14.4.4 CUMULATIVE IMPACTS

**UTIL-12**

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in less-than-significant impacts with respect to energy conservation.

The discussion under UTIL-11 described the proposed project’s impacts in relationship to the PG&E service territory and therefore includes a discussion of cumulative impacts.

Significance Without Mitigation: Less than significant.
5. Alternatives to the Proposed Project

The following discussion is intended to inform the public and decision makers of feasible alternatives to the proposed project that would avoid or substantially lessen any significant effects of the proposed project. The CEQA Guidelines set forth the intent and extent of alternatives analysis to be provided in an EIR. Section 15126.6(a) of the CEQA Guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

5.1 PURPOSE

The alternatives evaluated in this Draft EIR were developed consistent with Section 15126.6(b) of the CEQA Guidelines, which states that:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

5.2 PROJECT OBJECTIVES

As stated above, the range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the proposed project. The primary goal of the proposed project is to establish General Plan land use designations and zoning districts for the Southeast Greenway Area in order to plan for anticipated future uses while sustaining the community’s character. Building upon this primary goal, the following project objectives were established through a collaborative process:

- Provide a linear park with recreational uses including open space, educational and cultural opportunities, and active and passive recreation for residents and visitors.
ALTERNATIVES

- Provide continuous pedestrian, bicycle, and non-motorized transportation connections from Spring Lake Regional Park to Farmers Lane and links to downtown Santa Rosa, surrounding neighborhoods and schools, and the regional trail system.
- Provide opportunities for high-density residential, retail, commercial, and public/institutional land uses.
- Enhance and protect wetlands, wildlife habitat, groundwater and air quality through sustainable development practices.
- Support a walkable and livable neighborhood, promote economic vitality, and encourage social equity.
- Promote public safety and respect the character of adjacent neighborhoods.

5.3 SELECTION OF A REASONABLE RANGE OF ALTERNATIVES

Section 15126.6(c) of the State CEQA Guidelines states:

The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

5.3.1 ALTERNATIVES CONSIDERED AND REJECTED

As described above, Section 15126.6(c) of the State CEQA Guidelines requires EIRs to identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency’s determination. Section 15126.6(c) provides that among the factors that may be used to eliminate alternatives from detailed consideration in and EIR are (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

As described in Chapter 3, Project Description, of this Draft EIR, on October 6, 2015, the City initiated a year-long planning process to identify alternative land uses for the project site. The City met with key stakeholders, held several community workshops, and established a Technical Advisory Committee to identify the community’s vision for the Southeast Greenway Area. Based on the feedback received, the City prepared Draft Guiding Principles and three alternatives for Land Use and Circulation Concepts for the project site. The Draft Guiding Principles focused on establishing a framework for land use planning, design, and development for the Southeast Greenway Area, while the alternatives included various options for connections for non-motorized travel linking Spring Lake Regional Park to Farmers Lane and beyond. The first alternative, the Minimal Footprint Alternative, emphasized parks and recreation and included up to 49.5 acres of park and recreational uses (including open space, habitat...
restoration/enhancement areas, urban agriculture uses, active and passive recreational uses, school facilities for joint-use recreation and/or outdoor classrooms, and community gathering space), 75 multi-family units, and 20,000 square feet of commercial space. The second alternative, the Active to Tranquil Alternative, emphasized a range of active development uses and a range of tranquil park and recreational uses in the eastern portion near Spring Lake Regional Park. The Active to Tranquil Alternative included up to 42 acres of park and recreational uses (including open space, habitat restoration/enhancement areas, urban agriculture uses, active and passive recreational uses, school facilities for joint-use recreation and/or outdoor classrooms, and community gathering space), 150 multi-family units, and 22,000 square feet of commercial space (including lodging). The third alternative, the Nodes of Activity Alternative, focused on nodes of housing and retail uses at the major streets and recreational and agricultural activity at the intersections of pathways. The Nodes of Activity Alternative included up to 46 acres of park and recreational uses (including open space, habitat restoration/enhancement areas, urban agriculture uses, active and passive recreational uses, school facilities for joint-use recreation and/or outdoor classrooms, and community gathering space), 120 multi-family units and 24,000 square feet of commercial space.

On November 1, 2016, the City Council and Planning Commission reviewed the Draft Guiding Principles and the three alternatives for Land Use and Circulation Concepts for the project site. The City Council and Planning Commission directed staff to include more housing and merge components of each alternative to create a single Draft Land Use and Circulation Concept alternative which is the proposed preferred alternative that is analyzed in this Draft EIR. Accordingly, the Minimal Footprint Alternative, the Active to Tranquil Alternative, and the Nodes of Activity Alternative were rejected because they did not meet the most basic project objectives.

5.3.2 ALTERNATIVES ANALYSIS

In accordance with the CEQA Guidelines, four project alternatives and the comparative merits of the alternatives are discussed below. All of the potential environmental impacts associated with adoption and implementation of the proposed project were found to be either less than significant without mitigation or less than significant with mitigation, with the exception of some impacts associated with air quality and transportation and circulation, which were found to be significant and unavoidable with mitigation measures. The alternatives were selected because of their potential to further reduce and avoid these impacts. The alternatives to be analyzed in comparison to the proposed project include:

- No Project Alternative
- No Commercial/Residential Development Alternative
- No Commercial Development
- Reduced Residential Development Alternative

The first alternative discussed is the CEQA-required “No Project” Alternative and assumes the project would not be approved and the project site would remain in its current condition and therefore, would not generate new residents or employees. The second alternative, the No Commercial/Residential Alternative, assumes that the entire 57-acre Southeast Greenway Area would be developed with public park and recreational uses, including open space, only and would not include opportunities for housing or commercial development; therefore, the implementation of this alternative would also not generate new residents or employees. The third alternative, the No Commercial Development Alternative, assumes no commercial development would occur within the Southeast Greenway Area; therefore, implementation of this alternative would only generate new residents and visitors using the open space. The fourth
alternative, the Reduced Residential Development Alternative, assumes a 50 percent reduction in the amount of future net new residential development (122 multi-family units compared to 244 units) within the Southeast Greenway Area with the same amount of commercial space as the proposed project (i.e., 12,000 square feet).

### 5.3.3 ASSUMPTIONS AND METHODOLOGY

The alternatives analysis is presented as a comparative analysis to the proposed project. As shown on Table 5-1, development intensity for each of the alternatives varies from the proposed project.

**Table 5-1** COMPARISON OF THE ALTERNATIVES AND THE PROPOSED PROJECT

<table>
<thead>
<tr>
<th>Category</th>
<th>Proposed Project</th>
<th>No Project Alternative</th>
<th>No Commercial/Residential Alternative</th>
<th>No Commercial Development Alternative</th>
<th>Reduced Residential Development Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Residential Square Feet</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12,000</td>
</tr>
<tr>
<td>Housing Units</td>
<td>244</td>
<td>0</td>
<td>0</td>
<td>244</td>
<td>122</td>
</tr>
<tr>
<td>Park and Recreational Acres</td>
<td>47.2</td>
<td>0</td>
<td>57</td>
<td>47.2</td>
<td>47.2</td>
</tr>
<tr>
<td>Population</td>
<td>632</td>
<td>0</td>
<td>0</td>
<td>632</td>
<td>316</td>
</tr>
<tr>
<td>Employees</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Notes:
- a. Assumes 2.59 persons per household per Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2016.
- b. Assumes 300 square feet per employee consistent with the General Plan, Table 2-1, Permitted Densities/Intensities under General Plan, page 2-6.
- c. The "No Project Alternative" assumes no development would occur within the Southeast Greenway Area and the California Department of Transportation would retain ownership of the land.
- d. The "No Commercial/Residential Alternative" assumes that the entire 57-acre project site would be developed as public open space.
- e. The "No Commercial Development Alternative" assumes that no commercial development would occur within the Southeast Greenway Area.
- f. The "Reduced Residential Development Alternative" assumes a 50 percent reduction in the amount of residential development that would occur within the Southeast Greenway Area.

The alternatives analysis assumes that all applicable mitigation measures recommended for the proposed project, as well as the proposed General Plan policies would apply to each alternative. The following analysis compares the potentially significant environmental impacts of the four alternatives with those of the project-related impacts for each of the environmental topics analyzed in detail in Chapter 4.1 through Chapter 4.14 of this Draft EIR. The impacts of each alternative are classified as greater, less, or essentially similar to (or comparable to) the level of impacts associated with the proposed project. Table 5-2 below, summarizes the relative impacts of each of the alternatives to the proposed project, and the sections that follow describe them in detail.
TABLE 5-2  COMPARISON OF IMPACTS FROM PROJECT ALTERNATIVES AND THE PROPOSED PROJECT

<table>
<thead>
<tr>
<th>Topic</th>
<th>Proposed Project(^a)</th>
<th>No Project Alternative</th>
<th>No Commercial/Residential Alternative</th>
<th>No Commercial Development Alternative</th>
<th>Reduced Residential Density Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Air Quality</td>
<td>SU(^b)</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>LTS/M</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Cultural and Tribal</td>
<td>LTS/M</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Hazards and Hazardous</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>LTS</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Noise</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>&lt;</td>
</tr>
<tr>
<td>Public Services and</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>=</td>
<td>&lt;</td>
</tr>
<tr>
<td>Recreation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and</td>
<td>SU(^c)</td>
<td>&lt;</td>
<td>=</td>
<td>=</td>
<td>=</td>
</tr>
<tr>
<td>Circulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities and Service</td>
<td>LTS</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
\(^a\): The impacts listed in this column represent the highest significance determination for each respective threshold.
\(^b\): Indicates an impact at the program-level and does not directly preclude a finding of less than significant at the project-level.
\(^c\): Represents impacts to which there is no funding to implement measures that could potentially mitigate the impacts; therefore, it is infeasible for the City to implement the measures that would reduce the impact.

5.4  NO PROJECT ALTERNATIVE

5.4.1  DESCRIPTION

Pursuant to CEQA Guidelines Section 15126.6(e)(1), the No Project Alternative is required as part of the “reasonable range of alternatives” to allow decision makers to compare the impacts of approving the proposed project with the impacts of taking no action or not approving the proposed project. Under this alternative, the proposed project would not be constructed, and the project site would remain in its current condition.
The Southeast Greenway Area is comprised of approximately 57 acres of land located in southeast Santa Rosa and is currently owned by the California Department of Transportation (Caltrans). Under the No Project Alternative, Caltrans would retain ownership of the project site and the area would remain closed to the public. Accordingly, the project site does not currently have a General Plan land use designation and the zoning districts are preliminary or “remnant” zoning districts that do not authorize specific land uses. As described in Chapter 3, Project Description, of this Draft EIR, the Southeast Greenway Area is divided into three large subareas; West Subarea, Central Subarea, and East Subarea. The existing land uses of each subarea are as follows:

- **West Subarea:** The 18.3-acre West Subarea is primarily comprised of grassland with, numerous swales, and potential wetlands from Farmers Lane to Wanda Way. Matanzas Creek is located within this subarea, and there are a number of drainage swales that collect runoff from the property and some adjoining properties.

- **Central Subarea:** The 22.6-acre Central Subarea is primarily comprised of undeveloped land with trees along the perimeter and remnant walnut orchard on the eastern portion of the site between Wanda Way/Camden Court to Summerfield Road. The Central Subarea is primarily composed of Sierra Park Creek and Spring Creek, tributaries of Matanzas Creek, flow through this subarea.

- **East Subarea:** The 16.3-acre East Subarea is primarily composed of grassland and rocky outcroppings, oak woodlands, two potential wetlands, and a small remnant walnut orchard from Summerfield Road to Spring Lake Regional Park. This subarea does not have any creeks, but there are a number of drainage swales that collect runoff from the property and some adjoining properties.

As shown in Table 5-1, under the No Project Alternative potential future development of park and recreational uses including open space, multi-family residential, and commercial space would not occur. Accordingly, the No Project Alternative would not introduce new residents or employees to the Southeast Greenway Area.

### 5.4.2 IMPACT DISCUSSION

The following analysis compares the potentially significant environmental impacts of the No Project Alternative with those of the project-related impacts for each of the environmental topics analyzed in detail in Chapter 4.1 through Chapter 4.14 of this Draft EIR. The impacts of each alternative are classified as greater, less, or essentially similar to (or comparable to) the level of impacts associated with the proposed project.

- **Aesthetics:** Under the No Project Alternative, the project site would remain unchanged and no habitat modifications would result. As such, potential impacts to a designated scenic vista or the visual quality or character in the vicinity of the project site would not occur. Therefore, potential impacts to aesthetic resources would be **less** than the proposed project.

- **Air Quality:** No new buildings would be constructed on the project site under the No Project Alternative. As such, the No Project Alternative would not result in future construction or operation activities that have the potential to generate air pollutants or violate air quality standards. Therefore, overall air quality impacts under the No Project Alternative would be **less**.

- **Biological Resources:** Potential impacts to special-status species, riparian habitat, wetlands and other waters, and wildlife movement opportunities or native nurseries would not occur under this
alternative. However, as described in Chapter 3, Project Description, of this Draft EIR, implementation of the proposed project would result in the restoration of the remnant orchard and the areas surrounding the three creeks that traverse the project site. These areas would remain unchanged and closed to the public under the No Project Alternative. Nevertheless, given that no new development potential would occur on the project site under the No Project Alternative, overall impacts to biological resources would be less when compared to the proposed project.

- **Cultural and Tribal Cultural Resources:** Given, that no ground-disturbing activities would occur, this alternative would not have the potential to damage or destroy unknown archaeological or paleontological resources, human remains, and tribal cultural resources. Accordingly, the potential to impact a cultural resource would be less.

- **Geology and Soils:** The No Project Alternative would also reduce the potential for damage to structures from soil/geologic conditions (i.e., seismicity and ground shaking; flooding; liquefaction, lateral spreading; geologic and soil instabilities; soil erosion/loss of topsoil; expansive and corrosive soils; and groundwater) that could result from future development under the proposed project. Therefore, under this alternative, impacts related to geology and soils would be less when compared to the proposed project.

- **Greenhouse Gas Emissions:** With respect to greenhouse gas (GHG) emissions, no new vehicular trips would be generated and no new buildings would be constructed that would have the potential to generate new GHG emissions; therefore, the No Project Alternative would result in less GHG emissions. However, it is important to note that the Southeast Greenway proposed project would introduce land uses that support alternative modes of transportation and would increase non-vehicular connections in the region and result in infill development that places housing and retail near existing similar uses. These benefits would not be seen under this alternative.

- **Hazards and Hazardous Materials:** No new transport or release of hazardous materials would occur under the No Project Alternative. Therefore, impacts related to hazards and hazardous materials of the proposed project would be less under the No Project Alternative.

- **Hydrology and Water Quality:** The No Project Alternative would not generate contaminants from demolition and construction that could contaminate stormwater or increase the amount of impervious surfaces. Therefore, impacts related to hydrology and water quality would be less under the No Project Alternative when compared to the proposed project.

- **Land Use and Planning:** Because the No Project Alternative would not involve any new development potential, the site would remain in its current condition. Consequently, Caltrans would retain ownership of the project site and the General Plan 2035 would not be amended to include land use designations and conforming zoning for Southeast Greenway Area to increase connectivity, housing, retail and parkland in the city and restore habitat. Overall, the No Project Alternative would not further the objectives of applicable land use plans such as the General Plan 2035, including meeting the housing needs of the City, Climate Action Plan, Plan Bay Area, the Bicycle and Pedestrian Master Plan, and the Citywide Creek Master Plan. Thus, while the No Project Alternative does not achieve the goals of these planning documents, leaving the area “as is” would not necessarily result in a physical impact on the environment. As such, impacts are considered to be less when compared to the proposed project.
5.4.3 IMPACT SUMMARY

As described above, because no conditions would change as a result of selecting the No Project Alternative, the overall impacts under all the environmental topic areas would be less than those of the proposed project.
5.4.4 RELATIONSHIP OF THE ALTERNATIVE TO THE OBJECTIVES

Under the No Project Alternative, the proposed project would not be constructed and therefore, this alternative does not meet any of the project objectives.

5.5 NO COMMERCIAL/RESIDENTIAL ALTERNATIVE

5.5.1 DESCRIPTION

Under the No Commercial/Residential Alternative, the entire 57-acre project site would be developed with public park and recreational uses including open space, which represents a 9.8 acre increase in park and recreational uses from that of the proposed project. As described in the Section 3.5.1.1, Proposed Land Use Concept, in Chapter 3, Project Description, of this Draft EIR, the proposed Park and Recreation land use designation could include the following land uses: greenway, public plaza, natural open space, creek restoration, school facilities, community gathering place, and urban agriculture. The proposed Circulation Concept would also be implemented under the No Commercial/Residential Alternative, and would introduce multi-modal access points, crossings, and connections throughout the Southeast Greenway Area. In addition, under this alternative, the General Plan 2035 would be amended to include land use and conforming zoning districts to allow future development of public park and recreational uses including open space on the project site. This alternative would not introduce new residents or employees to the project site.

5.5.2 IMPACT DISCUSSION

The following analysis compares the potentially significant environmental impacts of the No Commercial/Residential Alternative with those of the project-related impacts for each of the environmental topics analyzed in detail in Chapter 4.1 through Chapter 4.14 of this Draft EIR. The impacts of each alternative are classified as greater, less, or essentially similar to (or comparable to) the level of impacts associated with the proposed project.

- **Aesthetics:** Similar to the proposed project, the No Commercial/Residential Alternative would result in modifications to the visual landscape and existing habitat on the project site. As discussed in Chapter 4.1, Aesthetics, views from street-level public viewing to the scenic vistas are intermittently obstructed by existing conditions surrounding the project area with potential height increases site such as buildings, structures, and mature trees. Additionally, the publically accessible areas surrounding the project site are not recognized by the City or the State as scenic viewing locations. In addition, similar to the proposed project, development under the No Commercial/Residential Alternative would be subject to design review per Santa Rosa City Code (SRCC) Section 20-52.030, as required, and would be required to comply with the General Plan 2035 Urban Design Policies. However, because no commercial or residential buildings would be constructed, the potential impacts to aesthetic resources under the No Commercial/Residential Alternative would be less to the proposed project.

- **Air Quality:** Development under the proposed project has the potential to generate a net increase in criteria air pollutant emissions that would exceed the Bay Area Air Quality Management District
(BAAQMD) regional significance thresholds. Operational criteria air pollutant emissions would be generated from on-site area sources (e.g., landscaping fuel) and park-users’ vehicle trips generated by the proposed project. Construction emissions associated with individual development projects under the proposed project would generate an increase in criteria air pollutants and Toxic Air Contaminants (TACs). Impacts associated with these effects were found to be significant and unavoidable at the programmatic level. Development resulting from the No Commercial/Residential Alternative would be less intense when compared to the proposed project and would not involve the construction or residential or commercial development, but would increase park and recreational land uses by 9.8 acres (57 acres compared to 47.2 acres). Therefore, the operational and construction criteria air pollutant emissions generated by the No Commercial/Residential Alternative would be less when compared to the proposed project.

- **Biological Resources:** As discussed in Chapter 4.3, Biological Resources, of this Draft EIR, development under the proposed project could impact special-status species, riparian habitat, wetlands and other waters, and wildlife movement opportunities or native nurseries in the Southeast Greenway Area; however, compliance with applicable federal, State, and local regulations as well as the proposed mitigation measures, would reduce potential impacts to a less-than-significant level. Similar to the proposed project, the No Commercial/Residential Alternative would be required to comply with the applicable regulations and proposed mitigation measures. However, because no commercial or residential development potential would occur and park and recreational land uses would increase by 9.8 acres (57 acres compared to 47.2 acres), impacts to biological resources under the No Commercial/Residential Alternative are considered to be less when compared to the proposed project.

- **Cultural and Tribal Cultural Resources:** Under the No Commercial/Residential Alternative, future development of public parks and recreational uses including open space in the Southeast Greenway Area would occur over a greater area when compared to the proposed project (57 acres compared to 47.2 acres), but overall building construction would be less intense than the proposed project without any commercial or residential development. Similar to the proposed project, development under this alternative would involve ground-disturbing activities during construction of future structures which could affect unknown cultural and Tribal Cultural Resources. Consequently, future development under the No Commercial/Residential Alternative would be subject to existing federal, State, and local regulations laws to protect cultural resources, which would ensure less-than-significant impacts to cultural and Tribal Cultural Resources. In addition, the No Commercial/Residential Alternative would be required to comply with mitigation measures as recommended under the proposed project. Therefore, because the overall ground-disturbing activities could be similar under this alternative the potential impacts to cultural or Tribal Cultural Resources under the No Commercial/Residential Alternative would be similar to the proposed project.

- **Geology and Soils:** The No Commercial/Residential Alternative would not include residential or commercial development that would be subject to potential for damage from soil and geologic conditions (i.e., seismicity and ground shaking; flooding; liquefaction, lateral spreading; geologic and soil instabilities; soil erosion/loss of topsoil; expansive and corrosive soils; and groundwater). While greater development associated with park and recreational uses including open space would occur under this alternative (57 acres compared to 47.2 acres), because there are fewer
structures subject to damage, the impacts related to geology and soils would be less when compared to the proposed project.

- **Greenhouse Gas Emissions**: With respect to GHG emissions, the proposed project would not result in any significant GHG emissions impacts as it would not exceed the per capita significance threshold for GHG emissions, nor would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG emissions, as described in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. Given that development under the No Commercial/Residential Alternative would result in no commercial and residential development, but would result in park and recreational uses including open space (57 acres compared to 47.2 acres), this alternative would result in less GHG emissions when compared to the proposed project. It is important to note, that like the proposed project, this alternative does realize the benefits of reducing GHG emissions related to supporting alternate modes of non-vehicular travel, but does not realize the GHG emission reduction benefits associated with infill development from locating residential and retail uses in areas with existing nearby land uses to reduce vehicular trips.

- **Hazards and Hazardous Materials**: As described in Chapter 4.7, Hazards and Hazardous Materials, the proposed project would be required to comply with existing federal, State, and local regulations related to the safe use, handling, disposal, transport, and generation of hazardous materials. In addition, like the proposed project there are no public airports or private airstrips within 2 miles of the project site. Similar to the proposed project, the No Commercial/Residential Alternative would be required to comply with the applicable laws, regulations, and conditions of approval, which would minimize potential impacts related to hazard and hazardous materials. Under this alternative, no commercial or residential development would occur; therefore, any hazardous materials associated with their construction or operation would not be transported to or be present on the site. Accordingly, impacts associated with hazard and hazardous materials would be less when compared to the proposed project.

- **Hydrology and Water Quality**: The No Commercial/Residential Alternative would not result in residential or commercial development; therefore, this alternative could result in less impervious surfaces on the project site because parks and recreation land uses including open space would be greater than the proposed project (57 acres compared to 47.2 acres). The No Commercial/Residential Alternative would be subject to the same existing federal, State, and local regulations relating to hydrology and water quality, similar to the proposed project. Compliance with existing regulations would ensure that pre- and post-construction impacts to water quality would be minimized as any potential future development occurs. Given, that the No Commercial/Residential Alternative would result in less developed impervious surfaces, overall impacts related to hydrology and water quality would be less when compared to the proposed project.

- **Land Use and Planning**: Under the No Commercial/Residential Alternative the General Plan 2035 would be amended to allow for public parks and recreational uses including open space on the project site. Similar to the proposed project, the No Commercial/Residential Alternative would be required to comply with and further the objectives of applicable land use plans such as the General Plan 2035, Climate Action Plan, Plan Bay Area, the Bicycle and Pedestrian Master Plan, and the Citywide Creek Master Plan. Thus, impacts related to land use objectives would be similar under the No Commercial/Residential Alternative. It is important to note that this alternative does
not contribute to meeting the City’s housing needs; however, because the site was not previously
designated as land with potential housing potential, this is not considered to be an impact.

- **Noise:** Similar to the proposed project, development under the No Commercial/Residential Alternative would result in temporary and permanent increases to ambient noise levels. Accordingly, this alternative would be subject to the General Plan 2035 policies, noise standards in the SRCC, and applicable best management practices described in Chapter 4.10, Noise, of this Draft EIR. Given that the No Commercial/Residential Alternative would result in no residential and commercial development than that of the proposed project, noise related impacts under this alternative would be *less* when compared to the proposed project.

- **Population and Housing:** Under the No Commercial/Residential Alternative, no residential or commercial development would occur on the project site. Although this alternative would attract park users to the area, individuals would not reside on the project site. Accordingly, this alternative would not induce substantial growth, displace housing, or displace substantial numbers of people. Therefore, impacts related to population and housing would be *less* under the No Commercial/Residential Alternative when compared to the proposed project.

- **Public Services and Recreation:** The No Commercial/Residential Alternative would introduce park users to the Southeast Greenway Area. This could increase the demand of the Santa Rosa Fire Department and Santa Rosa Police Department during park hours. However, given that no new residents would be introduced to the areas, the demand would be less when compared to the proposed project. In addition, the No Commercial/Residential Alternative would not generate additional housing with school-aged children and new residents that could use the Sonoma County Library System. Therefore, impacts to fire, police, schools and libraries would be *less* than those of the proposed project.

  With respect to recreational services, similar to the proposed project the No Commercial/Residential Alternative would contribute to the City’s adopted parkland ratio and the demand would be less without the addition of new residents to Santa Rosa. Accordingly, the impacts would be *less* when compared to the proposed project.

- **Transportation and Circulation:** As discussed in Chapter 4.13, Transportation and Circulation, of this Draft EIR, impacts from new vehicular traffic would result in significant impacts at some intersections and corridors under Existing plus Project Conditions and Future plus Project. Because no new residential or commercial land uses would be introduced under this alternative, vehicular trips would not be generated by these uses. However, there is the potential for more park-users with the additional park and recreational space under this alternative. Because the significant and unavoidable impacts under the proposed project would occur at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which currently operates unacceptably at LOS E during the PM peak hour, this condition would remain with or without additional trips under this alternative. The City’s ongoing plans to improve the Farmers Lane extension between Bennett Valley Road and Petaluma Hill Road that would change traffic patterns at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), resulting in more efficient operation, would continue under this alternative, eventually reducing the impact. Additionally, measures to reduce impacts to the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1), would also be unachievable due to unknown funding sources. This condition would remain under this alternative as well. All recommended mitigation measures
to improve pedestrian and bicycle facilities would occur under this alternative. While the number of vehicular trips would vary from that of the proposed project, because conditions at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) are currently unacceptable, the addition of vehicular trips under this alternative is assumed to have similar impacts when compared to the proposed project.

- **Utilities and Service Systems:** Under the No Commercial/Residential Alternative, the 57-acre project site would be developed into public parks and recreational uses including open space. As such, this alternative would decrease the demand for water supply, wastewater, solid waste, stormwater, and energy on the project site resulting from the proposed commercial and residential uses. However, given that the No Commercial/Residential Alternative does not include residential or commercial development, the demand for services would be less than the proposed project. Accordingly, overall impacts to utilities and service systems would be less when compared to the proposed project.

### 5.5.3 IMPACT SUMMARY

As described above, because no residential or commercial development would occur as a result of selecting the No Commercial/Residential Alternative, impacts under most of the environmental topic areas would be less than those of the proposed project with the exception of cultural and Tribal Cultural Resources, land use and planning, and transportation and circulation.

As described above, the area of ground disturbance would be similar under both the No Commercial/Residential Alternative and the proposed project; therefore, impacts to unknown cultural and Tribal Cultural Resources would be similar. For land use and planning, development under both scenarios would be required to comply with the existing regulations and plans for the City of Santa Rosa; thus, impacts would be similar. With respect to transportation and circulation, both scenarios would generate trips that would impact the already impacted Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which currently operates unacceptably at LOS E during the PM peak hour. For these reasons, impacts under these three topic areas were found to have similar impacts to those of the proposed project.

### 5.5.4 RELATIONSHIP OF THE ALTERNATIVE TO THE OBJECTIVES

The No Commercial/Residential Alternative would generally comply with the project objectives by providing a 57-acre linear park with park and recreational uses, including open space, and multi-modal transportation opportunities. The No Commercial/Residential Alternative would also provide opportunities for the enhancement and protection of biological resources on the project site. However, this alternative would not provide opportunities for high-density residential, retail, and commercial uses. Therefore, this alternative would not meet all of the project objectives.
5.6 NO COMMERCIAL DEVELOPMENT ALTERNATIVE

5.6.1 DESCRIPTION

Under the No Commercial Development Alternative, the project site would be developed with 47.2 acres of public parks and recreational land uses, including open space, and 244 multi-family housing units as shown on Figure 3-9 in Chapter 3, Project Description, of this Draft EIR. Because the commercial uses would occur as part of mixed-use development project, the amount of area designated for just residential is the same as that under the proposed project (i.e., 3.7 acres along Vallejo Street, 4.7 acres at the terminus of SR 12, and 1.2 acres west of Yulupa Avenue). Similar to the proposed project the Circulation Concept would also be implemented under the No Commercial Development Alternative. In addition, under this alternative, the General Plan 2035 would be amended to include land use and conforming zoning districts to allow future development of public parks and recreational land uses, including open space, and residential development on the project site. As shown in Table 5-1, the No Commercial Development Alternative would introduce 632 new residents to the Southeast Greenway Area. This alternative would not introduce new employees to the project site.

5.6.2 IMPACT DISCUSSION

The following analysis compares the potentially significant environmental impacts of the No Commercial Alternative with those of the project-related impacts for each of the environmental topics analyzed in detail in Chapter 4.1 through Chapter 4.14 of this Draft EIR. The impacts of each alternative are classified as greater, less, or essentially similar to (or comparable to) the level of impacts associated with the proposed project.

- **Aesthetics:** Similar to the proposed project, the No Commercial Development Alternative would result in modifications to the visual landscape and existing habitat on the project site. As discussed in Chapter 4.1, Aesthetics, views from street-level public viewing to the scenic vistas are intermittently obstructed by existing conditions surrounding the project area with potential height increases site such as buildings, structures, and mature trees. Additionally, the publically accessible areas surrounding the project site are not recognized by the City or the State as scenic viewing locations. In addition, similar to the proposed project, development under No Commercial Development Alternative would be subject to design review per Santa Rosa City Code (SRCC) Section 20-52.030, and would be required to comply with the General Plan 2035 Urban Design policies. Therefore, potential impacts to aesthetic resources under the No Commercial Development Alternative would be similar to the proposed project.

- **Air Quality:** Development under the proposed project would generate a substantial net increase in criteria air pollutant emissions that would exceed the Bay Area Air Quality Management District (BAAQMD) regional significance thresholds. Operational criteria air pollutant emissions would be generated from on-site area sources (e.g., landscaping fuel) and park-user and residents’ vehicle trips generated by the proposed project. Construction emissions associated with individual development projects under the proposed project would generate an increase in criteria air pollutants and Toxic Air Contaminants (TACs). Impacts associated with these effects were found to be significant and unavoidable at the programmatic level. Although development resulting from the No Commercial Development Alternative would be less intense when compared to the
proposed project, it is likely that the operational and construction criteria air pollutant emissions would still generate a substantial net increase in criteria air pollutant emissions. However, because no commercial development would occur, the impacts to air quality under the No Commercial Development Alternative would be less than the proposed project.

- **Biological Resources:** As discussed in Chapter 4.3, Biological Resources, of this Draft EIR, development under the proposed project could impact special-status species, riparian habitat, wetlands and other waters, and wildlife movement opportunities or native nurseries in the Southeast Greenway Area; however, compliance with applicable federal, State, and local regulations as well as the proposed mitigation measures, would reduce potential impacts to a less-than-significant level. Similar to the proposed project, the No Commercial Development Alternative would be required to comply with the applicable regulations and proposed mitigation measures. Therefore, for these reasons and because the development footprint would be similar to that of the proposed project, the impacts to biological resources under the No Commercial Development Alternative would be similar when compared to the proposed project.

- **Cultural and Tribal Cultural Resources:** Under the No Commercial Development Alternative, future development of public parks and recreational land uses including open space and multi-family housing in the Southeast Greenway Area would still occur. Similar to the proposed project, development under this alternative would involve the same level of ground-disturbing activities during construction of future structures which could affect unknown cultural and Tribal Cultural Resources. Consequently, future development under the No Commercial Development Alternative would be subject to existing federal, State, and local regulations laws to protect cultural and Tribal Cultural Resources, which would ensure less-than-significant impacts to cultural and Tribal Cultural Resources. In addition, the No Commercial Development Alternative would be required to comply with mitigation measures as recommended under the proposed project. Therefore, because the overall ground-disturbing activities could be similar the potential impacts cultural or Tribal Cultural Resources under the No Commercial Development Alternative would be similar to the proposed project.

- **Geology and Soils:** The No Commercial Development Alternative would result in the development of public parks and recreational land uses including open space and multi-family housing on the project site. Similar to the proposed project, this alternative would result in the potential for damage to structures from soil and geologic conditions (i.e., seismicity and ground shaking; flooding; liquefaction, lateral spreading; geologic and soil instabilities; soil erosion/loss of topsoil; expansive and corrosive soils; and groundwater). Therefore, this alternative would result in similar impacts related to geology and soils.

- **Greenhouse Gas Emissions:** With respect to GHG emissions, the proposed project would not result in any significant GHG emissions impacts as it would not exceed the per capita significance threshold for GHG emissions, nor would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG emissions, as described in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. Given that the No Commercial Alternative would result in no commercial development, this alternative would result in less GHG emissions when compared to the proposed project. It is important to note, that like the proposed project, this alternative does realize the benefits of reducing GHG emissions related to supporting alternate modes of non-vehicular modes of travel, but does not realize the GHG
emission reduction benefits associated with infill development from locating commercial/retail uses in areas with existing nearby land uses to reduce vehicular trips.

- **Hazards and Hazardous Materials:** As described in Chapter 4.7, Hazards and Hazardous Materials, the proposed project would be required to comply with existing federal, State, and local regulations related to the safe use, handling, disposal, transport, and generation of hazardous materials. In addition, like the proposed project there are no public airports or private airstrips within 2 miles of the project site. Similar to the proposed project, the No Commercial Development Alternative would be required to comply with the applicable laws, regulations, and conditions of approval, which would minimize potential impacts related to hazard and hazardous materials. Accordingly, impacts associated with hazard and hazardous materials would be similar when compared to the proposed project.

- **Hydrology and Water Quality:** Although the No Commercial Development Alternative would not result in commercial development, this alternative would increase the amount of impervious surfaces on the project site similar to that of the proposed project. As such, the No Commercial Development Alternative would be subject to the same existing federal, State, and local regulations relating to hydrology and water quality, similar to the proposed project. Compliance with existing regulations would ensure that pre- and post-construction impacts to water quality would be minimized as future development occurs. Accordingly, impacts related to hydrology and water quality under the No Commercial Development Alternative would be similar when compared to the proposed project.

- **Land Use and Planning:** Under the No Commercial Development Alternative the General Plan 2035 would be amended to allow for public parks and recreational land uses, including open space, and residential land uses on the project site. Similar to the proposed project, the No Commercial Development Alternative would be required to comply with and further the objectives of applicable land use plans such as the General Plan 2035, Climate Action Plan, Plan Bay Area, the Bicycle and Pedestrian Master Plan, and the Citywide Creek Master Plan. Thus, impacts related to land use objectives would be similar under the No Commercial Development Alternative.

- **Noise:** Similar to the proposed project, development under the No Commercial Development Alternative would result in temporary and permanent increases to ambient noise levels. Accordingly, this alternative would be subject to General Plan 2035 policies, noise standards in the SRCC, and applicable best management practices described in Chapter 4.10, Noise, of this Draft EIR. Given that the level of development under the No Commercial Development Alternative would less than that of the proposed project, noise related impacts under this alternative would be less when compared to the proposed project.

- **Population and Housing:** As discussed in Chapter 4.11, Population and Housing, the proposed project would not induce substantial unplanned growth, displace housing, or displace substantial numbers of people. Similar to the proposed project, the No Commercial Development Alternative would be required to comply with General Plan 2035 Housing policies which seek to provide adequate housing opportunities for all residents. Given, that the No Commercial Development Alternative would result in the same amount of residential development as the proposed project, impacts related to population and housing would be similar when compared to the proposed project.
**Public Services and Recreation:** As discussed in Chapter 4.12, Public Services, the proposed project would not require the expansion of police, fire, school, or library facilities. In addition, the proposed project would contribute to the City’s adopted parkland ratio. Given that the No Commercial Development Alternative would result in the same amount of residential development and park and recreational land uses including open space as the proposed project, impacts on public service providers would be *similar* when compared to the proposed project.

**Transportation and Circulation:** As discussed in Chapter 4.13, Transportation and Circulation, of this Draft EIR, impacts from new vehicular traffic would result in significant impacts at some intersections and corridors under Existing plus Project Conditions and Future plus Project Conditions. Because no new commercial land uses would be introduced under this alternative, vehicular trips would not be generated by this use. Because the significant and unavoidable impacts under the proposed project would occur at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which currently operates unacceptably at LOS E during the PM peak hour, this condition would remain with or without additional trips under this alternative. The City’s ongoing plans to improve the Farmers Lane extension between Bennett Valley Road and Petaluma Hill Road that would change traffic patterns at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), resulting in more efficient operation, would continue under this alternative, eventually reducing the impact. Additionally, measures that could potentially reduce impacts to the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1), would also be unachievable due to unknown funding sources. This condition would remain under this alternative as well. All recommended mitigation measures to improve pedestrian and bicycle facilities would occur under this alternative. While the number of vehicular trips would vary from that of the proposed project, because the conditions at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) are currently unacceptable, the addition of vehicular trips under this alternative is assumed to have *similar* impacts when compared to the proposed project.

**Utilities and Service Systems:** Under the No Commercial Development Alternative, development of the 57-acre project site would include public parks and recreational land uses including open space and multi-family housing. As such, this alternative would increase the demand for water supply, wastewater, solid waste, stormwater, and energy on the project site. However, given that the No Commercial Development Alternative does not include commercial development, the demand for services would be slightly less than the proposed project. Accordingly, overall impacts to utilities and service systems would be *less* when compared to the proposed project.

### 5.6.3 IMPACT SUMMARY

As described above, because no commercial development would occur as a result of selecting the No Commercial Alternative, impacts with respect to air quality, GHG emissions, noise, and utilities and service providers would be *less* than those of the proposed project.

Under the No Commercial Alterative, the potential for residential development would still occur on the site; therefore, geological and hazards and hazardous materials related to structures and residential development would be *similar* to those of the proposed project.
The same amount of housing and the same amount of new residents would occur under both the No Commercial Alternative and the proposed project; thus, impacts related to population and housing, and public services and recreation would be similar to those of the proposed project.

For land use and planning, future potential development under both scenarios would be required to comply with the existing regulations and plans for the City of Santa Rosa; thus, impacts would be similar to those of the proposed project.

With respect to transportation and circulation, both scenarios would generate trips that would impact the already impacted Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which currently operates unacceptably at LOS E during the PM peak hour. Therefore, impacts were found to be similar to those of the proposed project.

5.6.4 RELATIONSHIP OF THE ALTERNATIVE TO THE PROJECT OBJECTIVES

The No Commercial Development Alternative would generally comply with the project objectives by providing a 47.2-acre linear park with park and recreational uses, multi-family housing, and multi-modal opportunities. The No Commercial Development Alternative would also provide opportunities for the enhancement and protection of biological resources on the project site. However, this alternative would not provide opportunities for retail and commercial uses. Therefore, this alternative would not meet all of the project objectives.

5.7 REDUCED RESIDENTIAL DENSITY ALTERNATIVE

5.7.1 DESCRIPTION

Under the Reduced Residential Density Alternative, the multi-family housing proposed in the Southeast Greenway Area would be reduced by 50 percent, but would be remain in the same areas designated for such uses as that of the proposed project (see Figure 3-9 in Chapter 3, Project Description, of this Draft EIR). These areas include the 3.7-acre parcel along Vallejo Street, 4.7-acre parcel at the terminus of SR 12, and 1.2-acres at the west of Yulupa Avenue. Therefore, this alternative would result in new development potential for 47.2 acres of public parks and recreational land uses including open space, 122 multi-family housing units, and 12,000 square feet of commercial development. Similar to the proposed project, the Circulation Concept would also be implemented under the Reduced Residential Density Alternative. The General Plan 2035 would also be amended under this alternative to include land use and conforming zoning districts to allow future development of public parks and recreational land uses including open space, multi-family housing, and commercial development on the project site. As shown in Table 5-1, the Reduced Residential Density Alternative would introduce 316 residents and 40 employees to the Southeast Greenway Area.
5.7.2 IMPACT DISCUSSION

The following analysis compares the potentially significant environmental impacts of the Reduced Residential Density Alternative with those of the project-related impacts for each of the environmental topics analyzed in detail in Chapter 4.1 through Chapter 4.14 of this Draft EIR. The impacts of each alternative are classified as greater, less, or essentially similar to (or comparable to) the level of impacts associated with the proposed project.

- **Aesthetics**: Similar to the proposed project, the Reduced Residential Density Alternative would result in modifications to the visual landscape and existing habitat on the project site. As discussed in Chapter 4.1, Aesthetics, views from street-level public viewing to the scenic vistas are intermittently obstructed by existing conditions surrounding the project area with potential height increases site such as buildings, structures, and mature trees. Additionally, the publically accessible areas surrounding the project site are not recognized by the City or the State as scenic viewing locations. In addition, similar to the proposed project, development under the Reduced Residential Density Alternative would be subject to design review per Santa Rosa City Code (SRCC) Section 20-52.030, and would be required to comply with the General Plan 2035 Urban Design policies. Therefore, potential impacts to aesthetic resources under the Reduced Residential Density Alternative would be similar to the proposed project.

- **Air Quality**: Development under the proposed project would generate a substantial net increase in criteria air pollutant emissions that would exceed the Bay Area Air Quality Management District (BAAQMD) regional significance thresholds. Operational criteria air pollutant emissions would be generated from on-site area sources (e.g., landscaping fuel) and vehicle trips generated by the proposed project. Construction emissions associated with individual development projects under the proposed project would generate an increase in criteria air pollutants and Toxic Air Contaminants (TACs). Impacts associated with these effects were found to be significant and unavoidable at the programmatic level. Although the multi-family housing proposed under the Reduced Residential Density Alternative would be less intense when compared to the proposed project, it is likely that the operational and construction criteria air pollutant emissions would still generate a substantial net increase in criteria air pollutant emissions. However, because less residential development would occur under the Reduced Residential Density Alternative, impacts would be less than those of the proposed project.

- **Biological Resources**: As discussed in Chapter 4.3, Biological Resources, of this Draft EIR, development under the proposed project could impact special-status species, riparian habitat, wetlands and other waters, and wildlife movement opportunities or native nurseries in the Southeast Greenway Area; however, compliance with applicable federal, State, and local regulations as well as the proposed mitigation measures, would reduce potential impacts to a less-than-significant level. Similar to the proposed project, the Reduced Residential Density Alternative would be required to comply with the applicable regulations and proposed mitigation measures. Therefore, for these reasons and because the development footprint would similar to that of the proposed project, the impacts to biological resources under the Reduced Residential Density Alternative would be similar when compared to the proposed project.

- **Cultural and Tribal Cultural Resources**: Under the Reduced Residential Density Alternative, future development of public parks and recreational land uses including open space, multi-family
housing, and commercial uses in the Southeast Greenway Area would still occur, but would be slightly less intense than the proposed project. Similar to the proposed project, development under this alternative would involve ground-disturbing activities during construction of future structures which could affect unknown cultural and Tribal Cultural Resources. Consequently, future development under the Reduced Residential Density Alternative would be subject to existing federal, State, and local regulations laws to protect cultural resources, which would generally ensure less-than-significant impacts to cultural and Tribal Cultural Resources. In addition, the Reduced Residential Density Alternative would be required to comply with mitigation measures as recommended under the proposed project. Accordingly, potential impacts cultural and Tribal Cultural Resources under the Reduced Residential Density Alternative would be similar to the proposed project.

- **Geology and Soils:** The Reduced Residential Density Alternative would result in the development of public parks and recreational land uses including open space, multi-family housing, and commercial space on the project site. Similar to the proposed project, this alternative would result in the potential for damage to structures from soil/geologic conditions (i.e., seismicity and ground shaking; flooding; liquefaction, lateral spreading; geologic and soil instabilities; soil erosion/loss of topsoil; expansive and corrosive soils; and groundwater). Therefore, this alternative would result in similar impacts related to geology and soils.

- **Greenhouse Gas Emissions:** With respect to GHG emissions, the proposed project would not result in any significant GHG emissions impacts as it would not exceed the per capita significance threshold for GHG emissions, nor would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG emissions, as described in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR. Given that development under the Reduced Residential Density Alternative would result in a 50 percent reduction in multi-family housing, this alternative would result in less GHG emissions when compared to the proposed project. It is important to note that by reducing the infill residential units, this alternative does not realize the same GHG emissions reductions as the proposed project through placing housing near existing residential-serving land uses.

- **Hazards and Hazardous Materials:** As described in Chapter 4.7, Hazards and Hazardous Materials, the proposed project would be required to comply with existing federal, State, and local regulations related to the safe use, handling, disposal, transport, and generation of hazardous materials. In addition, there are no public airports or private airstrips within 2 miles of the project site. Similar to the proposed project, the Reduced Residential Density Alternative would be required to comply with the applicable laws, regulations, and conditions of approval, which would minimize potential impacts related to hazard and hazardous materials. Accordingly, impacts associated with hazard and hazardous materials would be similar when compared to the proposed project.

- **Hydrology and Water Quality:** Although the Reduced Residential Density Alternative would result in 50 percent less multi-family housing, this alternative would increase the amount of impervious surfaces on the project site similar to that of the proposed project. As such, the Reduced Residential Density Alternative would be subject to the same existing federal, State, and local regulations relating to hydrology and water quality, similar to the proposed project. Compliance with existing regulations would ensure that pre- and post-construction impacts to water quality be minimized as future development occurs. Accordingly, impacts related to hydrology and water quality would be similar to the proposed project.
quality under the Reduced Residential Density Alternative would be similar when compared to the proposed project.

- **Land Use and Planning:** Under the Reduced Residential Density Alternative the General Plan 2035 would be amended to allow for public parks and recreational land uses including open space, residential, and commercial land uses on the project site. Similar to the proposed project, the Reduced Residential Density Alternative would be required to comply with and further the objectives of applicable land use plans such as the General Plan 2035, Climate Action Plan, Plan Bay Area, the Bicycle and Pedestrian Master Plan, and the Citywide Creek Master Plan. Thus, impacts related to land use objectives would be similar under the Reduced Residential Density Alternative. It is important to note that this alternative does not contribute to meeting the City’s housing needs at the same level as the proposed project; however, because the site was not previously designated as land with potential housing potential, this is not considered to be an impact.

- **Noise:** Similar to the proposed project, development under the Reduced Residential Density Alternative would result in temporary and permanent increases to ambient noise levels. Accordingly, this alternative would be subject to General Plan 2035 policies, noise standards in the SRCC, and applicable best management practices described in Chapter 4.10, Noise, of this Draft EIR. Given that the level of development under Reduced Residential Density Alternative would less at the project site (i.e., 122 fewer residential units), noise related impacts under this alternative would be less when compared to the proposed project.

- **Population and Housing:** As discussed in Chapter 4.11, Population and Housing, the proposed project would not induce substantial unplanned growth, displace housing, or displace substantial numbers of people. Similar to the proposed project, the Reduced Residential Density Alternative would be required to comply with General Plan 2035 Housing policies which seek to provide adequate housing opportunities for all residents. Given, that the Reduced Residential Density Alternative would result in a 50 percent less residential development as the proposed project, impacts related to population and housing would be less when compared to the proposed project.

- **Public Services and Recreation:** As discussed in Chapter 4.12, Public Services, the proposed project would not require the expansion of police, fire, school, or library facilities. Because 50 percent fewer residents would be introduced to the project site as a result of this alternative, impacts to public services are assumed to be less when compared to the proposed project. With respect to recreational services, similar to the proposed project the Reduced Residential Density Alternative would contribute to the City’s adopted parkland ratio and the demand would be less with the addition of 50 percent fewer residents to Santa Rosa. Accordingly, the impacts would be less when compared to the proposed project.

- **Transportation and Circulation:** As discussed in Chapter 4.13, Transportation and Circulation, of this Draft EIR, impacts from new vehicular traffic would result in significant impacts at some intersections and corridors under Existing plus Project Conditions and Future plus Project. Because 122 fewer residential units would be introduced under this alternative, it is assumed that fewer residential vehicular trips would be generated when compared to the proposed project. Because the significant and unavoidable impacts under the proposed project would occur at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which
currently operates unacceptably at LOS E during the PM peak hour, this condition would remain with or without additional trips under this alternative. The City’s ongoing plans to improve the Farmers Lane extension between Bennett Valley Road and Petaluma Hill Road that would change traffic patterns at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), resulting in more efficient operation, would continue under this alternative, eventually reducing the impact. Additionally, measures that could potentially reduce impacts to the Farmers Lane/Fourth Street-Sonoma Highway intersection (#1), would also be unachievable due to unknown funding sources. This condition would remain under this alternative as well. All recommended mitigation measures to improve pedestrian and bicycle facilities would occur under this alternative. While the number of vehicular trips would vary from that of the proposed project, because conditions at the conditions at the Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8) are currently unacceptable, the addition of vehicular trips under this alternative is assumed to have similar impacts when compared to the proposed project.

- **Utilities and Service Systems:** Under the Reduced Residential Density Alternative, development on the 57-acre project site would include public parks and recreational land uses including open space, multi-family housing, and commercial development. As such, this alternative would increase the demand for water supply, wastewater, solid waste, stormwater, and energy on the project site. However, given that the Reduced Residential Density Alternative results in 122 fewer units, the demand for services would be slightly less than the proposed project. Accordingly, overall impacts to utilities and service systems would be less when compared to the proposed project.

### 5.7.3 IMPACT SUMMARY

As described above, because 50 percent less residential development would occur as a result of selecting the Reduced Residential Density Alternative, impacts with respect to air quality, GHG emissions, noise, population and housing, public services and recreation, and utilities and service providers would be less than those of the proposed project.

Because the area of ground disturbance would be similar under both the Reduced Residential Density Alternative and the proposed project, impacts to aesthetics, biological resources, and unknown cultural and Tribal Cultural Resources would be similar to those of the proposed project.

Under the Reduced Residential Density Alternative, the potential for residential development would still occur on the site; therefore, geological and hazards and hazardous materials related to structures and residential development would be similar under both scenarios.

For land use and planning, future potential development under both scenarios would be required to comply with the existing regulations and plans for the City of Santa Rosa; thus, impacts would be similar to those of the proposed project.

With respect to transportation and circulation, both scenarios would generate trips that would impact the already impacted Farmers Lane/SR 12 Eastbound Off-ramp-Hoen Avenue Frontage Road intersection (#8), which currently operates unacceptably at LOS E during the PM peak hour. Therefore, impacts were found to be similar to those of the proposed project.
5.7.4 RELATIONSHIP OF THE ALTERNATIVE TO THE PROJECT OBJECTIVES

The Reduced Residential Density Alternative would comply with the project objectives by providing a 47.2-acre linear park with open space, multi-family housing, commercial development, and multi-modal opportunities. The Reduced Residential Density Alternative would also provide opportunities for the enhancement and protection of biological resources on the project site. Therefore, this alternative would meet all of the project objectives, but not to the same degree with respect to providing housing to meet the City’s housing needs.

5.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the proposed project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an “environmentally superior” alternative be selected and the reasons for such a selection be disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least environmental impact. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets project objectives.

As shown in Table 5-2, the No Project Alternative would, in comparison to the project, result in fewer impacts when compared to those of the proposed project for all of the environmental impacts. It is important to note that with respect to biological resources (restore habitat), land use and planning (division of a community) and public services and recreation (adding new parkland), the No Project Alternative would not address these issues and improve conditions as would the proposed project. Regardless, because these do not necessarily result in a physical impact on the environment, the No Project Alternative is considered the environmentally superior alternative. However, in accordance with State CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

As shown on Table 5-2, the No Commercial/Residential Alternative would have less impacts related to air quality, aesthetics, biological resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services and recreation, and utilities and service system when compared to the proposed project. Accordingly, when compared to the proposed project, the No Commercial Development Alternative and the Reduced Residential Density Alternative, the No Commercial/Residential Alternative would be considered the environmentally superior alternative. However, because this alternative does not include residential or commercial development, it would meet some, but not all of the project objectives.
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6. **CEQA-Mandated Assessment**

This chapter provides an overview of the impacts of the proposed project based on the analyses presented in Chapters 4 through 5 of this Draft Environmental Impact Report (Draft EIR). The topics covered in this chapter include growth inducement, unavoidable significant impacts, and significant, irreversible changes. A more detailed analysis of the effects the proposed project would have on the environment and proposed mitigation measures to minimize significant impacts are provided in Chapters 4.1 through 4.14, of this Draft EIR.

### 6.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

California Environmental Quality Act (CEQA) Guidelines Section 15128 allows for no analysis of environmental issues for which there is no likelihood of significant impact. Section 4.2, Format of Environmental Analysis, in Chapter 4, Environmental Evaluation, of this Draft EIR, provides a detailed explanation for the reasoning by which it was determined that adoption and implementation of the proposed project would result in no impacts with respect to agricultural, forestry or mineral resources.

### 6.2 SIGNIFICANT AND UNAVOIDABLE 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 detailed in Chapter 4.2, Air Quality, and Chapter 4.13, Transportation and Circulation, of this Draft EIR, environmental impacts associated with the proposed project were found to be significant and unavoidable. These impacts are described in Table 6-1, below.

**Table 6-1**  
**Significant and Unavoidable Impacts of the Proposed Project**

<table>
<thead>
<tr>
<th><strong>Impact</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Quality</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Impact AQ-2:</strong></td>
<td>Despite implementation of the proposed Mitigation Measure AQ-2 identified in Chapter 4.2, Air Quality, of this Draft EIR, criteria air pollutant emissions associated with the proposed project would cause a substantial net increase in emissions that exceeds the Bay Area Air Quality Management District (BAAQMD) regional significance thresholds.</td>
</tr>
<tr>
<td><strong>Impact AQ-3:</strong></td>
<td>Despite implementation of the proposed Mitigation Measure AQ-2 identified in Chapter 4.2, Air Quality, criteria air pollutant emissions associated with the proposed project would cause a substantial net increase in emissions that exceeds the BAAQMD regional significance thresholds and could cumulatively contribute to the non-attainment designations of the San Francisco Bay Area Air Basin (SFBAAB).</td>
</tr>
<tr>
<td><strong>Transportation and Circulation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Impact TRANS-1a:</strong></td>
<td>In order to improve operation to LOS D, the City should add an additional eastbound through lane onto Hoen Avenue Frontage Road, along with widening of Hoen Avenue Frontage Road downstream of the intersection to include two eastbound lanes.</td>
</tr>
<tr>
<td><strong>Impact TRANS-1b:</strong></td>
<td>On Farmers Lane under Future plus Project conditions, the project is anticipated to cause a 1-mile per hour reduction in average southbound speeds during the PM peak hour, and is anticipated to cause operation to drop from LOS D to LOS E in the southbound direction during the AM peak hour.</td>
</tr>
</tbody>
</table>
Table 6-1  Significant and Unavoidable Impacts of the Proposed Project

<table>
<thead>
<tr>
<th>Air Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact TRANS-1c: The Farmers Lane/Fourth Street-Sonoma Highway intersection (#1) is projected to operate unacceptably at LOS E during the AM and PM peak hours without the project and with the addition of project traffic would drop to LOS F during the AM peak hour.</td>
</tr>
</tbody>
</table>

### 6.3 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project or the construction of additional housing, either directly or indirectly, could foster economic or population growth in the surrounding environment. Typical growth inducing factors might include the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. This section evaluates the proposed project’s potential to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the growth associated with the proposed project would cause adverse environmental impacts.

The adoption and implementation of the proposed project would involve direct growth inducement through the construction of 47.2 acres of park and recreational uses including open space, 244 multi-family units and 12,000 square feet of commercial space, which could generate up to 632 new residents and 40 new employees. However, as discussed in Chapter 4.11, Population and Housing, the future new residents and employees represent less than one percent of the projected growth in the city. In addition, the proposed project is not expected to result in indirect growth inducement because all development associated with the proposed project would occur on the project site.

Future development of the proposed project would involve demolition and construction activities that could generate some temporary employment opportunities; however, given the temporary nature of such opportunities, it is unlikely that construction workers would relocate to Sunnyvale as a result of the proposed project. Thus, the proposed project would not be considered growth-inducing from an employment perspective.

### 6.4 Significant and Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which the proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.
6.4.1 CHANGES IN LAND USE THAT COMMIT FUTURE GENERATIONS

As described in detail in Chapter 3, Project Description, of this Draft EIR, the proposed project generally maintains the land use pattern of the General Plan 2035 and applies land uses in the Southeast Greenway Area. The General Plan 2035 provides development allocations for buildout of the city through the year 2035. The proposed project includes future development under the proposed project that would be located on vacant underutilized land located in an urbanized setting. Once future development under the proposed project occurs, it would not be feasible to return the developed land to its existing (pre-project) condition. Therefore, at least some of the development allowed under the proposed project would most likely lead to irreversible changes in land use.

6.4.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Potential environmental accidents of concern include those that would have adverse effects on the environment or public health due to the nature or quantity of material released during an accident and the receptors exposed to that release. Demolition and construction activities associated with implementation of the proposed project would involve some risk for environmental accidents. However, these activities would be monitored by City, State, and federal agencies, and would follow professional industry standards for safety and construction. Additionally, the land uses proposed by the project would not include any uses or activities that are likely to contribute to or be the cause of a significant environmental accident. As a result, the proposed project would not pose a substantial risk of environmental accidents.

6.4.3 LARGE COMMITMENT OF NONRENEWABLE RESOURCES

Consumption of nonrenewable resources includes issues related to increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. The proposed project would require water, electric, and gas service, as well as additional resources for construction. Additionally, the ongoing operation of the proposed project would involve the use of nonrenewable resources. Construction and ongoing maintenance of the proposed project would irreversibly commit some materials and nonrenewable energy resources. Materials and resources used would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, sand, gravel, asphalt, and steel. These materials and energy resources would be used for infrastructure development, transportation of people and goods, as well as utilities. During the operational phase of the proposed project (post-construction), energy sources including oil and gasoline would be used for lighting, heating, and cooling of residences, as well as transportation of people to and from the project site.

However, the proposed project would include several features that would offset or reduce the need for nonrenewable resources. The proposed project would be required to comply with all applicable building and design requirements, including those set forth in California Code of Regulations Title 24 relating to energy conservation. In compliance with CALGreen, the State’s Green Building Standards Code, the proposed project would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. In addition, buildings that
are constructed in accordance with the Building and Energy Efficiency Standards (Title 24, Part 6) are 25 percent (residential) to 30 percent (non-residential) more energy efficient than those constructed under the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. The proposed project would also apply environmentally sustainable standards for demolition, construction, and operation.

Although the construction and ongoing operation of the proposed project would involve the use of nonrenewable resources, through the inclusion of energy-conserving project features and compliance with applicable standards and regulations, the proposed project would not represent a large commitment of nonrenewable resources.

The project site does not contain any agricultural land or a mining reserve, so it would not affect those natural resources (See Section 4.2, Format of Environmental Evaluation, in Chapter 4, Environmental Evaluation, of this Draft EIR).
7. Organizations and Persons Consulted

The following consultants and individuals were consulted in the writing of this Draft EIR and involved in the Southeast Greenway planning process:

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