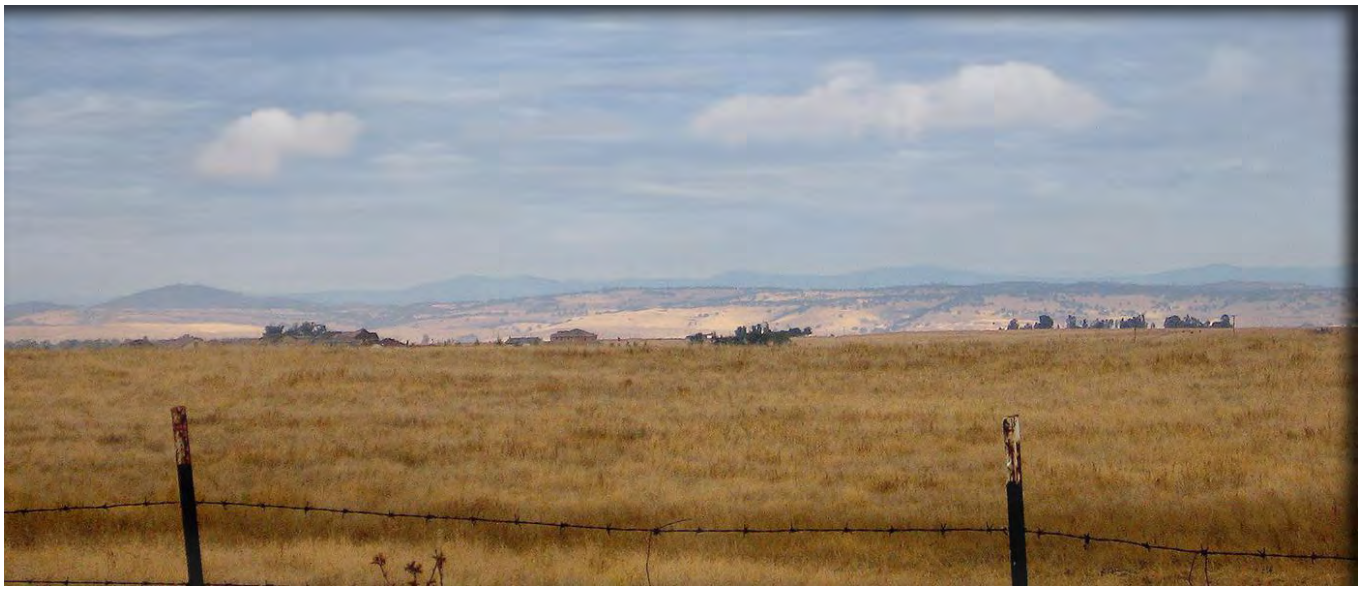
Draft

Environmental Impact Report/Environmental Impact Statement

SunCreek Specific Plan Project

State Clearinghouse No. 2006072067



US Army Corps of Engineers ®
Sacramento District

CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Prepared for:

City of Rancho Cordova
and
U.S. Army Corps of Engineers
Sacramento District

Cooperating Agencies:

U.S. Environmental Protection Agency
Sacramento Metropolitan Air Quality Management District

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October 2012

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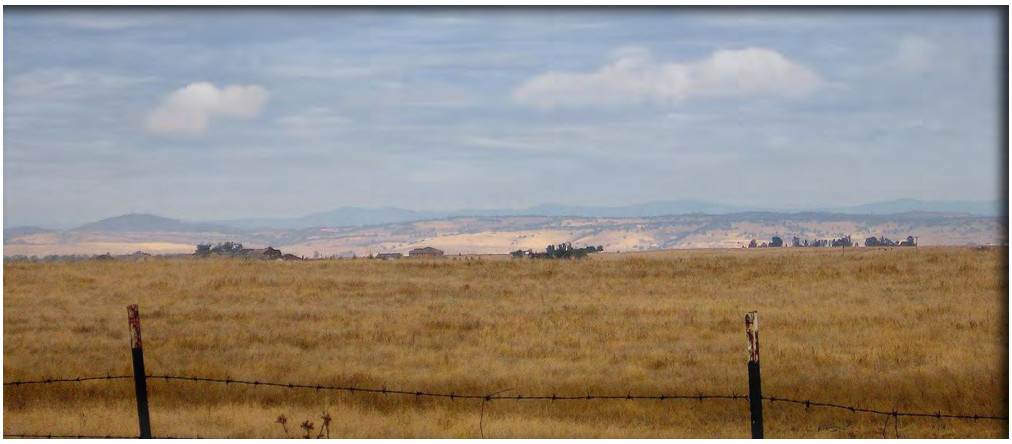

Prepared for:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670

Attention:

Bret Sampson
916/361-8384

U.S. Army Corps of Engineers
Sacramento District
Regulatory Division, California Delta Branch
1325 J Street, Room 1350
Sacramento, California 95814-2922

Attention:

Lisa Gibson
916/557-5288

Cooperating Agencies:
U.S. Environmental Protection Agency
Sacramento Metropolitan Air Quality Management District

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October 2012

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DRAFT ENVIRONMENTAL IMPACT REPORT/ DRAFT ENVIRONMENTAL IMPACT STATEMENT

SunCreek Specific Plan Project
Sacramento County, California

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Submit Comments to:
U.S. Army Corps of Engineers
Attention: Lisa Gibson

City of Rancho Cordova
Attention: Bret Sampson

ABSTRACT

This joint Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/DEIS) documents the analysis of the potential effects of implementing each of six alternative land use scenarios for a mixed-use development in the approximately 1,200-acre SunCreek Specific Plan area, in eastern Sacramento County, California. This abstract is provided in compliance with National Environmental Policy Act (NEPA) requirements. The EIR/EIS documents the existing condition of environmental issues and resources in and around areas considered for development, and potential impacts on those issues and resources as a result of implementing the alternatives. The alternatives considered in detail are: (1) No Project; (2) No USACE Permit; (3) Proposed Project (Applicants' Preferred Alternative); (4) Biological Impact Minimization; (5) Conceptual Strategy; and (6) Increased Development.

The DEIR/DEIS for the SunCreek Specific Plan project is available for a NEPA public comment and review period of 45 days from the date of publication of the notice of availability in the Federal Register. A copy can also be found on the Internet at http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/index.html.

Your written comments should be postmarked 45 days from the date of publication of the notice of availability in the Federal Register. The notice of availability is expected to be published in the Federal Register on October 5, 2012. Please submit and address your written comments on the DEIS to the U.S. Army Corps of Engineers, Regulatory Branch, at the address noted above by November 19, 2012.

NOTE TO REVIEWERS

Reviewers should provide AECOM or the U.S. Army Corps of Engineers (USACE), the NEPA lead agency, with their comments during the review period of the DEIS. This will enable USACE to analyze and respond to the comments at one time and to use the information acquired in preparation of the Final Environmental Impact Statement (FEIS), thus avoiding undue delay in the decision-making process. Reviewers have an obligation to structure their participation in the NEPA process so that it is meaningful and alerts the agency to reviewers' positions and contentions. *Vermont Yankee Power Corp. v. NRDC,* 435 U.S. 519, 533 (1978). Environmental objections that could have been raised at the draft stage may be waived if not raised until after completion of the FEIS. *City of Angoon v. Hodel* (9th Circuit, 1986) and *Wisconsin Heritages, Inc. v. Harris,* 490 F. Supp. 1334, 1338 (E.D. Wis. 1980). Comments on the DEIS should be specific and should address the adequacy of the statement and the merits of the alternatives discussed (40 CFR 1503.3).

NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT AND PUBLIC HEARING ON THE SUNCREEK SPECIFIC PLAN PROJECT

The City of Rancho Cordova has prepared a draft environmental impact report (DEIR) for the SunCreek Specific Plan Project in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.).

Description of the Project: The SunCreek Specific Plan Project would entail development of mixed uses on approximately 1,200 acres south of Douglas Road and west of Grant Line Road. Development of the specific plan area would include approximately 555 acres of single family and multi-family residential, 66 acres of commercial uses, 100 acres of parks, 250 acres of wetland preserve and wetland preserve buffer, three elementary schools, a combined middle school/high school, and a municipal services facility (e.g., fire station, police station, library, etc.). The project also includes infrastructure necessary to serve the proposed development including 60 acres of detention basins and stormwater canals; sewer lines and lift stations; 102 acres of roads; and electrical and natural gas lines. Adoption of the project contemplates approval of the following City entitlements: certification of the EIR/EIS and Mitigation Monitoring and Reporting Program (MMRP); amendment of the City of Rancho Cordova General Plan; zoning amendment; adoption of the SunCreek Specific Plan; and a Development Agreement. Future City entitlement approvals may include, but are not limited to, the following: use permits; approval of large-lot zoning and tentative subdivision maps.

Project Location: The specific plan area lies south of Douglas Road, west of Grant Line Road, and east of Sunrise Boulevard.

Significant Environmental Impacts of the Project: The DEIR evaluates six land use development alternatives at an equal level of detail. Analysis of environmental impacts associated with the project identified potentially significant or significant impacts in the following issue areas: aesthetics, air quality, biological resources, climate change, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, traffic, utilities, and water supply. Significant and unavoidable environmental impacts would occur in aesthetics, air quality, biological resources, climate change, traffic, and utilities.

Public Review Period: The DEIR is available for review during a 45-day comment period that begins on October 5, 2012 and ends on November 19, 2012. A public hearing on the DEIR will be held on October 23, 2012 from 5-7 pm at the Rancho Cordova City Hall located at 2729 Prospect Park Drive, Rancho Cordova, CA 95670. Copies of the DEIR can be reviewed at the following locations:

City of Rancho Cordova Planning Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Rancho Cordova Public Library
9845 Folsom Boulevard
Rancho Cordova, CA 95827

Written comments on the DEIR must be postmarked no later than November 19, 2012 and should be sent to the following address:

Bret Sampson
City of Rancho Cordova
Planning Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670
bsampson@cityofranchocordova.org

TABLE OF CONTENTS

Section **Page**

TABLE OF CONTENTS

continued **Page**

Appendices

TABLE OF CONTENTS

continued **Page**

Exhibits

TABLE OF CONTENTS

continued **Page**

TABLE OF CONTENTS

continued **Page**

TABLE OF CONTENTS

continued **Page**

Tables

TABLE OF CONTENTS

continued **Page**

TABLE OF CONTENTS

continued **Page**

TABLE OF CONTENTS

continued **Page**

TABLE OF CONTENTS

continued **Page**

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This executive summary highlights the major areas of importance in the environmental analysis for the proposed SunCreek Specific Plan project, as required by California Code of Regulations (CCR) Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) and 40 Code of Federal Regulations (CFR) Section 1502.12 of the National Environmental Policy Act (NEPA). As stated in CCR Section 15123(a) of the State CEQA Guidelines, "[a]n EIR shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As stated in NEPA Section 1502.12, "each environmental impact statement shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives)." As required by the State CEQA Guidelines and NEPA regulations, this executive summary includes (1) a summary description of the proposed project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1), (3) identification of the alternatives evaluated, and (4) a discussion of the areas of controversy associated with the project. For additional detail regarding specific issues, please consult Chapter 2, "Alternatives"; Chapter 3, "Affected Environment, Environmental Consequences, and Mitigation Measures"; and Chapter 4, "Other Statutory Requirements."

ES.2 LEAD, RESPONSIBLE, TRUSTEE, AND COOPERATING AGENCIES

This document is a joint draft environmental impact report/draft environmental impact statement (DEIR/DEIS) prepared for the SunCreek Specific Plan Project (the "Proposed Action" for purposes of NEPA and the "Proposed Project" for purposes of CEQA, and hereinafter referred to as "the SunCreek project" or "the project").

The City of Rancho Cordova (City) is the lead agency for the project under CEQA, and the U.S. Army Corps of Engineers (USACE), Sacramento District, is the Federal lead agency under NEPA. The U.S. Environmental Protection Agency (EPA) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) are Cooperating Agencies under NEPA.

Several local and regional agencies are serving as responsible agencies under CEQA because they have jurisdiction over elements of the project (see Chapter 2, "Alternatives, for a list of CEQA responsible agencies). The California Department of Fish and Game is serving as trustee agency under CEQA because they have jurisdiction over the resources potentially affected by the project.

ES.3 TYPE OF ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

The development proposal for the specific plan contains enough specificity for a site-specific, project-level environmental review under both CEQA and NEPA, and will allow the consideration of discretionary approvals, such as tentative subdivision maps and use permits for this project for the participating landowners (i.e., Shalako, Sierra Sunrise, Smith/Dunmore, and Investek). The City's intention in evaluating the SunCreek Specific Plan at a project level of detail is that no further EIRs or negative/mitigated negative declarations will be required for additional regulatory approvals following adoption of the specific plan, barring the occurrence of any of the circumstances described in Section 21166 of the California Public Resources Code, for those parcels that are owned by landowners participating in this EIR/EIS (i.e., Shalako, Sierra Sunrise, Smith/Dunmore, and Investek). USACE similarly intends this document to provide sufficient formal NEPA analysis for project development for the participating landowners listed above.

For the nonparticipating landowners—Grantline 220 and Luxori Village—it is anticipated that at some point in the future, those property owners would come forth with detailed land use plans, at which time the City and USACE would determine whether or not the CEQA/NEPA analysis provided in this document was sufficient, or whether additional environmental analyses would be necessary for those parcels.

USACE anticipates that Department of the Army Section 404 Clean Water Act permit decision can be made for this project without additional NEPA analysis beyond this EIR/EIS for the participating landowners listed above, as long as there are no substantial deviations from proposed uses or the condition of these uses. However, as noted below, for nonparticipating landowners—Grantline 220 and Luxori—it is anticipated that at some point in the future, those property owners would come forth with Section 404 permit applications, at which time USACE would determine whether or not the NEPA analysis provided in this document was sufficient to issue permits, or whether additional environmental analyses would be necessary for those parcels.

ES.4 REQUESTED ENTITLEMENTS

The following entitlements are requested from the City and USACE for the project, and are discussed in detail in Chapter 2, "Alternatives." Additional approvals, permits, and authorizations are listed in Chapter 1, "Introduction and Statement of Purpose and Need."

ES.4.1 CITY OF RANCHO CORDOVA

Adoption of the Proposed Project or any of the action alternatives under consideration requires approval of the following City entitlements:

- certification of the EIR/EIS and adoption of the mitigation monitoring and reporting program,
- a General Plan amendment,
- pre-zoning of the specific plan area for the participating landowners,
- approval of large-lot tentative maps for the participating landowners,
- adoption of the SunCreek Specific Plan,
- adoption of a public facilities financing plan,
- adoption of a public facilities infrastructure/phasing plan, and
- potential approval of development agreements between the City and the project applicants for the participating landowners.

Future City entitlement approvals may include, but are not limited to, the following:

- use permits,
- approval of tentative parcel and subdivision maps,
- design review,
- lot line adjustments,
- engineering improvement plans,
- planned development permits,
- grading plans, and
- development agreement between the City and future project applicants.

ES.4.2 U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT

The project applicants are also seeking the following from USACE:

- a Department of the Army permit under Section 404 of the Clean Water Act for discharges into waters of the United States, and

- Endangered Species Act Section 7 consultation leading to issuance of a biological opinion and possible incidental-take statement for activities affecting endangered species.

ES.4.3 OTHER AGENCIES

In addition to the authorizations and approvals requested from the City and USACE, permits and other approval actions from the following Federal, state, regional, and local agencies may be required:

- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- California Department of Education
- California Department of Fish and Game
- Central Valley Regional Water Quality Control Board (Region 5)
- California Office of Historic Preservation
- Sacramento Metropolitan Air Quality Management District
- Sacramento County Water Agency

ES.5 PROJECT CHARACTERISTICS

ES.5.1 PROJECT LOCATION

The SunCreek Specific Plan Area (SPA) is located in eastern Sacramento County, south of U.S. Highway 50, within the city limits of the City of Rancho Cordova (see Exhibits 2-1 and 2-2 in Chapter 2, "Alternatives"). The SPA is located south of Douglas Road, north of Jackson Highway (i.e., State Route 16), west of Grant Line Road, and east of Sunrise Boulevard. Surrounding land uses include the Anatolia development under construction to the west; and vacant land to the north, east, and south. Kiefer Landfill is located southeast of the SPA.

ES.5.2 ELEMENTS OF THE PROJECT

The applicants, which consist of Sierra Sunrise, Shalako, Investek, Grantline 220, Luxori Village, and Smith/Dunmore, and are hereinafter referred to together as the "project applicants," are seeking the City's adoption of the SunCreek Specific Plan, that is, the SunCreek project. The SunCreek project would be a mixed-use development on approximately 1,265 acres within the Sunrise Douglas Community Plan area in Rancho Cordova, California, in eastern Sacramento County. The participating landowners are also seeking specific development entitlements as part of the project as summarized above (see also Chapter 2, "Alternatives" for details). Although the specific plan includes a proposal for development on the Grantline 220 and Luxori parcels, those property owners are not currently participating in the DEIR/DEIS process, and are not seeking approval of development agreements, large-lot tentative maps, or pre-zoning at this time.

The project would include a range of housing types, employment centers, and recreation opportunities, as well as support services such as roadway improvements, infrastructure, and utilities. The Proposed Project provides for the construction of 4,698 dwelling units at various densities on a total of approximately 579 acres. In addition to the commercial mixed-use areas, the Proposed Project includes an approximately 60-acre Local Town Center. The Proposed Project also includes public/quasi-public uses; an elementary and combined high school/middle school; community, neighborhood, and pocket parks and parkways, paseos, and trails; a wetland preserve and associated wetland preserve buffer area; stormwater detention basins and stormwater canals; and major and minor roads with landscaping. The SPA contains a total of 43.690 acres of jurisdictional waters of the U.S., including wetlands. Implementation of the Proposed Project would result in fill of 22.976 of these waters. A 203-acre on-site wetland preserve would be created.

ES.6 SUMMARY OF SIGNIFICANT AND POTENTIALLY SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table ES-1 displays a summary of significant and potentially significant impacts and proposed mitigation measures that would avoid, eliminate, minimize, or reduce potential impacts. In the table, the level of significance of the impact following implementation of each mitigation measure is identified. Impacts that would occur under each alternative development scenario on Table ES-1 are identified as follows: NP (No Project), NCP (No USACE Permit), PP (Proposed Project), BIM (Biological Impact Minimization), CS (Conceptual Strategy), and ID (Increased Development). In Table ES-1, the impact and its significance conclusion are followed by the mitigation requirement. For detailed descriptions of project impacts and mitigation measures, please see Sections 3.1 through 3.17 in Chapter 3, "Affected Environment, Environmental Consequences, and Mitigation Measures."

ES.7 ALTERNATIVES

The State CEQA Guidelines (CCR Section 15126.6) and the NEPA Council on Environmental Quality Regulations (40 CFR 15012.14) require that an EIR/EIS describe a range of reasonable alternatives to the proposed project that could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. Chapter 2, "Alternatives," of this EIR/EIS provides a comparative analysis between the Proposed Project Alternative and the five alternatives summarized below. The No Project/No Action Alternative (hereinafter referred to as the "No Project Alternative") as required under CEQA and NEPA and a No USACE Permit Alternative as required by USACE under NEPA are part of the alternatives evaluated in this EIR/EIS. See Chapter 2, "Alternatives" for additional details about each alternative.

ES.7.1 NO PROJECT ALTERNATIVE

Under the No Project Alternative, the project would not be developed. The SPA would remain under the jurisdiction of the City. A Section 404 permit for the placement of fill material into waters of the U.S. would not be required from USACE. The No Project Alternative is an unlikely long-term alternative for the SPA because, according to the City of Rancho Cordova General Plan (City General Plan), the SPA is located in an area planned for urban development. Entitlements are actively being sought for development in the vicinity of the SPA and infrastructure planning for the area is also occurring. Therefore, it is unreasonable to assume that the site would remain in its current agricultural/undeveloped state on a long-term basis. However, the City General Plan indicates that the SPA is designated as a "Special Planning Area," within which a wide variety of land uses (such as residential, commercial, institutional, recreational, and open space) are permitted. The general plan includes a layout for the SPA with land uses, but it is specifically designated as "conceptual"; therefore it does not include acreages, densities, or dwelling units. Without this information, it would be speculative to meaningfully predict the environmental impacts that would occur from development at the SPA other than the Proposed Project and alternatives already evaluated herein. Consistent with CEQA requirements, the No Project Alternative is evaluated in this DEIR/DEIS; however, for the reasons stated above, it is assumed to be a "no development" scenario.

ES.7.2 NO USACE PERMIT ALTERNATIVE

This alternative was included for NEPA purposes by the Federal lead agency (USACE), and is designed to allow some development of the SPA while avoiding fill of all jurisdictional waters of the U.S., thus eliminating the need for a USACE Section 404 permit. Under this alternative, the approximately 203-acre wetland preserve that would be created under the Proposed Project Alternative, which would require continuing activities as part of a mitigation and monitoring plan approved by USACE, would not exist because it would not be proposed or imposed as mitigation for impacts associated with the fill of Federally regulated waters of the U.S. Instead, 607 acres of the SPA would be designated "Natural Resources" under the City General Plan. Land with this use designation would be set aside as natural habitat with no urban development. While open space trails may be

located adjacent to areas designated as Natural Resources, the City of Rancho Cordova would prohibit public access into the area.

Under the No USACE Permit Alternative, approximately 115 fewer acres of residential acreage would be developed and approximately 338 fewer residential units would be constructed as compared to the Proposed Project Alternative. Furthermore, under the No USACE Permit Alternative, the Local Town Center would not be constructed, and approximately 25 fewer acres of commercial mixed-use would be constructed, for a total of approximately 84 fewer acres of commercial development as compared to the Proposed Project Alternative.

ES.7.3 BIOLOGICAL IMPACT MINIMIZATION ALTERNATIVE

The Biological Minimization Alternative was designed to preserve additional areas of high-quality biological resources. Under the Biological Minimization Alternative, the wetland preserve would be approximately 411 acres, which is approximately 200 acres larger than the Proposed Project Alternative. Under the Biological Impact Minimization Alternative, project components would be reconfigured to avoid many of the impacts on waters of the U.S., including wetlands and high-quality biological habitat, and the level of residential development would be decreased to reduce the amount of project-generated traffic, air quality emissions, and noise. A permit for wetland fill would still be required under this alternative.

Implementing the Biological Impact Minimization Alternative would result in substantially the same acreage of residential housing, but approximately 466 fewer residential units would be constructed as compared to the Proposed Project Alternative. No commercial land uses would be developed under this alternative, for a total of approximately 91 fewer acres of commercial development than under the Proposed Project Alternative.

Under the Biological Impact Minimization Alternative, 14.73 acres of waters of the U.S. would be filled, which is 9.44 fewer acres than would be filled by the Proposed Project. Approximately 411 acres would be set aside as an on-site wetland preserve, which is approximately 200 acres more than the Proposed Project.

ES.7.4 CONCEPTUAL STRATEGY ALTERNATIVE

This alternative is the ultimate result of a series of meetings regarding potential Clean Water Act and endangered species permitting strategies for the geographic area known as the Sunrise Douglas Community Planning Area. Numerous meetings were held between EPA, USACE, and the U.S. Fish and Wildlife Service (USFWS) (collectively the "Federal Agencies"), as well as local agencies, landowners of the unpermitted areas, stakeholders, biological consultants, and attorneys to review issues involving site development and wetland and endangered species protection within the Sunridge Specific Plan area. Congressman Doug Ose encouraged the Federal Agencies to develop a conceptual strategy both for the conservation of on-site wetland and aquatic resources in the planning area and to address general issues regarding the appropriate mitigation of those resources that could not feasibly and practicably be preserved on-site. The parties worked cooperatively to follow the mandates of Federal law, the need to preserve ecosystem integrity and the habitat of endangered species, the need to acknowledge the planning policies and objectives of the City of Rancho Cordova, and the need to account for the economic realities facing private sector developers. The Federal Agencies developed an advisory document known as the *Conceptual Level Strategy for Avoiding, Minimizing, and Preserving On-Site Aquatic Resource Habitat in the Sunrise Douglas Community Plan Area* (Conceptual Level On-Site Avoidance Strategy). The Conceptual Level Strategy laid out general planning, ecological, and biological principles based on the best available information at the time. EPA, USACE, and USFWS also developed an accompanying map to provide general guidance on a development/ preservation footprint that could potentially be permitted subject to appropriate review under applicable Federal statutes (see Exhibit 1-1 in Chapter 1, "Introduction").

After EPA, USACE, and USFWS released the Conceptual Level Strategy map, individual property owners and representatives held additional discussions with the City and EPA, USACE, and USFWS on the Conceptual Level Strategy map, based upon more detailed, project-level information. In response to comments, the landowners

revised the map in September 2004 to reflect the more detailed analysis and to incorporate what they understood to be acceptable modifications based upon the guidance provided in the meetings.

Implementing the Conceptual Strategy Alternative would result in approximately 15 additional acres of residential housing, but approximately 126 fewer residential units. The Local Town Center included as part of the Proposed Project Alternative would not be built under this alternative, and approximately 80 fewer acres of commercial development would be built than under the Proposed Project Alternative.

The Conceptual Strategy Alternative would result in fill of 23.33 acres of waters of the U.S., which is 0.84 acres fewer than would be filled under the Proposed Project. The on-site wetland preserve would consist of approximately 310 acres (approximately 107 more acres than would be preserved under the Proposed Project).

ES.7.5 INCREASED DEVELOPMENT ALTERNATIVE

The land use plan in this alternative was the original development proposed for the SunCreek SPA before the negotiations with the regulatory agencies as described above in Section ES.7.4, "Conceptual Strategy Alternative," which resulted in agreement by the project applicants to preserve additional on-site wetlands. This alternative would result in the fill of approximately 32.86 acres of waters of the U.S., which is approximately 8.69 more acres of waters of the U.S. than would be filled under the Proposed Project Alternative. The wetland preserve within the SunCreek SPA would decrease to approximately 97 acres; therefore, under this alternative, approximately 106 fewer acres of biological habitat would be preserved, as compared to the Proposed Project Alternative.

Implementing this alternative would result in approximately 253 more acres of residential housing, and approximately 701 more residential units that would be constructed as compared to the Proposed Project Alternative. However, most of the housing would be constructed as low-density (larger lot) residential under this alternative, whereas under the Proposed Project Alternative, most of the housing would be constructed as medium-density residential. The Local Town Center would not be built under this alternative, and approximately 73 fewer acres of commercial development would be built as compared to the Proposed Project Alternative.

ES.7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE – CEQA ONLY

The State CEQA Guidelines CCR Section 15126.6(e)(2) requires identification of an environmentally superior alternative from among the Proposed Project Alternative and the other alternatives evaluated. Federal NEPA regulations also recommend that an environmentally preferred alternative be identified; however, under NEPA, that alternative does not need to be identified until the final record of decision is issued. Therefore, the summary of the environmentally superior alternative below is intended to satisfy only the state (CEQA) requirements.

The No Project Alternative would have the fewest environmental impacts, because the project would not be built. If the No Project Alternative is environmentally superior, State CEQA Guidelines CCR Section 15126.6(e)(2) requires identification of the "environmentally superior alternative" other than the No Project Alternative from among the proposed project and the alternatives evaluated.

The No USACE Permit Alternative would be the environmentally superior alternative after the No Project Alternative. The No USACE Permit Alternative would result in least amount of development, the largest on-site wetland preserve, the fewest significant environmental impacts and lowest overall level of impact, and would not result in fill of any waters of the U.S. or other wetlands.

For the complete discussion regarding the environmentally superior alternative, see Section 2.10 in Chapter 2, "Alternatives" of this DEIR/DEIS.

ES.8 KNOWN AREAS OF CONTROVERSY

The State CEQA Guidelines (CCR Section 15123) and NEPA regulations (40 CFR 1502.12) require that the summary of an EIR/EIS identify areas of controversy known to the lead agency, including issues raised by agencies and the public. During the public comment period for the notice of preparation/notice of intent, various comment letters were received regarding the project. Appendix B of this EIR/EIS includes a summary of the public scoping process as well as summaries of the comments received in writing and at the public meetings held on July 26, 2006. In general, areas of potential controversy known to the City, USACE, and the project applicants include air quality, biological resources, noise, public services, and traffic and transportation. These issues were considered in the preparation of this EIR/EIS and, where appropriate, are addressed in the environmental impact analyses presented in Chapters 3 and 4.

ES.9 PUBLIC PARTICIPATION AND ADDITIONAL STEPS IN THE CEQA/NEPA REVIEW PROCESS

This EIR/EIS is being distributed to interested agencies, stakeholder organizations, and individuals. This distribution ensures that interested parties have an opportunity to express their views regarding the environmental effects of the project, and to ensure that information pertinent to permits, authorizations, and approvals is provided to decision makers for the lead agencies and CEQA responsible and trustee agencies. This document is available for review by the public during normal business hours at Rancho Cordova City Hall, 2729 Prospect Park Drive, Rancho Cordova, CA 95670 and by appointment at USACE, 1325 J Street, Sacramento, CA 95814-2922. The document will also be available on the City's Web site at http://www.cityofranchocordova.org and the USACE Web site at http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/EISs/EIS-index.html. The DEIR is being distributed for a 45-day period that will end on November 19, 2012.

Under CEQA, written comments to the City of Rancho Cordova must be postmarked no later than November 19, 2012. The review period under NEPA will end on November 19, 2012; however, USACE will continue to accept comments on the DEIS until the ROD is issued. Comments should be sent to the following addresses:

Bret Sampson
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
E-mail: bsampson@cityofranchocordova.org

Lisa Gibson
U.S. Army Corps of Engineers, Regulatory Branch
1325 J Street, Room 1350
Sacramento, CA 95814-2922
E-mail: Lisa.M.Gibson2@ usace.army.mil

If comments are provided via e-mail, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

A joint public meeting/hearing on the DEIR/DEIS will be conducted by the City and USACE on October 23, 2012, from 5 to 7 p.m. at Rancho Cordova City Hall, 2729 Prospect Park Drive. Comments on the DEIR/DEIS may be provided during the public meeting/hearing, and written comments may also be provided at any time during the comment period as described above.

Once all comments have been assembled and reviewed, responses will be prepared to address significant environmental issues that have been raised in the comments. The responses will be included in a final EIR/EIS.

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.1 AESTHETICS	
3.1-1: Substantial Adverse Effect on a Scenic Vista. Project implementation would result in the degradation of the visual quality of a scenic vista.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID:** No feasible mitigation measures are available. ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	
3.1-2: Substantial Degradation of Existing Visual Character or Quality of the Site and its Surroundings. Project implementation would substantially degrade the visual character of the SPA to developed urban uses.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.1-2: Require Development to Conform with Design Standards Identified in the SunCreek Specific Plan.** The project applicants for any particular discretionary development application shall implement design, architectural, development, and maintenance standards identified in *the SunCreek Specific Plan*. The following shall be implemented: ▸ Design standards regarding building design, massing, scale, and orientation shall be applied at the interface between the open space preserve and residential and commercial development in order to ensure that project design is compatible with open space preservation and to minimize the visual impacts of the built environment on the open space. ▸ Automobile, pedestrian, and bicycle trails shall be designed to minimize visual impacts by providing for landscaping, and by keeping streets and paved trails to minimum required widths, where feasible. ▸ Landscaping shall be compatible with adjacent preserved areas by emphasizing landscapes that use non-invasive plants native to the region. Implementation: Project applicants any particular discretionary development application. Timing: Before approval of building permits for all structures within all project phases. Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)
B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.1-3: Temporary, Short-Term Degradation of Visual Character for Developed Project Land Uses During Construction. Project implementation would involve the temporary and short-term use of staging areas for construction equipment and materials, which would be visible to adjacent project land uses that have already been developed.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures are required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.1-3: Screen Construction Staging Areas.** The project applicants for any particular discretionary development application shall locate staging and material storage areas as far away from sensitive land uses (e.g., residential areas, schools, parks) as feasible. The location of staging and material storage areas shall be approved by the City of Rancho Cordova before the approval of grading plans and building permits for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include, but are not limited to, the use of visual barriers such as berms or fences. The screen design shall be approved by the City of Rancho Cordova to further reduce visual effects to the extent feasible. Implementation: Project applicants any particular discretionary development application. Timing: Before approval of building permits for each project phase. Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant*** ***Cumulatively considerable***	
3.1-4: Creation of a New Source of Substantial Light or Glare that would Adversely Affect Day or Nighttime Views in the Area. Project implementation would require lighting of new development, which would cause new and increased sources of light and glare.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect.
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.1-4: Prepare and Implement a Lighting Plan.** To reduce impacts associated with light and glare, the project applicants of all project phases shall: ► Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties. ► Place and shield or screen flood and area lighting needed for construction activities, nighttime sporting activities, and/or security so as not to disturb adjacent residential areas and passing motorists. ► For public lighting in residential neighborhoods, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash. ► Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways. ► Design exterior on-site lighting as an integral part of the building and landscape design in the SPA. Lighting fixtures shall be architecturally consistent with the	

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
overall site design. ► Lighting of facilities as proposed in the lighting plan shall be consistent with the City's General Plan standards. A lighting plan for all project elements shall be submitted to the City for review and approval, which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans, and shall be submitted before the installation of any lighting or the approval of building permits for each phase. The project applicants of all project phases shall implement the approved lighting plan. Implementation: Project applicants for any particular discretionary development application. Timing: Before approval of building permits for each project phase. Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant*** ***Cumulatively considerable***	
3.1-5: New Skyglow Effects. Project implementation would require lighting of new development that would result in the generation of new and increased skyglow effects, obscuring views of stars, constellations, and other features of the night sky.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measure 3.1-4.** ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	
3.2 AIR QUALITY	
3.2-1: Generation of Temporary and Short-Term Construction-Related Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Project-generated construction activities would result in temporary and short-term emissions of ROG and NO_X, ozone precursors, fugitive PM dust and PM exhaust. Emissions of NOx would exceed SMAQMD-recommended thresholds and PM could substantially contribute to localized concentrations that exceed the NAAQS and CAAQS. Thus, project-generated, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NCP: Mitigation Measure 3.2-1a: Implement Measures to Control Air Pollutant Emissions Generated by Construction Activities. To reduce temporary and short-term construction emissions, the project applicant for any particular discretionary development application shall require their contractors to implement	

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SMAQMD's list of Basic Construction Emission Control Practices, Enhanced Fugitive PM Dust Control Practices, and Enhanced Exhaust Control Practices (listed below) or whatever feasible mitigation measures are recommended by SMAQMD at the time individual portions of the site undergo construction. In addition to the current SMAQMD-recommended measures, construction operations shall comply with all future additional SMAQMD rules and regulations that may be applicable at the time of construction.

Basic Construction Emission Control Practices

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Enhanced Fugitive PM Dust Control Practices – Soil Disturbance Areas

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.
- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
- Install wind breaks (e.g., plant trees, solid fencing) on windward side(s) of construction areas.
- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

Enhanced Fugitive PM Dust Control Practices – Unpaved Roads

- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
- Post a publicly visible sign with the telephone number and person to contact at the construction site regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of SMAQMD and the City contact person shall also be posted to ensure compliance.

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Enhanced Exhaust Control Practices

- Provide a plan, for approval by the City of Rancho Cordova Community Development Department and SMAQMD, demonstrating that the heavy-duty (50 hp or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most current ARB fleet average that exists at the time of construction.
- Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
- Submit to the City of Rancho Cordova Community Development Department and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that would be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
- Provide SMAQMD, at least 48 hours prior to the use of heavy-duty off-road equipment, with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. SMAQMD's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction (SMAQMD 2010a).
- Ensure that emissions from all off-road diesel powered equipment used on the SPA do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) shall be repaired immediately, and the City and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment.
- Perform weekly visual surveys of all in-operation equipment and provide a monthly summary of the visual survey results to the City and SMAQMD throughout the duration of project construction. The monthly summary will not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. SMAQMD staff and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation measure shall supersede other SMAQMD or state rules or regulations.
- Comply with any regulation or new guidance applicable to construction emissions that has been adopted by SMAQMD at the time of construction. Compliance with the regulation or new guidance may completely or partially replace this mitigation if it is equal to or more effective than the mitigation contained herein, and if SMAQMD so permits. Such a determination must be approved by SMAQMD.

Mitigation Measure: Implement Portions of Mitigation Measure 3.4-1. The project applicant for any particular discretionary development application shall implement the following submeasures from Mitigation Measure 3.4-1, which would also reduce construction-related criteria pollutant emissions:

- Improve fuel efficiency from construction equipment by using equipment with new technologies (repowered engines, electric drive trains).
- Use alternative fuels for electricity generation and welding at construction sites (such as propane or solar) or, use electrical power.
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Use locally sourced materials for construction (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials).
- Use EPA-certified SmartWay trucks for deliveries and equipment transport. Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle Greenhouse Gas Measure (ARB 2009c) and EPA (2009).

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Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

In addition to reducing construction-related GHGs, implementation of Mitigation Measure 3.4-1 would further reduce temporary and short-term construction-related emissions of NO_X and PM, but the reductions are not quantifiable because the reduction in the direct and indirect emissions of these pollutants due to some displacement of conventional equipment, materials, and material and worker transport-related VMT are unknown at the time of writing this DEIR/DEIS.

Implementation: The project applicant for any particular discretionary development application.

Timing: Before the approval of all grading plans by the City and throughout project construction, where applicable, for all project phases.

Enforcement: City of Rancho Cordova Community Development Department, in consultation with the Sacramento Metropolitan Air Quality Management District.

PP, BIM, CS: Implement Mitigation Measure 3.2-1a.

Mitigation Measure 3.2-1b: Pay Off-Site Mitigation Fee to SMAQMD to Offset NO_X Emissions Generated by Construction Activities. Because implementation of the Proposed Project, Biological Impact Minimization, Conceptual Strategy, or Increased Development Alternative would result in construction-generated NO_X emissions that exceed the SMAQMD threshold of significance, even after implementation of the SMAQMD Enhanced Exhaust Control Practices (listed in Mitigation Measure 3.2-1a), the project applicants shall pay SMAQMD an off-site mitigation fee for implementation of the Proposed Project, Biological Impact Minimization, Conceptual Strategy, or the Increased Development Alternatives for the purpose of reducing NO_X emissions to a level that is less than 85 lb/day as required by SMAQMD and described further below.

- The specific fee amounts shall be calculated when the daily construction emissions (after implementation of Mitigation Measure 3.2-1a) can be more accurately determined; that is, if the City certifies the EIR and approves the project and USACE issues a record of decision on either the Proposed Project, Biological Impact Minimization, Conceptual Strategy, or the Increased Development Alternatives. At that point, the City and the project applicants shall develop a detailed construction schedule. Calculation of fees associated with each project development phase shall be conducted by the project applicant in consultation with SMAQMD staff before the approval of grading plans by the City.
- The calculation of daily NO_X emissions shall be based on the cost rate established by SMAQMD at the time the calculation and payment are made.
- At the time of writing this EIR/EIS the current mitigation fee rate is $16,400 per ton of emissions (as of July 1, 2010) plus a 5% administrative fee (SMAQMD 2010b). The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any ground disturbance occurs for any project phase. Based on information available at the time of writing this EIR/EIS, and assuming that construction would be performed at a consistent rate over a 20-year period (and averaging of 22 work days per month for six months), it is estimated that the off-site construction mitigation fees would range from $1,136 to $35,232 per year, depending on which alternative is selected. These estimates were obtained by multiplying tons in excess of the 85 lb/day NO_x threshold for the lowest and highest emitting alternatives (i.e. 0.0005 tons/day for the BIM alternative, and 0.016 tons/day for the ID alternative) by $16,400/ton, and further multiplying by 22 workdays per month, six months per year; these numbers were then multiplied by 5%, and summed with the previous figure to obtain total annual costs. The mitigation fee is based on the mass quantity of emissions that exceed SMAQMD's daily threshold of significance of 85 lb/day, therefore, the total fees would be substantially greater if construction activity is more intense during some phases and less intense during other phases of the 19-year build out period, and in any event, based on the actual cost rate applied by SMAQMD. Since the fees will be estimated and paid before the grading permit is issued, the applicant may not pay enough for mitigation, or pay too much, and a final adjustment will be made post-construction. (This fee is used by SMAQMD to fund cost-effective projects that reduce NO_x and/or $PM_{2.5}$ in the project study area, to the extent possible, and otherwise within the Sacramento Valley Air Basin.)

Implement Portions of Mitigation Measure 3.4-1.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

The project applicants for any particular discretionary development application shall implement the following submeasures from Mitigation Measure 3.4-1, which would also reduce construction-related criteria pollutant emissions:

- Improve fuel efficiency from construction equipment by using equipment with new technologies (repowered engines, electric drive trains).
- Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials).
- Use EPA-certified SmartWay trucks for deliveries and equipment transport. Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle Greenhouse Gas Measure (ARB 2009c) and EPA (2009).

In addition to reducing temporary and short-term construction-related GHGs, implementation of Mitigation Measure 3.4-1 would further reduce construction-related emissions of NO_X and PM, but the reductions are not quantifiable because the reduction in the direct and indirect emissions of these pollutants due to some displacement of conventional equipment, materials, and material and worker transport-related VMT is unknown at the time of writing this DEIR/DEIS.

Implementation: The project applicants for any particular discretionary development application.

Timing: Before the approval of all grading plans by the City and throughout project construction for all project phases.

Enforcement: The City of Rancho Cordova Community Development Department shall not grant any grading permits to the respective project applicant until the respective project applicant has paid the appropriate off-site mitigation fee to SMAQMD.

ID: Implement Mitigation Measures 3.2-1a, 3.2-1b, and 3.4-1a.

Significance after Mitigation: significant and unavoidable

3.2-2: Generation of Long-Term Operational (Regional) Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Operational area- and mobile-source emissions from project implementation would exceed the SMAQMD-recommended threshold of 65 lb/day for ROG and NO_X, and would result in or substantially contribute to emissions that lead to exceedances of the NAAQS or CAAQS for ozone. Operational area- and mobile-source emissions of PM_{10} and $PM_{2.5}$ could substantially contribute to emissions concentrations that lead to exceedances of the NAAQS or CAAQS for PM_{10} and $PM_{2.5}$. Therefore, project implementation could potentially violate or contribute substantially to an existing or projected air quality violation and conflict with air quality planning efforts in the SVAB.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect

NP: No mitigation measures required.

NCP: Mitigation Measure 3.2-2: Implement All Measures Prescribed by the Air Quality Mitigation Plan to Reduce Operational Air Pollutant Emissions. To reduce operational emissions under the No USACE Permit Alternative, the project applicants for any particular discretionary development application shall implement all measures prescribed in the SMAQMD-approved *SunCreek Specific Plan 15 Point Air Quality Mitigation Plan* (AQMP) (AECOM 2010), a copy of

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Mitigation	
which is included in Appendix M. The AQMP is intended to improve mobility, reduce VMT, and improve air quality. Implementation: The project applicants for any particular discretionary development application. Timing: Before issuance of subdivision maps or improvement plans. Enforcement: City of Rancho Cordova Community Development Department in consultation with the Sacramento Metropolitan Air Quality Management District. **PP, BIM, CS, ID: Implement Mitigation Measure 3.2-2.** ***Significance after Mitigation: significant and unavoidable***	
3.2-3: Creation of Carbon Monoxide (CO) "Hot Spots". Project implementation would not result in the creation of CO Hot Spots from mobile sources. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.2-4: Exposure of Sensitive Receptors to Temporary and Short-, and Long-Term Emissions of Toxic Air Contaminants. Project implementation would result in exposure of receptors to temporary and short-, and long-term emissions of TACs from on-site stationary and mobile sources and from off-site mobile sources. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID:** **<u>Temporary and Short-Term Emissions from Construction Equipment</u>** **Mitigation Measure: Implement Mitigation Measures 3.2-1a and 3.4-1a.** **<u>Emissions from On-Site Operational Stationary-Sources and Off-Site Operational Mobile-Sources</u>** **Mitigation Measure: No mitigation measures are required.** **<u>Emissions from On-Site Operational Mobile Sources</u>** **Mitigation Measure 3.2-4: Implement Measures to Reduce Exposure of Sensitive Receptors to Long-Term Operational Emissions of Toxic Air Contaminants.** ▸ For every proposed commercial or retail land use within 1,000 feet of a sensitive land use that has the potential to emit TACs or host TAC-generating activity (e.g., loading docks, delivery areas that would accommodate more than 100 trucks per day, more than 40 trucks with operating TRUs per day, or where TRU unit operations exceed 300 hours per week), a HRA shall be performed by each individual project applicant to determine whether existing or proposed on-site	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** **Temporary and Short-Term Emissions from Construction Equipment and Emissions from On-Site Operational Mobile Sources:** Direct PS, no indirect **Emissions from On-Site Operational Stationary-Sources and Off-Site Operational Mobile-Sources:** Direct LTS, no indirect

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sensitive receptors will be exposed to TAC emissions that exceed an incremental increase of 10 in 1 million for cancer risk and/or a noncarcinogenic HI of 1.0. If the results of the HRA indicate that the cancer risk or HI exceeds the above-mentioned limits, the individual project applicant shall employ measures to reduce exposures to levels below the limits, which may include one or more of the following: Where necessary to reduce exposure of sensitive receptors to an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic HI of 1.0, proposed commercial and industrial land uses that would host diesel trucks shall incorporate idle reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for TRUs, to allow diesel engines to be completely turned off.

- Signs shall be posted in at all loading docks and truck loading areas which indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by the California Office of Administrative Law in January 2005.

Implementation: The project applicants for any particular discretionary development application.

Timing: Before the approval of all grading plans by the City and throughout project construction, where applicable, for all project phases.

Enforcement: City of Rancho Cordova Community Development Department in consultation with the Sacramento Metropolitan Air Quality Management District.

Significance after Mitigation: less than significant

3.2-5: Exposure of Sensitive Receptors to Temporary and Short-Term and Long-Term Odorous Emissions. Temporary and short-term construction and long-term operation of the project could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions.

NP: No direct or indirect

NCP, PP, BIM, CS, ID:
Possible Temporary and Short-Term On- and Off-Site Emissions from Construction Equipment: Direct significant, no indirect
Long-Term On-Site Operational Emissions: Direct PS, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID:

Possible Temporary and Short-Term On- and Off-Site Emissions from Construction Equipment

Mitigation Measure: Implement Mitigation Measures 3.2-1a and 3.4-1a.

Long-Term On-Site Operational Emissions

Mitigation Measure: Implement Mitigation Measure 3.2-4.

Mitigation Measure 3.2-5: Implement Measures to Control Exposure of Sensitive Receptors to On-Site Odorous Emissions.

The project applicants for any particular discretionary development application shall implement the following measures:

- For new project-generated odor-producing sources, sensitive receptors within the SPA shall be sited as far away as feasible from the new sources and the

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following shall also be implemented:

- The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy areas zoned for commercial or mixed land uses is determined. Facilities that have the potential to emit objectionable odors shall be located as far away as feasible from existing and proposed sensitive receptors.
- Before the approval of building permits, odor control devices shall be identified to reduce the exposure of receptors to objectionable odors if a potential odor-producing source is to occupy an area zoned for commercial or mixed land uses. The identified odor control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use. The odor-producing potential of a source and control devices shall be determined in coordination with SMAQMD and based on the number of complaints associated with existing sources of the same nature.
- Truck loading docks and delivery areas shall be located as far away as feasible from existing and proposed sensitive receptors.
- Signs shall be posted at all loading docks and truck loading areas which indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by California's Office of Administrative Law in January 2005. (This measure is also required by Mitigation Measure 3.2-3b to limit TAC emissions.)
- Proposed commercial land uses that have the potential to host diesel trucks shall incorporate idle reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for TRUs, to allow diesel engines to be completely turned off. (This measure is also required by Mitigation Measure 3.2-3b to limit TAC emissions.)

Implementation: The project applicants for any particular discretionary development application.

Timing: Before the approval of building permits by the City and throughout project construction, where applicable, for all project phases.

Enforcement: City of Rancho Cordova Community Development Department, in consultation with the Sacramento Metropolitan Air Quality Management District.

Significance after Mitigation: less than significant

3.2-6: Need for Conformity Analysis and Conflicts with Federal Attainment Planning. Construction of the action alternatives would not conflict with attainment and implementation planning efforts related to Federal air quality standards for criteria air pollutants.

NP, NCP, PP, BIM, CS, ID: Direct LTS, no indirect

NP, NCP, PP, BIM, CS, ID: No mitigation measures required.

Cumulative Exposure of Sensitive Receptors to Emissions of Toxic Air Contaminants

NCP, BIM, ID:

Mitigation Measure CUM AIR-1: Implement Measures to Reduce Exposure of Sensitive Receptors to Long-Term Operational Emissions of Toxic Air Contaminants.

For every proposed sensitive land use (i.e. residences, schools, playgrounds, day care centers, nursing homes, and medical facilities) within 50 feet of Grant Line Road, a HRA shall be performed by each individual project applicant to determine whether existing or proposed on-site sensitive receptors will be exposed to TAC

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Impact	Significance
Mitigation	

emissions that exceed an incremental increase of 10 in 1 million for cancer risk and/or a noncarcinogenic Hazard Index of 1.0. If the results of the HRA indicate that the cancer risk or Hazard Index exceeds the above-mentioned limits, the individual project applicant shall employ measures to reduce exposures to levels below the limits, which may include one or more of the following:

- Where necessary to reduce exposure of sensitive receptors to an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0, proposed sensitive land uses would:
  1. Plant a tree barrier along the entire property line abutting Grant Line Road using an appropriate species of hardy, drought resistant, fast-growing, fine-needled evergreen trees (i.e. pine, cedar, or redwood, SMAQMD 2011, Fuller, et al., 2009). Density of planting should result in a semi-solid barrier to block out roadway pollution, while maintaining tree health.
  2. Locate building air intakes on the sides of the SPA buildings that are more distant from the odor source and require levels of air filtration that exceed Title 24 standards or the local building codes.
  3. Manage SPA buildings as systems with continuous positive pressure to prevent infiltration of unfiltered outside air
  4. Execute and record deed notices on SPA properties and provide copies to initial and subsequent prospective buyers, lessees, and renters of all properties within the SPA, particularly residential buyers, with information that their respective properties would potentially be subject to objectionable diesel exhaust from a known nearby DPM source.

NP, NCP, PP, BIM, CS, ID: No feasible mitigation is available to reduce the cumulative mobile-source operational TAC impacts to off-site sensitive receptors. The City cannot adopt vehicle emissions controls or regulations on fuel content that would reduce the rate of TAC emissions from trucks and it is not feasible for the City to re-route potential delivery trucks associated with on-site uses such that the routes would avoid areas with sensitive receptors and quarry truck traffic.

Significance after Mitigation: Cumulatively considerable

3.3 BIOLOGICAL RESOURCES

3.3-1: Loss and Degradation of Jurisdictional Wetlands and Other Waters of the U.S. Implementing the project would result in the placement of fill material into jurisdictional waters of the U.S., including wetlands subject to USACE jurisdiction under the Federal Clean Water Act. Wetlands and other waters of the U.S. that would be affected by project implementation consist of vernal pool, seasonal wetland, swale, ephemeral drainage, intermittent drainage, pond, and stream.

NP: No direct or indirect

NCP: No direct, indirect significant

PP, BIM CS, ID: Direct and indirect significant

NP: No mitigation measures required.

NCP: Mitigation Measure 3.3-1a: Include in Drainage Plans All Wetlands that Remain On-site, Submit Plans to the City and USACE for Review and Approval, and Implement all Measures in Drainage Plans. To minimize indirect impacts on water quality and wetland hydrology, the project applicants for any particular discretionary development application shall include drainage plans in their improvement plans and shall submit the drainage plans to the City Public Works Department for review and approval. Before approval of these improvement plans, the project applicants for all project phases shall commit to implement all measures in their drainage plans, to avoid and minimize erosion and runoff into Laguna Creek, its tributaries, and all wetlands to remain on-site. Appropriate runoff

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants. See Section 3.9, "Hydrology and Water Quality," for further discussion of the project's NPDES permit and associated Stormwater Pollution Prevention Plan, which would also reduce erosion and siltation.

The project shall result in no-net change to peak flows into Laguna Creek and associated tributaries off site or in the wetland preserve areas. The applicant shall establish a baseline of conditions for drainage on site. The baseline flow conditions shall be established for 2-, 5-, 10- and 20-year storm events. These baseline conditions shall be used to develop monitoring standards for the stormwater system in the SPA. The baseline conditions, monitoring standards, and a monitoring program shall be submitted to the City for their approval. The detention basins shall be designed and constructed so that performance standards described in Section 3.9, "Hydrology and Water Quality" are met. The discharge site into Kite Creek and associated tributaries shall be monitored so that preproject conditions are being met. Corrective measures shall be implemented as necessary. The mitigation measures shall be considered satisfied when the monitoring standards are met for 5 consecutive years without undertaking corrective measures.

Implementation: Project applicants for any particular discretionary development application requiring fill of wetlands or other waters of the U.S. or waters of the state.

Timing: Before the approval of grading or improvement plans or any ground-disturbing activities for any project development phase containing wetland features or other waters of the U.S. The wetland mitigation and monitoring plan must be approved before any impact on wetlands can occur. Mitigation shall be implemented on an ongoing basis throughout and after construction, as required.

Enforcement: Central Valley Regional Water Quality Control Board as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes; and the City of Rancho Cordova Planning Department.

PP: Mitigation Measure: Implement Mitigation Measure 3.3-1a.

Mitigation Measure 3.3-1b: Secure CWA Section 404 Permit and Implement All Permit Conditions, and Ensure No Net Loss of Wetlands and other Waters of the United States and Associated Functions. Before the approval of grading and improvement plans and before any ground-disturbing activity associated with each distinct discretionary development entitlement, the project applicants for any particular discretionary development application requiring fill of wetlands or other waters of the U.S. or waters of the state shall obtain all necessary permits under Sections 401 and 404 of the CWA or the state's Porter-Cologne Act for the respective phase. For each respective discretionary development entitlement, all permits, regulatory approvals, and permit conditions for effects on wetland habitats shall be secured before implementation of any grading activities within 250 feet (or lesser distance deemed sufficiently protective by a qualified biologist approved by USFWS and USACE) of waters of the U.S. or wetland habitats, including waters of the state, that potentially support Federally listed species, or within 100 feet of any other waters of the U.S. or wetland habitats, including waters of the state. The project applicants shall commit to replace or restore on a "no net loss" of function basis (in accordance with USACE and the Central Valley RWQCB) the acreage of all wetlands and other waters of the U.S. that would be removed, lost, and/or degraded as a result of implementing project plans for that phase.

Wetland habitat shall be restored or replaced at an acreage and location and by methods agreeable to USACE, the Central Valley RWQCB, and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes, sufficient to achieve the "no net loss" standard.

As part of the Section 404 permitting process, a draft wetland mitigation and monitoring plan (MMP) shall be developed for the project and submitted to USACE, the Central Valley RWQCB, and the City for review and approval of those portions of the plan over which they have jurisdiction. The MMP would have to be finalized

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

and approved prior to issuance of a grading permit for any project phase that would adversely affect wetlands or other waters of the U.S. or waters of the state. The MMP shall be implemented before beginning ground-disturbing activities in any project phase that would adversely affect wetlands or other waters of the U.S. or waters of the state. Once the final MMP is approved and implemented, mitigation monitoring shall continue for a minimum of 5 years from completion of mitigation, or approved human intervention (including recontouring and grading), or until the performance standards identified in the approved MMP have been met, whichever is longer.

As part of the MMP, the project applicants shall prepare and submit plans for the creation of aquatic habitat to adequately offset and replace the aquatic functions and services that would be lost at the SPA, account for the temporal loss of habitat, and contain an adequate margin of safety to reflect anticipated success. Restoration of previously altered and degraded wetlands shall be a priority of the MMP for offsetting losses of aquatic functions in the SPA because it is typically easier to achieve functional success in restored wetlands than in those created from uplands. The MMP must demonstrate how the aquatic functions that would be lost through project implementation will be replaced.

The habitat MMP for jurisdictional wetland features shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (73 CFR 19594) and USACE's October 26, 2010 *Memorandum Re: Minimum Level of Documentation Required for Permit Decisions* (USACE 2010). According to the Final Rule, mitigation banks should be given preference over other types of mitigation because much of the risk and uncertainty regarding mitigation success is alleviated by the fact that mitigation bank wetlands must be established and demonstrating functionality before the USACE will approve the sale of credits. The use of mitigation bank credits also alleviates temporal losses of wetland function while compensatory wetlands are being established. Mitigation banks also tend to be on larger, more ecologically valuable parcels and are subjected to more rigorous scientific study and planning and implementation procedures than typical permittee-responsible mitigation sites (USACE and EPA 2008). Permittee-responsible on-site mitigation areas can be exposed to long-term negative effects of surrounding development since they tend to be smaller and less buffered than mitigation banks. The Final Rule also establishes a preference for a "watershed approach" in selecting locations for compensatory mitigation project locations, that mitigation selection must be "appropriate and practicable" and that mitigation banks must address watershed needs based on criteria set forth in the *Final Rule*. The watershed approach accomplishes this objective by expanding the informational and analytic basis of mitigation project site selection decisions and ensuring that both authorized impacts and mitigation are considered on a watershed scale rather than only project by project. This requires a degree of flexibility so that district engineers can authorize mitigation projects that most effectively address the case-specific circumstances and needs of the watershed, while remaining practicable for the permittee. The majority of the SPA is within the Laguna Creek Watershed, but the northwest portion of the Kamilos property is within the Morrison Creek Watershed. Both of these watersheds are part of the Lower Sacramento River Watershed. As shown in Table 3.3-5, as of the writing of this document, mitigation credits are available within the Laguna Creek Watershed at the Bryte Ranch, Laguna Terrace East, and the Sunrise Douglas Conservation Banks; however, there are no available mitigation credits within the Morrison Creek Watershed. If USACE determines that the use of mitigation bank credits is not sufficient mitigation to offset impacts within the SPA, the October 26, 2010 *Memorandum Re: Minimum Level of Documentation Required for Permit Decisions* requires USACE to specifically demonstrate why the use of bank credits is not acceptable to USACE in accordance with Section 33 CFR 332.3(a)(1).

Mitigation for SunCreek impacts must be consistent with the USACE's *Record of Decision for the Sunridge Properties*, as stated below:

> The Corps recognizes the significant cumulative loss of vernal pool wetlands within the Mather Core Recovery Area. For future unavoidable impacts to vernal pool wetlands within the Mather Core Recovery Area, including those associated with the Arista del Sol project, compensatory mitigation shall be:
>
> (1) Based on a method for assessing the functions of all waters of the U.S. on the project site;
>
> (2) Accomplished at a ratio of greater than 1:1 (final ratio will be based, in part, on wetland functional condition determined during the functional assessment),

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

after considering direct and indirect impacts, temporal loss and difficulties creating vernal pool wetlands; and

(3) Located in the Mather Core Recovery Area, unless determined impracticable or inappropriate by the Corps.

If the SSHCP is adopted and available before the project is fully implemented, project applicants may participate in the SSHCP mechanisms, such as payment of fees, purchase of mitigation bank credits, acquisition of conservation easement(s), and/or acquisition of mitigation land(s) in fee title to mitigate project effects on wetland habitats. In the event that mitigation is not available through the SSCHP, the applicants shall mitigate by purchasing a combination of appropriate credits from an agency-approved mitigation bank or providing an agency-approved off-site mitigation area. The applicants' biological consultant, ECORP, has identified a number of mitigation banks whose service areas appear to include the SPA (Table 3.3-5). However, some of these banks are not yet approved and the availability of credits at the other banks is subject to change. Therefore, a combination of mitigation bank credits and permittee-responsible on and off-site mitigation may be necessary to fully offset project impacts on wetlands and other waters of the U.S.

Compensatory mitigation for losses of stream and ephemeral and intermittent drainage channels shall be achieved through in-kind preservation, restoration, or enhancement, as specified in the Final Rule guidelines. The wetland MMP shall address how to mitigate impacts on vernal pool, seasonal wetland, swale, pond, and intermittent and ephemeral stream habitat, and shall describe specific method(s) to be implemented to avoid and/or mitigate any off-site project-related impacts. The wetland compensation section of the habitat MMP shall include the following:

- compensatory mitigation sites and criteria for selecting these mitigation sites. In General, compensatory mitigation sites should meet the following criteria, based on the Final Rule;
  - located within the same watershed as the wetland or other waters that would be lost, as appropriate and practicable;
  - located in the most likely position to successfully replace wetland functions lost on the impact site considering watershed-scale features such as aquatic habitat diversity, habitat connectivity, available water sources and hydrologic relationships, land use trends, ecological benefits, the likelihood of success and sustainability, and compatibility with adjacent land uses,
- a complete assessment of the existing biological resources in both the on-site preservation areas and off-site compensatory mitigation areas, including wetland functional assessment using the California Rapid Assessment Method (Collins et al. 2008), to establish baseline conditions;
- specific creation and restoration plans for each mitigation site;
- use of CRAM to compare compensatory wetlands to the baseline CRAM scores from wetlands in the SPA. The compensatory wetland CRAM scores shall be compared against the highest quality wetland of each type from the SPA;
- CRAM scores, or other wetland assessment protocol scores, from the compensatory wetlands shall be compared against the highest quality wetland scores for each wetland type to document success of compensatory wetlands in replacing the functions of the affected wetlands to be replaced;
- monitoring protocol, including schedule and annual report requirements, and the following elements:
  - ecological performance standards, based on the best available science, that can be assessed in a practicable manner (e.g., performance standards proposed by Barbour et al. 2007). Performance standards must be based on attributes that are objective and verifiable;
  - CRAM, or other USACE-approved wetland assessment protocol, conducted annually for 5 years after construction or restoration of compensatory wetlands to determine whether these areas are acquiring wetland functions and to plot the performance trajectory of compensatory wetlands over time.

For each phase of development, the project applicants shall secure the permits and regulatory approvals described below and shall implement all permit conditions.

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
All permits, regulatory approvals, and permit conditions for effects on wetland habitats shall be secured prior to implementing any grading activities within 250 feet of waters of the U.S. or wetland habitats that potentially support Federally listed species. The setback may be reduced to a distance approved by the City and USFWS if a wetland avoidance plan is developed and implemented by a qualified biologist. The wetland avoidance plan must be approved by USFWS and the City and shall demonstrate that all direct and indirect impacts on wetlands will be avoided. Project phases in upland areas with no wetlands or waters of the U.S. within 250 feet, and no overland hydrologic flow patterns, the disturbance of which may affect such waters, may begin construction before these particular permits are obtained. Buffers around wetlands that do not support Federally listed species shall be a minimum of 50 feet from the edge of these features in accordance with conditions of the NPDES permit and associated best management practices (BMPs). Water Quality certification pursuant to Section 401 of the Clean Water Act will be required prior to issuance of a Section 404 permit. Before construction in any areas containing wetland features, the project applicants shall obtain water quality certification for the applicable phase of the project. Any measures required as part of the issuance of water quality certification shall be implemented. Implementation: Project applicants for any particular discretionary development application requiring fill of wetlands or other waters of the U.S. or waters of the state. Timing: Before the approval of grading or improvement plans or any ground-disturbing activities for any project development phase containing wetland features or other waters of the U.S. The MMP must be approved before any impact on wetlands can occur. Mitigation shall be implemented on an ongoing basis throughout and after construction, as required. Enforcement: U.S. Army Corps of Engineers, Sacramento District; Central Valley Regional Water Quality Control Board as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes; and the City of Rancho Cordova Planning Department. **BIM, CS, ID: Mitigation Measure: Implement Mitigation Measures 3.3-1a and 3.3-1b.** ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	
3.3-2: Loss of Sensitive Natural Communities. Implementation of the project would result in modifications to a tributary stream regulated under the California Fish and Game Code and in the loss of riparian scrub habitat considered sensitive by state and local resource agencies and requiring consideration under CEQA. **NP, NCP:** No mitigation measures required. **PP, BIM, CS, ID:** **<u>Riparian Habitat</u>** No mitigation measures required.	**NP, NCP:** No direct or indirect **PP, BIM, CS, ID:** **Riparian:** Direct LTS, no indirect **Streambed Alteration:** Direct and indirect significant

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Streambed Alteration **Implement Mitigation Measures 3.3-1a and 3.3-1b.** **Mitigation Measure 3.3-2: Secure Section 1602 Streambed Alteration Agreement and Implement all Conditions of the Agreement.** A Section 1602 Streambed Alteration Agreement from DFG shall be obtained by the project applicants prior to construction affecting the bed and bank of Kite Creek or the on-site ponds. Issuance of the Streambed Alteration Agreement requires the preparation of a habitat mitigation plan by the project applicants. The habitat mitigation plan would be developed to adequately cover impacts to the stream channel of Kite Creek at adequate ratios as determined by the City in cooperation with DFG. It is likely that mitigation developed for impacts on waters of the U.S. would be satisfactory to mitigate the impacts from streambed alteration and that DFG would not require additional mitigation for the streambed alteration agreement. Any conditions of issuance of the streambed alteration agreement shall be implemented as part of project construction activities that affect any portion of Kite Creek or the on-site ponds. Implementation: Project applicants for any particular discretionary development application that requires fill or alteration of the bed or bank of Kite Creek or the on-site ponds. Timing: Prior to any construction within 250 feet of Kite Creek or the on-site ponds Enforcement: California Department of Fish and Game and the City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant***	
3.3-3: Loss and Degradation of Habitat for Special-Status Wildlife Implementation of the project would result in the loss and degradation of habitat for vernal pool invertebrates, VELB, western spadefoot, western pond turtle, American badger, loggerhead shrike, Swainson's hawk, white-tailed kite, and other raptors. Take of listed species, including vernal pool invertebrates, VELB, and Swainson's hawk, could also occur.	**NP:** No direct or indirect **NCP:** **Federally Listed Vernal Pool Invertebrates, Western Spadefoot, and Western Pond Turtle:** No direct and indirect significant **Valley Elderberry Longhorn Beetle:** No direct or indirect **Swainson's Hawk and Other Raptors:** Direct and indirect significant **Grasshopper Sparrow, Loggerhead Shrike, and American Badger:** Direct and indirect LTS **PP, CS:** **Federally Listed Vernal Pool Invertebrates, Western Spadefoot, Swainson's Hawk and Other Raptors:** Direct and indirect significant **Valley Elderberry Longhorn Beetle:** Direct LTS, no indirect **Western Pond Turtle:** Direct significant and no indirect **Grasshopper Sparrow, Loggerhead Shrike, and American Badger:** Direct and indirect LTS

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
	BIM: Direct and indirect significant *except* **Grasshopper Sparrow, Loggerhead Shrike, Valley Elderberry Longhorn Beetle, and American Badger:** Direct and indirect LTS **ID:** Direct and indirect significant *except* **Valley Elderberry Longhorn Beetle and American Badger:** Direct and indirect LTS

NP: No mitigation measures required.

NCP: Mitigation Measure: Implement Mitigation Measure 3.3-1a (to reduce indirect impacts on vernal pool invertebrates, western spadefoot, and western pond turtle).

Mitigation Measure 3.3-3a: Conduct Preconstruction Surveys for Nesting Swainson's hawk, White-Tailed Kite, Burrowing Owls, and Other Raptors, and if Found, Establish Appropriate Buffers, and Implement Avoidance or Appropriate Mitigation. To mitigate impacts on Swainson's hawk and other raptors (including burrowing owl), the project applicants for any particular discretionary development application shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 0.5 mile of the SPA and active burrows in the SPA. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all project phases. To the extent feasible, guidelines provided in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley* (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk. If no nests are found, no further mitigation is required.

If active nests are found, impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in coordination with DFG that reducing the buffer would not result in nest abandonment. DFG guidelines recommend establishing buffers of 0.25- to 0.5-mile, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

If active burrows are found, a mitigation plan shall be submitted to the City for review and approval before any ground-disturbing activities. The City shall consult with DFG regarding appropriate mitigation before approving the mitigation plan. The mitigation plan may consist of installation of one-way doors on all burrows to allow owls to exit, but not reenter, and construction of artificial burrows within the project vicinity, as needed; however, burrowing owl exclusions may only be used if a qualified biologist verifies that the burrow does not contain eggs or dependent young. If active burrows contain eggs and/or young, no construction shall occur within 50 feet of the burrow until young have fledged. Once it is confirmed that there are no owls inside burrows, these burrows may be collapsed.

Implementation: Project applicants for any particular discretionary development application.

Timing: Before approval of grading or improvement plans or any ground-disturbing activities, including grubbing or clearing, for any project phase.

Enforcement: City of Rancho Cordova Planning Department; California Department of Fish and Game (if applicable)

Mitigation Measure 3.3-3b: Prepare and Implement a Swainson's Hawk Mitigation Plan. To mitigate for the loss of Swainson's hawk foraging habitat, the

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

project applicants for any particular discretionary development application shall prepare and implement a Swainson's hawk mitigation plan including, but not limited to the requirements described below.

- Before the approval of grading and improvement plans or before any ground-disturbing activities, whichever occurs first, the project applicants shall preserve, to the satisfaction of the City, suitable Swainson's hawk foraging habitat to ensure 1:1 mitigation of habitat value for Swainson's hawk foraging habitat lost as a result of the project, as determined by the City after consultation with DFG and a qualified biologist.
- The 1:1 habitat value shall be based on Swainson's hawk nesting distribution and an assessment of habitat quality, availability, and use within the City's planning area. The mitigation ratio shall be consistent with the 1994 DFG Swainson's Hawk Guidelines included in the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California*. Such mitigation shall be accomplished through either the transfer of fee title or perpetual conservation easement. The mitigation land shall be located within the known foraging area and within Sacramento County. The City, after consultation with DFG, will determine the appropriateness of the mitigation land.
- Before approval of such proposed mitigation, the City shall consult with DFG regarding the appropriateness of the mitigation. If mitigation is accomplished through conservation easement, then such an easement shall ensure the continued management of the land to maintain Swainson's hawk foraging values, including but not limited to ongoing agricultural uses and the maintenance of all existing water rights associated with the land. The conservation easement shall be recordable and shall prohibit any activity that substantially impairs or diminishes the land's capacity as suitable Swainson's hawk habitat.
- The project applicants shall transfer said Swainson's hawk mitigation land, through either conservation easement or fee title, to a third-party, nonprofit conservation organization (Conservation Operator), with the City and DFG named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City, after consultation with DFG. The City, after consultation with DFG and the Conservation Operator, shall approve the content and form of the conservation easement. The City, DFG, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to assure compliance with the terms of the easement.
- The project applicants, after consultation with the City, DFG, and the Conservation Operator, shall establish an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement. If an endowment is used, either the endowment funds shall be submitted to the City to be distributed to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without prior written approval of the City and DFG.
- If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and DFG. The City Planning Department shall ensure that mitigation habitat is properly established and is functioning as habitat by conducting regular monitoring of the mitigation site(s) for the first 10 years after establishment of the easement.

Implementation: Project applicants for any particular discretionary development application.
Timing: Before issuance of occupancy permit for Phase 1 and future, subsequent improvement plans.
Enforcement: City of Rancho Cordova Planning Department and California Department of Fish and Game

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

PP, CS: Implement Mitigation Measures 3.3-1a, 3.3-1b, 3.3-3a, and 3.3-3b.

Mitigation Measure 3.3-3c: Secure Take Authorization of Federally Listed Vernal Pool Invertebrates and Implement Permit Conditions, Develop and Implement a Habitat Mitigation and Monitoring Plan. No project construction shall proceed in areas supporting potential habitat for Federally listed vernal pool invertebrates or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS) until a biological opinion (BO) and incidental take permit has been issued by USFWS and the project applicant has abided by conditions in the BO, including all conservation and minimization measures. A similar process shall be followed for future subsequent improvement plans and conservation and minimization measures for those phases shall also be implemented according to the BO. Conservation and minimization measures shall include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements. Western spadefoot also requires the protection of vernal pool habitat for survival; therefore, implementation of Mitigation Measure 3.3-3c would also reduce impacts to western spadefoot.

The project applicants shall identify mitigation acceptable to the City, USACE, and USFWS for the impacts to vernal pools and other seasonal wetland habitats that support or potentially support Federally listed vernal pool invertebrates in such a manner that there will be no net loss of habitat (acreage and function) for these species following project implementation. As described under Mitigation Measure 3.3-1a, project applicants shall complete and implement a habitat MMP describing how loss of vernal pool and other wetland habitats shall be offset, including details for creating habitat; accounting for the temporal loss of habitat, performance standards to ensure success, and remedial actions to be implemented if performance standards are not met. Mitigation shall include, where feasible and practicable, preservation and or restoration of in-kind wetland habitats within the Mather Core Area at ratios satisfactory to ensure no net loss of habitat acreage, function, and value within the Mather Core Area.

The project applicants shall preserve acreage of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat at a ratio approved by USFWS at the conclusion of the Section 7 consultation. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. Unless otherwise agreed to by USFWS, vernal pool habitat within 250 feet of development will be considered indirectly affected. The project applicants will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan.

A standard set of BMPs shall be applied when working in areas within 250 feet of off-site vernal pool habitat or within any lesser distance deemed by a qualified biologist to constitute a sufficient buffer from such habitat with approval from USFWS. Refer to Section 3.9 “Hydrology and Water Quality” for the details of BMPs to be implemented.

Implementation: Project applicants for any particular discretionary development application requiring work within 250 feet of aquatic habitat.

Timing: Before the approval of any grading or improvement plans, before any ground-disturbing activities within 250 feet of vernal pool or other seasonal wetland habitat, and on an ongoing basis throughout construction as applicable for all project phases as required by the mitigation plan, biological opinion, and BMPs.

Enforcement: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and City of Rancho Cordova Planning Department.

Mitigation Measure 3.3-3d: Obtain Incidental Take Permit for Impacts to Valley Elderberry Longhorn Beetle and Implement All Permit Conditions. No project construction shall proceed in areas containing VELB habitat (i.e., elderberry shrubs) until a BO and an Incidental Take Permit have been issued by USFWS and the project applicant has abided by all pertinent conditions in the BO relating to the proposed construction, including all conservation and minimization measures. Conservation and minimization measures are likely to include preparation of supporting documentation describing methods for relocating the existing shrub.

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented on a no-net-loss basis. Detailed information on monitoring success of relocated and planted shrubs, and measures to compensate should success criteria not be met, would also likely be required in the BO. Ratios for mitigation of VELB habitat will ultimately be determined through the Federal ESA Section 7 consultation process with USFWS, but shall be a minimum of "no net loss." Implementation: Project applicants of all project phases containing elderberry shrubs. Timing: As required by the BO and prior to ground-disturbing activities that would remove elderberry shrubs. Enforcement: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and City of Rancho Cordova Planning Department. **Mitigation Measure 3.3-3e: Conduct Preconstruction Surveys to Avoid Western Pond Turtle.** A preconstruction survey for western pond turtle shall be conducted by a qualified biologist prior to work in suitable aquatic habitat. If no pond turtles are observed, no further mitigation is necessary. If pond turtles are found, they shall be relocated by a qualified biologist to the nearest area with suitable aquatic habitat that will not be disturbed by project-related construction activities. Implementation: Project applicants for any particular discretionary development application containing suitable aquatic habitat. Timing: Before approval of grading or improvement plans or any ground disturbing activities, including grubbing or clearing, for any project phase affecting suitable aquatic habitat. Enforcement: City of Rancho Cordova Planning Department. **BIM and ID: Implement Mitigation Measures 3.3-1a, 3.3-1b, 3.3-3a, 3.3-3b, 3.3-3c, 3.3-3d, and 3.3-3e.** ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	
3.3-4: Potential for Substantial Interference with the Movement of any Native Resident or Migratory Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors, or Impede the use of Native Wildlife Nursery Sites. Project implementation could interfere with the movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. **NP, NCP, PP, BIM, CS:** No mitigation measures required. **ID:** No feasible mitigation measures are available. ***Significance after Mitigation: significant and unavoidable***	**NP:** No direct or indirect **NCP PP, BIM, CS:** Direct and indirect LTS **ID:** Direct and indirect significant
3.3-5: Substantial Reduction in the Habitat of a Wildlife Species. Implementing the project would substantially reduce the habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp habitat.	**NP:** No direct or indirect **NCP:** No direct, indirect significant **PP, CS, ID:** Direct and indirect significant **BIM:** Direct and indirect LTS

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

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Table ES-1
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Impact	Significance
Mitigation	
NP, BIM: No mitigation measures required. **NCP: Implement Mitigation Measure 3.3-1b.** **PP, CS, ID: Implement Mitigation Measures 3.3-1a, 3.3-1b, and 3.3-3a.** ***Significance after Mitigation: significant and unavoidable*** ***Cumulatively considerable***	
3.4 CLIMATE CHANGE	
3.4-1: Generation of Short-Term, Construction-Related, and Long-Term Operational GHG Emissions. Project-related construction activities associated with development of the project would result in increased generation of temporary and short-term construction-related GHG emissions. Operation of the project over the long term would result in increased generation of GHGs, which would contribute considerably to cumulative GHG emissions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** cumulatively considerable contribution to this significant cumulative impact related to long-term operational generation of GHGs
NP: No mitigation measures required. **NCP, PP: Implement Mitigation Measure 3.2-1a.** **Mitigation Measure 3.4-1a: Implement Measures to Reduce Construction-Generated GHG Emissions.** Prior to releasing each request for bid to contractors for the construction of each development phase, project applicants shall obtain the most current list of construction-related GHG reduction measures that are published by SMAQMD. All feasible measures from this list shall be implemented in the project's construction contract with the selected primary contractor. Project applicants may submit to City and SMAQMD a report that substantiates why specific measures are considered infeasible for construction of that particular development phase and/or at that point in time. The report, including the substantiation for not implementing particular GHG reduction measures, shall be approved by the City in consultation with SMAQMD prior to the release of a request for bid by project applicants for seeking a primary contractor. By requiring that the list of feasible measures be established prior to the selection of a primary contractor, this measure requires that the ability of a contractor to effectively implement the selected GHG reduction measures be inherent to the selection process. SMAQMD's recommended measures for reducing construction-related GHG emissions at the time of writing this EIR/EIS are listed below (SMAQMD 2010). Those that are duplicative of Mitigation Measure 3.2-1a were removed: ▸ Improve fuel efficiency from construction equipment: • train equipment operators in proper use of equipment; • use the proper size of equipment for the job; and • use equipment with new technologies (repowered engines, electric drive trains). ▸ Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines). ▸ Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power.	

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Table ES-1
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- Use an ARB approved low carbon fuel for construction equipment. (NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.)
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.
- Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.
- Use SmartWay certified trucks for deliveries and equipment transport.
- Develop a plan to efficiently use water for adequate dust control.

Implementation: Project applicants during any particular discretionary development application.

Timing: Before approval of final maps and building permits for all project phases and implementation throughout project construction.

Enforcement: City of Rancho Cordova Community Development Department and SMAQMD.

Mitigation Measure 3.4-1b: Implement Measures to Reduce Long-Term, Operational GHG Emissions. Project applicants shall submit to the City a list of feasible energy efficient design standards to be considered in the project-specific design review. These energy conservation measures, which will be incorporated into the design, construction, and operational aspects of proposed projects, would result in a reduction in overall project energy consumption and GHGs. The project-specific design review shall further identify potentially feasible GHG reduction measures that reflect the current state of the regulatory environment and available incentives. The City shall review and ensure inclusion of the design features in the project before the applicants can receive the City's discretionary approval for projects developed within the SPA. In determining what measures should appropriately be imposed by the City under the circumstances, the City shall consider the following factors:

- the extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by EPA;
- the extent to which mobile-source GHG emissions, which at the time of writing this EIR/EIS comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length;
- the extent to which GHG emissions emitted by the mix of power generation operated by SMUD, the electrical utility that will serve the project site, are projected to decrease pursuant to the Renewables Portfolio Standard, as well as any future regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation;
- the extent to which any stationary sources of GHG emissions that would be operated on a proposed land use (e.g., industrial) are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that will be developed as part of ARB's implementation of AB 32, or other

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pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions;

- the extent to which other mitigation measures imposed on the project to reduce other air pollutant emissions may also reduce GHG emissions;
- the extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements will result in new buildings being more efficient and thus, more GHG-energy efficient; and
- whether total costs of proposed mitigation for GHG emissions together with other mitigation measures required for the proposed development are so great that a reasonably prudent property owner would not proceed with the project in the face of such costs.

GHG emission reduction strategies and their respective feasibility are likely to evolve over time. Project applicants shall consider and implement, as feasible, the following non-exclusive and non-exhaustive list of measures, listed below. These measures are derived from multiple sources, including the SMAQMD's Draft GHG Measures (SMAQMD 2009); *Mitigation Measure Summary* in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, *CEQA & Climate Change* (CAPCOA 2009a); CAPCOA's *Model Policies for Greenhouse Gases in General Plans* (CAPCOA 2009b); the California Attorney General's Office publication entitled *The California Environmental Quality Act*: *Addressing Global Warming Impacts at the Local Agency Level* (California Attorney General's Office 2008); and the BAAQMD's CEQA Guidelines (BAAQMD 2010:4-14–4-19).

Projects will be required to implement, to the maximum extent feasible, mitigation measures that, combined with the application of applicable statewide reduction measures, would be sufficient to achieve at least a 28.4% reduction in GHG emissions compared to the unmitigated project as if it was constructed in compliance with the 2005 (pre-AB 32) regulatory environment.

Energy Efficiency

- Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines).
- Install solar water heaters.
- Buildings will be designed to exceed Title 24 building envelope energy efficiency standards by 20%.
- Require smart meters and programmable thermostats.
- Perform HVAC duct sealing and conduct periodic inspection.
- Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use. Plant shade trees within 40 feet of the south sides or within 60 feet of the west sides of properties.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Maximize daylight as an integral part of lighting systems in all buildings.
- Install cool roof materials (albedo ≥ 30).
- Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes.

Water Conservation and Efficiency

- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping. Use water-efficient turf in parks and other turf-dependent spaces.
- Install the infrastructure and necessary treatment to use reclaimed water for landscape irrigation and/or washing cars, including installation of rainwater

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Table ES-1
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collection systems.

- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and Restrictions of the community.
- Provide education about water conservation and available programs and incentives.
- To reduce stormwater runoff, which typically bogs down wastewater treatment systems and increases their energy consumption, construct driveways to single-family detached residences and parking lots and driveways of multi-family residential uses with pervious surfaces. Possible designs include Hollywood drives (two concrete strips with vegetation or aggregate in between) and/or the use of porous concrete, porous asphalt, turf blocks, or pervious pavers.
- Comply with any applicable water conservation ordinances.

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables, food waste and green waste at all buildings; create food waste and greenwaste curbside pickup.
- Provide adequate recycling containers in public areas, including parks, school grounds, golf courses, and pedestrian zones in areas of mixed-use development.
- Provide education and publicity about reducing waste and available recycling services.

Transportation and Motor Vehicles

- Promote ride-sharing programs and employment centers (e.g., by designating a certain percentage of parking spaces for ride-sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride-share vehicles, and providing a Web site or message board for coordinating ride-sharing).
- Provide the necessary facilities and infrastructure in all land use types to encourage the use of low- or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- Provide the necessary facilities and maintenance for free tire inflation.
- Provide transit stops with safe and convenient bicycle/pedestrian access. Provide essential transit stop improvements (i.e., shelters, route information, benches, and lighting) in anticipation of future transit service.
- Daily parking charges for commercial uses (employee parking and retail customers) and free transit passes for residential/commercial uses (commuters and shoppers).
- Employer provides employees with a choice of forgoing subsidized parking for a cash payment equivalent to the cost of the parking space to the employer.
- Provide the minimum amount of parking required.
- At industrial and commercial land uses, all forklifts, “yard trucks,” or vehicles that are predominately used on-site at non-residential land uses shall be electric-

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powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption. ► Complete streets to encourage bicycle and pedestrian traffic: • Bike lanes and pedestrian sidewalks on both sides of streets; • Reduce or eliminate physical barriers between residential and non-residential uses that impede bicycle or pedestrian circulation; and • Traffic calming features such as traffic circles. ► Non-residential projects provide plentiful short-term and long-term bicycle parking facilities to meet peak-season maximum demand. ► Non-residential projects provide "end-of-trip" facilities, including showers, lockers, and changing space. ► Long-term bicycle parking is provided at apartment complexes or condominiums without garages. In consultation with SMAQMD, a 28.4% reduction will be achieved through implementation of the above-mentioned reduction measures within the context of projects proposed under the Specific Plan, as deemed feasible by the City of Rancho Cordova. This mitigation, in combination with existing and future regulatory measures developed under AB 32, would reduce GHG emissions associated with the operation of development within the SPA under the selected action alternative. The feasibility of potential GHG reduction measures shall be evaluated at the time that projects within the SPA are proposed in order to allow for ongoing innovations in GHG reduction technologies, as well as incentives created in the regulatory environment. Implementation: The project applicants for any particular discretionary development application. Timing: Before approval of final maps and/or building permits for all project phases requiring discretionary approval. Enforcement: City of Rancho Cordova Community Development Department in consultation with SMAQMD. **BIM, CS, ID: Mitigation Measure: Implement Mitigation Measures 3.2-1a, 3.4-1a, and 3.4-1b.** ***Significance after Mitigation: cumulatively considerable and significant and unavoidable***	
3.5 CULTURAL RESOURCES	
3.5-1: Loss of or Damage to Known Cultural Resources Sites. Construction activities during project implementation could result in the loss of known cultural resources **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP, NCP, PP, BIM, CS, ID:** No direct or indirect
3.5-2: Potential Damage to As-Yet-Undiscovered Cultural Resources Sites. Construction and other earthmoving activities during project implementation could result in damage to as-yet-undiscovered cultural resources. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.5-2: Reduce Potential Impacts on Cultural Resources through Preconstruction Worker Education and**	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect

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Consultation if Resources are Encountered. Before the start of construction activities, construction worker training shall be presented to all construction personnel involved in earth work, including the site superintendent. This training shall include a presentation and flyer describing the types of resources and the procedures to be followed should resources be encountered. If traces of prehistoric occupation (e.g., midden soils, unusual amounts of shell, artifacts, bone) or historic-era remains (e.g., building or structure traces, concentrations of early-historic-era refuse) are encountered, the City of Rancho Cordova shall be notified and ground-disturbing activities within 50 feet of the find shall cease until a qualified professional archaeologist can determine the nature and potential significance of the find and recommend a treatment plan. As suggested by CEQA Guidelines Section 15126.4(b)(3)(A), preservation in place is the preferred method of mitigation for archaeological sites (i.e., avoidance through construction rerouting or revisions). If this is not feasible, a data recovery plan shall be prepared that could include, but is not necessarily limited to, additional archival research and subsurface excavations for archaeological testing and/or data recovery (using techniques outlined in State CEQA Guidelines Sections 15126.4[b], 15064.5, or measures outlined in 36 CFR 800.6). The data recovery plan shall include provisions for adequately recovering the scientifically consequential information from and about the historical resource, and it shall be prepared, submitted to the City for approval, and implemented prior to any excavation being undertaken. The project applicants of all project phases shall be required to implement all recommendations made by the professional archaeologist, as deemed necessary and feasible by the City. Construction work in the vicinity of the find shall not resume until the treatment plan is completed.

Implementation: Project applicants for any particular discretionary development application.

Timing: Before and during all ground-disturbing activities.

Enforcement: City of Rancho Cordova Community Development Department.

Significance after Mitigation: less than significant

3.5-3: Potential Damage to Human Remains. Construction and other earthmoving activities during project implementation could result in damage to as-yet-undiscovered human burials.

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct PS, no indirect.

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.5-3: Provide Preconstruction Worker Education and Stop Potentially Damaging Work if Human Remains are Uncovered During Construction. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicants of all project phases shall immediately halt potentially damaging excavation in the area of the burial and shall notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor, or project applicants of all project phases, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) Section 5097.9.

Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including

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nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC Section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the landowner shall employ: (1) Record the site with the NAHC or the appropriate Information Center. (2) Use an open-space or conservation zoning designation or easement. (3) Record a document with the county in which the property is located. The landowner or landowner's authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or authorized representative may also reinter the remains in a location not subject to further disturbance if he or she rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner. The project applicants of all project phases shall implement mitigation for the protection of the burial remains. Construction work in the vicinity of the burials shall not resume until the mitigation is completed. Implementation: Project applicants for any particular discretionary development application. Timing: Before the approval of grading plans and during all ground-disturbing activities for all project phases. Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant***	
3.6 ENVIRONMENTAL JUSTICE	
3.6-1: Potential Effects on Low-Income Populations. Project implementation would not create a disproportionate placement of adverse environmental impacts on low-income populations. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.6-2: Potential Effects on Minority Populations. Project implementation would not create a disproportionate placement of adverse environmental impacts on minority communities. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect

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3.7 GEOLOGY, SOILS, MINERALS, AND PALEONTOLOGICAL RESOURCES	
3.7-1: Possible Risks to People and Structures Caused by Strong Seismic Ground Shaking. The SPA is located in an area of generally low seismic activity; however, infrastructure on the SPA could be subject to seismic ground shaking from an earthquake along active faults in Lake Tahoe.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.7-1a: Prepare Site-Specific Geotechnical Report per CBC Requirements and Implement Appropriate Recommendations.** Before building permits are issued and construction activities begin any project development phase, the project applicants for any particular discretionary development application shall hire a licensed geotechnical engineer to prepare a final geotechnical subsurface investigation report, which shall be submitted for review and approval to the City of Rancho Cordova Planning Department. The final geotechnical engineering report shall address and make recommendations on the following: ► site preparation; ► soil bearing capacity; ► appropriate sources and types of fill; ► potential need for soil amendments; ► road, pavement, and parking areas; ► structural foundations, including retaining-wall design; ► grading practices; ► soil corrosion of concrete and steel; ► erosion/winterization; ► seismic ground shaking; ► liquefaction; and ► expansive/unstable soils. In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicants of each project phase. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all new project development shall be in accordance with the CBC. The project applicants shall provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the geotechnical report. **Mitigation Measure 3.7-1b: Monitor Earthwork during Earthmoving Activities.** All earthwork shall be monitored by a qualified geotechnical or soils engineer retained by the project applicants for any particular discretionary development application. The geotechnical or soils engineer shall provide oversight during all excavation, placement of fill, and disposal of materials removed from and deposited on both on- and off-site construction areas. Implementation: Project applicants for any particular discretionary development application.	

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Timing: Before issuance of building permits and ground-disturbing activities. Enforcement: City of Rancho Cordova Planning Department ***Significance after Mitigation: less than significant***	
3.7-2: Possible Seismically-Induced Risks to People and Structures Caused by Liquefaction. Construction activities would not occur in areas subject to liquefaction; therefore, people and structures would not be at risk from liquefaction. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP, NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.7-3: Temporary and Short-term Construction-Related Erosion. Construction activities during project implementation would involve grading and movement of earth in soils subject to temporary and short-term wind and water erosion hazard. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.7-3: Prepare and Implement a Grading and Erosion Control Plan.** Before grading permits are issued, the project applicants for any particular discretionary development application shall retain a California Registered Civil Engineer to prepare a grading and erosion control plan. The grading and erosion control plan shall be submitted to the City Planning Department before issuance of grading permits for all new development. The plan shall be consistent with the City's Grading Ordinance and the state's NPDES permit, and shall include the site-specific grading associated with development for each project phases. The plans referenced above shall include the location, implementation schedule, and maintenance schedule of all erosion and sediment control measures, a description of measures designed to control dust and stabilize the construction-site road and entrance, and a description of the location and methods of storage and disposal of construction materials. Erosion and sediment control measures could include the use of detention basins, berms, swales, wattles, and silt fencing, and covering or watering of stockpiled soils to reduce wind erosion. Soil stabilization measures could include construction of retaining walls and reseeding with vegetation after construction. Stabilization of construction entrances to minimize trackout (control dust) is commonly achieved by installing filter fabric and crushed rock to a depth of approximately 1 foot. The project applicants shall ensure that the construction contractor is responsible for securing a source of transportation and deposition of excavated materials. Implementation of Mitigation Measure 3.9-1 (discussed in Section 3.9, "Hydrology and Water Quality") would also help reduce temporary and short-term erosion-related impacts by requiring preparation and implementation of a Storm Water Pollution Prevention Plan with appropriate Best Management Practices. Implementation: Project applicants for any particular discretionary development application. Timing: Before the start of construction activities. Enforcement: City of Rancho Cordova Planning Department ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS

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Impact	Significance
Mitigation	
3.7-4: Potential Geologic Hazards Related to Construction in Unstable Soils. Project elements could be constructed in areas of the SPA that contain unstable soils. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measures 3.7-1a and 3.7-1b.** ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect
3.7-5: Potential Damage to Structures and Infrastructure from Construction in Expansive Soils. Portions of the SPA are underlain by soils that have a moderate to high potential for expansion when wet and may result damage to structures. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure: Implement Mitigation Measures 3.7-1a and 3.7-1b.** ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect
3.7-6: Potential Geologic Hazard from Construction in Corrosive Soils. Most of the soils within which the project components would be constructed are moderately to highly corrosive of concrete and steel, which could subject project facilities to a shorter useful lifespan. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measure 3.7-1a.** ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect
3.7-7: Potential Loss of Mineral Resources. The SPA is located within the Sacramento-Fairfield Production-Consumption Region designated by CDMG, but does not contain known deposits of mineral resources. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP, NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.8 HAZARDS AND HAZARDOUS MATERIALS	
3.8-1: Possible Exposure of Construction Workers, Project Workers, and Residents to Existing Hazardous Materials. The SPA could contain unknown hazardous materials, which could affect construction workers and the general public as a result of construction activities. **NP:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

NCP, PP, BIM, CS, ID: Mitigation Measure 3.8-1: Prepare a Remedial Action Plan, and Conduct Phase I and/or II Environmental Site Assessments and Implement Required Measures if Stained or Odiferous Soil is Discovered. The project applicants shall implement the following measures before ground-disturbing activities in areas of debris piles, pole-mounted transformers, where demolition will occur, and other areas where evidence of hazardous materials contamination is observed or suspected through either obvious or implied evidence (i.e., stained or odorous soil) to reduce health hazards associated with potential exposure to hazardous substances:

- Prepare a plan that identifies any necessary remediation activities including excavation and removal of contaminated soils and redistribution of clean fill material within the SPA, if necessary. The plan shall include measures for the safe transport, use, and disposal of contaminated soil and building debris removed from the SPA. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The project applicants shall be required to comply with the plan and applicable Federal, state, and local laws. The plan shall outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the SPA at an appropriate off-site disposal facility.
- If stained or odiferous soil is discovered during project-related construction activities, the project applicants shall retain a registered environmental assessor to conduct a Phase 1 ESA, and if necessary, Phase II ESAs and/or other appropriate testing. Recommendations in the Phase I and II ESAs to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.
- Notify the appropriate Federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) or if known or previously undiscovered USTs are encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Sacramento County EMD, Central Valley RWQCB, DTSC, and/or other appropriate Federal, state, or local regulatory agencies.
- Obtain an assessment conducted by SMUD pertaining to the contents of any existing pole-mounted transformers that would be relocated or removed as part of project implementation. The assessment shall determine whether existing on-site electrical transformers contain PCBs and whether there are any records of spills from such equipment. If equipment containing PCB is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act.
- Retain a licensed contractor to remove all septic systems in accordance with local, state, and federal regulations.
- Retain a Cal-OSHA certified Asbestos Consultant before demolition of any on-site buildings to investigate whether any asbestos-containing materials or lead-based paints are present, and could become friable or mobile during demolition activities. If any materials containing asbestos or lead-based paints are found, they shall be removed by an accredited contractor in accordance with EPA and Cal-OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal-OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.

Implementation: Project applicants for any particular discretionary development application

Timing: Before the start of construction activities

Enforcement: Central Valley Regional Water Quality Control Board, California Department of Toxic Substances Control, and/or the appropriate Federal, state, or local regulatory agency.

Significance after Mitigation: less than significant

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.8-2: Potential Hazards from Possible Accident Conditions Involving the Release of Hazardous Materials into the Environment or Through the Routine Transport, Use, or Disposal of Hazardous Materials. Implementation of the project would involve the storage, use, and transport of hazardous materials, which is regulated by local, state, and Federal regulations. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.8-3: Potential for Airspace Safety Hazards (Birdstrike) Associated with Project Water Features. The project would include the creation of on-site detention basins, which could attract waterfowl, thereby resulting in a potential safety hazard for aircraft flights associated with Mather Field. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** No direct, indirect LTS
3.8-4: Possible Exposure of Construction Workers, Project Workers, and Residents to Human Health Hazards Associated with Mosquito-Borne Diseases. The project includes construction of detention basins and stormwater canals, which are considered to be breeding habitat for mosquitoes. An increase in mosquitoes could result in an increased incidence of mosquito-borne diseases. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.8-5: Potential for Accidental Release of Hazardous Materials and Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School. The project includes construction of several on-site schools. Project implementation would involve the transport, use, and disposal of hazardous materials, and the potential for accidental release of hazardous materials. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** (hazardous emissions and hazardous materials handling within 1/4 mile of a school) direct and indirect LTS; (hazardous emission or handling of hazardous or acutely hazardous materials, substance, or waste within 1/4 mile of an existing or proposed school) direct LTS, no indirect

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.9 HYDROLOGY AND WATER QUALITY	
3.9-1: Potential Temporary, Short-Term Construction-Related Drainage and Water Quality Effects. Construction activities during project implementation would involve extensive grading and movement of earth, which would substantially alter on-site drainage patterns and could generate sediment, erosion, and other nonpoint source pollutants in on-site stormwater that could drain to off-site areas and degrade local water quality.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct and indirect significant

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.9-1: Acquire Appropriate Regulatory Permits and Prepare and Implement an Erosion and Sediment Control Plan, SWPPP, and BMPs. As required by the Land Grading and Erosion Control Ordinance (Chapter 16.44 of County and City of Rancho Cordova Municipal Codes), projects disturbing 350 cubic yards or more of soil or one or more acres of land shall prepare an erosion and sediment control plan specifying best management practices (BMPs) for erosion and sediment control. This erosion and sediment control plan shall be checked in the field by the City inspector during construction.

Prior to the issuance of grading permits, the project applicants for any particular discretionary development application disturbing one or more acres (including phased construction of smaller areas which are part of the larger project) shall obtain coverage under the SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ), including preparation and submittal of a project-specific storm water pollution prevention plan (SWPPP) at the time the NOI to discharge is filed. The project applicants shall also prepare and submit any other necessary erosion and sediment control and engineering plans and specifications for pollution prevention and control to the City of Rancho Cordova Public Works Department. The SWPPP and other appropriate plans shall identify and specify:

- the use of an effective combination of robust erosion and sediment control BMPs and construction techniques accepted by the City for use in the project area at the time of construction, that shall reduce the potential for runoff and the release, mobilization, and exposure of pollutants, including legacy sources of mercury from project-related construction sites. These may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, inlet protection, perforated riser pipes, check dams, and silt fences;
- the implementation of approved local plans, non-stormwater management controls, permanent post-construction BMPs, and inspection and maintenance responsibilities;
- the pollutants that are likely to be used during construction that could be present in stormwater drainage and nonstormwater discharges, including fuels, lubricants, and other types of materials used for equipment operation;
- the means of waste disposal;
- spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;
- personnel training requirements and procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and
- the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Where applicable, BMPs identified in the SWPPP shall be in place throughout all site work and construction/demolition activities and shall be used in all subsequent site development activities. BMPs may include, but are not limited to, such measures as those listed below. ► Implementing temporary erosion and sediment control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances, in compliance with state and local standards in effect at the time of construction. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation. ► Establishing permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration. ► Using drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways and facility infrastructure. A copy of the approved SWPPP shall be maintained and available at all times on the construction site. Implementation: Project applicant(s) for any particular discretionary development application. Timing: Submittal of the State Construction General Permit NOI and SWPPP (where applicable) and development and submittal of any other locally required plans and specifications before the issuance of grading permits for each particular discretionary development application and implementation throughout project construction. Enforcement: City of Rancho Cordova Public Works Department, State Water Resources Control Board, and Central Valley Regional Water Quality Control Board. ***Significance after Mitigation: less than significant***	
3.9-2: Potential Increased Risk of Flooding and Hydromodification from Increased Stormwater Runoff. Project implementation would increase the amount of impervious surfaces on the SPA, thereby increasing surface runoff. This increase in surface runoff would result in an increase in both the total volume and the peak discharge rate of stormwater runoff, and therefore could result in greater potential for on- and off-site flooding.	**NP:** Direct and indirect LTS **NCP, PP, BIM, CS, ID:** Direct and indirect PS
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.9-2: Prepare and Submit Updated Regional Master Drainage Studies and Final Drainage Plans and Implement Requirements Contained in Those Plans.** Before approval of the first large lot tentative subdivision map in the SPA, the project applicant(s) shall: 1. Submit an updated Regional Master Drainage Study for the SPA to the City demonstrating to the satisfaction of the City of Rancho Cordova Public Works Department that: ► the proposed stormwater detention basins are appropriately sized in compliance with the SSQP's NPDES Permit and the draft Hydromodification Management Plan (as finally adopted by the Central Valley RWQCB) so that hydromodification would not increase from predevelopment levels enough to alter existing stream geomorphology. Drainage improvements shall be designed to address hydromodification impacts caused by development using methods	

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

approved by the SSQP and/or City of Rancho Cordova Public Works Department;

- the stormwater detention basins will drain by gravity;
- the stormwater detention basins can be designed to minimize long-term maintenance, especially as it relates to the basin outlet structures; and
- the depth and duration of the existing flooding problem at the Sunrise Boulevard crossing of Laguna Creek is not substantially increased by project development.

2. Prepare and submit a Conditional Letters of Map Revision (CLOMR) to FEMA showing the existing 100-year (0.01 AEP) flood plain for the existing site (existing conditions).

Furthermore, before the approval of grading plans, site improvements, and/or building permits, the project applicants for any particular discretionary development application shall obtain an approved CLOMR from FEMA and submit a final construction level drainage study and plans to the City demonstrating that project-related on-site runoff would be appropriately contained in detention basins or managed with other improvement s (e.g., source controls using LID techniques) to maintain peak storm flows at no greater than the level existing before development and to accommodate flows based on a 100-year storm event, as required by the Sacramento County Flood Control Ordinance.

The drainage study and plans shall include all the items required for tentative map level study. In addition, the drainage study and plans shall include, but not be limited to, the following items:

- an accurate calculation of pre-project and post-project runoff for the final design scenario, obtained using appropriate engineering methods, that accurately evaluates potential changes to runoff, including increased surface runoff;
- runoff calculations for the 10-year and 100-year (0.01 AEP) storm events (and other, smaller storm events as required) shall be performed and the trunk drainage pipeline sizes confirmed based on alignments and finalized detention facility locations;
- a description of the proposed maintenance program for the on-site drainage system; and
- City flood control design requirements and measures designed to comply with them.

Implementation of stormwater management BMPs that avoid increases in the erosive force of flows beyond a specific range of conditions shall limit hydromodification and maintain current stream geomorphology. BMPs may include, but are not limited to, the use of LID techniques to limit increases in stormwater runoff at the point of origination (these may include, but are not limited to: surface swales; replacement of conventional impervious surfaces with pervious surfaces [e.g., porous pavement]; impervious surfaces disconnection; and trees planted to intercept stormwater). These BMPs may be designed and constructed in accordance with the forthcoming SSQP Hydromodification Management Plan (to be adopted by the Central Valley RWQCB), as appropriate.

The final drainage plan shall demonstrate to the satisfaction of the City of Rancho Cordova Community Development and Public Works Departments that 100-year (0.01 AEP) flood flows would be appropriately channeled and contained, such that the risk to people or damage to structures within or down gradient of the SPA would not occur, and that hydromodification would not be increased from pre-development levels such that existing stream geomorphology would be changed. The range of conditions should be calculated for each receiving water (if feasible), as approved by the SSQP and/or City of Rancho Cordova Public Works Department).

Implementation: Project applicant(s) during each particular discretionary development phase.

Timing: Before approval of grading plans and building permits of all project phases.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Enforcement: City of Rancho Cordova Public Works Department. ***Significance after Mitigation: less than significant***	
3.9-3: Long-Term Water Quality and Hydrology Effects from Urban Runoff. Project implementation would convert a large area of largely undeveloped land to residential and commercial uses, thereby changing the amount and timing of potential long-term pollutant discharges in stormwater and other urban runoff to Kite Creek, Laguna Creek, and other on- and off-site drainages.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct and indirect PS
NP: No mitigation measures required. **NP, NCP, PP, BIM, CS, ID: Mitigation Measure 3.9-3: Develop and Implement a BMP and Water Quality Maintenance Plan.** Before approval of the final small-lot subdivision map for all project phases, a detailed BMP and water quality maintenance plan shall be prepared by a qualified engineer retained by the project applicants for any particular discretionary development application. Drafts of the plan shall be submitted to the City of Rancho Cordova for review and approval concurrently with development of tentative subdivision maps for all project phases. The plan shall finalize the water quality improvements and further detail the structural and nonstructural BMPs proposed for the project. The plan shall include the elements described below. ► A quantitative hydrologic and water quality analysis of proposed conditions incorporating the proposed drainage design features. ► Predevelopment and postdevelopment calculations demonstrating that the proposed water quality BMPs meet or exceed requirements established by the City of Rancho Cordova and including details regarding the size, geometry, and functional timing of storage and release pursuant to the '"Stormwater Quality Design Manual for Sacramento and South Placer Regions" and the draft Hydromodification Management Plan ([SSQP 2007] per NPDES Permit No. CAS082597 WDR Order No. R5-2008-0142, page 46). ► Source control programs to control water quality pollutants on the SPA, which may include but are limited to recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills and illegal dumping, and effective management of public trash collection areas. ► A pond management component for the proposed basins that shall include management and maintenance requirements for the design features and BMPs, and responsible parties for maintenance and funding. ► LID control measures shall be integrated into the BMP and water quality maintenance plan. These may include, but are not limited to: • surface swales; • replacement of conventional impervious surfaces with pervious surfaces (e.g., porous pavement); • impervious surfaces disconnection; and • trees planted to intercept stormwater. ► New stormwater facilities shall be placed along the natural drainage courses within the SPA to the extent practicable so as to mimic the natural drainage patterns. The reduction in runoff as a result of the LID configurations shall be quantified based on the runoff reduction credit system methodology described in "Stormwater Quality Design Manual for the Sacramento and South Placer Regions, Chapter 5 and Appendix D4" (SSQP 2007) and proposed detention basins and other water quality BMPs shall be sized to handle these runoff volumes.	

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Implementation: Project applicant(s) for any particular discretionary development application. Timing: Prepare plans before the issuance of grading permits for all project phases and implementation throughout project construction. Enforcement: City of Rancho Cordova Community Development Department and Public Works Department. ***Significance after Mitigation: less than significant***	
3.9-4: Potential Exposure of People or Structures to a Significant Risk of Flooding as a Result of the Failure of a Levee or Dam. The SPA is not in an area protected by levees and is not located within the Folsom Dam inundation zone. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.9-5: Potential Impacts from New Impervious Surfaces and the Use of Groundwater Resources on Groundwater Recharge and Aquifer Volume. Shallow and deep percolation of rainwater and water used for landscape irrigation and related runoff and consequent depth to groundwater would not be substantially affected by the development of additional impervious surfaces because of the low permeability of existing on-site soils, which would not result in a substantial adverse impact on groundwater recharge. The use of groundwater resources to supply a portion of the project's water demands would not substantially deplete groundwater supplies and therefore would not result in a net deficit in aquifer volume. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect except impacts of use of groundwater to meet part of the water supply needs of the SPA are considered LTS
3.10 LAND USE AND AGRICULTURAL RESOURCES	
3.10-1: Potential that the Project would Involve other Changes in the Existing Environment which, due to their Location or Nature, could Result in Conversion of Important Farmland to a Nonagricultural Use. Implementation of the project could potentially result in the ultimate conversion of off-site agricultural (i.e., grazing) land to nonagricultural land uses. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** No direct, indirect LTS

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
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Impact	Significance
Mitigation	
3.11 NOISE	
3.11-1: Possible Temporary, Short-Term Exposure of Sensitive Receptors to Construction-Generated Equipment Noise. Project implementation would result in temporary, short-term construction activities associated with project development. Project-related construction activities could expose existing off-site and future on-site sensitive receptors to temporary noise levels that exceed the applicable noise standards and/or result in a substantial increase in ambient noise levels.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.11-1: Implement Measures to Prevent Exposure of Sensitive Receptors to Temporary Construction-Generated Equipment Noise. To reduce impacts associated with noise generated during construction activities, the project applicants for any particular discretionary development application shall conform to the following requirements:

- Noise-generating construction operations shall be limited to the hours between 7 a.m. and 7 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturday and Sunday.
- All construction equipment and equipment staging areas shall be located as far as feasible from nearby noise-sensitive land uses.
- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- All motorized construction equipment shall be shut down when not in use to prevent excessive idling noise.
- The following measures shall be required for exterior activities that involve the use of heavy-duty construction equipment (see Table 3.11-8) located within 800 feet of occupied noise-sensitive daytime land uses (e.g., school classrooms, childcare and convalescent care facilities, inpatient medical facilities, and places of worship):
  - Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site).
  - Written notification of construction activities shall be provided to all noise-sensitive receptors located within 800 feet of construction activities. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.
- To the extent feasible, acoustic barriers (e.g., plywood, sound blankets) shall be constructed to reduce construction-generated noise levels at affected noise-sensitive land uses. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dBA (EPA 1971).

Implementation: Project applicants for any particular discretionary development application.

Timing: During all phases of project construction.

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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant*** ***Cumulatively considerable***	
3.11-2: Possible Temporary, Short-Term Exposure of Sensitive Receptors to Increased Traffic Noise Levels from Project Construction. Project implementation would result in temporary increases in on- and off-site roadway traffic noise associated with project construction. Construction-generated traffic could expose sensitive receptors to noise levels along on- and off-site roadways that exceed the applicable noise standards and/or result in a substantial increase in ambient noise levels. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.11-3: Possible Long-Term Exposure of Sensitive Receptors to Stationary-Source Noise Generated by On-site Land Uses During Project Operation. Project implementation would result in increases in on-site stationary-source noise levels associated with the proposed residential, commercial, mixed-use, office/industrial, park, and educational land uses. These stationary noise sources could exceed the applicable noise standards (hourly and maximum) and result in a substantial increase in ambient noise levels.	**NP:** No direct or indirect **NCP:** **Residential, Commercial, Public/Quasi-Public, Schools and Neighborhood Parks:** Direct PS, no indirect **Community Parks:** No direct or indirect **PP, CS:** Direct PS, no indirect **BIM:** **Residential, Public/Quasi-Public, Schools and Neighborhood Parks, Community Parks:** Direct PS, no indirect **Commercial:** No direct or indirect **ID:** **Residential, Commercial, Schools and Neighborhood Parks** **Community Parks:** Direct PS, no indirect **Public/Quasi-Public:** No direct or indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.11-3: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Stationary Source–Generated Noise.** To reduce potential long-term exposure of sensitive receptors to noise generated by project-related stationary noise sources, the City shall evaluate individual facilities, subdivisions, and other project elements for compliance with the City Noise Ordinance and policies contained in the City General Plan at the time that tentative subdivision maps and improvements plans are submitted. All project elements shall comply with City noise standards. The project applicants for any particular discretionary development application shall implement the following measures to assure maximum reduction of project interior and exterior noise levels from operational activities.	

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Impact	Significance
Mitigation	

- The proposed land uses shall be designed so that on-site mechanical equipment (e.g., HVAC units, compressors, generators) and area-source operations (e.g., loading docks, parking lots, and recreational-use areas) are located as far as feasible from or shielded from nearby noise-sensitive land uses.
- Residential air conditioning units shall be located a minimum of 10 feet from adjacent residential dwellings, including outdoor entertainment and relaxation areas, or shall be shielded to reduce operational noise levels at adjacent dwellings or designed to meet City noise standards. Shielding may include the use of fences or partial equipment enclosures. To provide effectiveness, fences or barriers shall be continuous or solid, with no gaps, and shall block the line of sight to windows of neighboring dwellings. (Achievable noise reductions from fences or barriers can vary, but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location.)
- To the extent feasible, residential land uses located within 2,500 feet of and within the direct line of sight of major noise-generating commercial uses (e.g., loading docks and equipment/vehicle storage repair facilities,) shall be shielded from the line of sight of these facilities by construction of a noise barrier. To provide effectiveness, noise barriers shall be continuous or solid, with no gaps, and shall block the line of sight to windows of neighboring dwellings. (Achievable noise reductions from barriers can vary, but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location.) The applicant shall retain the services of a professional acoustician to determine the design and location of noise barriers to be constructed prior to City issuance of building permits or improvement plans.
- Dual-pane, noise-rated windows; mechanical air systems; exterior wall insulation; and other noise-reducing building materials shall be used.
- Routine testing and preventive maintenance of emergency electrical generators shall be conducted during the less sensitive daytime hours (i.e., 7 a.m. to 6 p.m.). All electrical generators shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.

In addition, the City shall seek to reduce potential long-term exposure of sensitive receptors to noise generated by project-related stationary noise sources from public activities on school grounds, in neighborhood and community parks, and in open-space areas. Specifically, the City shall encourage the controlling agencies (i.e., schools and park and recreation districts) to implement measures to reduce project-generated interior and exterior noise levels to within acceptable levels, including but not limited to the following:

- On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications.
- For maintenance areas located within 500 feet of noise-sensitive land uses, the operation of on-site landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between the hours of 7 a.m. and 7 p.m.
- Outdoor use of amplified sound systems within 500 feet of noise-sensitive land uses shall be permitted only between 7 a.m. and 10 p.m. Sunday through Thursday, and between 7 a.m. and 11 p.m. on Friday and Saturday.

Implementation: Project applicants for any particular discretionary development application.

Timing: During design review and before the approval of all subdivision maps and improvement plans, where applicable for all project phases. For measures that the City should encourage other agencies to undertake, before the approval of final maps for all project phases for noise-generating school and park and recreation sites.

Enforcement: City of Rancho Cordova Building and Safety, and Planning Departments; Cordova Recreation and Park District; Elk Grove Unified School District.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Significance after Mitigation: less than significant ***Cumulatively considerable***	
3.11-4: Project-Generated Increases in Traffic Noise Levels on Area Roadways. Project implementation would result in long-term increases in average daily traffic volumes on affected roadway segments. Increased traffic volumes would result in a substantial (e.g., 3 dB L_{dn}/CNEL) increase in ambient noise levels on- and off-site at nearby noise-sensitive receptors. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.11-5: Compatibility of Proposed On-Site Land Uses with the Ambient Noise Environment. The project includes development of on-site noise-sensitive land uses that could be exposed to noise levels that exceed the noise standards set forth in the City's General Plan Noise Element. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measure 3.11-3.** **Mitigation Measure 3.11-5: Implement Measures to Improve Land Use Compatibility with Noise Sources.** To meet City noise standards set forth in the City General Plan and Noise Ordinance and improve compatibility between project land uses and noise sources, the project applicants for any particular discretionary development application for all project phases shall implement the following: ► Obtain the services of a qualified acoustical consultant to develop noise attenuation measures for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms) that will provide a minimum composite Sound Transmission Class (STC) rating for buildings of 30 or greater, individually computed for the walls and the floor/ceiling construction of buildings, for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms). ► When a project alternative is adopted, and prior to the submittal of small-lot tentative subdivision maps and improvement plans, the project applicants shall conduct a site-specific acoustical analysis to determine predicted roadway noise impacts attributable to the project, taking into account site-specific conditions (e.g., site design, location of structures, building characteristics). The acoustical analysis shall evaluate stationary- and mobile-source noise attributable to the proposed use or uses and impacts on nearby noise-sensitive land uses, in accordance with adopted City noise standards. For any noise impacts identified in the acoustical analysis that would be greater than City noise standards, the project applicant shall submit a noise reduction plan to reduce any identified impacts above adopted City noise standards. The noise reduction plan shall be reviewed and approved by the City and its implementation shall be required as a condition	**NP:** No direct or indirect **NCP, BIM, CS, ID:** **Off-Site Stationary Noise Sources:** No direct or indirect **Exterior and Interior Traffic Noise Levels:** Direct Significant, no indirect **PP:** **Exterior and Interior Traffic Noise Levels:** Direct Significant, no indirect

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

of approval of tentative maps or improvement plans. Feasible measures to be included in the noise reduction plan to reduce project-related noise impacts may include, but are not limited to, the following:

- limiting noise-generating operational activities associated with proposed commercial land uses, including truck deliveries;
- construction of exterior sound walls;
- use of "quiet pavement" (e.g., rubberized asphalt) construction methods; or
- use of increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; exterior wall insulation); and
- installation of noise barriers ranging from 6 to 14 feet in height to reduce exterior noise levels to the normally acceptable noise standard of 60 dBA CNEL at noise-sensitive locations. Noise barriers in excess of 10 feet may not be considered desirable or feasible.

Where noise barrier heights are not feasible, the City may, at its discretion, require the project applicant to instead achieve the conditionally-acceptable noise level of 65-dBA CNEL at noise-sensitive locations, provided that interior noise levels are in compliance with the City's 45-dBA L_{dn} interior noise level standard. Noise barriers ranging from 6 to 10 feet in height would be required to reduce exterior noise levels to a conditionally acceptable level of 65-dBA CNEL at noise-sensitive locations relative to the corresponding roadway segment.

As an alternative, site design may be taken into consideration to reduce noise levels within compliance of applicable noise standards. Where noise levels require sound walls in excess of a desirable height deemed by the City, residential areas may be redesigned so that houses front the noise source. For example, fronting the residences to the noise source would achieve a 5-dBA to 8-dBA reduction in traffic noise levels due to shielding provided by the intervening residential building facade at the outdoor activity area. Another alternative would be to increase minimum setback distances from the noise source.

Implementation: Project applicants of any particular discretionary development application.

Timing: Before the recordation of final maps and during all project construction activities for all project phases where applicable.

Enforcement: City of Rancho Cordova Planning Department.

Significance after Mitigation: less than cumulatively considerable

3.11-6: Possible Exposure of Sensitive Receptors to Groundborne Noise and Vibration Levels Caused by Construction Activities. Implementation of the project could result in exposure of sensitive noise receptors to groundborne noise and vibration levels that exceed the Federal Transit Administration and Caltrans guidelines.

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct Significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.11-6: Implement Measures to Prevent Exposure of Sensitive Receptors to Temporary Construction-Generated Groundborne Noise and Vibration. To reduce impacts associated with groundborne noise and vibration generated during construction activities, the project applicants for all project phases shall conform to the following requirements:

- To the extent feasible, bulldozing operations shall occur greater than 100 feet from occupied vibration-sensitive receptors (e.g., residences, schools).
- All construction equipment and equipment staging areas shall be located as far as feasible from nearby vibration-sensitive land uses.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

Implementation: Project applicants of any particular discretionary development application.

Timing: During all phases of project construction.

Enforcement: City of Rancho Cordova Planning Department.

Significance after Mitigation: less than cumulatively considerable

Cumulative Traffic Noise Levels on Area Roadways

Mitigation Measure CUM Noise-1: Implement Measures to Reduce Exposure of Sensitive Receptors to Project-Generated Increases in Operational Traffic Noise Levels on Area Roadways.

To meet applicable City noise standards and to reduce increases in traffic-generated noise levels at on-site noise-sensitive uses along Kiefer Boulevard, the project applicant (Shalako) of on-site residential areas adjacent to Kiefer Boulevard between Zinfandel Drive and Sunrise Boulevard and between Sunrise Boulevard and Rancho Cordova Parkway shall implement the following:

- Obtain the services of a consultant (such as a licensed engineer or licensed architect) to develop noise-attenuation measures for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms) that will produce a minimum composite Sound Transmission Class (STC) rating for buildings of 30 or greater, individually computed for the walls and the floor/ceiling construction of buildings, for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms) adjacent to Kiefer Boulevard.
- Prior to submittal of tentative subdivision maps and improvement plans, the Phase 1 project applicant (Shalako) shall demonstrate that project-generated operational traffic noise levels at on-site sensitive receptors along Kiefer Boulevard have been reduced such that City of Rancho Cordova noise standards are met by implementing one or more of the following:
  - construct exterior sound walls;
  - construct barrier walls and/or berms with vegetation;
  - use "quiet pavement" (e.g., rubberized asphalt) construction methods; or
  - use increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; thicker exterior wall insulation).

Implementation: Project applicant of development Phase 1 (Shalako parcel).

Timing: During design review and before the approval of all subdivision maps and improvement plans, where applicable for project Phase 1.

Enforcement: City of Rancho Cordova Planning Department.

Significance after Mitigation: less than cumulatively considerable

Mitigation Measure CUM Noise-2: Implement Measures to Reduce Exposure of Sensitive Receptors to Increased Traffic Noise Levels along Grant Line Road (applies to Increased Development Alternative Only)

The following measures shall be implemented under the Increased Development Alternative to reduce exposure of sensitive receptors to increases in traffic noise levels along Grant Line Road. Under the Proposed Project Alternative, this mitigation measure shall only apply if a land use other than a shopping center is constructed on the Local Town Center adjacent to Grant Line Road.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

- A site-specific screening analysis shall be performed for all proposed sensitive receptors (e.g., residences, schools, daycares, libraries, etc.) that would be located along Grant Line Road between Chrysanthy Boulevard and Kiefer Boulevard using an approved three-dimensional traffic noise modeling program (i.e., TNM, SoundPlan). Each analysis shall be performed according to the standards set forth by the City of Rancho Cordova. The screening analysis shall account for the location of the receptors relative to the roadway, their distance from the roadway, and the projected future traffic volume for the year 2030. If the incremental increase in traffic noise levels are determined to exceed the threshold of significance recommended by the City of Rancho Cordova, then design mitigation shall be employed, such as the following:
  - Model the benefits of soundwalls (berm/wall combination) along Grant Line Road and the affected receptors not to exceed a total height of 10 feet (2-foot berm and 8-foot concrete masonry wall). If this mitigation measure is determined by the City of Rancho Cordova to be inadequate, additional three-dimensional traffic noise modeling shall be conducted with the inclusion of rubberized asphalt.
  - Implement the installation of rubberized asphalt (quiet pavement) on roadway segments adjacent to sensitive receptors if soundwalls do not provide adequate reduction of traffic noise levels. (The inclusion of rubberized asphalt would provide an additional 3 to 5 dB of traffic noise reduction.)
  - To improve the indoor noise levels at affected receptors on the SunCreek project site, implement the following measures before the occupancy of the affected residences and schools along Grant Line Road:
    - Conduct an interior noise analysis once detailed construction plans of residences adjacent to Grant Line Road to determine the required window package at second and third floor receptors to achieve the interior noise level standard of 45-dB L_{dn}.
    - Determine the interior traffic noise level increases at second and third floor receptors adjacent to Grant Line Road and install window package upgrades (increased sound transmission class rated windows) that would achieve the interior noise level standard of 45-dB L_{dn}.

Implementation: The project applicants of Phase 3 (Grantline 220 parcel).

Timing: During design review and before the approval of all subdivision maps and improvement plans, where applicable for project Phase 3.

Enforcement: City of Rancho Cordova Planning Department.

Significance after Mitigation: less-than-cumulatively considerable

3.12 PARKS AND RECREATION

3.12-1: Sufficiency of Proposed Parkland to Meet Proposed Development. Residential development proposed for the SPA would require 5 acres of parkland per 1,000 residents to meet the adopted Cordova Recreation & Park District (CRPD) standards.

NP: No direct or indirect

NCP: Direct significant, indirect LTS

PP, BIM, CS, ID: Direct and indirect LTS

NP, PP, BIM, CS, ID: No mitigation measures required.

NCP: Mitigation Measure 3.12-1: Comply with CRPD Parkland Requirements. The project applicants for the No USACE Permit Alternative shall comply with CRPD's parkland requirements of 5 acres per 1,000 residents. To satisfy the parkland shortfall that would be created with implementation of the No USACE Permit Alternative, the project applicants of all project phases shall consult with the City and work with CRPD to identify options to meet the standard of 5 acres per 1,000 residents, which may include any or all of the following: dedication of additional parkland acreage either on- or off-site, payment of in-lieu fees, or expansion of

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
existing park facilities. Implementation: Project applicants for any particular discretionary development application for the No USACE Permit Alternative. Timing: Prior to approval of tentative subdivision maps. Enforcement: City of Rancho Cordova and CRPD. ***Significance after Mitigation: less than significant***	
3.12-2: Increased Use and Potential Physical Deterioration of Existing Off-Site Local or Regional Facilities. Project implementation would result in a large number of new residents, which would increase the use and could cause the potential physical deterioration of existing off-site local and regional park facilities. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP:** Indirect LTS **PP, BIM, CS, ID:** Direct and indirect LTS
3.13 POPULATION, EMPLOYMENT, AND HOUSING	
3.13-1: Temporary and Short-term Increase in Population and Subsequent Housing Demand during Construction. Project implementation would generate temporary and short-term increases in employment and subsequent housing demand in Sacramento County and the City of Rancho Cordova from construction-related jobs. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.13-2: Permanent Increase in Population Growth. Project implementation would result in the development of new residential dwelling units and businesses, which would cause a direct long-term increase in population. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, indirect evaluated in each resource area within Chapter 3
3.13-3: Displacement of Existing Housing or People Resulting from Project Development. Project implementation would displace five existing residences located on the SPA. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)
B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.14 PUBLIC SERVICES	
3.14-1: Possible Temporary Reduction in Emergency Response Services during Construction. Project implementation could obstruct roadways in the project vicinity during construction, potentially obstructing or slowing emergency vehicles attempting to access the area.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.14-1: Prepare and Implement a Construction Traffic Control Plan.** The project applicant for any particular discretionary development application shall prepare and implement traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow any applicable standards of the agency responsible for the affected roadway and must be approved and signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flagperson to direct traffic flows when needed, and shall also address methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses shall be maintained at all times, with detours used as necessary during road closures. Traffic control plans shall be submitted to the City of Rancho Cordova Public Works Department for review and approval before the approval of all project plans or permits, for all project phases where implementation may cause impacts on traffic. Implementation: Project applicants for any particular discretionary development application. Timing: Before the approval of all relevant plans and/or permits and during construction of all project phases. Enforcement: City of Rancho Cordova Public Works Department. ***Significance after Mitigation: less than significant***	
3.14-2: Increased Demand for Fire Protection Facilities, Systems, Equipment, and Services. Project development would result in increased demand for fire protection facilities and services, potentially resulting in the need for additional staff and equipment to maintain an adequate level of service.	**NP:** No direct or indirect **NCP, PP, BIM, CS:** Direct PS **ID:** Direct PS, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.14-2: Incorporate California Fire Code and Sacramento Metropolitan Fire District (SMFD) Fire Prevention Standards into Project Design and Submit Project Design to the SMFD for Review and Approval.** To reduce impacts related to the provision of new fire services, the project applicant for any particular discretionary development application shall incorporate all applicable California Fire Code and SMFD Fire Prevention Standards into their project designs and shall prepare improvement plans for review and approval by the SMFD before issuance of building permits by the City of Rancho Cordova Building and Safety Department. Improvement plans shall show fire hydrant locations and details. SMFD notes shall be shown on the plans or improvement drawings. Approved fire hydrants capable of providing the required fire flow for the protection of any and all structures shall be located along the route of fire apparatus access roadways as detailed in Fire Prevention Standard 441.1051. The required fire hydrants shall be installed and operational prior to any construction. A letter from the Sacramento County Water	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
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Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Agency shall be obtained verifying that adequate water is available for fire flow. Improvement plans shall show access design as described by Fire Prevention Standard 444.302 ("Fire Apparatus Access Roads"). These plans shall describe access-road length, dimensions, and finished surfaces for firefighting equipment. If security gates are installed at the SPA, the project applicant shall obtain a copy of the Sacramento County Fire Code, Amendment VII, "Emergency Access Gates and Barriers." The design of the entry shall conform to this standard. As required by the City General Plan, new commercial and industrial development, as well as multifamily residential development with five or more units shall incorporate on-site fire suppression systems into project designs. On-site equipment and facilities would be consistent with industry standards and approved by SMFD. The City shall not authorize the occupancy of any structures until the project applicant have obtained a Certificate of Release (Standard 441.105, "Certificate of Release—Residential") from SMFD verifying that all fire prevention items have been addressed on-site to the satisfaction of SMFD. Information regarding the possible inclusion or utilization of Mello-Roos or other special assessment mechanism shall be provided to the fire district for the possible inclusion of a "Special Fire Tax" within the Mello-Roos area/assessment area. Implementation: Project applicants for any particular discretionary development application. Timing: Before issuance of building permits and issuance of occupancy permits or final inspections for all project phases. Enforcement: SMFD and City of Rancho Cordova Building and Safety Department. ***Significance after Mitigation: less than significant***	
3.14-3: Increased Demand for Fire Flow. Project implementation would include the development of residential, commercial, school, and other uses that would require adequate available water flow for fire suppression. Lack of adequate fire flow would impede effective fire suppression in the SPA. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measure 3.14-2.** ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
3.14-4: Increased Demand for Police Protection Facilities, Services, and Equipment. Project development would increase the demand for police protection facilities and services, resulting in the need for additional staff and equipment to maintain an adequate level of service. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)
B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.14-5: Increased Demand for Public Elementary School Facilities and Services. Project implementation would increase demand for elementary schools (grades K–5) to serve the project. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS
3.14-6: Increased Demand for Public Middle and High School Facilities and Services. Project implementation would increase demand for middle schools (grades 6–8) and high schools (grades 9–12) to serve the project. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP:** Direct LTS, no indirect **PP, BIM, CS, ID:** Direct LTS
3.15 TRAFFIC AND TRANSPORTATION	
3.15-1: Increases to Peak-Hour and Daily Traffic Volumes, Resulting in Unacceptable Levels of Service. Implementation of the specific plan (i.e., the Baseline Plus Project Conditions) would cause an increase in A.M. peak-hour, P.M. peak-hour, and/or daily traffic volumes on area roadways, resulting in unacceptable LOS and warranting the need for improvements such as traffic signals and additional lanes.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure Common to All Impacts under Impact 3.15-1: Participate in Identified Roadway Improvements.** To avoid repetition, the information contained in the following mitigation measure applies to all other mitigation measures required under Impact 3.15-1. The project applicant(s) of any project phases shall participate in the necessary improvements identified in all of the following mitigation measures. The project's fair-share participation and the associated timing of the improvements shall be identified in the project conditions of approval and in the mitigation monitoring and reporting program for the project, or in conjunction with and as an appendix to the specific plan (see mitigation measures following each identified impact). The timing and enforcement (described below) would be the same for all identified mitigation measures associated with Impact 3.15-1. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department.	
3.15-1a: Unacceptable LOS at the SR 16/Excelsior Road Intersection (Intersection 1). **NP:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1a: Participate in Improvements to the SR 16/Excelsior Road Intersection (Intersection 1). To ensure that the SR 16/Excelsior Road intersection operates at an acceptable LOS, the following improvements are required: ► The northbound and southbound approaches must be reconfigured to consist of one left-turn lane, one through lane, and one right-turn lane. Improvements to the SR 16/Excelsior Road intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/Sunridge Specific Plan Project state that physical improvement of this intersection is feasible. Implementation of the improvements described above would assist in reducing traffic impacts on this intersection by providing acceptable operations. If these improvements are completed concurrent with development of the Sunridge Specific Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1b: Unacceptable LOS at the SR 16/Eagles Nest Road Intersection (Intersection 2).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1b: Participate in Improvements at the SR 16/Eagles Nest Road Intersection (Intersection 2).** To ensure that the SR 16/Eagles Nest Road intersection operates at an acceptable LOS, a traffic signal must be installed at this intersection with protected left-turn signal phasing on the eastbound and westbound approaches. Improvements to the SR 16/Eagles Nest Road intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/Sunridge Specific Plan Project state that physical improvement of this intersection is feasible. Implementation of the improvement described above would assist in reducing traffic impacts on this intersection. If these improvements are completed concurrent with development of the Sunridge Specific Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-1c: Unacceptable LOS at the SR 16/Sunrise Boulevard Intersection (Intersection 3).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1c: Participate in Improvements to the SR 16/Sunrise Boulevard Intersection (Intersection 3).** To ensure that the SR 16/Sunrise Boulevard intersection operates at an acceptable LOS, the northbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one shared through/right-turn lane; and the southbound approach must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. An additional through lane would be needed in the eastbound and westbound directions, which would require widening of SR 16 on both sides of the intersection for a minimum of 1,000 feet in both directions. With these improvements, this intersection would operate at an acceptable LOS. Improvements to the SR 16/Sunrise Boulevard intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are within the *Mather Field Specific Plan Financing Plan*. Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection. If these improvements are completed concurrent with development of the Mather Field Specific Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1d: Unacceptable LOS at the SR 16/Grant Line Road Intersection (Intersection 4).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1d: Participate in Improvements to the SR 16/Grant Line Road Intersection (Intersection 4).** To ensure that the SR 16/Grant Line Road intersection operates at an acceptable LOS, all of the following improvements are required: ► The northbound and southbound approaches must be reconfigured to consist of one left-turn lane and one shared through/right-turn lane. ► Protected left-turn signal phasing must be provided on the northbound and southbound approaches. ► The eastbound approach must be reconfigured to consist of one left-turn lane, one through lane, and a shared through/right-turn lane. ► Additional southbound right-turn lane (Increased Development Alternative only) ► These improvements would require widening of SR 16 1,000 feet on both sides of the intersection. Improvements to the SR 16/Grant Line Road intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

within the *Mather Field Specific Plan Financing Plan.* Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection; with them, this intersection would operate at an acceptable LOS. If these improvements are completed concurrent with development of the Mather Field Specific Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level.

Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation.

Significance after Mitigation: significant and unavoidable

3.15-1e: Unacceptable LOS at the Florin Road/Sunrise Boulevard Intersection (Intersection 5).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1e: Participate in Improvements to the Florin Road/Sunrise Boulevard Intersection (Intersection 5). To ensure that the Florin Road/Sunrise Boulevard intersection operates at an acceptable LOS, the southbound approach must be reconfigured to consist of one through lane and one dedicated right-turn lane. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation.

Significance after Mitigation: significant and unavoidable

3.15-1f: Unacceptable LOS at the Grant Line Road/Kiefer Boulevard Intersection (Intersection 7).	**NP:** No direct or indirect **NCP:** Direct LTS, no indirect **PP, BIM, CS, ID:** Direct significant, no indirect

NP, NCP: No mitigation measures required.

PP, BIM, CS, ID: Mitigation Measure 3.15-1f: Participate in Improvements to the Grant Line Road/Kiefer Boulevard Intersection (Intersection 7). To ensure that the Grant Line Road/Kiefer Boulevard intersection operates at an acceptable LOS, the following improvements must be implemented:

- Configure the northbound approach with one left-turn lane, one through lane, and one right-turn lane
- Configure the southbound approach with one right-turn lane and one through lane

Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department

Significance after Mitigation: less than significant

3.15-1g: Unacceptable LOS at the Grant Line Road/Douglas Road Intersection (Intersection 8).

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1g: Participate in Improvements to the Grant Line Road/Douglas Road Intersection (Intersection 8). To ensure that the Grant Line Road/Douglas Road intersection operates at an acceptable LOS, a traffic signal must be installed at this intersection.

Improvements to the Grant Line Road/Douglas Road intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan.* Implementation of the improvement described above would assist in reducing traffic impacts on this intersection. If this improvement is completed concurrent with development of the Sunridge Specific Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department

Significance after Mitigation: less than significant

3.15-1h: Unacceptable LOS at the Sunrise Boulevard/Douglas Road Intersection (Intersection 9).

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1h: Participate in Improvements to the Sunrise Boulevard/Douglas Road Intersection (Intersection 9). Improvements must be made to ensure that the Sunrise Boulevard/Douglas Road intersection operates at an acceptable LOS. Specifically, all approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane. However, with implementation of this improvement, the intersection would continue to operate at an unacceptable LOS F.

To further improve operations at the intersection, additional roadway connectivity is required. To achieve this connectivity, Rancho Cordova Parkway (and its connection to U.S. 50) must be implemented, the Zinfandel Drive Extension must be implemented, and International Drive must be extended to Sunrise Boulevard and through the Rio del Oro SPA.

Improvements to this intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan*. The extension of Zinfandel Drive is identified as part of the *Mather Field Specific Plan Public Facilities Financing Plan*. Funding has been identified for Rancho Cordova Parkway and the interchange and for the

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
extension of International Drive to Sunrise Boulevard within the City's CIP program. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1i: Unacceptable LOS at the Mather Field Road/U.S. 50 Eastbound Ramps (Intersection 12).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1i: Participate in Improvements to the Mather Field Road/U.S. 50 Eastbound Ramps Intersection (Intersection 12).** Improvements must be made to ensure that the Mather Field Road/U.S. 50 eastbound ramps intersection operates at an acceptable LOS. Specifically, the eastbound ramp needs modification to make the eastbound right turn a "free" movement. This would require a receiving lane on Mather Field Road, south of the intersection. To further improve operations at the intersection, additional roadway connectivity is required. To achieve this connectivity, the Zinfandel Drive Extension must be implemented (to accommodate traffic generated within the Sunridge and SunCreek Specific Plan areas), International Drive must be extended to Sunrise Boulevard and into and through the Rio del Oro SPA, and Rancho Cordova Parkway (and its connection to U.S. 50) must be implemented. The extension of Zinfandel Drive is identified as part of the *Mather Field Specific Plan Public Facilities Financing Plan*. Funding has been identified for Rancho Cordova Parkway and the interchange and for the extension of International Drive to Sunrise Boulevard within the City's CIP program. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1j: Unacceptable LOS at the Sunrise Boulevard/White Rock Road Intersection (Intersection 18).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1j: Participate in Improvements to the Sunrise Boulevard/White Rock Road Intersection (Intersection 18). With two left-turn lanes, three through lanes, and one right-turn lane currently on all approaches, the Sunrise Boulevard/White Rock Road intersection would continue to operate at an unacceptable LOS as a result of sufficiently high volumes from traffic generated by the SunCreek Specific Plan and other developments in the area. Therefore, to ensure that this intersection operates at an acceptable LOS, additional improvements must be made, such as grade separation of the intersection (consistent with the City's Circulation Element/Plan) and/or additional roadway facilities such as the Zinfandel Drive Extension, International Drive Extension into and through the Rio del Oro SPA, and implementation of Rancho Cordova Parkway (and its connection to U.S. 50).

Improvements to this intersection and identified additional roadway connectivity are identified in the *Mather Field Specific Plan Public Facilities Financing Plan* (Zinfandel Drive Extension) or the City's CIP. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection. If these improvements are completed concurrent with development of the Mather Field Specific Plan or City's Public Facilities Financing Plan and implemented before development of the SunCreek project, then the project impact at this intersection would be reduced to a less-than-significant level.

Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation.

Significance after Mitigation: significant and unavoidable

3.15-1k: Unacceptable LOS at the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22).

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1k: Participate in Improvements to the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22). Improvements must be made to ensure that the Sunrise Boulevard/Zinfandel Drive intersection operates at an acceptable LOS. Specifically, all of the following improvements should be made:

- Configure westbound and eastbound approaches with one left-turn lane and one shared through/right-turn lane
- Implement protected phasing for the westbound and eastbound left-turns
- Optimize signal timing and offset

These at-grade improvements may be made without allocating additional right-of-way, and then the project impact at this intersection would be reduced to a less-than-significant level.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Significance after Mitigation: less than significant	
3.15-1l: Unacceptable LOS at the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25).	**NP:** No direct or indirect **BIM, CS:** Direct LTS, no indirect **NCP, PP, ID:** Direct significant, no indirect
NP, BIM, CS: No mitigation measures required. **NCP, PP, ID: Mitigation Measure 3.15-1l: Participate in Improvements to the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25).** To ensure that the Hazel Avenue/U.S. 50 westbound ramps intersection operates at an acceptable LOS, the following improvements should be made: ► Add an additional westbound right-turn on the off-ramp ► Add an additional eastbound right-turn lane ► Add an additional southbound through lane on Hazel Avenue Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1m: Unacceptable LOS at the Grant Line Road/White Rock Road Intersection (Intersection 27).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1m: Participate in Improvements to the Grant Line Road/White Rock Road Intersection (Intersection 27).** To ensure that the Grant Line Road/White Rock Road intersection operates at an acceptable LOS, all of the following improvements are required: ► A traffic signal must be installed at this intersection. ► Configure the southbound approach with one through lane and one dedicated right-turn lane ► Maintain shared left/through/right-turn lane on the eastbound approach. ► Configure the northbound approach with one left-turn lane and one through lane These improvements may require realignment of White Rock Road to provide adequate sight distance. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies. Implementation: Project Applicants.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1n: Unacceptable LOS at the Kilgore Road/White Rock Road Intersection (Intersection 28).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1n: Participate in Improvements to the Kilgore Road/White Rock Road Intersection (Intersection 28).** To ensure that the Kilgore Road/White Rock Road intersection operates at an acceptable LOS, a free right-turn lane must be added on the northbound approach with an associated receiving lane. The crossing of the Folsom South Canal already consists of a six-lane crossing, thus the receiving lane for the northbound free right-turn can be accommodated. This reduces the project impact at this intersection to a less-than-significant level. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-1o: Unacceptable LOS at the Eagles Nest Road/Douglas Road Intersection (Intersection 29).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1o: Participate in Improvements to the Eagles Nest Road/Douglas Road Intersection (Intersection 29).** To ensure that the Eagles Nest Road/Douglas Road intersection operates at an acceptable LOS, the following improvement is required: ► A traffic signal must be installed at this intersection. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-1p: Unacceptable LOS at the Sunrise Boulevard/Kiefer Boulevard Intersection (Intersection 30).	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-1p: Participate in Improvements to the Sunrise Boulevard/Kiefer Boulevard Intersection (Intersection 30).** To ensure that the Sunrise Boulevard/Kiefer Boulevard intersection operates at an acceptable LOS, the following improvement is required: ▸ Optimize signal timing and phasing. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-1q: Unacceptable LOS on Mather Boulevard between Femoyer Street and Douglas Road (Roadway Segment 4).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1q: Participate in Improvements to Mather Boulevard between Femoyer Street and Douglas Road (Roadway Segment 4).** To ensure that Mather Boulevard operates at an acceptable LOS between Femoyer Street and Douglas Road, Femoyer Street must be widened to four lanes between Mather Boulevard and the proposed Zinfandel Drive extension, and the future Zinfandel Drive extension must be constructed as a four-lane facility from Mather Boulevard to Douglas Road. Improvements to this roadway segment must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1r: Unacceptable LOS on Douglas Road between Mather Boulevard and Sunrise Boulevard (Roadway Segment 5).	**NP:** No direct or indirect **NCP, BIM, CS:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect
NP, NCP, BIM, CS: No mitigation measures required.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
PP, ID: Mitigation Measure 3.15-1r: Participate in Improvements to Douglas Road between Mather Boulevard and Sunrise Boulevard (Roadway Segment 5). To ensure that Douglas Road operates at an acceptable LOS between Mather Boulevard and Sunrise Boulevard, Douglas Road must be widened to four lanes. Improvements to this roadway segment must be coordinated with the County. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1s: Unacceptable LOS on Sunrise Boulevard between Gold Country Boulevard and Coloma Road (Roadway Segment 17).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1s: Participate in Improvements to Sunrise Boulevard between Gold Country Boulevard and Coloma Road (Roadway Segment 17).** Improvements must be made to improve operations on Sunrise Boulevard between Gold Country Boulevard and Coloma Road; specifically, this roadway segment should be widened to eight lanes. This improvement would offset the impacts of the project, but the segment would continue to operate at an unacceptable LOS. Additionally, although this improvement is consistent with the County Mobility Study, it is inconsistent with the City's Circulation Element/Plan because City Circulation Element identifies a maximum roadway cross section of six lanes. Furthermore, without additional river crossings, there are no parallel capacity improvements to relieve Sunrise Boulevard on this segment. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1t: Unacceptable LOS on Sunrise Boulevard between Coloma Road and the U.S. 50 Westbound Ramps (Roadway Segment 18).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1t: Participate in Improvements to Sunrise Boulevard between Coloma Road and the U.S. 50 Westbound Ramps (Roadway Segment 18).** Improvements must be made to improve operations on Sunrise Boulevard between Coloma Road and the U.S. 50 westbound ramps; specifically, this roadway segment should be widened to eight lanes. This improvement would offset the impacts of the project, but the segment would continue to operate at an unacceptable LOS. Additionally, although this improvement is consistent with the County Mobility Study, it is inconsistent with the City's Circulation Element/Plan because it restricts the City's desire for a maximum roadway cross section of six lanes. Furthermore, without additional river crossings, there are no parallel capacity improvements to relieve Sunrise Boulevard on this segment.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1u: Unacceptable LOS on Sunrise Boulevard between the U.S. 50 Eastbound Ramps and Folsom Boulevard (Roadway Segment 19).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1u: Participate in Improvements to Sunrise Boulevard between the U.S. 50 Eastbound Ramps and Folsom Boulevard (Roadway Segment 19).** Improvements must be made to improve operations on Sunrise Boulevard between the U.S. 50 eastbound ramps and Folsom Boulevard; specifically, this roadway segment should be widened to eight lanes. This improvement would ensure that the roadway segment would operate at an acceptable level of service. However, although this improvement is consistent with the County Mobility Study, it is inconsistent with the City's Circulation Element/Plan because the plan reflects the City's desire for a maximum roadway cross section of six lanes. An alternative to this identified improvement is implementation of parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50) and the Zinfandel Drive Extension to Douglas Road, which could improve operations on this segment and reduce the project's impact. Improvements to this roadway segment must be coordinated with Caltrans, Sacramento RT, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1v: Unacceptable LOS on Sunrise Boulevard between Folsom Boulevard and White Rock Road (Roadway Segment 20).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1v: Participate in Improvements to Sunrise Boulevard between Folsom Boulevard and White Rock Road (Roadway Segment 20).** Improvements must be made to improve operations on Sunrise Boulevard between Folsom Boulevard and White Rock Road; specifically, this roadway segment should be widened to eight lanes. This improvement would ensure that the roadway segment would operate at an acceptable level of service. However, this improvement is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes. An alternative to this identified improvement is implementation of parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50) and the Zinfandel Drive Extension to Douglas Road, which could improve operations on this segment and reduce the project's impact.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Improvements to this roadway segment must be coordinated with Caltrans and the County. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1w: Unacceptable LOS at Sunrise Boulevard between Douglas Road and Kiefer Boulevard (Roadway Segment 29).	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1w: Participate in Improvements to Sunrise Boulevard between Douglas Road and Kiefer Boulevard (Roadway Segment 29).** To ensure that Sunrise Boulevard operates at an acceptable LOS between Douglas Road and Kiefer Boulevard, this roadway segment must be widened to six lanes consistent with the City's Circulation Element/Plan and CIP. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-1x: Unacceptable LOS at Sunrise Boulevard between Kiefer Boulevard and State Route 16 (Roadway Segment 30).	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-1x: Participate in Improvements to Sunrise Boulevard between Kiefer Boulevard and State Route 16 (Roadway Segment 30).** To ensure that Sunrise Boulevard operates at an acceptable LOS between Kiefer Boulevard and SR 16, this roadway segment must be widened to six lanes consistent with the City's Circulation Element/Plan and CIP. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-1y: Unacceptable LOS at Various Merge and Diverge Segments of U.S. 50.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-1y: Participate in Improvements to Various Merge and Diverge Segments of U.S. 50. To ensure that the U.S. 50 merge and diverge areas operate at an acceptable LOS, the following improvements to the U.S. 50 corridor are required:

- Ramp metering must be added on the Mather Field Road eastbound on-ramps.
- An auxiliary lane must be constructed from Mather Field Road eastbound to Zinfandel Drive.
- An auxiliary lane must be constructed from Sunrise Boulevard eastbound to Hazel Avenue
- Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50.
- Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the Rio del Oro SPA, extension of Kiefer Boulevard, construction of Easton Valley Parkway, widening of White Rock Road from the Silva Valley Interchange in El Dorado County to Sunrise Boulevard, and connectivity of International Drive to Old Placerville Road.
- HOV lanes must be extended from Sunrise Boulevard to downtown Sacramento (or, as an interim project, to Watt Avenue).
- HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps.

Improvements to these merge and diverge segments of U.S. 50 must be coordinated with Caltrans and the County.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation.

Significance after Mitigation: potentially significant and unavoidable

3.15-2: Increased Demand for Alternative Modes of Transportation. Implementation of the project would create demand for alternative transportation mode facilities such as buses, LRT, and carpools in Rancho Cordova.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-2a: Participate in Capital Improvements for Transit Service. The project applicant(s) shall participate in capital improvements for transit service consistent with the City's Transit Master Plan. The project's fair-share participation and the associated timing of the improvements shall be identified in the project conditions of approval and/or the project's development agreement. Improvements shall be coordinated, as necessary, with Sacramento RT.

Implementation: Project Applicants.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.	
Enforcement: City of Rancho Cordova Public Works Department.	
Mitigation Measure 3.15-2b: Consult with the 50 Corridor Transportation Management Association and Comply with the City of Rancho Cordova Transportation System Management Ordinance. The project applicants shall consult with the 50 Corridor Transportation Management Association and comply with the City of Rancho Cordova transportation system management ordinance.	
Implementation: Project Applicants.	
Timing: Concurrent with construction of any particular discretionary development application.	
Enforcement: City of Rancho Cordova Public Works Department.	
Significance after Mitigation: significant and unavoidable	
3.15-3: Potential Inconsistencies with the City's General Plan Circulation Network. Alternatives to the Proposed Project are inconsistent with the City's adopted General Plan Circulation Network.	**NP, PP:** No direct or indirect **NCP, BIM, CS, ID:** Direct PS, no indirect
NP, PP: No mitigation measures required.	
NCP, BIM, CS, ID: Mitigation Measure 3.15-3: Modify Specific Plan to Be Consistent with the City's General Plan. Modify the specific plan under the No USACE Permit, Biological Impact Minimization, Conceptual Strategy, and Increased Development Alternatives so that they are consistent with the City General Plan Circulation Network.	
Implementation: Project Applicants.	
Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.	
Enforcement: City of Rancho Cordova Public Works Department.	
Significance after Mitigation: less than significant	
CUMULATIVE – TRAFFIC AND TRANSPORTATION	
3.15-4: Cumulative (2032) Conditions. Implementation of the project and other reasonably foreseeable development would cause an increase in A.M. peak traffic hour, P.M. peak traffic hour, and/or daily traffic volumes on area roadways, resulting in unacceptable LOS and warranting the need for improvements such as traffic signals and additional lanes under cumulative (2032) conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required.	
NCP, PP, BIM, CS, ID: Mitigation Measure Common to All Impacts under Impact 3.15-4: Participate in Identified Roadway Improvements. To avoid repetition, the	

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)
B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
information contained in the following mitigation measure applies to all other mitigation measures required under Impact 3.15-4. Note that no mitigation measures are required for the No Project Alternative because, as described above, no direct or indirect impacts would occur. The project applicant(s) shall participate in the necessary improvements identified in all of the following mitigation measures. The project's fair-share participation and the associated timing of the improvements shall be identified in the project conditions of approval and in the mitigation monitoring and reporting program for the project or in conjunction with and as an appendix to the specific plan (see mitigation measures following each identified impact). The timing and enforcement (described below) would be the same for all identified mitigation measures associated with Impact 3.15-4. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department.	
3.15-4a: Unacceptable LOS at the SR 16/Excelsior Road Intersection (Intersection 1) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4a: Participate in Improvements to the SR 16/Excelsior Road Intersection (Intersection 1).** To ensure that the SR 16/Excelsior Road intersection operates at an acceptable LOS E or better, the following improvements should be made to the intersection: ► Configure the northbound approach with one left-turn lane, two through lanes, and one right-turn lane. ► Configure the southbound approach with one left-turn lane, two through lanes, and one right-turn lane. ► Configure the eastbound approach with one left-turn lane, two through lanes, and one right-turn lane. ► Configure the westbound approach with two left-turn lanes, two through lanes, and one right-turn lane. Improvements to the SR 16/Excelsior Road intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/Sunridge Specific Plan Project state that physical improvement of this intersection is feasible. Improvements to this intersection must be coordinated with Caltrans and the County. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4b: Unacceptable LOS at the SR 16/Eagles Nest Road Intersection (Intersection 2) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4b: Participate in Improvements to the SR 16/Eagles Nest Road Intersection (Intersection 2).** To ensure that the SR 16/Eagles Nest Road intersection operates at an acceptable LOS E or better, one of the two following configurations should be implemented: ▸ Configure the northbound and southbound approaches with one left-turn lane, two through lanes, and one right-turn lane; or ▸ Configure the westbound and eastbound approaches with two left-turn lanes, two through lanes, and one right-turn lane. Improvements to the SR 16/Eagles Nest Road intersection are contained within the *Sunridge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/Sunridge Specific Plan Project state that physical improvement of this intersection is feasible. Improvements to this intersection must be coordinated with Caltrans and the County. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4c: Unacceptable LOS at the SR 16/Sunrise Boulevard Intersection (Intersection 3) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4c: Participate in Improvements to the SR 16/Sunrise Boulevard Intersection (Intersection 3).** To ensure that the SR 16/Sunrise Boulevard intersection operates at an acceptable LOS D or better, an additional eastbound and westbound through lane and a second eastbound left-turn lane must be added. Improvements to the SR 16/Sunrise Boulevard intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are within the *Mather Field Specific Plan Financing Plan*. Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Significance after Mitigation: significant and unavoidable	
3.15-4d: Unacceptable LOS at the Grant Line Road/SR16 Intersection (Intersection 4) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4d: Participate in Improvements to the Grant Line Road/SR16 Intersection (Intersection 4).** To ensure that the Grant Line Road/SR16 intersection operates at an acceptable LOS D or better, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of one left-turn lane, three through lanes, and one right-turn lane. ► The southbound approach must be reconfigured to consist of one left-turn lane, three through lanes, and one right-turn lane. ► The eastbound approach must be reconfigured to consist of two left-turn lanes, one through lane, and a shared through/right-turn lane. ► The westbound approach must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. ► These improvements would require widening of SR 16 and Grant Line Road 1,000 feet on all sides of the intersection. Improvements to the SR 16/Grant Line Road intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are within the *Mather Field Specific Plan Financing Plan.* Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection; with them, this intersection would operate at an acceptable LOS. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4e: Unacceptable LOS at the Florin Road/Sunrise Boulevard (Intersection 5) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, PP BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4e: Participate in Improvements to the Florin Road/Sunrise Boulevard Intersection (Intersection 5).** To ensure that the Florin Road/Sunrise Boulevard intersection operates at an acceptable LOS E or better, all of the following improvement is required: ► Optimize signal timing and phasing. Implementation of the improvements described above would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
coordinated with the County, and other potentially affected oversight agencies. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4f: Unacceptable LOS at the Sunrise Boulevard/Grant Line Road Intersection (Intersection 6) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4f: Participate in Improvements to the Sunrise Boulevard/Grant Line Road Intersection (Intersection 6).** To ensure that the Sunrise Boulevard/Grant Line Road intersection operates at an acceptable LOS, the following improvements must be implemented: ► Add an additional southbound right-turn lane. ► Convert the northbound approach to consist of one left-turn lane and one shared through-right lane. ► Provide protected phasing for the northbound and southbound left-turns. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4g: Unacceptable LOS at the Grant Line Road/Kiefer Boulevard Intersection (Intersection 7) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4g: Participate in Improvements to the Grant Line Road/Kiefer Boulevard Intersection (Intersection 7).** To ensure that the Grant Line Road/Kiefer Boulevard intersection operates at an acceptable LOS D or better, the eastbound and westbound approaches must consist of one left-turn lane, one through lane, and one right-turn lane. Improvements to this intersection must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4h: Unacceptable LOS at the Sunrise Boulevard/Douglas Road Intersection (Intersection 9) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4h: Participate in Improvements to the Sunrise Boulevard/Douglas Road Intersection (Intersection 9).** To improve LOS at the Sunrise Boulevard/Douglas Road intersection, all approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane. However, even with these improvements, this intersection would continue to operate at an unacceptable LOS. For this intersection to operate at an acceptable LOS, additional roadway connectivity is required. To achieve this connectivity, the Kiefer Boulevard Extension between Rancho Cordova and Sacramento must be implemented. Additional intersection improvements could be implemented consistent with the City's Circulation Element/Plan, including partial grade separation of the intersection and/or aggressive at-grade treatments such as triple left-turn lanes, enhanced-capacity right-turn treatments, or conversion into a continuous-flow intersection. Improvements to this intersection are contained within the *Sunridge Specific Plan Public Financing Plan*, but this public financing plan would not be able to fund all of the improvements described above. These intersection improvements must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4i: Unacceptable LOS at the Mather Field Road/U.S. 50 Eastbound Ramps Intersection (Intersection 12) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4i: Participate in Improvements to the Mather Field Road/U.S. 50 Eastbound Ramps Intersection (Intersection 12).**To ensure that the Mather Field Road/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D or better, the following improvements must be made: ▸ Convert the eastbound right-turn into a "free" right-turn. This will require a receiving lane south of the intersection extending at least 1000 feet. ▸ Add a southbound through lane Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP, and must be coordinated with Caltrans.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Implementation: Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4j: Unacceptable LOS at Mather Field Road/International Drive (Intersection 13) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4j: Participate in Improvements at the Mather Field Road/International Drive Intersection (Intersection 13).** To ensure that the Mather Field Road/International Drive intersection operates at an acceptable LOS D or better, the following improvements must be made: ► Convert the westbound approach to consist of three through lanes and three left-turn lanes. ► Convert the north bound right-turn lane into a "free" right-turn. This would require a receiving lane east of the intersection extending at least 1,000 feet. Because the required configuration would demand an excessive right-of-way take, alternative mitigations may be considered. Additional roadway connectivity in the area, through measures such as implementation of the Kiefer Boulevard Extension to Sacramento, extension of Routier Road to the south, completion of the International Drive–Old Placerville Road connection, and construction of the potential tunnel under Mather Field, has the potential to shift traffic volumes to reduce traffic impacts at the intersection. These additional roadway connectivity measures are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operations. Improvements to this intersection must be coordinated with the County and other regulatory agencies because of the proximity of some of these improvements to Mather Field. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4k: Unacceptable LOS at the Zinfandel Drive/International Drive Intersection (Intersection 14) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4k: Participate in Improvements to the Zinfandel Drive/International Drive Intersection (Intersection 14).** Improvements must be made to improve LOS at the Zinfandel Drive/International Drive intersection. Specifically, all approaches should be reconfigured to provide three left-turn, four through, and one right-turn lane. Additionally, capacity enhancements are needed for the right-turn movements.	

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

These improvements would reduce the cumulative impact caused by the proposed project and alternatives under consideration by providing acceptable LOS. However, widening International Drive and Zinfandel Drive to four through lanes is inconsistent with the City's Circulation Element/Plan because City policy identifies a maximum roadway cross-section of six lanes or fewer.

To be consistent with the City's Circulation Element/Plan, aggressive at-grade improvements are required, such as partial grade separation, capacity-enhancing right-turn treatments on all approaches, or implementation of a continuous-flow intersection. Additionally, improved roadway connectivity, such as the extension of Kiefer Boulevard, International Drive–Old Placerville Road connection, and/or construction of the tunnel under Mather Field would shift traffic volumes and reduce traffic at the intersection.

The additional roadway connections described above and aggressive at-grade intersection treatments are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operations.

Improvements to this intersection must be coordinated with the County and other regulatory agencies because of the proximity of some of these improvements to Mather Field (such as the FAA).

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department, Caltrans, County Department of Transportation, and FAA.

Significance after Mitigation: significant and unavoidable

3.15-4l: Unacceptable LOS at the Zinfandel Drive/White Rock Road Intersection (Intersection 15) under Cumulative (2032) Conditions.

NP: No direct or indirect

NCP, PP, BIM, CS, ID: Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4l: Participate in Improvements to the Zinfandel Drive/White Rock Road Intersection (Intersection 15). Improvements must be made to improve LOS at the Zinfandel Drive/White Rock Road intersection. Specifically, all approaches should be reconfigured to provide three left-turn, four through, and one right-turn lane. Additionally, capacity enhancements are needed for the right-turn movements.

Improvements to the Zinfandel Drive/White Rock Road intersection are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of the identified improvements would assist in reducing traffic impacts on this intersection by providing acceptable LOS. However, these improvements include widening the facility by more than six lanes, which is inconsistent with the City General Plan. Alternatively, partial grade separation could be implemented consistent with the City's Circulation Element/Plan and CIP; however, aggressive at-grade treatments such as partial grade separation have not been designed, and they could have geometric and/or environmental constraints that may make the treatments infeasible.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department.

Significance after Mitigation: significant and unavoidable

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4m: Unacceptable LOS at the Zinfandel Drive/U.S. 50 Eastbound Ramps Intersection (Intersection 16) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4m: Participate in Improvements to the Zinfandel Drive/U.S. 50 Eastbound Ramps Intersection (Intersection 16).** To ensure that the Zinfandel Drive/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D or better, the following improvements are required: ▸ Configure the northbound approach to consist of four through lanes and a shared through/right-turn lane. ▸ Configure the eastbound approach to consist of two left-turn lanes, two through lanes, and a free right-turn lane. ▸ Configure the westbound approach to consist of three right-turn lanes on the westbound approach. Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operation. Intersection improvements must be coordinated with Caltrans. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4n: Unacceptable LOS at the Sunrise Boulevard/White Rock Road Intersection (Intersection 18) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4n: Participate in Improvements to the Sunrise Boulevard/White Rock Road Intersection (Intersection 18).** To ensure that the Sunrise Boulevard/White Rock Road intersection operates at an acceptable LOS, grade separation must be implemented at this intersection. Some funding for intersection improvements to this intersection is identified in the *Mather Field Specific Plan Public Financing Plan* (Zinfandel Drive Extension), and in the City's Circulation Element/Plan, and included in the City's CIP. However, the grade separation treatment was not identified as a Tier 1 improvement nor has it been designed; it could have geometric and/or environmental constraints that may make the treatment infeasible. No other feasible improvements are available at this intersection to ensure that it operates at an acceptable level. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4o: Unacceptable LOS at the Sunrise Boulevard/Folsom Boulevard Intersection (Intersection 19) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4o: Participate in Improvements to the Sunrise Boulevard/Folsom Boulevard Intersection (Intersection 19).** To ensure that the Sunrise Boulevard/Sunrise Boulevard intersection operates at an acceptable LOS, grade separation must be implemented at this intersection. Some funding for intersection improvements to this intersection is identified in the City's Circulation Element/Plan and included in the City's CIP. However, the grade separation treatment was not identified as a Tier 1 improvement nor has it been designed; it could have geometric and/or environmental constraints that may make the treatment infeasible. No other feasible improvements are available at this intersection to ensure that it operates at an acceptable level. Additionally, grade separation may be infeasible because of geometric constraints at this intersection caused by the grade-separated LRT tracks. These improvements must be coordinated with Sacramento RT. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4p: Unacceptable LOS at the Sunrise Boulevard/U.S. 50 Eastbound Ramps Intersection (Intersection 20) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4p: Participate in Improvements to the Sunrise Boulevard/U.S. 50 Westbound Ramps Intersection (Intersection 20).** To ensure that the Sunrise Boulevard/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D or better, the following improvements must be implemented: ▸ Add a fourth southbound through lane; this would require widening of the freeway overpass. ▸ Convert the eastbound right-turn lanes to a "free" right-turn with an adequate receiving lane on Sunrise Boulevard. Improvements to this intersection must be coordinated with Caltrans. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4q: Unacceptable LOS at the Sunrise Boulevard/U.S. 50 Westbound Ramps Intersection (Intersection 21) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4q: Participate in Improvements to the Sunrise Boulevard/U.S. 50 Westbound Ramps Intersection (Intersection 21).** To ensure that the Sunrise Boulevard/U.S. 50 westbound ramps intersection operates at an acceptable LOS D or better, the following improvements must be implemented: ► Add a fourth southbound through lane; this would require widening of the freeway overpass. ► Convert the westbound right-turn lanes to a "free" right-turn with an adequate receiving lane on Sunrise Boulevard. Improvements to this intersection must be coordinated with Caltrans. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4r: Unacceptable LOS at the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4r: Participate in Improvements to the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22).** For the intersection to operate at an acceptable LOS D or better, grade separation of the intersection is required. This improvement is consistent with the City's Circulation Element/Plan and associated CIP; however, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: significant and unavoidable***	
3.15-4s: Unacceptable LOS at the Hazel Avenue/Folsom Boulevard Intersection (Intersection 23) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4s: Participate in Improvements to the Hazel Avenue/Folsom Boulevard Intersection (Intersection 23).** For	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
the intersection to operate at an acceptable LOS D or better, grade separation of the intersection is required. This improvement is consistent with the City's Circulation Element/Plan; however, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. Improvements to this intersection must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4t: Unacceptable LOS at the Hazel Avenue/U.S. 50 Eastbound Ramps Intersection (Intersection 24) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4t: Participate in Improvements to the Hazel Avenue/U.S. 50 Eastbound Ramps Intersection (Intersection 24).** To ensure that the Hazel Avenue/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D, a fourth through lane must be added to the southbound approach; this would require widening of the freeway overpass. Improvements to this interchange must be coordinated with Caltrans and the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4u: Unacceptable LOS at the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID:** Mitigation Measure 3.15-4u: Participate in Improvements to the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25). Substantial improvements must be made to ensure that the Hazel Avenue/U.S. 50 westbound ramps intersection operates at an acceptable level. Specifically, the following improvements should be made: ▸ The northbound approach should be reconfigured to consist of four through lanes and a free right-turn lane (this would require prohibiting northbound left turns to Tributary Point Drive). ▸ The southbound approach should be reconfigured to consist of four through lanes and a right-turn lane. ▸ The eastbound approach should be reconfigured to consist of one free right-turn lane.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
▸ The westbound approach should be reconfigured to consist of one left-turn lane, two through lanes, and one free right-turn lane. However, these improvements would prohibit northbound access to development west of the intersection and may be deemed infeasible if that access must be maintained. In addition, the displaced trips from the restricted movement would degrade operations at the Gold Country Boulevard/Hazel Avenue intersection. Improvements to this intersection must be coordinated with Caltrans and the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4v: Unacceptable LOS at the Hazel Avenue/Gold Country Boulevard Intersection (Intersection 26) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4v: Participate in Improvements to the Hazel Avenue/Gold Country Boulevard Intersection (Intersection 27).** Due to the excessive northbound and southbound through movement traffic demand, to ensure that the Hazel Avenue/Gold Country Boulevard intersection operates at an acceptable LOS, the intersection requires grade separation. However, there are significant geographic constraints associated with Hazel Avenue, primarily because of the existing bridge crossing of the American River just north of this intersection. Additionally, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. Improvements to this intersection must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4w: Unacceptable LOS at the Grant Line Road/White Rock Road Intersection (Intersection 27) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4w: Participate in Improvements to the Grant Line Road/White Rock Road Intersection (Intersection 27)**. To ensure that the Grant Line Road/White Rock Road intersection operates at an acceptable level, all of the following improvements are required: ▸ The northbound approach must be reconfigured to consist of one left-turn lane and three through lanes. ▸ The westbound approach must be reconfigured to consist of three through lanes and three left-turn lanes.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
► The eastbound approach must be reconfigured to consist of four through lanes and one right-turn lane; this would require widening of White Rock Road east of the intersection for at least 1,000 feet. An alternative to these improvements is partial grade separation of the intersection as identified in the City's Circulation Element/Plan; however, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. Also, additional connectivity, such as the improvements to the White Rock Road corridor and construction of Easton Valley Parkway from Rancho Cordova Parkway to the Silva Valley interchange. Improvements to this intersection must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4x: Unacceptable LOS at the Kilgore Road/White Rock Road Intersection (Intersection 28) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, ID:** Direct significant, no indirect **CS:** Direct LTS, no indirect
NP, CS: No mitigation measures required. **NCP, PP, BIM, ID: Mitigation Measure 3.15-4x: Participate in Improvements to the Kilgore Road/White Rock Road Intersection (Intersection 14).** To ensure acceptable operations at the Kilgore Road/White Rock Road intersection, the following improvements must be implemented: ► The northbound and southbound approaches must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. The westbound approach must be reconfigured to consist of three left-turn lanes, two through lanes, and one right-turn lane; this would require three receiving lanes south of the intersection. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4y: Unacceptable LOS at the Zinfandel Drive/Eagles Nest Road/Douglas Road Intersection (Intersection 29) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4y: Participate in Improvements to the Zinfandel Drive/Eagles Nest Road/Douglas Road Intersection**	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
(Intersection 29). To ensure that the Zinfandel Drive/Eagles Nest Road/Douglas Road intersection operates at an acceptable level, all of the following improvements are required: ▸ The northbound and southbound approaches must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. ▸ The westbound approach must be reconfigured to consist of one left-turn lane, two through lanes, and one "free" right-turn lane. Improvements to this intersection must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4z: Unacceptable LOS at the Sunrise Boulevard/Kiefer Boulevard Intersection (Intersection 30) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4z: Participate in Improvements to the Sunrise Boulevard/Kiefer Boulevard Intersection (Intersection 30).** To ensure that the Sunrise Boulevard/Kiefer Boulevard intersection operates at an acceptable LOS D or better, the following improvements are required: The eastbound and westbound right-turn movements require additional capacity treatment, such as overlap phasing. This requires u-turn movements to be prohibited on the northbound and southbound approaches. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4aa: Unacceptable LOS at the Rancho Cordova Parkway/U.S. 50 Westbound Ramps Intersection (Intersection 31) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4aa: Participate in Improvements to the Rancho Cordova Parkway/U.S. 50 Westbound Ramps Intersection (Intersection 31).** To ensure that the Rancho Cordova Parkway/U.S. 50 westbound ramps intersection operates at an acceptable LOS, all of the following improvements are required: ▸ The westbound approach must be reconfigured to consist of one shared through/left-turn lane and two left-turn lanes. This improvement would require widening of the southbound freeway over-crossing to three lanes.	

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)
B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Improvements to this intersection must be coordinated with Caltrans. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-1bb: Unacceptable LOS at the Rancho Cordova Parkway/U.S. 50 Eastbound Ramps Intersection (Intersection 32) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4bb: Participate in Improvements to the Rancho Cordova Parkway/U.S. 50 Eastbound Ramps Intersection (Intersection 32).** To ensure that the Rancho Cordova Parkway/U.S. 50 eastbound ramps intersection operates at an acceptable LOS, all of the following improvements are required: ▸ The eastbound approach must be reconfigured to consist of one shared through/left-turn lane and two left-turn lanes. This improvement would require widening of the freeway off-ramp to three lanes. Improvements to this intersection must be coordinated with Caltrans. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4cc: Unacceptable LOS at the Rancho Cordova Parkway/Easton Valley Parkway Intersection (Intersection 33) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4cc: Participate in Improvements to the Rancho Cordova Parkway/Easton Valley Parkway Intersection (Intersection 33).** For the intersection to operate at an acceptable LOS D or better, grade separation of the intersection is required. This improvement is consistent with the City's Circulation Element/Plan and associated CIP; however, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Significance after Mitigation: significant and unavoidable	
3.15-4dd: Unacceptable LOS at the Rancho Cordova Parkway/White Rock Road Intersection (Intersection 34) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4dd: Participate in Improvements to the Rancho Cordova Parkway/White Rock Road Intersection (Intersection 34).** To improve operations at the Rancho Cordova Parkway/White Rock Road intersection, the intersection must be reconfigured to the following: ► Two left-turn lanes, four through lanes, and one right-turn lane on all approaches. ► A free right-turn lane on the southbound approach. However, these improvements are inconsistent with the City General Plan. Alternatively, aggressive at-grade improvements (such as implementation of a continuous-flow intersection) or partial grade separation are required, consistent with the City's Circulation Element/Plan and associated CIP, could be implemented. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: significant and unavoidable***	
3.15-4ee: Unacceptable LOS at the White Rock Road/Americanos Boulevard Intersection (Intersection 35) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, CS, ID:** Direct significant, no indirect **BIM:** Direct LTS, no indirect
NP, BIM: No mitigation measures required. **NCP, PP, CS, ID: Mitigation Measure 3.15-4ee: Participate in Improvements to the White Rock Road/Americanos Boulevard Intersection (Intersection 35).** To ensure that the White Rock Road/Americanos Boulevard intersection operates at an acceptable LOS during the A.M. peak traffic hour, the northbound and southbound approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and an exclusive right-turn lane. Improvements to this intersection must be coordinated with the County and Aerojet General Corporation (Aerojet). **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, County Department of Transportation, and Aerojet. ***Significance after Mitigation: significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4ff: Unacceptable LOS at the Rancho Cordova Parkway/Douglas Road Intersection (Intersection 36) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, ID:** Direct significant, no indirect **BIM, CS:** Direct LTS, no indirect
NP, BIM, CS: No mitigation measures required. **NCP, PP, ID: Mitigation Measure 3.15-4ff: Participate in Improvements to the Douglas Road/Jaeger Road Intersection (Intersection 36).** To ensure acceptable operations at the Rancho Cordova Parkway/Douglas Road intersection, optimize signal timing and phasing and provide additional capacity treatment to the eastbound right-turn, such as an overlap phase. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4gg: Unacceptable LOS at the Americanos Boulevard/Douglas Road Intersection (Intersection 37) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4gg: Participate in Improvements to the Americanos Boulevard/Douglas Road Intersection (Intersection 37).** To ensure acceptable operations at the Americanos Boulevard/Douglas Road intersection, optimize signal timing and phasing. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4hh: Unacceptable LOS at the Sunrise Boulevard/ Chrysanthy Boulevard Intersection (Intersection 38) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP:** Direct LTS, no indirect **PP, BIM, CS, ID:** Direct significant, no indirect
NP, NCP: No mitigation measures required. **PP, BIM, CS, ID: Mitigation Measure 3.15-4hh: Participate in Improvements to the Sunrise Boulevard/Chrysanthy Boulevard Intersection (Intersection 38).** To ensure that the Chrysanthy Boulevard/Sunrise Boulevard intersection operates at an acceptable LOS, a second westbound right-turn lane is needed.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Implementation: Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4ii: Unacceptable LOS at the Rancho Cordova Parkway/ Chrysanthy Boulevard Intersection (Intersection 39) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4ii: Participate in Improvements to the Rancho Cordova Parkway/Chrysanthy Boulevard Intersection (Intersection 39).** To ensure acceptable operations at the Rancho Cordova Parkway/Chrysanthy Boulevard intersection, optimize signal timing and phasing. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4jj: Unacceptable LOS at the Americanos Boulevard/Chrysanthy Boulevard Intersection (Intersection 40) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4jj: Participate in Improvements to the Americanos Boulevard /Chrysanthy Boulevard Intersection (Intersection 40).** To ensure acceptable operations at the Americanos Boulevard/Chrysanthy Boulevard intersection, optimize signal timing and phasing. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4kk: Unacceptable LOS at the Rancho Cordova Parkway/Kiefer Boulevard Intersection (Intersection 41) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct significant, no indirect **PP:** Direct LTS, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4kk: Participate in Improvements to the Rancho Cordova Parkway/Kiefer Boulevard Intersection (Intersection 41).** To ensure that the Rancho Cordova Parkway/Kiefer Boulevard intersection operates at an acceptable LOS, the signal timing of the intersection needs to be adjusted appropriately to the new balance of traffic with the project. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4ll: Unacceptable LOS at the Sunrise Boulevard/International Drive Intersection (Intersection 42) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4ll: Participate in Improvements to the Sunrise Boulevard/International Drive Intersection (Intersection 42).** To improve LOS at the Sunrise Boulevard/International Drive intersection, the intersection must be reconfigured to consist of three left-turn lanes, three through lanes, and two right-turn lanes. However, even with these improvements, this intersection would operate at an unacceptable LOS. To further improve operations and to fully reduce the impact, aggressive at-grade improvements (such as implementation of a continuous-flow intersection) or partial grade separation is required, consistent with the City's Circulation Element/Plan and associated CIP. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: significant and unavoidable***	
3.15-4mm: Unacceptable LOS on State Route 16 between Excelsior Road and Eagles Nest Road (Roadway Segment 1) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4mm: Participate in Improvements to State Route 16 between Excelsior Road to Eagles Nest Road (Roadway Segment 1).** Improvements must be made to ensure that SR 16 operates at an acceptable LOS between Excelsior Road and Eagles Nest Road; specifically,	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
this roadway segment should be widened to four lanes. Improvements beyond this mitigation are identified in the City's Circulation Element; specifically, SR 16 is identified as a six-lane expressway, however full funding of this improvement has not been identified. Improvements to this roadway segment must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4nn: Unacceptable LOS on State Route 16 between Sunrise Boulevard and Grant Line Road (Roadway Segment 2) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4nn: Participate in Improvements to State Route 16 between Sunrise Boulevard and Grant Line Road (Roadway Segment 2).** Improvements must be made to ensure that SR 16 operates at an acceptable LOS between Sunrise Boulevard and Grant Line Road; specifically, this roadway segment should be widened to four lanes. Improvements beyond this mitigation are identified in the City's Circulation Element; specifically, SR 16 is identified as a six-lane expressway, however full funding of this improvement has not been identified. Improvements to this roadway segment must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4oo: Unacceptable LOS on Sunrise Boulevard between Gold Country Boulevard and Coloma Road (Roadway Segment 17) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required. **PP: Mitigation Measure 3.15-4oo: Participate in Improvements to Sunrise Boulevard between Gold Country Boulevard and Coloma Road (Roadway Segment 17).** Improvements must be made to Sunrise Boulevard between Gold Country Boulevard and Coloma Road to improve operations; specifically, this roadway segment should be widened to eight lanes. The identified improvement would more than offset the impacts specifically related to the project on the roadway segment. However, because of other development in the region that would substantially increase traffic levels, the roadway segment would continue to operate at an unacceptable LOS even with the capacity improvements identified to mitigate SunCreek impacts. The identified improvement is consistent with the County Mobility	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Study; however, it is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes. Moreover, without additional river crossings, there are no parallel capacity improvements to relieve Sunrise Boulevard on this segment. Additional river crossings would result in significant environmental effects (i.e., loss of riparian habitat and loss of structures). **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department (additional river crossings would require coordination with other agencies such as CPUC, DFG, USACE, Caltrans, etc.) ***Significance after Mitigation: significant and unavoidable***	
3.15-4pp: Unacceptable LOS on Sunrise Boulevard between Coloma Road and U.S. 50 Westbound Ramps (Roadway Segment 18) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect
NP, NCP, BIM, CS: No mitigation measures required. **PP, ID: Mitigation Measure 3.15-4pp: Participate in Improvements to Sunrise Boulevard between Coloma Road and U.S. 50 Westbound Ramps (Roadway Segment 18).** Improvements must be made to improve operations on Sunrise Boulevard between Coloma Road and U.S. 50 westbound ramps; specifically, this roadway segment should be widened to eight lanes. The identified improvement would more than offset the impacts specifically related to the Rio del Oro project on the roadway segment. However, because of other development in the region that would substantially increase traffic levels, the roadway segment would continue to operate at an unacceptable LOS even with the capacity improvements identified to mitigate SunCreek impacts. The identified improvement is consistent with the County Mobility Study; however, it is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes. Moreover, without additional river crossings, there are no parallel capacity improvements to relieve Sunrise Boulevard on this segment. Additional river crossings would result in significant environmental effects (i.e., loss of riparian habitat and loss of structures). **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department (additional river crossings would require coordination with other agencies such as CPUC, DFG, USACE, Caltrans, etc.) ***Significance after Mitigation: significant and unavoidable***	
3.15-4qq: Unacceptable LOS on Sunrise Boulevard between the U.S. 50 eastbound ramps and Folsom Boulevard (Roadway Segment 19) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS, ID:** Direct LTS, no indirect **PP:** Direct significant, no indirect
NP, NCP, BIM, CS, ID: No mitigation measures required.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
PP: Mitigation Measure 3.15-4qq: Participate in Improvements to Sunrise Boulevard between the U.S. 50 eastbound ramps and Folsom Boulevard (Roadway Segment 19). Improvements must be made to Sunrise Boulevard between the U.S. 50 eastbound ramps and Folsom Boulevard to improve operations; specifically, this roadway segment should be widened to eight lanes. The identified improvement would more than offset the impacts specifically related to the project on the roadway segment. However, because of other development in the region that would substantially increase traffic levels, the roadway segment would continue to operate at an unacceptable LOS even with the capacity improvements identified to mitigate SunCreek impacts. The identified improvement is consistent with the County Mobility Study; however, it is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes. Moreover, without additional river crossings, there are no parallel capacity improvements to relieve Sunrise Boulevard on this segment. Additional river crossings would result in significant environmental effects (i.e., loss of riparian habitat and loss of structures). **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department (additional river crossings would require coordination with other agencies such as CPUC, DFG, USACE, Caltrans, etc.) ***Significance after Mitigation: significant and unavoidable***	
3.15-4rr: Unacceptable LOS on Sunrise Boulevard between Folsom Boulevard and White Rock Road (Roadway Segment 20) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect
NP, NCP, BIM, CS: No mitigation measures required. **PP, ID: Mitigation Measure 3.15-4rr: Participate in Improvements to Sunrise Boulevard between Folsom Boulevard and White Rock Road (Roadway Segment 20).** Improvements must be made to ensure that Sunrise Boulevard operates at an acceptable LOS between Folsom Boulevard and White Rock Road; specifically, this roadway segment should be widened to eight lanes. With implementation of this identified improvement, this segment would operate at an acceptable LOS, but the improvement is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department ***Significance after Mitigation: significant and unavoidable***	
3.15-4ss: Unacceptable LOS on Grant Line Road between White Rock Road and Douglas Road (Roadway Segment 24) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4ss: Participate in Improvements to Grant Line Road between White Rock Road and Douglas Road (Roadway Segment 24). Improvements must be made to ensure that Grant Line Road operates at an acceptable LOS between White Rock Road and Douglas Road; specifically, this roadway segment should be widened to four lanes. Improvements beyond this mitigation are identified in the City's Circulation Element; specifically, Grant Line Road is identified as a six-lane expressway. However, full funding of this improvement has not been identified.

Improvements to this roadway segment must be coordinated with the County.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department and County Department of Transportation.

Significance after Mitigation: significant and unavoidable

3.15-4tt: Unacceptable LOS on Grant Line Road between Douglas Road and State Route 16 (Roadway Segment 25) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect

NP: No mitigation measures required.

NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4tt: Participate in Improvements to Grant Line Road between Douglas Road and State Route 16 (Roadway Segment 25). To ensure that Grant Line Road operates at an acceptable LOS D or better between Douglas Road and SR 16, this roadway segment should be widened to six lanes.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

Enforcement: City of Rancho Cordova Public Works Department

Significance after Mitigation: less than significant

3.15-4uu: Unacceptable LOS on Douglas Road between Sunrise Boulevard and Rancho Cordova Parkway (Roadway Segment 27) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, BIM, CS:** Direct LTS, no indirect **PP, ID:** Direct significant, no indirect

NP, NCP, BIM, CS: No mitigation measures required.

PP, ID: Mitigation Measure 3.15-4uu: Participate in Improvements to Douglas Road between Sunrise Boulevard and Rancho Cordova Parkway (Roadway Segment 27). To ensure that Douglas Road operates at an acceptable LOS D or better between Sunrise Boulevard and Rancho Cordova Parkway, this roadway segment should be widened to six lanes.

Implementation: Project Applicants.

Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4vv: Unacceptable LOS on Sunrise Boulevard between Douglas Road and Chrysanthy Boulevard (Roadway Segment 38) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4vv: Participate in Improvements to Sunrise Boulevard between Douglas Road and Chrysanthy Boulevard (Roadway Segment 38).** Improvements must be made to ensure that Sunrise Boulevard operates at an acceptable LOS D or better between Douglas Road and Chrysanthy Boulevard; specifically, this roadway segment should be widened to eight lanes. With implementation of this improvement, this segment would operate at an acceptable LOS; however, the improvement is inconsistent with the City's Circulation Element/Plan because City policy requires a maximum roadway cross section of six lanes or fewer. An alternative to this improvement is additional connectivity, such as the extensions of Chrysanthy Boulevard to Kiefer Boulevard, Jaeger Road to Grant Line Road, and Kiefer Boulevard to Sacramento. Improvements to this roadway segment must be coordinated with the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department and County Department of Transportation. ***Significance after Mitigation: significant and unavoidable***	
3.15-4ww: Unacceptable LOS on Rancho Cordova Parkway between Douglas Road and Chrysanthy Boulevard (Roadway Segment 43) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4ww: Participate in Improvements to Rancho Cordova Parkway between Douglas Road and Chrysanthy Boulevard (Roadway Segment 43).** To ensure that Rancho Cordova Parkway operates at an acceptable LOS D or better between Douglas Road and Chrysanthy Boulevard, this roadway segment must be widened to six lanes. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.15-4xx: Unacceptable LOS on Rancho Cordova Parkway Chrysanthy Boulevard and Kiefer Boulevard (Roadway Segment 44) under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, ID:** Direct significant, no indirect **CS:** Direct LTS, no indirect
NP, CS: No mitigation measures required. **NCP, PP, BIM, ID: Mitigation Measure 3.15-4xx: Participate in Improvements to Rancho Cordova Parkway between Chrysanthy Boulevard and Kiefer Boulevard (Roadway Segment 44).** To ensure that Rancho Cordova Parkway operates at an acceptable LOS D or better between Chrysanthy Boulevard and Kiefer Boulevard, this roadway segment must implement high access control or be widened to six lanes. Implementation: Project Applicants. Timing: As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. Enforcement: City of Rancho Cordova Public Works Department ***Significance after Mitigation: less than significant***	
3.15-4yy: Unacceptable LOS at Various Merge, Diverge, and Weave Segments of U.S. 50 under Cumulative (2032) Conditions.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct significant, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.15-4yy: Participate in Improvements to U.S. 50 Merge, Diverge, and Weave Segments.** To ensure that project impacts to U.S. 50 merge, diverge, or weave areas are minimized, the following improvements to the U.S. 50 corridor are required: ▸ Ramp metering must be added on the Mather Field Road and Zinfandel Drive eastbound on-ramps ▸ An auxiliary lane must be constructed west of Mather Field Road in the eastbound direction. ▸ Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50. ▸ Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the SPA, extension of Kiefer Boulevard, construction of Easton Valley Parkway, and connectivity of International Drive to Old Placerville Road. ▸ HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps. Improvements to these merge, diverge, and weave areas must be coordinated with Caltrans and the County. **Implementation:** Project Applicants. **Timing:** As a condition of project approval and/or as a condition of the development agreement for any particular discretionary development application. **Enforcement:** City of Rancho Cordova Public Works Department, Caltrans, and County Department of Transportation. ***Significance after Mitigation: potentially significant and unavoidable***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.16 UTILITIES AND SERVICE SYSTEMS	
3.16-1: Increased Demand for Wastewater Collection and Conveyance Facilities. Project implementation would result in increased generation of wastewater.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.16-1: Submit Proof of Adequate On- and Off-Site Wastewater Conveyance Facilities and Implement On- and Off-Site Infrastructure Service Systems or Submit Proof That Adequate Financing Is Secured.** Before the approval the final maps for all project phases, the project applicants shall submit written verification that SRCSD has adequate wastewater conveyance capacity for the amount of development identified in the tentative map has been constructed or is assured through the use of bonds or other sureties to the City's satisfaction. Both on- and off-site wastewater conveyance infrastructure sufficient to provide adequate service to the SPA shall be in place for the amount of development identified in the tentative map before approval of the final map and issuance of building permits by the City of Rancho Cordova Public Works Department and issuance of building permits by the City of Rancho Cordova Building and Safety Division for all project phases, or their financing shall be secured and proof of such financing be provided to the satisfaction of the City. Implementation: The project applicants for any particular discretionary development application. Timing: Before approval of final maps and issuance of building permits for any project phases. Enforcement: City of Rancho Cordova Building and Safety Division and City of Rancho Cordova Public Works Department. ***Significance after Mitigation: less than significant***	
3.16-2: Increased Demand for Sacramento Regional Wastewater Treatment Plant (SRWTP) Facilities. Project implementation would result in increased generation of wastewater, thereby increasing the demand for wastewater treatment facilities to support the project.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.16-2: Demonstrate Adequate SRWTP Wastewater Treatment Capacity.** The project applicants for any particular discretionary development application shall demonstrate adequate capacity at the SRWTP for new wastewater flows generated by the project. This shall involve preparing a report prior to construction of each phase of development that identifies the amount of wastewater flows generated by the increment of proposed development, the available SRWTP wastewater treatment plant capacity, and confirming payment of connection and capacity fees as identified by SRCSD. Approval of the final map or improvement plan and issuance of building permits for all project phases shall not be granted until the City verifies adequate SRWTP capacity is available for the amount of proposed development identified in the report. Implementation: The project applicants for any particular discretionary development application. Timing: Before approval of Final maps and issuance of building permits for any project phases. Enforcement: City of Rancho Cordova Building and Safety Division and City of Rancho Cordova Public Works Department. ***Significance after Mitigation: less than significant***	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact Mitigation	Significance
3.16-3: Temporary and Short-Term Generation of Solid Waste during Project Construction. Project construction would generate temporary and short-term construction-related debris and waste. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.16-4: Increased Long-Term Generation of Solid Waste. Project implementation would increase long-term solid-waste generation. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.16-5: Increased Demand for Electricity and Infrastructure. Project implementation would increase the demand for electricity and electrical infrastructure. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS
3.16-6: Increased Demand for Natural Gas and Infrastructure. Project implementation would increase the demand for natural gas and infrastructure and would include the extension of existing natural gas pipelines. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS
3.16-7: Increased Demand for Communications Service and Infrastructure. Project implementation would increase the demand for communications service and infrastructure. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS
3.16-8: Increased Energy Demand. Project implementation would increase energy consumption during construction and operation. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, indirect too speculative for meaningful consideration

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.17 WATER SUPPLY	
3.17-1: Increased Demand for Water Supplies. Project implementation would result in increased demand for surface water and groundwater supplies. **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS, no indirect
3.17-2: Need for Off-Site Water Conveyance, Storage, and Treatment Facilities. Project implementation would result in increased demand for water supply. Off-site water conveyance, storage, and treatment facilities would be required to deliver water to customers on the SPA. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Mitigation Measure 3.17-2: Submit Proof of an On- and Off-Site Infrastructure Delivery System or Assure that Adequate Financing is Secured.** The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivisions maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals: ► All required water treatment and delivery infrastructure for the project shall be in place at the time of subsequent, project-specific discretionary land-use entitlements or approvals, or shall be assured prior to occupancy through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects. The following shall be required for project-specific discretionary land-use entitlements and approvals including, but not limited to, all tentative subdivision maps, parcel maps, or use permits: ► Off-site and on-site water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the issuance of building permits or their financing shall be assured to the satisfaction of the City prior to the approval of the Final Map, consistent with the requirements of the Subdivision Map Act, or prior to the issuance of a similar, project-level entitlement for nonresidential land uses. ► Off-site and on-site water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy, as determined appropriate by the City, and subject to approval by the City. Implementation: Project applicants of any particular discretionary development application. Timing: Before the approval of project-specific, discretionary land-use entitlements and approvals, including all final small-lot maps, or for nonresidential projects, before the issuance of use permits, building permits, or other entitlements. Enforcement: City of Rancho Cordova Planning Department. ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS, no indirect

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
3.17-3: Need for Off-Site Water Conveyance Facilities—Florin Road/Sunrise Boulevard Pipeline. The project is required to construct a new off-site pipeline in order to convey water from the North Service Area Pipeline (NSAP) to the project site.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** **Aesthetics, Air Quality, Greenhouse Gases, Noise, Paleontological Resources:** Direct LTS, no indirect **Biological Resources:** Direct significant **Cultural Resources, Public Services:** Direct PS, no indirect **Drainage, Hydrology, and Water Quality:** Direct and indirect PS **Environmental Justice, Hazards and Hazardous Materials, Land Use and Planning, Traffic and Transportation:** No direct or indirect **Geology, Soils, and Mineral Resources:** (seismic activity and related geologic hazards) direct LTS, no indirect; (potential loss of mineral resources) no direct or indirect; (soil erosion as a result of construction activities and potential damage to the pipeline from soil hazards) direct PS, no indirect **Parks and Recreation; Population, Employment, and Housing:** No direct, indirect LTS **Utilities and Service Systems:** Direct PS
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID:** **Aesthetics; Air Quality; Environmental Justice; Greenhouse Gases; Hazards and Hazardous Materials; Land Use and Planning; Noise; Paleontological Resources; Parks and Recreation; Population, Employment, and Housing; Traffic and Transportation** No mitigation measures required. **Biological Resources** **Mitigation Measure 3.17-3a: Perform Biological Surveys at the Construction Staging Area and Avoid Damage or Destruction to Sensitive Resources by Relocating the Staging Area, if Sensitive Biological Resources are Found.** If a previously disturbed area is not available, prior to the establishment of any construction staging area, the project applicant(s) shall retain the services of a qualified professional biologist to perform surveys at the proposed staging area for special-status plants and wildlife and any sensitive habitats such as wetlands or other waters of the U.S., and special-status species that may not be located within the staging area but could be disturbed by construction activities (e.g., raptors). If sensitive biological resources are found at a proposed staging area, another potential staging area shall be identified and evaluated until a suitable site found to be devoid of sensitive resources is identified. The final construction staging area selected shall not be located in any area that would damage or destroy any special-status plant population or habitat for any state or Federally listed special-status wildlife species (e.g., vernal pools, elderberry shrubs, Swainson's hawk nest site), require fill or result in any indirect impacts to any wetland or other waters of the U.S. or waters of the state, or require take of any special-status wildlife species (as determined by the qualified professional biologist),. The project applicant(s) shall first	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

seek a previously disturbed area for staging.

To avoid disturbance to nesting wildlife species (e.g., raptors) the following measures shall be applied:

- Conduct preconstruction surveys for active nests of Swainson's hawks, white-tailed kite, burrowing owls, and other raptors, at the proposed staging area and within 0.5 mile.
- If active nests are found, impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in coordination with DFG that reducing the buffer would not result in nest abandonment. DFG guidelines recommend establishing buffers of 0.25- to 0.5-mile, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest.
- Monitoring of the nest by a qualified biologist during and after construction activities shall occur (to be funded by the project applicant[s]) if the activity has potential to adversely affect the nest.

Implementation: Before the approval of grading plans and before/during any ground-disturbing activities for the Florin Road/Sunrise Boulevard Pipeline.

Timing: Project applicants of all project phases where construction of the Florin Road/Sunrise Boulevard Pipeline is required.

Enforcement: City of Rancho Cordova Planning Department.

Cultural Resources

Implement Mitigation Measure 3.5-3.

Mitigation Measure 3.17-3b: Perform Cultural Surveys at the Construction Staging Area and Avoid Damage or Destruction to Archaeological Resources by Relocating the Staging Area if Cultural Resources are Found. If a previously disturbed area is not available, prior to the establishment of any construction staging area, the project applicants shall retain the services of a qualified professional archaeologist to perform surveys at the proposed staging area for cultural resources. If cultural resources are found at a proposed staging area, another potential staging area shall be identified and evaluated until a suitable site found to be devoid of sensitive resources is identified. The final construction staging area selected shall not be located in any area that would damage or destroy cultural resources. The project applicants shall first seek a previously disturbed area for staging.

To avoid damage or destruction of cultural resources, the project applicants of all project phases where construction of the pipeline is required shall hire a qualified archaeologist to perform a cultural records search and survey, if appropriate. If any cultural resources are discovered along the pipeline route or within the selected construction staging area as a result of the records search, the staging area shall be moved to a different location without any known cultural resources, and Mitigation Measure 3.5-3 shall be implemented in the vicinity of the known resources along the pipeline route.

Implementation: Before the approval of grading plans and before/during any ground-disturbing activities for the Florin Road/Sunrise Boulevard Pipeline.

Timing: Project applicants of all project phases where construction of the Florin Road/Sunrise Boulevard Pipeline is required.

Enforcement: City of Rancho Cordova Planning Department.

Drainage, Hydrology, and Water Quality

Implement Mitigation Measures 3.9-1 and 3.17-3a.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
<u>Geology, Soils, and Mineral Resources</u> **Implement Mitigation Measures 3.7-1a and 3.9-1.** **<u>Public Services</u>** **Implement Mitigation Measure 3.14-1.** **<u>Utilities and Service Systems</u>** **Implement Mitigation Measure 3.17-2.** ***Significance after Mitigation: less than significant***	
3.17-4: Need for Off-Site Water Conveyance Facilities—Potential Conversion of the Anatolia Raw Groundwater Transmission Pipeline. In the event that construction of the NSAP were to be delayed, the Anatolia raw groundwater transmission pipeline could be converted to a treated surface water transmission pipeline by constructing a surface water transmission pipeline from the Vineyard Surface WTP to the existing Anatolia groundwater transmission pipeline.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** **Aesthetics, Air Quality, Greenhouse Gases, Noise, Paleontological Resources:** Direct LTS, no indirect **Biological Resources:** Direct significant **Cultural Resources, Public Services:** Direct PS, no indirect **Drainage, Hydrology, and Water Quality; Utilities and Service Systems:** Direct and indirect PS **Environmental Justice; Hazards and Hazardous Materials; Land Use and Planning; Parks and Recreation; Population, Employment, and Housing; Traffic and Transportation:** No direct or indirect **Geology, Soils, and Mineral Resources:** (seismic activity and related geologic hazards) direct LTS, no indirect; (potential loss of mineral resources) no direct or indirect; (soil erosion as a result of construction activities and potential damage to the pipeline from soil hazards) direct PS, no indirect
NP: No mitigation measures required. **NCP, PP, BIM, CS, ID:**	
<u>Aesthetics; Air Quality; Environmental Justice; Greenhouse Gases; Hazards and Hazardous Materials; Land Use and Planning; Noise; Paleontological Resources; Parks and Recreation; Population, Employment, and Housing; Traffic and Transportation</u> No mitigation measures required. **<u>Biological Resources</u>** **Implement Mitigation Measure 3.17-3a.**	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
<u>Cultural Resources</u> **Implement Mitigation Measures 3.5-3 and 3.17-3b.** **<u>Drainage, Hydrology, and Water Quality</u>** **Implement Mitigation Measures 3.9-1 and 3.17-3a.** **<u>Geology, Soils, and Mineral Resources</u>** **Implement Mitigation Measures 3.7-1a and 3.9-1.** **<u>Public Services</u>** **Implement Mitigation Measure 3.14-1.** **<u>Utilities and Service Systems</u>** **Implement Mitigation Measure 3.17-2.** ***Significance after Mitigation: less than significant***	
3.17-5: Need for Off-Site Water Conveyance Facilities—Americanos Boulevard Pipelines. The project is required to construct new off-site pipelines to convey Zone 6 water from the North Douglas storage tanks to the project site.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** **Aesthetics, Air Quality, Greenhouse Gases, Noise, Paleontological Resources:** Direct LTS, no indirect **Biological Resources:** (wetlands) direct and indirect significant, (special-status species) direct and indirect PS **Cultural Resources, Public Services:** Direct PS, no indirect **Drainage, Hydrology, and Water Quality; Utilities and Service Systems:** Direct and indirect PS **Environmental Justice; Hazards and Hazardous Materials; Land Use and Planning; Parks and Recreation; Population, Employment, and Housing; Traffic and Transportation:** No direct or indirect **Geology, Soils, and Mineral Resources:** (seismic activity and related geologic hazards) direct LTS, no indirect; (potential loss of mineral resources) no direct or indirect; (soil erosion resulting construction activities or potential damage to the pipeline from soil hazards) direct PS, no indirect
NP: No mitigation measures required.	

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	

NCP, PP, BIM, CS, ID:

Aesthetics; Air Quality; Environmental Justice; Greenhouse Gases; Hazards and Hazardous Materials; Land Use and Planning; Noise; Paleontological Resources; Parks and Recreation; Population, Employment, and Housing; Traffic and Transportation

No mitigation measures required.

Biological Resources

Implement Mitigation Measures 3.3-1a, 3.3-1b, 3.3-3a, 3.3-3c, 3.9-3d, and 3.17-3a.

Mitigation Measure 3.17-5: Conduct Protocol-Level Preconstruction Surveys for Special-Status Plants The project applicants shall retain a qualified botanist to conduct protocol-level preconstruction special-status plant surveys for all potentially occurring plant species. If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report to U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (DFG), and the City of Rancho Cordova, and no further mitigation shall be required.

If special-status plant populations are found, the project applicants of affected project phases shall consult with the City, DFG, and USFWS, as appropriate depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts on any special-status plant population that could result from project implementation. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals.

If potential impacts on special-status plant species are likely as determined by the botanist, a mitigation and monitoring plan shall be developed before the approval of grading plans or any ground-breaking activity within 250 feet of a special-status plant population. The mitigation plan shall be submitted to the City of Rancho Cordova for review and approval. It shall be submitted concurrently to DFG or USFWS, as appropriate depending on species status, for review and comment. The plan shall require the following:

- Viable plant populations shall be maintained on site and avoidance measures shall be identified for any existing population(s) to be retained and compensatory measures for any populations directly affected. Possible avoidance measures include fencing populations before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. The mitigation plan shall also include monitoring and reporting requirements for populations to be preserved on site or protected or enhanced off-site.
- If relocation efforts are part of the mitigation plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, and other details, as appropriate to target the preservation of long term viable populations.

Implementation: Before the approval of grading plans and before/during any ground-disturbing activities for the Americanos Boulevard pipeline.

Timing: Project applicants of all project phases where construction of the Americanos Boulevard pipeline is required.

Enforcement: City of Rancho Cordova Planning Department.

NP (No Project)	NCP (No USACE Permit)	PP (Proposed Project)	BIM (Biological Impact Minimization)	CS (Conceptual Strategy)	ID (Increased Development)
B (Beneficial)	NI (No impact)	LTS (Less than significant)	PS (Potentially significant)	S (Significant)	SU (Significant and unavoidable)

Table ES-1
Summary of Impacts and Mitigation Measures

Impact	Significance
Mitigation	
Cultural Resources **Implement Mitigation Measures 3.5-2, 3.5-3 and 3.17-3b.** **Drainage, Hydrology, and Water Quality** **Implement Mitigation Measures 3.9-1 and 3.17-3a.** **Geology, Soils, and Mineral Resources** **Implement Mitigation Measures 3.7-1a and 3.9-1.** **Public Services** **Implement Mitigation Measure 3.14-1.** **Utilities and Service Systems** **Implement Mitigation Measure 3.17-2.** ***Significance after Mitigation: less than significant* except *direct and indirect impacts on wetlands and other waters of the U.S., vernal pool fairy shrimp, and vernal pool tadpole shrimp would remain significant and unavoidable***	
3.17-6: Need for On-Site Water Conveyance and Storage Facilities. Project implementation would require construction of on-site water conveyance facilities to deliver water from SCWA's off-site conveyance facilities to the SPA. **NP:** No mitigation measures required. **NCP, PP, BIM, CS, ID: Implement Mitigation Measure 3.17-2.** ***Significance after Mitigation: less than significant***	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct PS
3.17-7: Use of Nonpotable Water Supplies and Infrastructure. Project implementation could result in the use of nonpotable-water supplies and infrastructure to provide landscaping irrigation of parks, streetscapes, schools, and commercial land uses. Initially, the nonpotable water supply demands would be met by the potable water supplies. In the long term, it is assumed that future nonpotable water supply would be provided by SRCSD, when a sufficient supply of nonpotable water is available to meet project demands **NP, NCP, PP, BIM, CS, ID:** No mitigation measures required.	**NP:** No direct or indirect **NCP, PP, BIM, CS, ID:** Direct LTS

NP (No Project) NCP (No USACE Permit) PP (Proposed Project) BIM (Biological Impact Minimization) CS (Conceptual Strategy) ID (Increased Development)

B (Beneficial) NI (No impact) LTS (Less than significant) PS (Potentially significant) S (Significant) SU (Significant and unavoidable)

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1 INTRODUCTION AND STATEMENT OF PURPOSE AND NEED

This document is a joint environmental impact report/environmental impact statement (EIR/EIS) prepared for the SunCreek Specific Plan project (the "proposed project" for purposes of the California Environmental Quality Act [CEQA] and the "proposed action" for purposes of the National Environmental Policy Act [NEPA]). This EIR/EIS has been prepared by both the City of Rancho Cordova (City), as lead agency under CEQA, and the U.S. Army Corps of Engineers (USACE), Sacramento District, as Federal lead agency under NEPA. The EIR/EIS is a joint document intended to comply with both CEQA and NEPA. See California Code of Regulations (CCR), Title 14, Division 6, Chapter 3 (State CEQA Guidelines, as amended), Section 15222 ("Preparation of Joint Documents"); and Code of Federal Regulations (CFR), Title 40, Sections 1502.25, 1506.2, and 1506.4 (authority for combining Federal and state environmental documents). See also 33 CFR Part 230 (USACE NEPA regulations) and 33 CFR Part 325, Appendix B ("NEPA Implementation Procedures for the [USACE] Regulatory Program").

In its initial form, an EIR/EIS is composed primarily of a draft document known as a draft EIR/EIS (DEIR/DEIS), and the lead agencies' written responses to public and public-agency comments on the draft document. This DEIR/DEIS evaluates the potential adverse impacts on the human and natural environment resulting from implementation of the proposed SunCreek Specific Plan project (proposed project/proposed action), hereinafter referred to as "the project." The DEIR/DEIS proposes mitigation measures and alternatives that may reduce or avoid the significance of such adverse impacts. Following public review of the DEIR/DEIS a final EIR/EIS (FEIR/FEIS) will be prepared, in which the joint lead agencies will provide responses to significant comments relating to the analysis provided in the DEIR/DEIS.

A specific plan is a legislative development plan prepared in accordance with California planning statutes found in California Government Code Section 65450 et seq. and the City's Specific Plan Ordinance No. 11-2004. The goal of the specific plan is to establish a development framework for land use, resource protection, circulation, public utilities and services, implementation, and design. The project includes adoption of the specific plan itself and implementation of the associated development proposal. This DEIR/DEIS has been prepared under the direction of the City and USACE and in accordance with the requirements of CEQA and NEPA identified above.

This chapter of the DEIR/DEIS provides information on the following:

- the project requiring environmental analysis (i.e., a synopsis);
- project purpose and need and project objectives;
- history and planning context of the project;
- type, purpose, and intended uses of the DEIR/DEIS;
- scope and focus of the DEIR/DEIS;
- agency roles and responsibilities and required permits and approvals;
- organization of the DEIR/DEIS;
- documents relied on in the DEIR/DEIS; and
- standard terminology and acronyms.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The applicant group, which consists of Sierra Sunrise, Shalako, Investek, Luxori, Smith/Dunmore, and Grantline 220 hereinafter referred to as the "project applicants," are requesting approval of various discretionary entitlements in support of a specific plan for a mixed-use development. (Some of the project applicants have changed since issuance of the Notice of Preparation and Notice of Intent were circulated for this project, and were initially comprised of Lennar Communities on behalf of Pardee Homes, Investek, Lennar Communities, Gerry N. Kamilos, and Grantline 220.) As discussed further in Section 1.6.1 below and in Chapter 2, "Alternatives," certain requested entitlements apply only to the participating landowners. The specific plan supports a combination of

employment-generating uses, retail and supporting services, recreational uses, public/quasi-public uses, schools, and a broad range of residential uses and associated infrastructure and roads on an approximately 1,265-acre site in eastern Sacramento County (County), south of U.S. Highway 50 (U.S. 50), in the city limits of the city of Rancho Cordova. The property is located south of Douglas Road, north of Jackson Highway (i.e., State Route 16), west of Grant Line Road, and east of Sunrise Boulevard (see Exhibits 2-1 and 2-2 in Chapter 2, "Alternatives").

The project includes a maximum of 4,697 residential units in five residential land use classifications at various densities; approximately 90 acres of employment-generating uses; approximately 13 acres of public/quasi public uses; three elementary schools and one combined high school/middle school complex on a total of approximately 111 acres; approximately 91 acres of parks; approximately 50 acres of stormwater detention basins and canals; approximately 100 acres of roads; approximately 45 acres of wetland buffer/bike path corridor; and a 203-acre wetland preserve.

1.2 PROJECT HISTORY AND PLANNING CONTEXT

1.2.1 PROJECT HISTORY AND PLANNING CONTEXT

The SunCreek Specific Plan is located within the former Sunrise Douglas Community Plan area, which was initiated in 1993, adopted by the County in 2002, and rescinded by the City in 2009 as a result of litigation. The Sunrise Douglas Community Plan played an important role in providing a location and planning guidelines for new housing to meet the demand generated by existing, planned, and approved employment-generating uses within and adjacent to the U.S. 50 corridor. The U.S. 50 corridor has experienced substantial growth in employment-generating land use since the 1970s. Since 1980, the cities of Folsom and Rancho Cordova, which were incorporated in 1946 and 2003, respectively, have experienced intense housing demand and rapid employment growth due to expansion of the high technology, electronics, and new services industries. A substantial amount of land along the U.S. 50 corridor between the Bradshaw Road and Hazel Avenue freeway interchanges has developed as either an industrial park or business park. As early as 1983, the County had initiated studies to address the growing imbalance between jobs and housing opportunities in the U.S. 50 corridor east of downtown Sacramento and extending to the Sacramento/El Dorado County line.

The Sunrise Douglas Community Plan established the policy framework and conceptual development plan for an estimated 6,042 acres in eastern Sacramento County. The City of Rancho Cordova's General Plan now supersedes that document and has retained many of its features for the Community Plan area. The project site is identified in the City General Plan as part of the SunCreek/Preserve Planning Area.

1.2.2 ANATOLIA

In 1987, the Sammis Company applied to the County for approval of a proposed industrial development on a 1,225-acre site located southeast of the Sunrise Boulevard/Douglas Road intersection (now known as the Anatolia development). The County prepared an initial study and distributed a Notice of Preparation (NOP) for an EIR in February 1988. Shortly after environmental review of the industrial project began, the Federal government announced the possible closure of Mather Air Force Base, which made residential development in that area possible. Sammis then amended its development application from primarily industrial to primarily residential land uses. The property was later transferred from Sammis to the Sares-Regis company.

Because the project applicant was also applying for the necessary Federal Clean Water Act (CWA) Section 404 permit, which required NEPA compliance, the County and USACE agreed to work together on a joint NEPA/ CEQA document. A new initial study on the residential project and a revised NOP were published in November 1989. Likewise, USACE published a Notice of Intent (NOI) to prepare an EIS in the Federal Register on December 22, 1989. Comments were received from various agencies on the revised NOP/NOI. On November 5, 1990, a public DEIS was circulated and the FEIS was certified in 1992. At the time the EIS was prepared, the

Anatolia project site was within the area covered by the Cosumnes Community Plan; however, it was subsequently included within the Sunrise Douglas Community Plan (discussed below).

On May 10, 1996, the Sares-Regis company was granted a CWA Section 404 permit for a revised development proposal that included filling 38.15 acres of jurisdictional wetlands, on-site preservation of 43.99 acres of wetlands in a 482-acre preserve, and creation of 41.08 acres of compensatory wetlands.

The property changed ownership multiple times and ultimately became known as Anatolia. The development application for Anatolia was incorporated by the County into the Sunridge Specific Plan and the Sunrise Douglas Community Plan (discussed below) and the project was approved by the County concurrently with those plans.

1.2.3 SUNRISE DOUGLAS COMMUNITY PLAN/SUNRIDGE SPECIFIC PLAN

On July 28, 1993, the Sacramento County Board of Supervisors initiated a specific plan process for the Sunrise Douglas area (encompassing over 5,000 acres of land). Staff began working with applicants and consultants to develop a land use plan, and a Citizen's Advisory Committee (CAC) was created to draft guiding principles and policies to direct the planning process. The CAC concluded deliberations in December, 1994 with a favorable recommendation for land plan concepts and guiding principles. These are incorporated in the Sunrise Douglas Community Plan goals and policies.

Following a series of workshops and meetings, it was decided that a different planning approach to the area would be more beneficial, and on July 12, 1995, the Board of Supervisors initiated a community plan for the entire Sunrise Douglas area within the General Plan Urban Policy Area (approximately 6,042 acres), and amended the boundaries of the specific plan (Sunridge) to a smaller area of approximately 2,200 acres. On January 24, 1996, the County Board of Supervisors increased the specific plan (Sunridge) boundaries by approximately 400 acres.

The CAC was reconvened to consider a revised land use plan, patterned after the plan formerly considered by the CAC, but amended to accommodate the concept of smaller specific plan areas. The CAC met on August 20, 1996, finding the revised plan to be substantially consistent with the December 1994 plan.

As ultimately approved by the County in 2002, the Sunrise Douglas Community Plan consisted of 6,042 acres of land, including 2,632 acres within the former Sunridge Specific Plan area. The Sunridge Specific Plan was evaluated at a project level and the remainder of the Sunrise Douglas Community Plan was evaluated at a program level in a *Final Environmental Impact Report* dated November 2001, prepared by the Sacramento County Department of Environmental Review and Assessment.

The Sunrise Douglas Community Plan/Sunridge Specific Plan EIR concluded that development within the Sunridge Specific Plan Area could affect up to 99 acres of existing wetlands outside the Anatolia preserve, and development of the remainder of the community plan area (the remaining area outside of the Sunridge Specific Plan) could affect an additional 104 acres of existing wetlands. The EIR stated:

> While preservation of all wetlands within the [community plan] area would not be compatible with its designation [by Sacramento County] as an Urban Growth Area, opportunities for expanded preservation do exist and should be seriously examined…Attention should be paid to providing interconnecting habitat corridors through the area to allow for wildlife movement. Areas with dense concentrations of wetlands should be considered candidates for preservation. Preservation should be planned in relatively large contiguous blocks. Where wetland acreage is diffuse and preservation is impractical, impacts should be mitigated by a combination of on-site construction to the extent appropriate and off-site/bank preservation and construction. (See Section 14, "Biological Resources".)

These ideas were carried forward into Sunrise Douglas Community Plan/Sunridge Specific Plan EIR Mitigation Measures BR-1 through BR-4, which required consideration of a comprehensive wetland avoidance/mitigation strategy, wetland delineations, the use of alternative wetland mitigation strategies (if applicable), and the procurement of Section 404 and other regulatory agency permits. The mitigation measures in the Sunrise Douglas Community Plan/Sunridge Specific Plan EIR remain enforceable through conditions of approval on the various projects that were approved under those plans.

1.2.4 FEDERAL GUIDANCE REGARDING AVOIDANCE AND MINIMIZATION

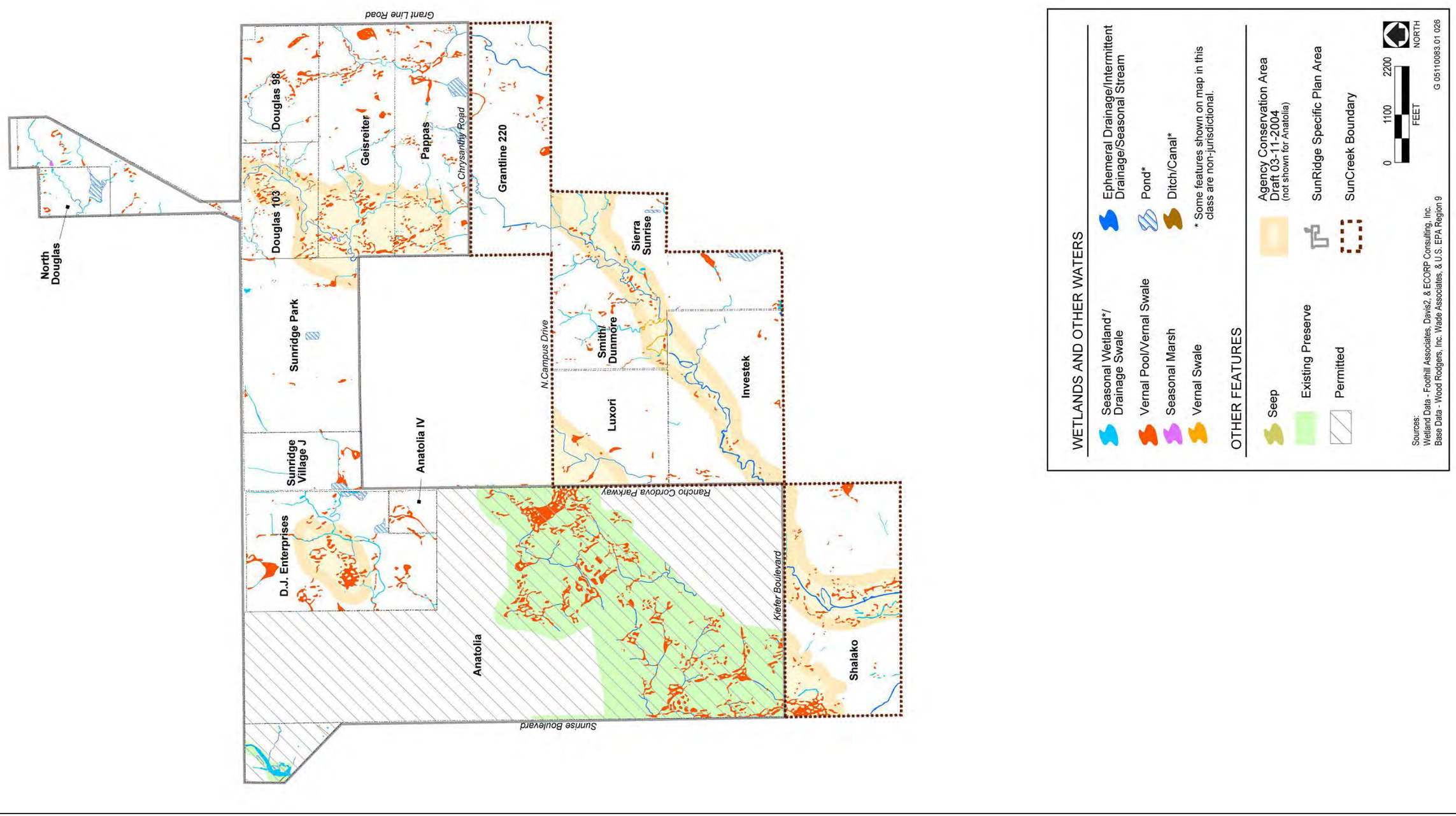
The Anatolia and Mather West properties received Federal CWA 404 permits prior to the adoption of the Sunridge Specific Plan and Sunrise Douglas Community Plan by the County. Beginning May 10, 2002, the County initiated a series of meetings regarding potential CWA and endangered species permitting strategies for the remainder of the Sunrise Douglas Community Planning Area. The meetings were attended by the County, a majority of the landowners and their representatives, as well as various Federal agencies (i.e., U.S. Environmental Protection Agency [EPA], USACE, and U.S. Fish and Wildlife Service [USFWS]). The intent of the meetings was to address and attempt to reconcile overlapping and potentially conflicting interests and regulations between agencies with jurisdiction over development of the area. Although progress was made, these initial discussions did not result in any guidance.

In July 2003, the City incorporated and replaced the County as the local land use authority for the Sunrise Douglas Community Plan Area. In February 2004, USACE issued a public notice for five separate applications for CWA Section 404 permits, for projects within the Sunridge Specific Plan. In March 2004, Congressman Doug Ose initiated a new series of meetings with EPA, USACE, USFWS, the City, and the landowners/property representatives to help reconcile differences that remained from the initial phase of meetings. These discussions included the SunCreek properties as well as the pending applications for the Sunridge properties. Congressman Ose encouraged EPA, USACE, and USFWS to develop a conceptual strategy both for the conservation of on-site wetland and aquatic resources in the planning area and to address general issues regarding the appropriate mitigation of those resources that could not feasibly and practicably be preserved on-site. The parties worked cooperatively to follow the mandates of Federal law, the need to preserve ecosystem integrity and the habitat of endangered species, the need to acknowledge the planning policies and objectives of the City, and the need to account for the economic realities facing private sector developers. These meetings continued through June 2004.

In June 2004, EPA, USACE, and USFWS developed an advisory document known as the Conceptual Level Strategy for Avoiding, Minimizing, and Preserving On-Site Aquatic Resource Habitat in the Sunrise Douglas Community Plan area ("Conceptual Level On-Site Avoidance Strategy, herein after referred to as "Conceptual Level Strategy"). The Conceptual Level Strategy laid out general planning, ecological, and biological principles based on the best available information at the time. The EPA, USACE, and USFWS also developed an accompanying map to provide general guidance on a development /preservation footprint that could potentially be permitted subject to appropriate review (see Exhibit 1-1).

After EPA, USACE, and USFWS released the Conceptual Level Strategy map, individual property owners and representatives held additional discussions with the City and EPA, USACE, and USFWS on the Conceptual Level Strategy map, based upon more detailed, project-level information. In response to comments, the landowners revised the map in September 2004 to reflect the more detailed analysis and to incorporate what they understood to be acceptable modifications based upon the guidance provided in the meetings.

The revised map was provided to the City, EPA, USACE, and USFWS and was reflected in the CWA 404 permit applications for the Sunridge properties. In addition, a regional alternatives analysis was prepared to support project-level CWA Section 404(b)(1) alternatives analyses for individual CWA Section 404 permit applications. The revised map also became the basis for the City's revised land plan for the Sunridge Specific Plan and (with minor modifications discussed below) the proposed SunCreek Specific Plan.



Source: Foothill Associates 2004

Federal Agency (Conceptual Level Strategy) Map **Exhibit 1-1**

1.3 SUNCREEK PLANNING HISTORY

The proposed SunCreek Specific Plan includes approximately 1,253 acres within the former Sunrise Douglas Community Plan area and is located south of the area covered by the Sunridge Specific Plan. The property was identified as a future growth area in the 1993 Sacramento County General Plan and included within the County's Urban Policy Area, which was intended to provide a 20-year supply of developable land.

The property was subsequently included in the Sunrise Douglas Community Plan adopted by the County in 2002 and now superseded by the City's General Plan. The Sunrise Douglas Community Plan provided a policy framework for development of the area and the associated EIR provided programmatic environmental review under CEQA for the SunCreek Specific Plan Area (SPA). The proposed SunCreek Specific Plan (then known as the Sunrise Douglas II Specific Plan) was being processed by the County at the time the Sunrise Douglas Community Plan was adopted and was specifically identified in the Community Plan.

The land use plan then under consideration by the County for the SunCreek Specific Plan (then known as Sunrise Douglas II) reflected the County's vision of concentrating natural resource protection offsite in areas outside of the Sacramento County General Plan's Urban Services Boundary where the County believed it would be easier to separate and protect resources from the effect of surrounding development over the long term. This approach was consistent with the general conservation strategy then being considered by the County for the proposed South Sacramento County Habitat Conservation Plan, which included the SPA. Accordingly, the land use plan under consideration at the time by the County included very little on-site avoidance of wetland features. This plan envisioned preservation of only a small area of open space immediately adjacent to the upper reach of Laguna Creek generally known as Sun Creek (or Kite Creek) and another small area adjacent to the drainage through the eastern portion of the Grantline 220 property.

Following incorporation of the City in July 2003, the proposed SunCreek Specific Plan was revised and resubmitted to the new City. The land use plan proposed to the City in December 2003 contained a somewhat larger open space area adjacent to Sun Creek (also known as Kite Creek) and the unnamed drainage at Grantline 220. It also proposed small open space preserves in the northwestern portion of the Luxori property and the northwestern portion of the Shalako property (this plan is analyzed in this DEIR/DEIS as the "Increased Development Alternative"). This plan avoided approximately 12% of the project's wetlands.

Two important processes that were underway in 2004 led to a fundamental redesign of the proposed SunCreek Specific Plan. The first was development of the Conceptual Level Strategy as described in Section 1.2.4 above, which provided planning level guidance for on-site avoidance and minimization. The second was the visioning process for the new City. The visioning process included a series of community meetings and workshops, which led to the adoption of a "Vision Book" to help guide future development in the City. Both the City's Vision Book and the Conceptual Level Strategy represented a substantial departure from previous planning for the SPA and required major revisions.

To implement its new vision and the guidance provided by the Conceptual Level Strategy, the City coordinated a design charrette process in 2005, which led to a new land plan for the SPA. The process was facilitated by an outside planning consultant and included all relevant City departments as well as other local agencies such as the Elk Grove Unified School District (EGUSD) and the Cordova Recreation & Park District (CRPD). In preparation for the charrette, the proposed alignment of Americanos Boulevard through the SPA was revised at the direction of the City to coordinate with the planning for Sunridge East and the guidance in the Conceptual Level Strategy prepared by EPA, USACE, and USFWS. The revised alignment of Americanos Boulevard required minor modification of the proposed wetlands preserve for the SPA. The City's vision also required the project to ensure connectivity between neighborhoods as well as pedestrian linkages to schools, parks, and other community facilities.

The charrette process formed the basis for a revised SunCreek Specific Plan application that was submitted in 2005 and is the subject of this EIR/EIS. Since that time, some internal land use changes have been made to the proposed project, but the proposed development footprint has remained constant. As currently designed, the SunCreek Specific Plan area contains 43.68 acres of jurisdictional waters of the U.S. and wetlands, 19.51 acres of which would be preserved (approximately 46%). The plan includes 203.7 acres designated as wetland preserve. An additional 45.2 acres located along the edge of the proposed wetland preserve would be used as a separation buffer between the wetland preserve and the adjacent urban uses. The buffer may include a pedestrian/bike path corridor. The main part of the preserve area generally follows Sun Creek (also known as Kite Creek) in a southwesterly direction, beginning in the northeastern portion of the Sierra Sunrise property, through the Investek property, and terminating at the southern end of the Shalako property. This area is considerably larger than the area proposed by the project applicants in 2003, and is several times larger than the area proposed in 1999. The two additional preserve areas are approximately twice the size of the area proposed in 2003, as follows: (1) the northwestern portion of the Luxori property, which has a large concentration of vernal pools and, (2) the northwestern portion of the Shalako property, which has a large concentration of non-vernal pool wetlands. Both of these two areas would provide connectivity with the wetland preserve in the Sunridge Specific Plan.

1.4 STATEMENT OF PROJECT PURPOSE AND NEED

The proposed action has been formulated to achieve the purpose, objectives, and needs of the project, as summarized below. State CEQA Guidelines Section 15124(b) requires that the project description contain a clear statement of the project objectives, including the underlying purpose of the project. The statement of objectives is important under CEQA in helping the lead agency (the City) to develop a reasonable range of alternatives to the project/action for evaluation in the EIR/EIS. These objectives also define the underlying need for the project to which USACE is responding, in conformance with the requirements of NEPA (40 CFR 1502.13 and 33 CFR Part 325, Appendix B).

1.3.1 PROJECT PURPOSE

The City and USACE each view the project purpose from the purview of their responsibilities. The City is interested in the orderly development of lands within its planning boundaries. USACE's interest extends to its permit authority with respect to regulation of waters of the U.S., including wetlands.

PROJECT PURPOSE: CITY OF RANCHO CORDOVA CONSIDERATIONS

The purpose of the SunCreek project is to provide a mixed-use, mixed-density residential development in the City of Rancho Cordova. In accordance with local and regional plans, including Sacramento Area Council of Governments (SACOG) Blueprint and Smart Growth Principles, the City's General Plan, including the 2005 Circulation Plan, the proposed SunCreek project would provide a high school and middle school, a community park, significant open space and a recreational parkway, a key link to the citywide trail network, transportation facilities, neighborhood-serving retail areas, and would contribute to the planned Regional Preserve with development that is consistent with the September 2004 Conceptual Level Strategy for the conservation of wetlands within the Community Plan area. The project would provide housing to balance the high employment concentrations currently existing in and around the City and would generate a positive fiscal impact for the City.

PROJECT PURPOSE: U.S. ARMY CORPS OF ENGINEERS

The project purpose, as considered by USACE, is to provide a large-scale mixed-use community within eastern Sacramento County, in the Urban Services Boundary.

1.4.1 PROJECT NEEDS AND OBJECTIVES

Outlined below are the main project needs and objectives defined by the project applicants for the proposed SunCreek development. These objectives are important for the selection and consideration of CEQA alternatives.

- Implement SACOG's Blueprint and Smart Growth Principles, and the City of Rancho Cordova's General Plan.
- Provide a mixed-use and mixed-density residential housing development within the City of Rancho Cordova.
- Develop several distinct neighborhoods within the SPA, linked by a significant open space and recreational parkway, to create development with neighborhood connectivity.
- Provide neighborhood-serving retail areas within the SPA.
- Provide additional new jobs/housing to balance the high employment concentrations currently existing in and around the City of Rancho Cordova.
- Provide a mix of housing types within the SPA to diversify the City of Rancho Cordova's housing stock.
- Provide transportation facilities within the SPA that are consistent with the City of Rancho Cordova's Circulation Plan.
- Provide an appropriate site for a high school and middle school that would serve the SPA and surrounding neighborhoods.
- Provide an appropriate site for a community park that would serve the SPA and surrounding neighborhoods.
- Provide a key link in the citywide trail network that connects the Folsom South Canal bike and pedestrian trail to corridors along the Laguna Creek and Cosumnes River tributaries.
- Contribute to the planned Regional Preserve with development that is consistent with the September 2004 Conceptual Level Strategy for the conservation of wetlands within the Sunrise Douglas Community Plan area.
- Generate positive fiscal impacts for the City through development within the SPA.

1.5 INTENDED USES AND TYPE OF ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT

1.5.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

According to the State CEQA Guidelines (14 CCR Section 15064[f][1]), preparation of an EIR is required whenever a project may result in a significant environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

CEQA requires that state, regional, and local government agencies consider the environmental effects of projects over which they have discretionary authority before taking action on those projects (California Public Resources Code [PRC]Section 21000 et seq.). CEQA also requires that each public agency avoid or reduce to less-than-

significant levels, wherever feasible, the significant environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts that cannot be fully and feasibly reduced to less-than-significant levels, the project can still be approved, but the lead agency's decision makers must issue a "statement of overriding considerations" explaining in writing the specific economic, social, or other considerations that they believe make those significant effects acceptable.

1.5.2 NATIONAL ENVIRONMENTAL POLICY ACT

NEPA provides an interdisciplinary framework for Federal agencies to develop information that will help them to take environmental factors into account in their decision-making (42 United States Code [USC] 4321, 40 CFR 1500.1). According to NEPA, an EIS is required whenever a proposed major Federal action (e.g., a proposal for legislation or an activity financed, assisted, conducted, or approved by a Federal agency) would result in significant effects on the quality of the human environment.

Much of the development contemplated by the proposed specific plan is dependent upon Federal action because such development would require Federal permits for one or more of the following activities: (i) discharges of fill into waters of the United States, and (ii) activities affecting endangered species protected by the Federal Endangered Species Act (16 USC 1531 et seq.). An EIS is an informational document used by Federal agencies in making decisions. An EIS is intended to provide full and open disclosure of environmental consequences prior to agency action; an interdisciplinary approach to project evaluation; objective consideration of all reasonable alternatives; application of measures to avoid or reduce adverse impacts; and an avenue for public and agency participation in decision-making (40 CFR 1502.1). NEPA defines mitigation as avoiding, minimizing, rectifying, reducing, or compensating for significant effects of the proposed action (40 CFR 1508.20).

NEPA requires that a lead agency "include (in an EIS) appropriate mitigation measures not already included in the proposed action or alternatives" (40 CFR 1502.14[f]). An EIS shall also include discussions of "means to mitigate adverse environmental impacts (if not fully covered under Section 1502.14[f])." In preparing a Record of Decision under 40 CFR 1505.2, a lead agency is required to "[s]tate *whether* all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for *any* mitigation." (Italics added.)

The proposed action consists of several individual project components that are related closely enough to be considered a single course of action.

1.5.3 TYPE OF ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

The development proposal for the specific plan contains enough specificity for a site-specific, project-level environmental review under both CEQA and NEPA, and will allow the consideration of discretionary approvals, such as tentative subdivision maps and use permits for this project. The City's intention in evaluating the project at a project-level of detail is that no further EIRs or negative declarations will be required for additional regulatory approvals following adoption of the specific plan, barring the occurrence of any of the circumstances described in PRC Section 21166, for those parcels that are owned by the landowners participating in this EIR/EIS. USACE similarly intends this document to provide sufficient formal NEPA analysis for project development. The participating landowners are Sierra Sunrise, Shalako, Investek, and Smith/Dunmore.

For the non-participating landowners—Grantline 220 and Luxori—it is anticipated that at some point in the future, those property owners would come forth with detailed land use plans, at which time the City and USACE would determine whether or not the CEQA/NEPA analysis provided in this document is sufficient, or whether additional environmental analyses will be necessary for those parcels.

USACE anticipates that Section 404 permit decisions can be made for this project without additional NEPA analysis beyond this EIR/EIS for the participating landowners listed above, as long as there are no substantial deviations from proposed uses or the condition of these uses.

1.6 SCOPE AND FOCUS OF THE ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

Pursuant to CEQA, the State CEQA Guidelines, and NEPA, the discussion of potential effects on the environment in this EIR/EIS is focused on those impacts that the City and USACE have determined may be potentially significant.

The City prepared and circulated an NOP on the project concept on July 14, 2006 (Appendix A). The NOP concluded that the project may have significant impacts related to air quality, biological resources, cultural and paleontological resources, hazards and hazardous materials, hydrology/water quality, noise, public services, and utilities. The NOP informed agencies and the general public that a joint EIR/EIS was being prepared, and invited comments on the scope and content of the document and participation at a public scoping meeting. The NOP was published in the State Clearinghouse and was mailed to agencies and members of the public. It was also posted on the City's website. The NOP was circulated for 30 days as mandated by CEQA. The public-comment period for the NOP closed on August 14, 2006.

On July 13, 2006, USACE issued an NOI (Appendix A) to inform agencies and the general public that a joint EIR/EIS was being prepared and invited comments on the scope and content of the document. At that time USACE announced that it had developed a public-involvement program allowing opportunities for public participation and involvement in the NEPA process. The NOI also provided information on the date and time of public scoping meeting. The NOI was published in the *Federal Register*, Vol. 71, No. 134, on July 13, 2006. The NOI was also posted on the City's website. There is no mandated time limit to receive written comments in response to the NOI under NEPA.

The City and USACE jointly held one public scoping meeting to solicit input from the community and public agencies to be considered in project design, alternatives selection, and on the scope and content of the EIR/EIS. The meeting was held on July 26, 2006 at the City of Rancho Cordova City Hall in Rancho Cordova, California.

Appendix B of this DEIR/DEIS contains copies of the comments that were received on the NOP and NOI.

This DEIR/DEIS includes an evaluation of 17 environmental issue areas and other NEPA- and CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts). The 17 environmental issue areas are as follows:

- Aesthetics
- Air Quality
- Biological Resources
- Climate Change
- Cultural Resources
- Environmental Justice
- Geology, Soils, and Mineral Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Agricultural Resources
- Noise
- Parks and Recreation
- Population, Employment, and Housing (socioeconomics under NEPA)
- Public Services
- Traffic and Transportation

- Utilities and Service Systems
- Water Supply

1.7 AGENCY ROLES AND RESPONSIBILITIES

1.7.1 LEAD AGENCIES

The City of Rancho Cordova is the lead agency for the project under CEQA, and USACE, Sacramento District, is the Federal lead agency under NEPA. The City has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. USACE has the principal responsibility for issuing Clean Water Act Section 404 permits and ensuring that the requirements of NEPA have been met. The following are the entitlements requested from the City for the project:

- certification of the EIR/EIS and Mitigation Monitoring and Reporting Program,
- approval of a General Plan amendment,
- approval of pre-zoning (for the participating landowners)
- approval of large-lot tentative maps (for the participating landowners),
- adoption and implementation of the SunCreek Specific Plan;
- adoption of a Public Facilities Financing Plan;
- adoption of a Public Facilities Infrastructure/Phasing Plan;
- possible approval of development agreements (between the City and the participating landowners).

The participating landowners (Shalako, Investek, Smith/Dunmore, and Sierra Sunrise) are requesting these approvals to accommodate proposed development on lands they control (i.e., lands owned). Details about the entitlements and which parcels they apply to are provided in Chapter 2, "Alternatives." It is anticipated that the City will also rely on this EIR/EIS without further environmental review for approval of other future discretionary entitlements and permits (e.g., small-lot tentative subdivision maps, design review approvals, use permits) for the participating landowners. Further environmental review may be required for the nonparticipating landowners (Grantline 220 and Luxori), to be determined by the City. The City will rely on this document to the degree that it adequately addresses the impacts of development on the site. The proposed action represents a Federal action because it would require one or more of the following Federal permits and authorizations:

- Department of the Army permit under Section 404 of the Clean Water Act for discharges into waters of the United States, and

- Endangered Species Act Section 7 consultation leading to issuance of a Biological Opinion and possible incidental-take statement for activities affecting endangered species.

1.7.2 TRUSTEE, RESPONSIBLE, AND COOPERATING AGENCIES

Under CEQA, a trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. One trustee agency, the California Department of Fish and Game, meets that definition with respect to resources potentially affected by the project.

Under CEQA, a responsible agency is an agency other than the lead agency that has legal responsibility for carrying out or approving a project or elements of a project (PRC Section 21069).

Under NEPA, a cooperating agency is any Federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in an action requiring an EIS.

Responsible and cooperating agencies are encouraged to actively participate in the CEQA and NEPA processes of the lead agencies, review the CEQA and NEPA documents of the lead agencies, and use the documents when

making decisions on the project. The USACE sent letters seeking cooperating agency interest to the EPA and USFWS on July 11, 2011. On August 22, 2011, EPA provided a letter to USACE accepting the request to serve as a cooperating agency under NEPA. Several agencies other than the City and USACE have jurisdiction over the implementation of the elements of the project, as identified below.

FEDERAL AGENCIES

- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

STATE AGENCIES

- California Air Resources Board
- California Department of Education
- California Department of Fish and Game
- California Department of Transportation
- State Water Resources Control Board
- Central Valley Regional Water Quality Control Board
- Native American Heritage Commission
- State Historic Preservation Office

REGIONAL AND LOCAL AGENCIES

- Zone 41 Water District
- Elk Grove Unified School District
- County of Sacramento
- Sacramento County Water Agency
- Sacramento Metropolitan Air Quality Management District
- Sacramento Metropolitan Fire District
- Sacramento County Municipal Services Agency

1.7.3 REGULATORY REQUIREMENTS, PERMITS, AUTHORIZATIONS, AND APPROVALS

The following list identifies permits and other approval actions from Federal, state, regional, and local agencies for which this EIR/EIS may be used during these agencies' decision-making processes. The following may be under the purview of regulatory agencies other than the lead agencies.

FEDERAL ACTIONS/PERMITS

- **U.S. Army Corps of Engineers:** Department of the Army permit under Section 404 of the CWA for discharges of dredge or fill material into waters of the U.S. Consultation for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act (NHPA). Consultation for impacts on Federally listed species pursuant to Section 7 of the ESA.

- **U.S. Environmental Protection Agency:** reviewing the EIS, filing, and noticing; concurrence with Section 404 Clean Water Act permit.

- **U.S. Fish and Wildlife Service:** Federal Endangered Species Act consultation and issuance of incidental-take authorization for the take of Federally-listed endangered and threatened species.

STATE ACTIONS/PERMITS

- **California Department of Education:** approval of new school sites for which state funding is sought.
- **California Department of Fish and Game, Sacramento Valley—Central Sierra Region:** potential California Endangered Species Act consultation and issuance of take authorization (California Fish and Game Code Section 2081), streambed alteration agreement (California Fish and Game Code Section 1602), and protection of raptors (California Fish and Game Code Section 3503.5).
- **Central Valley Regional Water Quality Control Board (Region 5):** National Pollutant Discharge Elimination System (NPDES) construction stormwater permit (Notice of Intent to proceed under General Construction Permit) for disturbance of more than 1 acre, discharge permit for stormwater, general order for dewatering, and Section 401 Clean Water Act certification or waste discharge requirements.
- **Section 106 of the National Historic Preservation Act:** Memorandum of Understanding for Section 106 compliance with the NHPA.

REGIONAL AND LOCAL ACTIONS/PERMITS

- **Sacramento Metropolitan Air Quality Management District:** authority to construct (for devices that emit air pollutants), health risk assessment, and Air Quality Management Plan consistency determination.
- **Sacramento County Water Agency and Zone 41:** approval for water supply.

1.8 PUBLIC PARTICIPATION AND ADDITIONAL STEPS IN THE CALIFORNIA ENVIRONMENTAL QUALITY ACT/NATIONAL ENVIRONMENTAL POLICY ACT REVIEW PROCESS

This DEIR/DEIS is being distributed to interested agencies, stakeholder organizations, and individuals. This distribution ensures that interested parties have an opportunity to express their views regarding the environmental effects of the project, and to ensure that information pertinent to permits and approvals is provided to decision makers for the lead agencies, CEQA responsible and trustee agencies, and NEPA cooperating agencies. This document is available for review by the public during normal business hours at Rancho Cordova City Hall, 2729 Prospect Park Drive, Rancho Cordova, CA 95670 and USACE, Sacramento District offices, 1325 J Street, Sacramento, CA 95814. The DEIR/DEIS is also available online at the City of Rancho Cordova's website, http://www.cityofranchocordova.org, and USACE's website, http://www.usace.army.mil. The DEIR is being distributed for a 45-day period that will end on November 19, 2012.

Under CEQA, written comments on the DEIR must be postmarked no later than November 19, 2012. The review period under NEPA will end on November 19, 2012; however, the USACE will continue to accept comments on the DEIS until the ROD is issued. Comments should be sent to the following addresses:

Bret Sampson
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
E-mail: bsampson@cityofranchocordova.org

Lisa Gibson
U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch
1325 J Street, Room 1350
Sacramento, CA 95814-2922
E-mail: Lisa.M.Gibson2@usace.army.mil

If comments are provided via e-mail, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

A joint public meeting/hearing on the DEIR/DEIS will be conducted by the City and USACE on October 23, 2012 from 5 to 7 p.m. at the Rancho Cordova City Hall, at 2729 Prospect Park Drive. Comments on the DEIR/DEIS may be provided during the public meeting/hearing, and written comments may also be provided at any time during the comment period as described above.

Once all comments have been assembled and reviewed, responses will be prepared to address significant environmental issues that have been raised in the comments. The responses will be included in a FEIR/FEIS.

1.9 ORGANIZATION OF THIS ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

The content and format of this EIR/EIS are designed to meet the requirements of CEQA, the State CEQA Guidelines, as amended, the requirements of NEPA, the NEPA regulations issued by the Council on Environmental Quality (CEQ), and USACE NEPA regulations, as well as Appendix B to those regulations (NEPA implementation). The EIR/EIS is organized into the following chapters so that the reader can easily obtain information about the project and its specific environmental issues.

- The **cover sheet** identifies lead and any cooperating agencies, contact information for the lead agency contact person, the title of the project and its location, a brief abstract, and comment submission information.

- The **Executive Summary** presents a summary of the requested entitlements; a brief overview of the project and alternatives; a discussion of the environmentally superior alternative; a summary of known areas of controversy and issues to be resolved; a discussion of opportunities for public participation in the CEQA/NEPA process; and a table listing the environmental impacts, mitigation measures, and the significance after implementation of mitigation (including significant and unavoidable impacts).

- Chapter 1, **"Introduction and Statement of Purpose and Need,"** provides a brief history of the project and the planning context; explains the CEQA and NEPA processes; lists the lead, cooperating, responsible, and trustee agencies that may have discretionary authority over the project; specifies the underlying purpose and need to which the lead agencies are responding in considering the Proposed Project and project alternatives; outlines the organization of the document; and provides information on public participation.

- Chapter 2, **"Alternatives,"** presents the Proposed Project Alternative and the alternatives to the Proposed Project. This chapter constitutes the project description and describes the project characteristics and components, supporting on- and off-site infrastructure, and required entitlements for each alternative. This chapter also describes the proposed SunCreek Specific Plan and identifies the performance standards that will be incorporated into the specific plan to which tentative maps and improvement plans would be required to adhere to. This chapter provides a description of each alternative in comparison with the Proposed Project Alternative, and describes alternatives considered but eliminated from further consideration.

- Chapter 3, **"Affected Environment, Environmental Consequences, and Mitigation Measures,"** is divided into 18 sections. Section 3.0 explains the approach to the affected environment (i.e., environmental setting), presents the assumptions used in the environmental analysis, and provides definitions of the types of

environmental effects. Section 3.0 also introduces the analysis of cumulative impacts, and includes the cumulative impact methodology, contributing projects, list of related projects, and cumulative context. Each of the remaining sections in Chapter 3 is devoted to a particular environmental issue area and describes the baseline, or existing conditions, and the regulatory setting, then provides an analysis of impacts at an equal level of detail for all project alternatives and mitigation measures that would avoid or eliminate significant impacts or reduce them to a less-than-significant level, where available and feasible. Each environmental issue area in this chapter also identifies the cumulative impacts of implementing the project against a backdrop of past, present, and reasonably foreseeable future projects.

- Chapter 4, **"Other Statutory Requirements,"** includes the analysis of growth-inducing impacts, irreversible or irretrievable commitment of resources, relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity, and significant and unavoidable adverse environmental impacts of the project.

- Chapter 5, **"References and Organizations and Persons Consulted,"** provides a bibliography of sources cited in the EIR/EIS and identifies the names and affiliations of persons who provided information used in preparing the document.

- Chapter 6, **"Report Preparers,"** lists individuals who were involved in preparing this EIR/EIS.

- Chapter 7, **"Index,"** contains the NEPA-required index for easy reference of topics and issues.

- **Technical appendices** contain the background information that supports the EIR/EIS.

1.10 STANDARD TERMINOLOGY, ACRONYMS, AND ABBREVIATIONS

1.10.1 STANDARD TERMINOLOGY

The following standard terminology to refer to elements of the projects are used in this DEIR/DEIS.

- **specific plan** refers to the SunCreek Specific Plan.

- **Specific plan area** refers to the SunCreek Specific Plan area, also known as "the SPA."

- **project** refers generally to construction of proposed improvements within the SPA and off-site roadway and infrastructure improvement areas, under any of the alternatives evaluated at a similar level of detail in this DEIR/DEIS.

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
µg/m^3	micrograms per cubic meter
1,1,1-TCA	1,1,1-trichloroethane
1,2-DCE	1,2-dichloroethylene
AASF	Army Aviation Support Facility
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ADT	average daily traffic, average daily trips
AEP	annual exceedance probability
AFB	Air Force Base
af	acre-feet
afy	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effects
APN	Assessor's Parcel No.
APS	Alternative Planning Strategy
AQAP	Air Quality Attainment Plan
AQI	Air Quality Index
AQMD	air quality management district
AQMP	Air Quality Mitigation Plan
ARB	California Air Resources Board
ASTM	American Society of Testing and Materials
ATCM	airborne toxics control measure
ATV	all-terrain vehicle
BAAQMD	Bay Area Air Quality Management District
BACT	best available control technology
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BGM	Bay Area Air Quality Management District Greenhouse Gas Model
bgs	below ground surface
BIM	Biological Impact Minimization Alternative

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
BMP	best management practice
BO	biological opinion
B.P.	Before Present
BRT	Bus Rapid Transit
Bti	*Bacillus thuringiensis israelensis*
CAA	Federal Clean Air Act
CAAA	Federal Clean Air Act Amendments
CAAQS	California ambient air quality standards
CAC	Citizen's Advisory Committee
CAFE	corporate average fuel economy
Cal-Am	California-American Water Company
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CalGreen	2010 California Green Building Standards Code
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CALVENO	California vehicle noise
CALVIN	California Value Integrated Network
CAP	Criteria Air Pollutant
CAPCOA	California Air Pollution Control Officer's Association
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCAT	California Climate Action Team
CCCC	California Climate Change Center
CCR	California Code of Regulations
CDE	California Department of Education
CDMG	California Division of Mines and Geology
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
cfs	cubic feet per second
CGS	California Geological Survey
CH_4	methane
CHABA	Committee of Hearing, Bio Acoustics, and Bio Mechanics
CHP	California Highway Patrol
CIP	capital improvement plan
City	City of Rancho Cordova
City General Plan	*Rancho Cordova General Plan*
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
CLOMR	Conditional Letters of Map Revision
CLUP	Comprehensive Land Use Plan
CMU	Commercial Mixed Use
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of Sacramento
CPP	Cosumnes Power Plant
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPD	Cordova Recreation & Park District
CRPR	California Rare Plant Rank
CS	Conceptual Strategy Alternative
CSA	Central Service Area
CSP	California State Parks
CSCGF	Central Sacramento County Groundwater Forum
CSCGMP	Central Sacramento County Groundwater Management Plan
CSU	California State University
CTR	California Toxics Rule
CVP	Central Valley Project

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
CWA	Clean Water Act
dB	decibel
dBA	A-weighted sound level
DEIR	draft environmental impact report
DEIS	draft environmental impact statement
Delta	Sacramento–San Joaquin Delta
DERA	Sacramento County Department of Environmental Review and Assessment
DFG	California Department of Fish and Game
District	Sacramento-Yolo Mosquito and Vector Control District
DOC	California Department of Conservation
DOF	Department of Finance
DPM	diesel PM or diesel exhaust
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utility District
ECORP	ECORP Consulting, Inc.
EGUSD	Elk Grove Unified School District
EIR	environmental impact report
EIR/EIS	environmental impact report/environmental impact statement
EIS	environmental impact statement
EISA	Energy and Independence Security Act of 2007
EMD	Sacramento County Environmental Management Department
Endangerment Finding	Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CAA
EPA	U.S. Environmental Protection Agency
EPCA	Energy Policy and Conservation Act
ESA	Federal Endangered Species Act
FAA	Federal Aviation Administration
FEIR	final environmental impact report
FEIS	final environmental impact statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
FIP	Federal Implementation Plan
FIRM	Flood Insurance Rate Maps
FIS	Flood Insurance Study
FMMP	Farmland Mapping and Monitoring Program
FOIA	Freedom of Information Act
FR	Federal Register
FRWP	Freeport Regional Water Project
FTA	Federal Transit Administration
g	percentage of gravity
GCM	general circulation model
GenCorp	GenCorp Realty Investments
GET	groundwater extraction and treatment
GHG	greenhouse gas
GIS	Geographic Information System
gpm	gallons per minute
GVW	gross vehicle weight
GWh	gigawatt hours
GWh/y	giga-watt hour per year
GWP	global warming potential
HAP	Hazardous Air Pollutant
HCD	California Department of Housing and Community Development
HCFC	hydrochlorofluorocarbon
HCM	*Highway Capacity Manual*
HCP	habitat conservation plan
HFC	hydrofluorocarbon
HI	Hazard Index
HMP	Hydromodification Management Plan
HOV	high-occupancy vehicle
hp	horsepower
HRA	Hazardous Risk Assessment
HSWA	Hazardous and Solid Waste Amendments of 1984
HVAC	heating, ventilation, and air conditioning
Hz	hertz
ICTA	International Center for Technology Assessment

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
ID	Increased Development Alternative
IGSM	Integrated Groundwater Surface Water Model
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IRCTS	Inactive Rancho Cordova Test Site
IRT	Interagency Review Team
ISO	Insurance Services Office
ITE	Institute of Transportation Engineers
JPA	joint powers authority
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
lb/day	pounds per day
LCFS	Low Carbon Fuel Standard
LCI	Laguna Creek Interceptor
L_{dn}	day-night average noise level
L_{eq}	energy-equivalent noise level
LID	low impact development
LiDAR	Light Detection and Ranging
LIM	Land Inventory and Monitoring
L_{max}	maximum noise level (the maximum instantaneous noise level during a specific period)
L_{min}	minimum noise level (the minimum instantaneous noise level during a specific period)
LOMR	Letters of Map Revision
LOS	level of service
LRT	light-rail transit
LUP	Linear Underground/Overhead Project
LVW	loaded vehicle weight
L_x	statistical descriptor (noise level exceeded X% of a specific period of time)
maf	million acre-feet
MACT	maximum available control technology
MAPA	Mather Airport Policy Area
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
MEI	Maximally Exposed Individual

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
MEP	maximum extent practicable
mgd	million gallons per day
mg/L	milligrams per liter
MLD	Most Likely Descendant
MMP	Mitigation and Monitoring Plan
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MM therms	million therms
MOA	Memorandum of Agreement
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MRP	monitoring and reporting program
MRZ	mineral resource zone
MS4s	Municipal Separate Storm Sewer Systems
msl	mean sea level
MT	metric ton
MTBE	methyl tertiary butyl ether
MTP	SACOG's Metropolitan Transportation Plan
MW	megawatt
MY	model year
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NAL	Numeric Action Levels
NCDC	National Climatic Data Center
NCIC	North Central Information Center
NCP	No USACE Permit Alternative
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEL	Numeric Effluent Limitations
NEPA	National Environmental Quality Act
NESHAP	national emissions standards for hazardous air pollutants
NHPA	National Historic Preservation Act

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NO_3	nitrate
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	notice of preparation
NO_x	oxides of nitrogen
NP	No Project Alternative
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRDC	Natural Resources Defense Council
NRHP	National Register of Historic Places
NRPA	National Recreation and Park Association
NSA	North Service Area
NSAP	North Service Area Pipeline
NSAPP	North Service Area Pipeline Project
NTR	National Toxics Rule
NVWF	North Vineyard Well Field
OAP	Ozone Attainment Plan
ODS	ozone depleting substances
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
O&M plan	operations and management plan
OPR	California Governor's Office of Planning and Research
OSHA	U.S. Department of Labor, Occupational Safety and Health Administration
PA	Programmatic Agreement
PCB	polychlorinated biphenyl
PCE	perchloroethylene
PCEs	passenger car equivalents
PCM	parallel climate model
PCP	pentachlorophenol

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
PFC	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PIER	Public Interest Energy Research
PM	particulate matter
PM_{10}	particulate matter less than or equal to 10 microns in diameter; respirable particulate matter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter; fine particulate matter
POU	Place of Use
PP	Proposed Project Alternative
PPA	Power Purchase Agreement
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
Protocol	*Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways*
RCRA	Resource Conservation and Recovery Act
REAP	Rain Event Action Plan
REC	recognized environmental condition
Reclamation	U.S. Bureau of Reclamation
RHNA	Regional Housing Needs Allocation
RHNP	Regional Housing Needs Plan
RIBITS	Regional Internet Banking Information Tracking System
RMDS	Regional Master Drainage Study
RMS	root-mean-square
RNHA	Regional Housing Needs Allocation
ROD	Record of Decision
ROG	reactive organic gases
ROP	Rate of Progress
RPS	Renewables Portfolio Standard
RPW	relatively permanent water
RT	Sacramento Regional Transit
RTP	Regional Transportation Plan
R value	erosivity value
RWD	report of waste discharge
RWQCB	Regional Water Quality Control Board
SacCalc	Sacramento Hydrological Calculator

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
SACOG	Sacramento Area Council of Governments
SASD	Sacramento Area Sewer District
SB	Senate Bill
SCH	State Clearinghouse
Scoping Plan	*Climate Change Scoping Plan*
SCRP	Sacramento County Regional Parks
SCS	Sustainable Communities Strategy
SCSD	Sacramento County Sheriff's Department
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCWA	Sacramento County Water Agency
SDCP/SRSP	*Sunrise Douglas Community Plan and Sunridge Specific Plan*
SEL	sound exposure level
SF_6	sulfur hexafluoride
SFNA	Sacramento Federal Nonattainment Area
SFPD	School Facilities Planning Division
SGSA	Southern Groundwater Study Area
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
SMFD	Sacramento Metropolitan Fire District
SMUD	Sacramento Municipal Utility District
SO_2	sulfur dioxide
sp.	species (singular)
SPA	SunCreek Specific Plan Area
spp.	species (plural)
SR	State Route
SRA	State Responsible Area
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSCHCP	South Sacramento County Habitat Conservation Plan
SSHCP	*South Sacramento Habitat Conservation Plan*
ssp.	subspecies
SQIP	Stormwater Quality Improvement Plan
SSA	South Service Area

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
SSQP	Sacramento Stormwater Quality Partnership
STC	Sound Transmission Class
SVAB	Sacramento Valley Air Basin
SVRA	State Vehicular Recreation Area
SWP	State Water Project
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	traffic analysis zone
T-BACT	Toxic Best Available Control Technology
TCE	trichloroethylene
TCR	Transportation Concept Report
TDF	travel demand forecasting
TDS	total dissolved solids
TIA	transportation impact analysis
TMDL	total maximum daily load
TNM	Traffic Noise Model
TNWs	traditional navigable waters of the U.S.
tpd	tons per day
tpy	tons per year
TRU	trailer refrigeration unit
UBC	Uniform Building Code
UPA	Urban Policy Area
U.S. 50	U.S. Highway 50
U.S.	United States
USACE	U.S. Army Corps of Engineers
USB	Urban Services Boundary
USC	United States Code
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan

Table 1-1 Acronyms and Other Abbreviations	
Term	**Definition**
V/C	volume-to-capacity
VC	Village Commercial
VdB	vibration decibels
VELB	valley elderberry longhorn beetle
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WFA	Water Forum Agreement
WKA	Wallace Kuhl & Associates, Inc.
WRCC	Western Regional Climate Center
WSA	water supply assessment
WSIP	Water System Infrastructure Plan
WSMP	Water Supply Master Plan
WSR	National Wild & Scenic Rivers
WTP	Water Treatment Plant

2 ALTERNATIVES

2.1 INTRODUCTION

This chapter describes the Proposed Project and a range of reasonable alternatives to the Proposed Project consistent with the requirements of California Code of Regulations (CCR) Section 15126.6 and 40 Code of Federal Regulations (CFR) 1502.14.

The six alternatives evaluated at an equal level of detail in this draft document, known as a draft environmental impact report/draft environmental impact statement (DEIR/DEIS), are as follows:

- Proposed Project (Applicants' Preferred Alternative)
- No USACE Permit Alternative
- Biological Impact Minimization Alternative
- Conceptual Strategy Alternative
- Increased Development Alternative
- No Project/No Action Alternative

These alternatives were developed by the City of Rancho Cordova (City) and the U.S. Army Corps of Engineers (USACE), Sacramento District. The alternatives are based on the project purpose, alternatives screening criteria (described below), and coordination with Federal agencies (USACE, U.S. Fish and Wildlife Service [USFWS], and U.S. Environmental Protection Agency [EPA]). The alternatives also consider scoping comments received on the Notice of Preparation (NOP) and Notice of Intent (NOI) and voiced at the scoping meeting. These alternatives represent a full range of alternatives to the Proposed Project, consistent with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements. As required by the Federal lead agency in charge of NEPA compliance, USACE, this document also evaluates a NEPA-only No USACE Permit Alternative. The Proposed Project and alternatives (with the exception of the No Project/No Action Alternative required by CEQA and NEPA and the No USACE No Permit Alternative required by USACE NEPA regulations) have each been formulated to feasibly accomplish most of the basic objectives of the project as discussed in Chapter 1, "Introduction and Statement of Purpose and Need," of this DEIR/DEIS, and could avoid or substantially lessen one or more of the significant effects.

A summary comparison of these alternatives, as well as identification of the environmentally superior alternative, is provided in Section 2.13 of this chapter.

2.2 CEQA/NEPA REQUIREMENTS FOR EVALUATION OF ALTERNATIVES

2.2.1 CEQA REQUIREMENTS

FOCUS OF THE EIR ALTERNATIVES ANALYSIS

The guiding principles for the selection of alternatives for analysis in an EIR are provided by the State CEQA Guidelines, as amended (CCR Section 15126.6). CCR Section 15126.6 states that the alternatives analysis must:

- describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project but would substantially lessen or avoid any of the significant effects of the project;
- focus on alternatives capable of avoiding or substantially lessening any of the significant environmental impacts of the proposed project, even if they may be more costly or could otherwise impede some of the project's objectives; and

- evaluate the comparative merits of the alternatives.

The focus and definition of alternatives evaluated in this DEIR/DEIS are governed by the "rule of reason" in accordance with CCR Section 15126.6 of the State CEQA Guidelines. That is, the range of alternatives presented in the DEIR/DEIS is limited to those that would permit a reasoned choice by the City and USACE decision makers.

In addition to the guiding principles for selection of alternatives set forth above, the State CEQA Guidelines require that an EIR evaluate a "No Project Alternative," identify alternatives that were initially considered for further evaluation but then rejected, and identify the "environmentally superior alternative." This DEIR/DEIS describes and evaluates a No Project/No Action Alternative (Section 2.7) to provide the decision makers and the public with an overview of what could reasonably be expected to occur if the proposed SunCreek Specific Plan project were not approved and implemented.

SCREENING CRITERIA

Consistent with the requirements of CEQA, the City used the CEQA project objectives identified in Chapter 1, "Introduction and Statement of Purpose and Need" as criteria to screen the alternatives that should be considered in this DEIR/DEIS and to determine whether the alternatives would lessen any of the significant environmental impacts of the project.

2.2.2 NEPA REQUIREMENTS

FOCUS OF THE EIS ALTERNATIVES ANALYSIS

The NEPA Council on Environmental Quality (CEQ) Regulations (40 CFR 15012.14) require that an EIS include:

- an objective evaluation of reasonable alternatives;
- identification of the alternatives considered but eliminated from detailed study, along with a brief discussion of the reasons that these alternatives were eliminated;
- information that would allow reviewers to evaluate the comparative merits of the proposed action (i.e., proposed project) and alternatives;
- consideration of the No Action Alternative;
- identification of the agency's preferred alternative, if any; and
- appropriate mitigation measures not already included in the proposed action or alternatives.

Additionally, USACE NEPA regulations require that an EIS include consideration and evaluation of a No USACE Permit Alternative.

Alternatives to the Proposed Project that were considered in the evaluation are described below. Consideration of the other NEPA requirements is provided in Chapters 3, "Affected Environmental, Environmental Consequences, and Mitigation Measures" and 4, "Other Statutory Requirements" of this DEIR/DEIS.

Unlike CEQA, which permits the evaluation of alternatives to occur in less detail than is provided for the proposed action, NEPA requires the analysis of alternatives to occur at a substantially similar level of detail as that devoted to the proposed action. The NEPA Regulations (40 CFR 1502.14) require agencies to rigorously explore and objectively evaluate all reasonable alternatives and to devote substantial treatment to each alternative considered, including the proposed project.

SCREENING CRITERIA

The following screening criteria are in compliance with the USACE Section 404(b)(1) Guidelines, which are the substantive criteria used by USACE in evaluating discharges of fill material into waters of the United States (U.S.) under Section 404 of the Clean Water Act. The guidelines require that the following four criteria be satisfied for USACE to make a decision that a proposed discharge is in compliance:

- The discharge must be the least environmentally damaging practicable alternative.
- The discharge must not violate any water quality standard or toxic effluent standard, or jeopardize the continued existence of a threatened or endangered species.
- The discharge must not result in a significant degradation of the waters of the U.S.
- Unavoidable impacts on the aquatic ecosystem must be mitigated within the context of NEPA.

Before USACE can issue a permit, it must find that the requirements of the Section 404(b)(1) Guidelines have been satisfied. The key criterion and the focus of the alternatives analysis is the requirement that the discharge be the least environmentally damaging, practicable alternative. USACE considers practicable alternatives to include, but not to be limited to:

- on-site activities that do not include a discharge into waters of the U.S. or ocean waters;
- discharges of dredged or fill material at other locations in waters of the U.S. or ocean waters;
- areas that are not presently owned by the applicant that could be reasonably obtained, used, expanded, or managed to fulfill the basic purpose of the proposed activity (after considering cost, existing technology, and logistics); and
- a project location that does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., that is not water dependent). Practicable alternatives that do not involve special aquatic sites are presumed to be available unless clearly demonstrated otherwise. Where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge that do not involve a discharge into a special aquatic site are presumed to have less adverse impacts on the aquatic ecosystem, unless clearly demonstrated.

The key provisions in the language are “practicability” and “overall project purpose.” An alternative is practicable if it is available to the applicant and capable of being accomplished by the applicant after consideration of costs, existing technology, and logistics, in light of the overall project purpose. USACE has determined that the overall project purpose is to provide a large-scale mixed-use community within eastern Sacramento County, in the urban services boundary. If a practicable alternative is identified that would have less adverse impact on the aquatic ecosystem and would not have other significant adverse environmental consequences, then USACE would be unable to issue a permit for the proposed project.

2.3 PROPOSED PROJECT ALTERNATIVE

2.3.1 SUMMARY

This section describes the Proposed Project Alternative. The Proposed Project Alternative has been formulated to achieve the project purpose, objectives, and needs of the project, as discussed in Chapter 1, “Introduction and Statement of Purpose and Need” of this DEIR/DEIS.

The applicant group, which consists of Sierra Sunrise, Shalako, Investek, Smith/Dunmore, Luxori, Smith/Dunmore, and Grantline 220, hereinafter referred to as the "project applicants," are seeking adoption by the City of the *SunCreek Specific Plan* (Specific Plan), hereinafter referred to as the "SunCreek project" or the "Proposed Project." The SunCreek project would be a mixed-use development on approximately 1,253 acres within the Sunrise Douglas Community Plan area in Rancho Cordova, California in eastern Sacramento County. As described previously in Chapter 1, "Introduction," although the specific plan includes a proposal for development on the Luxori and Grantline 220 parcels, those property owners are not currently participating in the DEIR/DEIS process, and are not seeking approval of development agreements or large-lot tentative maps. A copy of the draft *SunCreek Specific Plan* is available for review at the City of Rancho Cordova offices located at 2729 Prospect Park Drive, Rancho Cordova, CA 95670 and is also attached to this EIR/EIS as Appendix C. The project applicant is also seeking authorization and permit(s) from USACE to place dredged or fill material into waters of the U.S.

2.3.2 REGIONAL LOCATION

The project site is located in eastern Sacramento County, south of U.S. Highway 50 (U.S. 50), within the city limits of the City of Rancho Cordova (Exhibits 2-1 and 2-2). The property is located south of Douglas Road, north of Jackson Highway (i.e., State Route 16), west of Grant Line Road, and east of Sunrise Boulevard.

Rancho Cordova lies within the Sacramento Valley, a nearly flat alluvial plain that extends almost 180 miles from the Sacramento–San Joaquin Delta on the south to Redding on the north, and approximately 50 miles from the Sierra Nevada foothills on the east to the Coast Range on the west. The Sacramento Valley is an asymmetric structural trough that is filled locally up to 5 miles deep with sediment that has been deposited on a nearly continuous basis since the late Jurassic period (approximately 160 million years ago). Climate in the Sacramento Valley is characterized by warm, dry summers with an almost complete absence of rain, and mild winters with relatively light rains.

2.3.3 PROJECT SITE AND VICINITY

Most of the project site (i.e., SunCreek Specific Plan Area, herein referred to as "SPA") is undeveloped land used sporadically for dry land farming and grazing on spring grasses. Five rural residences and four barns are located on the SPA. Surrounding land uses include the Anatolia development under construction to the west; and vacant land to the north, east, and south. The Sacramento County Landfill is located southeast of the SPA.

Access to the SPA would be provided via Rancho Cordova Parkway and Americanos Boulevard in a north-south direction, along Chrysanthy Boulevard in an east-west direction from Grant Line Road to the north, and along Kiefer Boulevard in an east-west direction from Sunrise Boulevard to Grant Line Road in the south.

2.3.4 DESCRIPTION OF THE PROPOSED PROJECT/ACTION (PROPOSED PROJECT ALTERNATIVE)

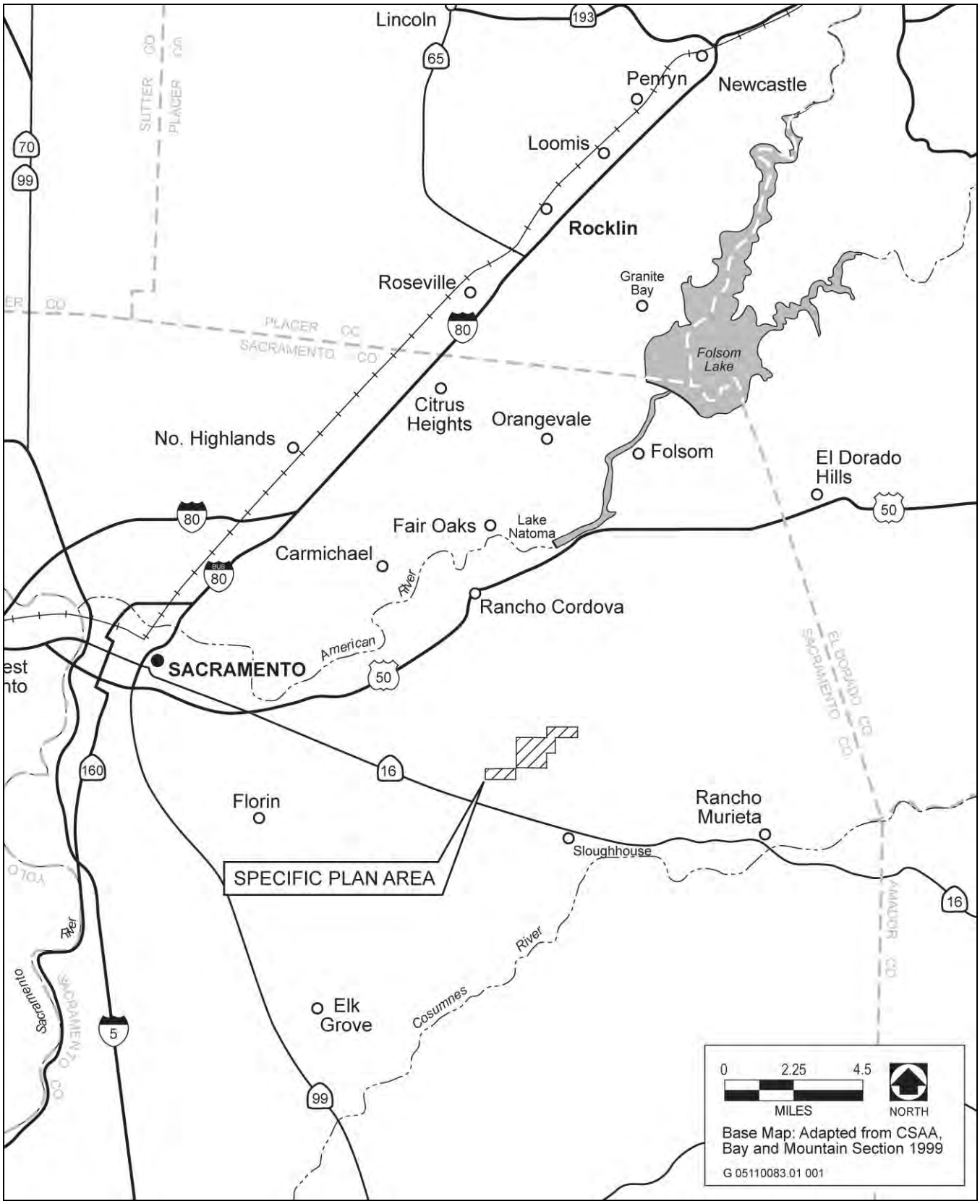
REQUESTED ENTITLEMENTS

This section describes the requested entitlements, project characteristics, and components associated with the proposed development. The analysis of project development is provided at a project-level of detail. Additional approvals and authorizations are listed in Chapter 1, "Introduction and Statement of Purpose and Need."

City of Rancho Cordova

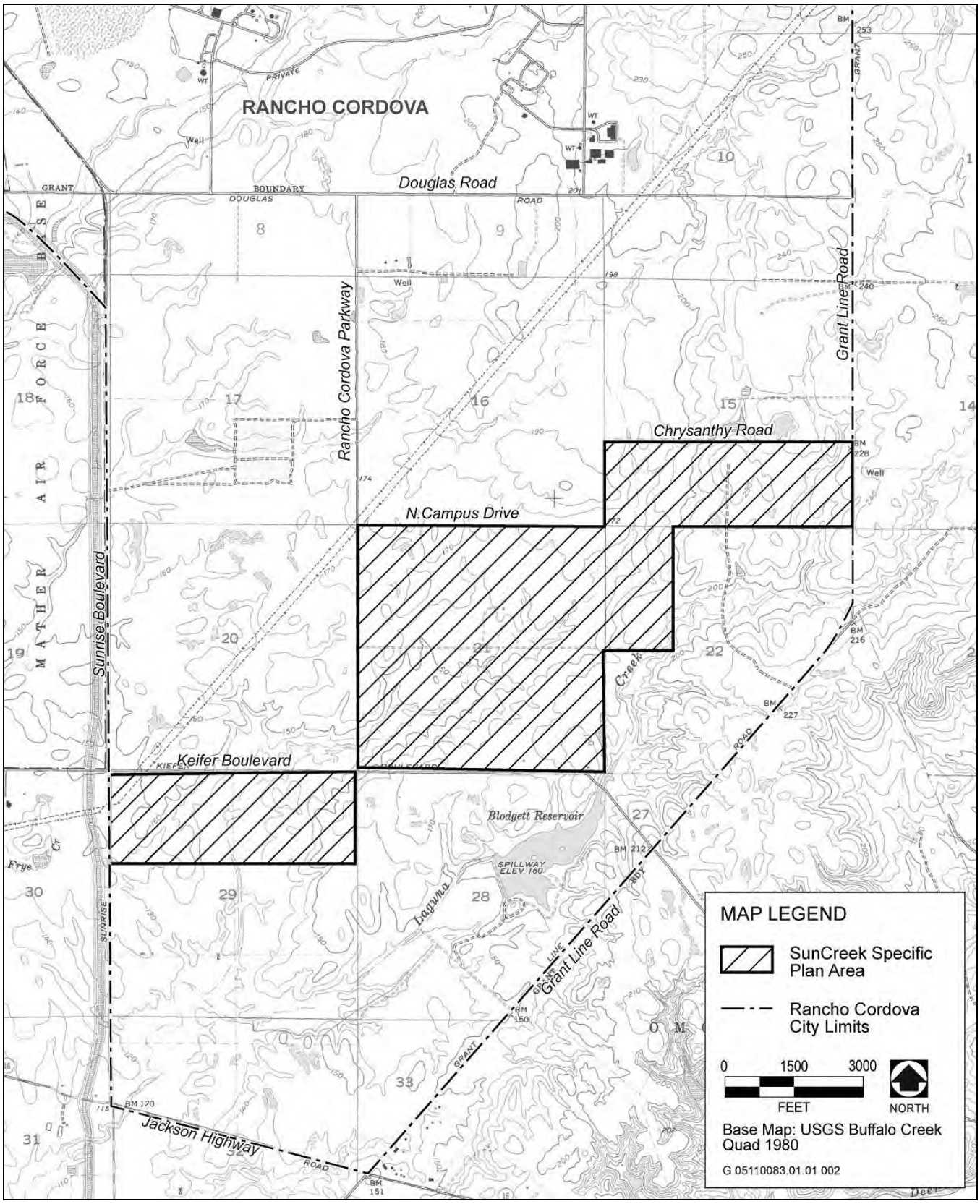
Adoption of the project, including the associated proposed development, requires the following City entitlements:

- certification of the EIR/EIS and Mitigation Monitoring and Reporting Program (MMRP),



Source: Data compiled by AECOM in 2010

Regional Project Location **Exhibit 2-1**



Source: Data compiled by AECOM in 2010

SPA Location Map **Exhibit 2-2**

- approval of a general plan amendment,
- pre-zoning of the SPA for the participating land owners,
- adoption of the SunCreek Specific Plan,
- adoption of a Public Facilities Financing Plan,
- adoption of a Public Facilities Infrastructure/Phasing Plan,
- potential approval of development agreements between the City and the project applicants for the participating land owners, and
- approval of large-lot tentative maps for the participating land owners.

Future City entitlement approvals may include, but are not limited to, the following:

- use permits,
- approval of tentative parcel and subdivision maps,
- design review,
- lot line adjustments,
- engineering improvement plans,
- planned development permits,
- grading plans, and
- development agreement between the City and future project applicants.

The first six of these required entitlements/approvals are described below.

- **Certification of the EIR/EIS and Mitigation Monitoring and Reporting Program.** After preparation of the Final EIR/EIS, the City will consider certification of the EIR/EIS and MMRP. The Final EIR/EIS will respond to significant environmental comments raised during review of the DEIR/DEIS and will document any project modifications, corrections, or revisions to the environmental impacts or mitigation measures of the Proposed Project Alternative. The MMRP will outline what actions must be taken, as conditions of approval, to comply with the EIR/EIS, and the timing and responsibilities for conducting and monitoring the various mitigation activities.

- **General Plan Amendment.** Pursuant to California Government Code Section 65454, a specific plan must be consistent with the local government's general plan. The project applicants are requesting a general plan amendment application, which includes regulations, guidelines, and standards that would make the specific plan and general plan consistent with one another. This general plan amendment includes a request to modify the residential land use shown on conceptual land use plan for the SunCreek SPA shown in the City General Plan, with the commercial land use (local town center) shown on the land use plan for the Proposed Project. No general plan policy changes are proposed. Because there would be no additional physical/environmental effect associated with this redesignation, the issue will not be evaluated further in this EIR.

- **Zoning Amendment.** The SPA is zoned General Agricultural (AG) with 80-acre and 20-acre minimum lot sizes. The SPA would be rezoned for the participating landowners with the new designations shown in Exhibit 2-3, and discussed in detail in Section 3.10, "Land Use and Agricultural Resources" of this EIR/EIS.

- **SunCreek Specific Plan Adoption.** The specific plan is intended to provide a comprehensive land use, policy, and regulatory document to govern all future development in the 1,253-acre plan area, which contains the same boundary as the SPA and is hereinafter referred to as the "SPA." The goal of the specific plan is to establish a development framework for land use, resource protection, circulation, public utilities and services,

design, and implementation. Development of the specific plan (i.e., the Proposed Project Alternative under the CEQA process) and the subsequent entitlement process provides for a sequence of community input and government review to ensure that development occurs in a logical, consistent, and timely manner. The physical environmental effects associated with this redesignation are the same as those presented by the SunCreek Specific Plan and are analyzed in this EIR/EIS.

Specific plans are an implementation mechanism for new-growth areas authorized, but not mandated, by California statute (California Government Code Section 65451 et seq.). The content of a specific plan is defined in California Government Code Section 64541(a), which specifies the following in detail:

- the distribution, location, and extent of the uses of the land, including open space, within the area covered by the plan;

- the proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water drainage, solid-waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan;

- standards and criteria by which development would proceed, and standards for the conservation, development, and utilization of natural resources, where applicable; and

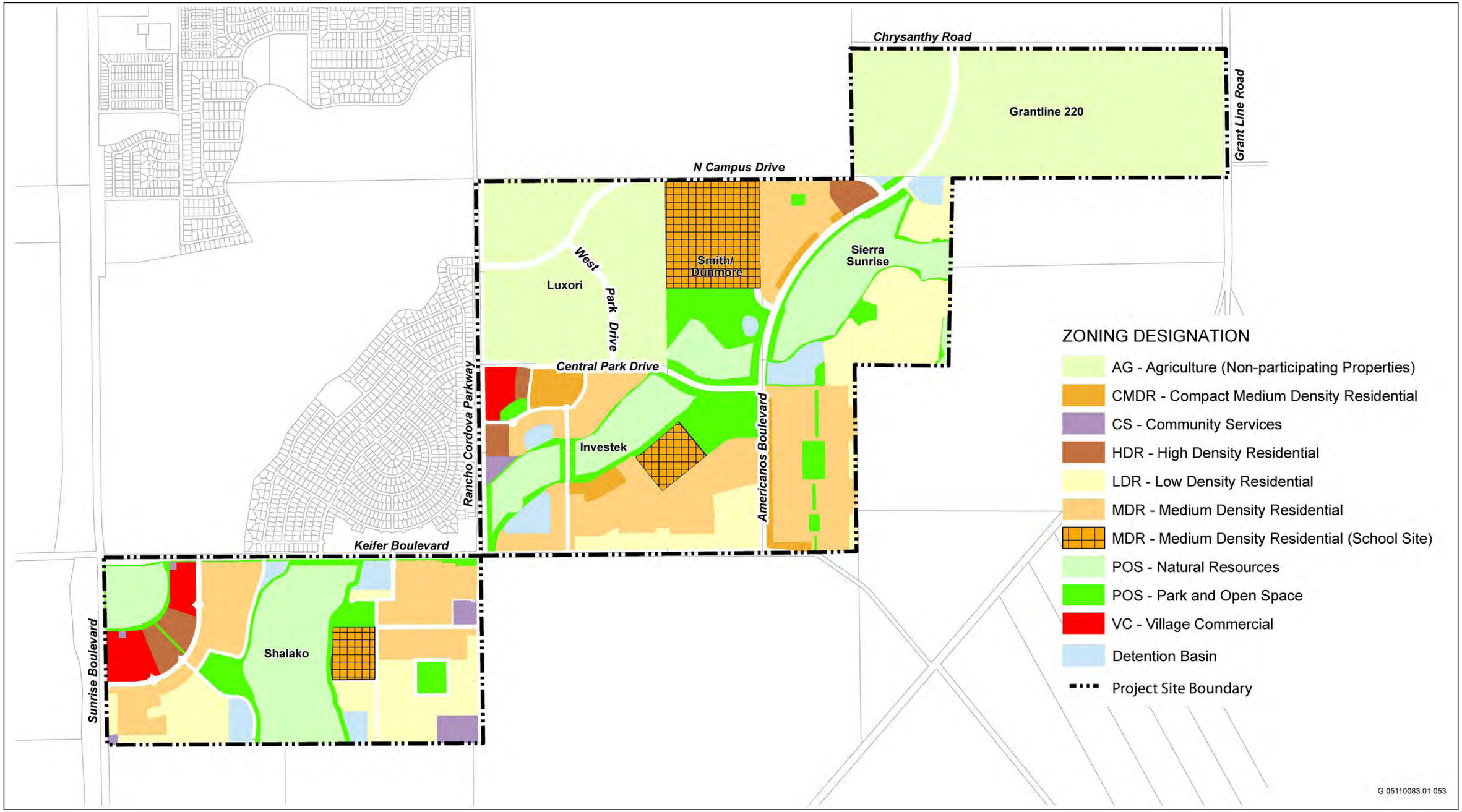
- a program of implementation measures including regulations, programs, public-works projects, and financing measures necessary to carry out the above-listed criteria.

Under state law, the specific plan implements and must be consistent with the goals, policies, and objectives of the approving local agency's general plan. Here, the project is intended to be consistent with the City of Rancho Cordova General Plan. All subsequent entitlements and approvals relating to land or infrastructure in the specific plan area, including but not limited to subdivisions, public-works projects, rezones, and conditional use permits, are required to be consistent with the specific plan if the specific plan is to be used as the entitling document. Once the specific plan is adopted, the maximum extent of development at the SPA will have been determined and cannot be exceeded without subsequent environmental review. Once the Specific Plan is adopted, the maximum extent of development at the project site will have been determined. Any development in excess of the amount in the SunCreek Specific Plan would require additional entitlements, including the need to determine whether further environmental review is required under CEQA or NEPA. A copy of the draft SunCreek Specific Plan is attached as Appendix C.

- **Public Facilities Financing Plan.** A Draft Public Facilities Financing Plan would be adopted by the City Council before the approval of any tentative map within the specific plan area. The Financing Plan would define the specific mechanisms required to fund capital costs of all infrastructure necessary as a result of specific plan buildout. The Financing Plan would define funding for the maintenance of new infrastructure and public services needed by the future residents and business locating within the SunCreek Specific Plan area.

- **Public Facilities Infrastructure/Phasing Plan.** A Public Facilities Infrastructure/Phasing Plan would be prepared for the SunCreek Specific Plan, and would be adopted by the City Council before approval of any tentative map within the specific plan area. The plan would provide specific details regarding the phasing, sizing, alignment and location, cost estimates, and construction timing requirements to serve the proposed development within the SunCreek Specific Plan area.

- **Development Agreement Adoption.** The participating project applicants intend to enter into a Development Agreement or Agreements with the City pursuant to California Government Code Section 65864 et seq. at the time of specific plan adoption. The agreement would set forth many, if not all, of the applicants' obligations to the City and other public agencies with regard to the project, including but not limited to construction, maintenance, and financial responsibilities. The agreement would also set forth the City's other project



Source: MacKay & Somps 2012

Proposed Zoning Designations **Exhibit 2-3**

obligations, including but not limited to processing of subsequent entitlement applications, formation of financing mechanisms (including but not limited to Mello-Roos districts), and the vesting of development entitlements. Pursuant to applicable California Government Code provisions, public hearings at both the City Planning Commission and City Council would be held on the proposed Development Agreement before the City Council takes any action. The specific terms and conditions of any such development agreements are subject to negotiation and approval of the parties.

U.S. Army Corps of Engineers

The Proposed Action represents a Federal action because it would require Federal permits and authorizations for one or more of the following activities: issuance of a Section 404 Clean Water Act permit for discharges into waters of the U.S.; and issuance of a biological opinion and incidental-take statement pursuant to Section 7 of the Federal Endangered Species Act for potential take of endangered or threatened species.

PROPOSED SUNCREEK SPECIFIC PLAN PROJECT LAND USES

As described below, the Proposed Project Alternative would include a range of housing types, employment centers, open space, and recreation opportunities, as well as roadway improvements, support infrastructure, and utilities. Land uses are described below and shown in Table 2-1 and Exhibit 2-4.

Table 2-1
Acres and Units of Proposed SunCreek Specific Plan Project Land Uses

Land Use	Acres[1]	Average Density per Acre (du/acre)	Total Number of Dwelling Units
Low Density Residential	169.4	5.31	900
Medium Density Residential	322.7	7.80	2,517
Compact Density Residential	20.1	14.23	286
High Density Residential	43.6	22.80	994
Village Commercial	22.9	--	--
Local Town Center	59.4	--	--
Public/Quasi Public	13.0	--	--
Park	87.1	--	--
Pocket Park	4.3	--	--
Parkway, Paseos, and Trails	9.1	--	--
Wetland Preserve Buffer	45.2	--	--
Detention Basin	46.9	--	--
Storm Water Canal	5.0	--	--
Wetland Preserve	203.7	--	--
School (Elementary and High School/Middle School)	110.9	--	--
Minor Roads	23.2		
Major Roads	79.0	--	--
Total	**1,265.5**	**--**	**4,697**

Notes: du/acre = dwelling units per acre

[1] Note that since the project is a specific plan, the acreages of each land use may change slightly during the planning process; however, the total number of dwelling units and the total square footage of commercial uses would not change.

Source: MacKay & Somps 2012

Buildout of the project is anticipated to occur over a 20-year period, with construction anticipated to begin in 2012 and end in 2032, and would include the elements described below.

Residential

The Proposed Project provides for the construction of 4,697 dwelling units in four residential land use classifications on approximately 555 acres. The proposed densities are as follows:

- Low Density Residential, with a permitted density range of 2.1 to 6 dwelling units per acre (du/ac);
- Medium Density Residential, with a permitted density range of 6.1 to 12 du/ac;
- Compact Density Residential, with a permitted density range of 12.1 to 18 du/ac; and
- High Density Residential, with a permitted density range of 18.1 to 40 du/ac.

Commercial

The Proposed Project includes the commercial land use classifications of Local Town Center and Village Commercial. The approximately 59-acre Local Town Center is proposed for the northeastern portion of the SPA, adjacent to Grant Line Road. One Village Commercial area is proposed adjacent to Ranch Cordova Parkway. The other Village Commercial areas are proposed in the southern portion of the SPA adjacent to Sunrise and Kiefer Boulevards.

Development of the Proposed Project Alternative would result in the generation of approximately 2,618 jobs, and a population of approximately 12,588.

Public/Quasi Public

Approximately 13 acres of Public/Quasi Public land is designated: approximately 2.5 acres in the northern portion of the SPA west of Americanos Boulevard, approximately 2.5 acres in the central portion of the SPA east of Rancho Cordova Parkway, and approximately 8 acres in the southern portion of the SPA west of Rancho Cordova Parkway.

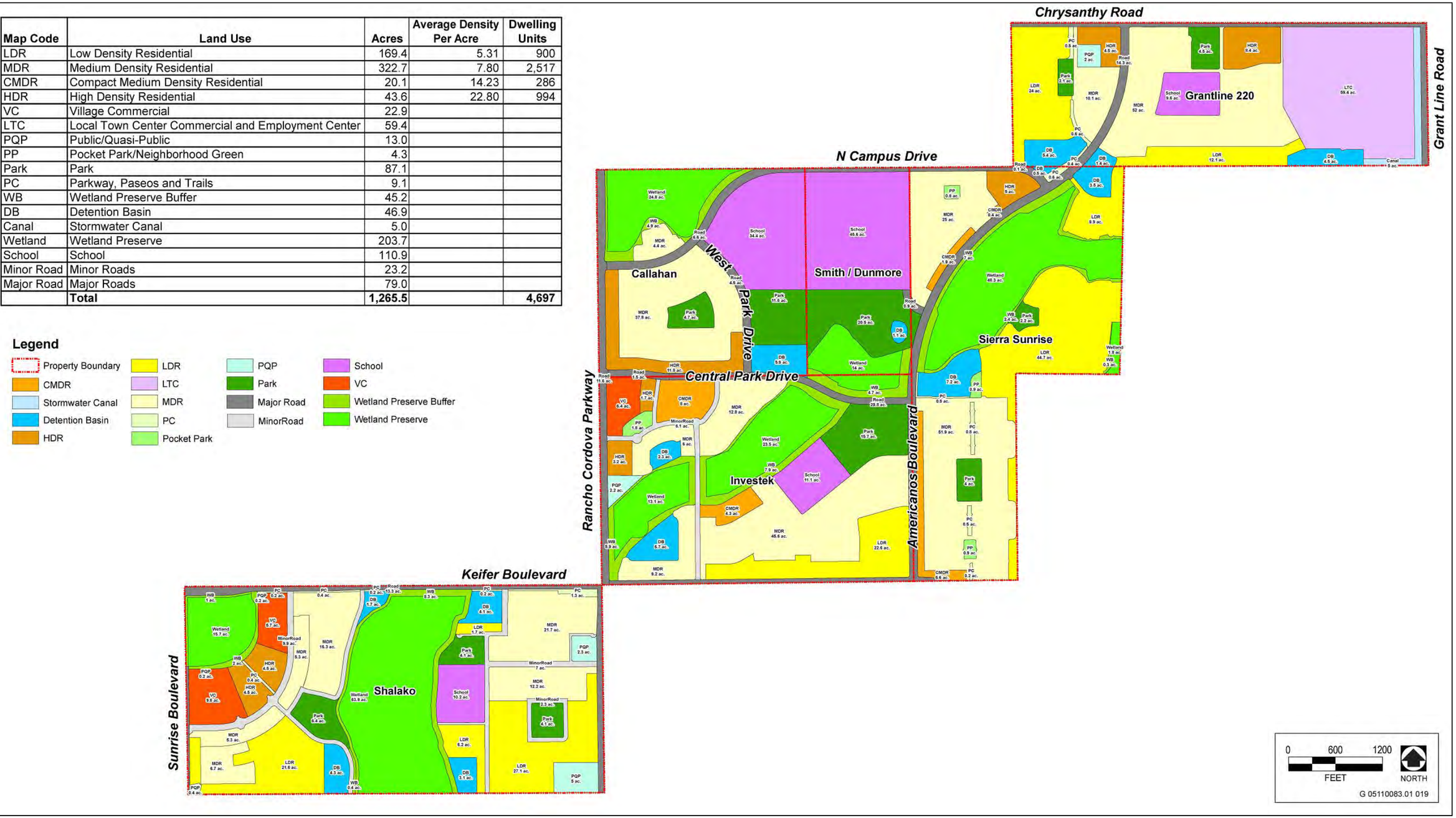
Parks

The Proposed Project includes development of an approximately 39-acre community park located adjacent to and south of the proposed high school/middle school in the central portion of the SPA. Another approximately 15-acre community park is located west of Americanos an approximately 39-acre community park located adjacent to and south of the proposed high school/middle school in the central portion of the SPA. Another approximately 15-acre community park is located west of Americanos Boulevard next to the proposed elementary school. Ten neighborhood parks with sizes ranging from 2 – 8 acres are located throughout the SPA. Pocket parks, which are scattered throughout the SPA, are small areas of parkland that do not meet the minimum City size requirements to be considered neighborhood parks. The SPA includes a total of 100.5 acres of parks.

Schools

Approximately 111 acres are designated as part of the Proposed Project for school uses, including a combined high school/middle school (80 acres) and three elementary schools (31 acres). All would be part of the Elk Grove Unified School District (EGUSD). Most of the schools, along with the community parks adjacent to the high school/middle school complex and the elementary school in the central portion of the SPA, would be jointly used by EGUSD and the Cordova Recreation & Park District (CRPD). Funding would be provided through state bonds and local bonds and developer fees.

Map Code	Land Use	Acres	Average Density Per Acre	Dwelling Units
LDR	Low Density Residential	169.4	5.31	900
MDR	Medium Density Residential	322.7	7.80	2,517
CMDR	Compact Medium Density Residential	20.1	14.23	286
HDR	High Density Residential	43.6	22.80	994
VC	Village Commercial	22.9		
LTC	Local Town Center Commercial and Employment Center	59.4		
PQP	Public/Quasi-Public	13.0		
PP	Pocket Park/Neighborhood Green	4.3		
Park	Park	87.1		
PC	Parkway, Paseos and Trails	9.1		
WB	Wetland Preserve Buffer	45.2		
DB	Detention Basin	46.9		
Canal	Stormwater Canal	5.0		
Wetland	Wetland Preserve	203.7		
School	School	110.9		
Minor Road	Minor Roads	23.2		
Major Road	Major Roads	79.0		
	Total	**1,265.5**		**4,697**



Source: MacKay & Somps 2012

Proposed Project Alternative Land Use Plan

Exhibit 2-4

Buildout of the Proposed Project would generate approximately 3,062 pupils in grades K (kindergarten)–12. Of this total, 1,661 pupils would be in grades K–5; 490 would be in grades 6–8; and 911 would be in grades 9–12 and continuation high school. EGUSD based these projections on the current land use designations and yield rates generated from similar types of development.

The middle school and high school would be combined on one large 80-acre site. The middle school would have a capacity of approximately 1,200 pupils and the high school would have a capacity of approximately 2,200 pupils.

The timeline for construction of the schools would coincide with the project applicants' buildout schedule, which is dependent upon market demand for new homes.

Fire and Police Protection

Fire protection services would be provided by Sacramento Metropolitan Fire District (SMFD). Police protection would be handled by the City of Rancho Cordova Police Department. Each facility's needs for law enforcement and protection would be determined by that department. Public facilities would be permitted uses in any commercial, industrial, or office zone, thereby providing numerous opportunities within the SPA and vicinity for fire or police stations as determined necessary. A new fire station is tentatively proposed in the Public/Quasi-Public area that is adjacent to Rancho Cordova Parkway and south of Keifer Boulevard.

Parkways/Paseos/Trails

The Proposed Project would include approximately 9.1 acres of parkways, paseos, and trails (designated on the land use plan as "Pedestrian Corridor" or "PC") located throughout the site to allow for pedestrian and bicycle circulation. The Proposed Project also includes approximately 45.2 acres of wetland preserve buffer land, some of which would include pedestrian/bike path corridors.

Wetland Preserve

A total of approximately 43.68 acres of jurisdictional waters of the U.S. are located within the SPA. As shown in Table 2-2, a total of approximately 24.17 acres of on-site jurisdictional waters of the U.S., including wetlands would be filled by implementation of the Proposed Project Alternative. In addition, the project would result in approximately 1 acre of impacts from installation of off-site backbone infrastructure.

The Proposed Project includes an approximately 203-acre wetland preserve locating along the existing drainage of Kite Creek. (Note that road signs in the project vicinity refer to this wetland feature as "Sun Creek," hence the project name. However, for the sake of consistency with the naming convention used in the hydrologic studies, this wetland feature is referred to as "Kite Creek" throughout this DEIR/DEIS.) As shown in Table 2-2, a total of approximately 19.51 acres of waters of the U.S. and wetlands would be preserved at the SPA, including most of Kite Creek located within this area. The exact timing of events within the wetland preserve would be determined by USACE's Clean Water Act (CWA) Section 404 permit requirements. The wetland preserve would not function as a mitigation bank. (Exhibits showing the types of wetlands and amounts filled and preserved, for each of the five action alternatives, are contained in Section 3.4, "Biological Resources.")

To facilitate wildlife movement, the project would include a culverted bridge design (such as, but not limited to, ConSpan©) at all locations where roadways would cross the proposed wetland preserve (see Exhibit 2-5), as well as at the one location where the pedestrian/bicycle trail would cross the wetland preserve (see Exhibit 2-21).

The wetland preserve buffer was created to provide separation between the wetland preserve (where no land uses are allowed) and more intensive land uses such as residential, commercial, and schools. The buffer area would be used to support a pedestrian/bicycle trail network (which is described later in this chapter) and, although no basins are currently proposed there, could be used to locate on-site detention basins. By providing a buffer area, the indirect impacts (e.g. erosion, stormwater runoff) to the wetland preserve are reduced. The width of the wetland buffer varies depending on location, but encompasses in total approximately 45 acres.

Table 2-2
Waters of the U.S. and Wetlands at the SPA

Habitat Type	Acres Existing	Acres of Direct Impacts	Acres of On-site Preservation[1]	Acres of On-site Wetlands within 250 Feet of Development	Acres of Off-site Wetlands within 250 Feet of Development[2]
Vernal Pool	27.22	14.50	12.72	9.95	7.51
Seasonal Wetland	2.64	1.11	1.53	1.22	3.14
Swale	6.46	4.52	1.94	1.68	2.36
Ephemeral Drainage	0.90	0.90	0.00	0.00	0.00
Intermittent Drainage	0.98	0.17	0.81	0.54	0.00
Pond	2.06	2.06	0.00	0.00	0.65
Stream	3.42	0.91	2.51	1.69	1.63
Total	43.68	24.17	19.51	15.08	15.29

Notes:
[1] Preservation acreage listed includes acreage within 250 feet of developed land uses.
[2] Wetlands that are off-site, but within 250 feet of on-site project development.
Source: ECORP 2011

Temporary fencing would be erected between construction areas and the wetland preserve during the construction phase, and the preserve would be permanently fenced at the completion of construction to prevent unauthorized traffic. Interpretive signage would be placed along the preserve boundary to provide educational opportunities. Deed restrictions and conservation easements would be recorded that would require the wetland and open-space areas constructed on-site to be maintained as wetland and wildlife habitat in perpetuity. Copies of proposed language would be submitted to USACE for approval before recordation, and copies of the recorded documents would be provided to USACE no later than 30 days subsequent to recordation. Recordation would occur before the start of project construction.

Wetland Preserve Mitigation and Monitoring Plan

A detailed mitigation and monitoring plan (MMP) for the wetland preserve and additional mitigation areas would be developed and implemented by the project applicants. An operations and management plan (O&M plan) would also be prepared and implemented for the project. Both the MMP and the O&M plan would need to be reviewed and approved by USACE before implementation or work in waters of the U.S. The MMP would outline the monitoring methods and success criteria of compensatory wetland and riparian habitat while the O&M plan would list the responsibilities of the Preserve Steward, as well as the tasks required to ensure the long-term viability of the functions and values of the preserve.

Drainage/Stormwater Detention/Water Quality

The Regional Master Drainage Study for the SunCreek Specific Plan (SunCreek Drainage Study) prepared by MacKay & Somps (2011c) attached as Appendix D analyzes the Laguna Creek watershed from the headwaters to a point approximately 3,500 feet south of Florin Road. The SunCreek Drainage Study area is situated between the Morrison Creek watershed located adjacent to the northern Laguna Creek watershed boundary and the Deer Creek watershed located adjacent to the eastern and southern Laguna Creek watershed boundary.

INFRASTRUCTURE ABBREVIATIONS

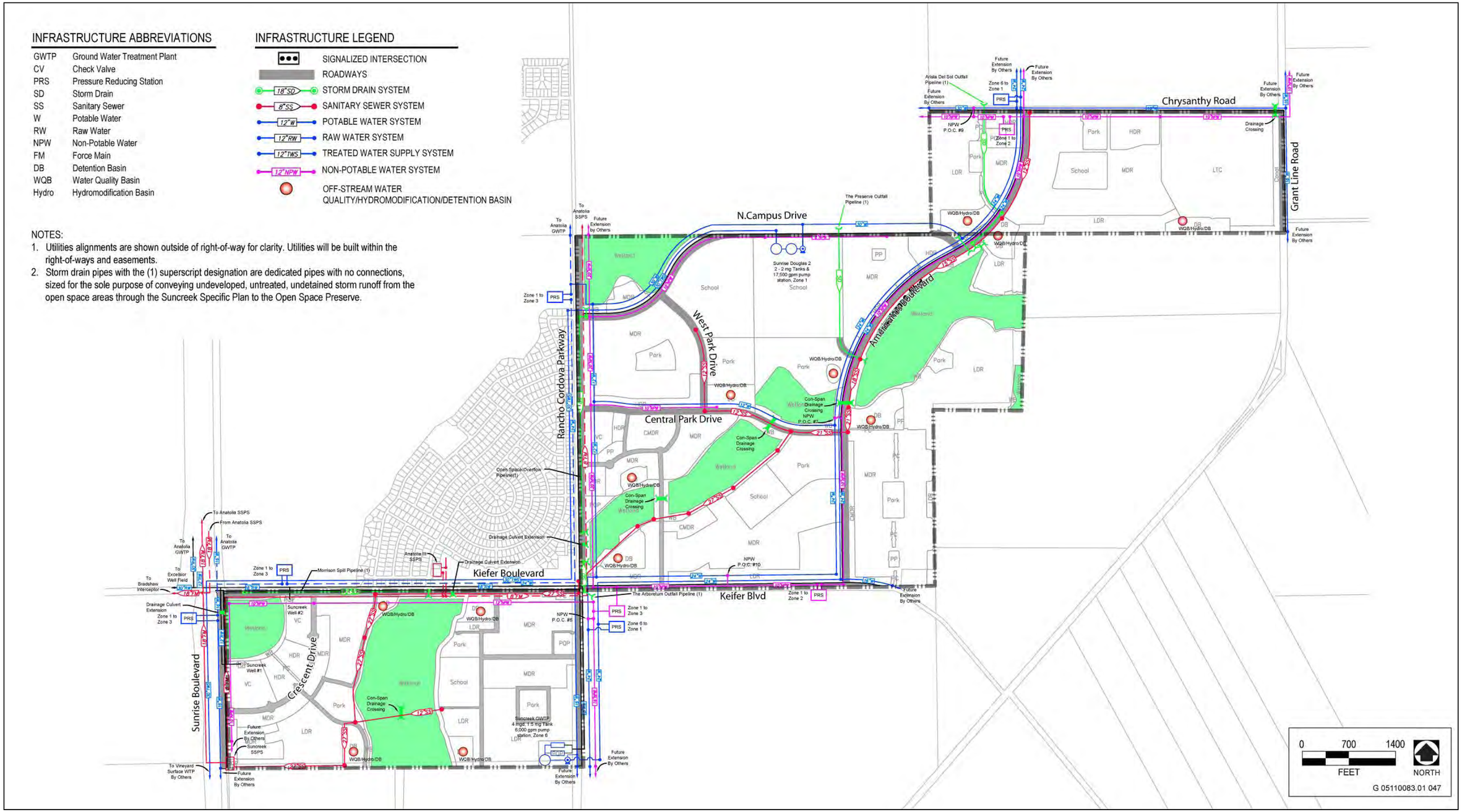
GWTP	Ground Water Treatment Plant
CV	Check Valve
PRS	Pressure Reducing Station
SD	Storm Drain
SS	Sanitary Sewer
W	Potable Water
RW	Raw Water
NPW	Non-Potable Water
FM	Force Main
DB	Detention Basin
WQB	Water Quality Basin
Hydro	Hydromodification Basin

INFRASTRUCTURE LEGEND

- SIGNALIZED INTERSECTION
- ROADWAYS
- 18"SD — STORM DRAIN SYSTEM
- 8"SS — SANITARY SEWER SYSTEM
- 12"W — POTABLE WATER SYSTEM
- 12"RW — RAW WATER SYSTEM
- 12"TWS — TREATED WATER SUPPLY SYSTEM
- 12"NPW — NON-POTABLE WATER SYSTEM
- OFF-STREAM WATER QUALITY/HYDROMODIFICATION/DETENTION BASIN

NOTES:

1. Utilities alignments are shown outside of right-of-way for clarity. Utilities will be built within the right-of-ways and easements.
2. Storm drain pipes with the (1) superscript designation are dedicated pipes with no connections, sized for the sole purpose of conveying undeveloped, untreated, undetained storm runoff from the open space areas through the Suncreek Specific Plan to the Open Space Preserve.



Source: MacKay & Somps 2012

Proposed Project Alternative Backbone Infrastructure

Exhibit 2-5

A total of 12 on-site detention basins (see Exhibits 2-4 and 2-5) would serve as combined water quality, peak flow attenuation, and hydromodification flow-duration control facilities. Under the Preferred Storm Drainage Alternative, the detention basins would be sized to detain the 10-year flood event plus the required hydromodification volume for a total of approximately 130% of the 10-year storage volume. The 100-year flows would be allowed to pass through the detention basins unattenuated. The detention basins would be designed to capture all flows generated from the developed portions of the project up to and including the 100-year flood event (see the "Baseline Conditions" model below). The overall intent of the basins that would be constructed within the SPA is to detain post-development flows such that the downstream creek system would not experience an increase in flows over existing conditions. Approximately 5 acres of stormwater canals would also be created. (For additional details, see Appendix D.)

The detention basins would all be gravity release facilities that would empty in approximately 48 hours after a storm event. The basins would be empty most of the year, although they would fill and drain numerous time each winter. The basins would not be fenced as they are intended to also serve as aesthetic features of the local neighborhoods. Typical maintenance practices would include periodic weed abatement and other similar vegetation removal practices.

Hydromodification

With the anticipation that requirements to address the effects of hydromodification will be adopted by Sacramento County in the near future as a result of renewal of the County's MS 4 permit with the Regional Water Quality Control Board, the project has been designed to address hydromodification. A hydromodification analysis performed by cbec inc. in 2008 (Appendix A to MacKay & Somps 2011c [DEIR/DEIS Appendix D]) assessed the hydrologic and geomorphic effect of developing the SPA relative to existing conditions on the segments of Kite Creek and the Laguna Creek tributaries that are within the SPA. A continuous simulation model in Hydrologic Engineering Center River Analysis System (HEC-RAS) (HMS) with a 49-year, 1-hour interval precipitation record was used for this analysis. Currently, the County does not have standards for determining the effects of hydromodification. Therefore, a set of 10 hydromodification criteria and standards was developed for use in the SunCreek hydromodification evaluation (pages 10-12 of Appendix A to MacKay & Somps 2011c [DEIR/DEIS Appendix D]). Three methods are generally used to reduce the effects of hydromodification on a water course: flow duration control, low impact development (LID), and in-stream restoration. Pursuant to USACE requirements, the on-site preserve (which includes Kite Creek) must be preserved in its current condition; therefore, in-stream approaches cannot be used in the SPA. The use of LID requires a developer to select specific materials and implement various techniques that improve stormwater runoff quality and reduce runoff volumes. The project is a specific plan, and tentative subdivision-level maps and improvements plans have not yet been prepared; therefore, LID techniques cannot be determined at this time. Thus, only flow duration control techniques were assumed in the SunCreek study (Appendix D:14).

The potential hydrologic changes to Kite Creek from project development would be reduced through hydromodification by slowly metering out storm runoff to match undeveloped runoff rates for storms ranging from 25% of the 2-year storm up to and including the 10-year storm (consistent with the draft design standards in the Hydromodification Management Plan being developed by the Sacramento Stormwater Quality Partnership) using a flow duration control strategy, as described in the remainder of this paragraph. The SPA incorporates detention basins with three separate types of storm water storage components, which are stacked on top of each other within the detention basin. The first type of storm water storage is strictly hydromodification storage. The second component is both hydromodification storage and storm water storage that has its maximum water surface elevation set by the 10-year, 24-hour storm. In the case of the SunCreek project, compliance with hydromodification for the 10-year storm event also results in detention for the 100-year storm event; however, hydromodification for the 100-year event is not required. The third storage component is additional storm water storage and has its maximum water surface elevation set by the 100-year, 24-hour storm. Each detention basin has a specifically designed outlet control structure that attenuates the storm water runoff to comply with the hydromodification criteria and objective standards as they apply to the detention basin watershed and the

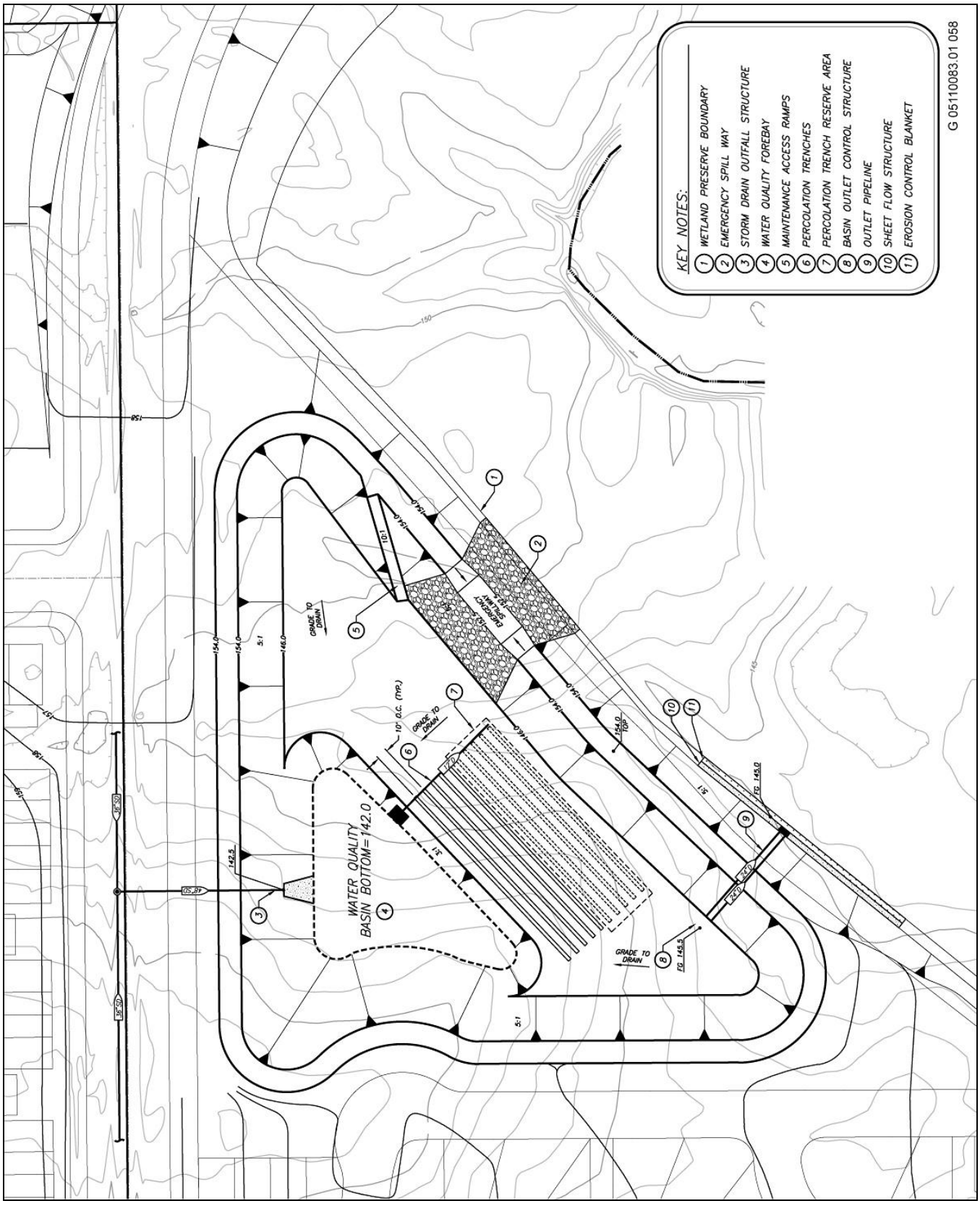
receiving water course. The detention basin outlet control structure detains a portion of the storm runoff generated up to a 100-year, 24-hour event and slowly releases the runoff through a series of varying diameter orifices set at varying elevations. The detention basin outlet control structure has one or more 12-inch or larger diameter orifices set 1.5 feet above the detention basin floor elevation. The first 1.5-feet of storm runoff stored in the detention basin comprises the first type of storm water storage; strictly hydromodification storage. The storm water within this portion of the detention basin is slowly released out of the detention basin over an extended period of time through a 2-inch diameter orifice set at the same elevation as the detention basin floor. As the water surface in the detention basin rises above the 1.5-foot hydromodification storage component, the storm water runoff release rate is attenuated by the 12-inch and larger diameter orifices. The top of the outlet control structure would be an open-grated opening. The opening would be sized to pass the 100-year, 24-hour peak flow rate. Therefore, in the event a storm larger than the 100-year, 24-hour storm occurs or if the outlet control structure orifices malfunction, the rising water level would reach the open top of the structure and then be discharge out of the basin. As a backup to the opening, on the top of the outlet control structure a portion of the embankment separating the detention basin from the receiving watercourse would have a spillway that would allow storm runoff to pass through the basin. See Exhibits 2-6 and 2-7.

Summer nuisance flows occur during the dry (summer) season and are mostly generated by residents during over-irrigation of landscaping, washing of vehicles, and other domestic uses that results in water running off of developed areas. As a result of this runoff, ephemeral tributaries that typically do not receive water during the summer can become perennial tributaries. Conversion of an ephemeral or intermittent stream into a perennial stream is considered a permanent adverse impact; therefore, to minimize adverse effects on waters of the U.S., the project applicants have designed the on-site detention basins to retain summer nuisance flows. Therefore detention basins within the SPA have been designed to retain summer nuisance flows.

The SPA has been divided into 12 separate subwatersheds (see Appendix N in MacKay & Somps 2011c). Each watershed is designed to drain to a separate hydromodification basin that has been designed to function as a combined wet-dry water quality basin, and would include a small permanently wet-water quality feature that averages about 15% of the total detention volume of the typical detention facility. The footprint of this feature would typically be about 0.25 acres in size. This feature would treat low intensity storm and nuisance flows through gravitational settling and biological processes to remove suspended solids, heavy metals, and other constituents of urban runoff prior to discharge to the creek system. Nuisance flows that enter the basins during the summertime and do not evaporate would be percolated into the ground within a percolation trench field through a pipeline network constructed within the detention basin floor. There would be a percolation trench field in each basin sized to percolate 100% of the summer nuisance flows, with space reserved in the basin for a replacement percolation field. Percolation of the summer nuisance flows would prevent release of flows to the creek system (on-site preserve), in order to ensure that development does not cause the streams to convert from ephemeral to perennial character.

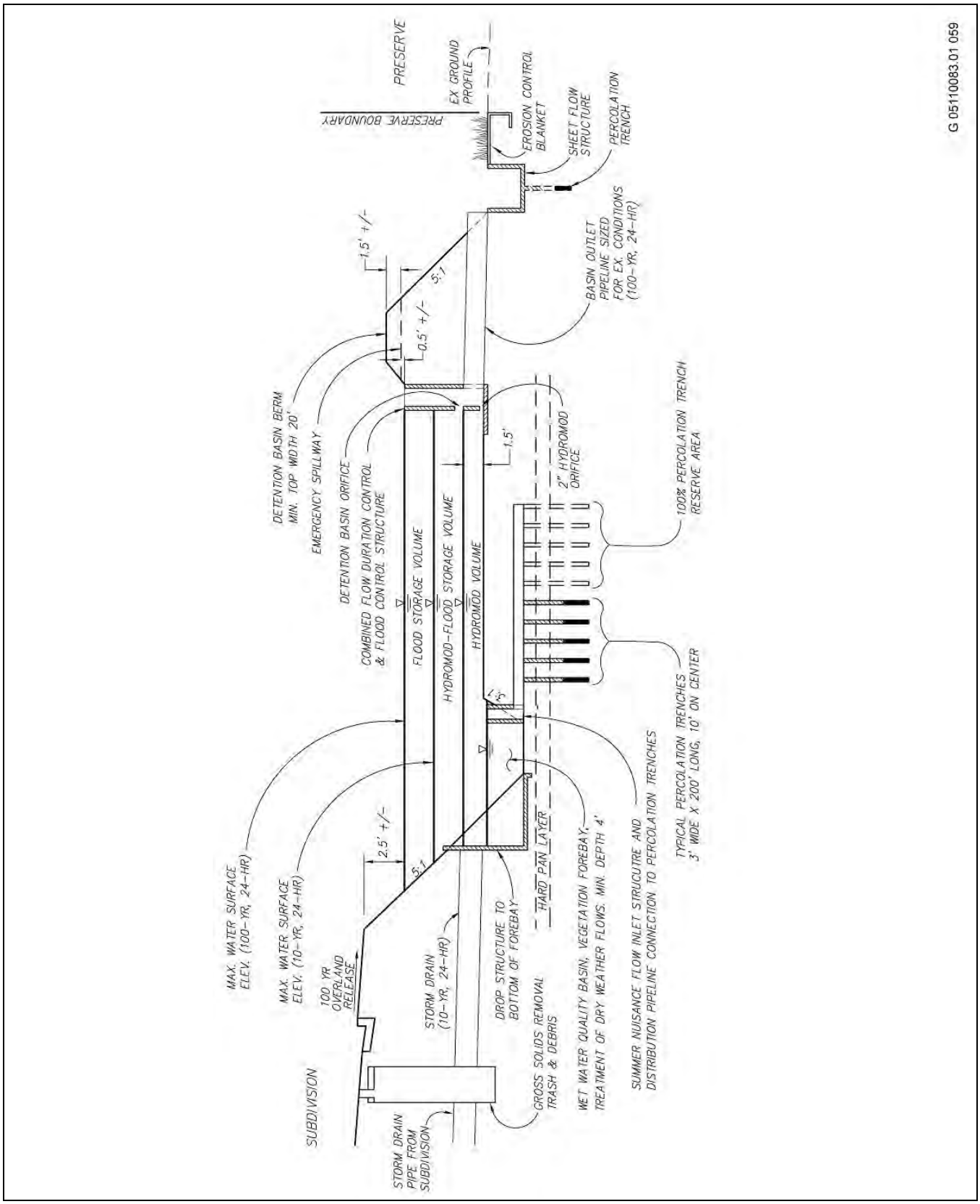
Two hydromodification modeling scenarios were evaluated in the SunCreek Drainage Study to assess the minor land use changes that have occurred in the Specific Plan and how those land uses would affect peak flow rates within Kite Creek. Each scenario is described briefly below.

Modified Hydromodification Basin Alternative 'A' Model. This scenario used the "Baseline" Conditions model as a starting point and revised it to add 30% more detention basin volume to each of the "Baseline" Conditions 10-year, 24-hour storm detention basins to conservatively evaluate the increase in detention volume required to achieve hydromodification. During the detailed design phase of project development, this analysis would be conducted again to more accurately meet hydromodification impacts and peak discharge requirements of the final project, but the Modified Hydromodification Basin – Alternative 'A' Model scenario was used as an estimation at this time in the planning process of how much additional storage volume would be required for hydromodification to accommodate the current land use plan. This alternative modeled the Anatolia III water quality basins, detention basin, and channel as they are currently constructed.



Source: MacKay & Somps 2011c

Typical Hydromodification Detention Basin Plan **Exhibit 2-6**



Source: MacKay & Somps 2011c

Cross-Section Detail of Typical Hydromodification Detention Basin **Exhibit 2-7**

Modified Hydromodification Basin Alternative 'B' Model. This scenario used the Modified Hydromodification Basin Alternative 'A' Model as a starting point and revised the model to account for the removal of the Anatolia III detention basin (and subsequent development of that site with residential housing), as was analyzed in the Anatolia III – Alternative A modeling scenario described below. Any potential changes that would be necessary to on-site detention basins within the SPA were considered as part of this scenario.

Hydrologic Modeling

The SunCreek Drainage Study uses a two-step modeling process. The hydrology is derived from the Sacramento Hydrological Calculator (SacCalc) as required by the County hydrology standards. The hydrographs derived from SacCalc are incorporated into a HEC-RAS "unsteady state" analysis in order to determine the peak flow and hydraulic grade line. A brief description of the three modeled scenarios is provided below. (See MacKay & Somps 2011c for additional details.)

Existing Conditions. This scenario establishes existing base flow conditions without project development. The existing conditions are defined by the current land uses (which consist solely of the Anatolia III residential subdivision) within the 6,930-acre SunCreek Drainage Study Area, and the Morrison Spill. This feature occurs within an open space preserve area located north of Kiefer Boulevard and east of Sunrise Boulevard. Storm runoff ponds on the east side of Sunrise Boulevard due to the limited carrying capacity of the drainage over-crossings spanning the Folsom South Canal. As the storm runoff ponding depth increases, some runoff spills from the Morrison Creek watershed into the Laguna Creek watershed. The remainder of the watershed is modeled as undeveloped land. This modeling scenario is the "CEQA baseline." Note that the NEPA baseline is existing conditions without the project at present and into the future.

Developed Conditions. This scenario is based on a fully developed SPA, using the Existing Conditions model as a starting point and adding in the SunCreek land use plan without peak flow attenuation. The Anatolia III development was modeled the same as in the Existing Conditions scenario (developed) and the remainder of the watershed was also modeled the same as Existing Conditions (undeveloped).

"Baseline" Conditions. This scenario is based on the fully developed SPA with water quality and detention basins sized so that flow rates exiting the SPA boundaries do not exceed the existing conditions flow rates (i.e., with peak flow attenuation). The Anatolia III development was modeled the same as in the Existing Conditions scenario (developed) and the remainder of the watershed was also modeled the same as Existing Conditions (undeveloped). The Morrison Spill would be intercepted at the Kiefer Boulevard culverts, by installing a junction structure, and routed around the SPA. A 72-inch diameter pipe would connect the junction structure to a new outlet structure constructed adjacent to the existing Kiefer Boulevard box culverts. The velocity energy would be dissipated in the new outlet structure before the flow enters the on-site preserve and Kite Creek. (See Appendix D of MacKay & Somps 2011c [DEIR/DEIS Appendix D] for a schematic design of the Morrison Spill pipeline.) For additional details regarding subsheds and off-site areas that drain into the SPA, see Appendix D pages 23-26. This modeling scenario is not the "CEQA baseline"; rather, it is termed "baseline" because it serves as the necessary starting point for necessary modeling of additional hydrologic alternatives where the SPA is fully developed and flow rates are attenuated, so that the effects of existing and projected development adjacent to the project site can be studied in various ways and the most effective on-site hydrologic solutions can be determined.

Anatolia III Modeling Alternatives

A portion of the SunCreek Drainage Study Area is adjacent to an existing single-family residential development called Anatolia III. Anatolia III is a 200-acre subdivision and is the only developed land within the SunCreek Drainage Study Area. Prior to the Anatolia III development, Kite Creek entered the Anatolia III property's eastern boundary and meandered for approximately 3,000 feet through the undeveloped property until it exited the property through the southern boundary. The Anatolia III development has filled (through a permit issued by the USACE) approximately 2,400 feet of the original Kite Creek stream course and routed it around the perimeter of

the Anatolia III project in a trapezoidal cross-section channel. In addition to the on-site channel improvements, the Anatolia III project also constructed a water quality basin and an off-channel detention basin. The water quality basin and off-channel detention basin are sized to treat and detain the developed Anatolia III design storm runoff to pre-development water quality, runoff flow rates, and volumes. A construction defect at the downstream end of the Anatolia III Channel and Kiefer Boulevard Box Culverts has resulted in a backwater condition occurring within the box culverts and the lower reaches of the Anatolia III channel. Realignment of the Kite Creek channel to follow the eastern and southern property boundary allowed for more development to occur within the Anatolia III property. The Anatolia III project drainage design and construction was based on the assumption that some of the proposed Anatolia III drainage improvements would be "interim" improvements until such time that downstream off-site improvements could be feasibly implemented.

Therefore, as requested by the City of Rancho Cordova and the County of Sacramento, four drainage scenario alternatives (Anatolia III Alternatives A though D) where modeled by MacKay & Somps. These alternatives would remove the interim drainage improvements to different degrees from the Anatolia III project and incorporate them into the drainage infrastructure improvements within the SPA, under the Proposed Project Alternative, as described below.

Anatolia III - Alternative A. This modeling scenario evaluates the potential changes to SunCreek hydrologic structures if the existing Anatolia III detention basin (on the west side of Rancho Cordova Parkway, at the corner of Kiefer Boulevard) were removed. Under this alternative, the Anatolia III development would be discharging post-development stormwater runoff into the existing Anatolia III stormwater quality basin, which would then be released into Kite Creek (which is preserved within the SPA) through the existing Kiefer Boulevard box culverts. In order to attenuate peak flows under this alternative, the SunCreek detention basins would need to be larger and the peak flow release rates out of the basins would need to be reduced. (See Appendix C in MacKay & Somps 2011c [DEIR/DEIS Appendix D] for a schematic design.)

Anatolia III - Alternative B. This scenario evaluates the potential changes to SunCreek hydrologic structures if a portion of the existing on-site Anatolia III channel were relocated to the southern right-of-way of Kiefer Boulevard. As would be the case under Alternative A above, the Anatolia III development would be discharging post-development stormwater runoff into the existing Anatolia III stormwater quality basin, which would then be released into Kite Creek through the existing Kiefer Boulevard box culverts. The Anatolia III channel would be directed to the south side of Kiefer Boulevard through a new box culvert constructed approximately 400 feet west of the Kiefer Boulevard/Rancho Cordova Parkway intersection. The channel would turn to the west and follow Kiefer Boulevard, passing through another box culvert that provides access to the Shalako parcel (on the SPA) and then connects to Kite Creek. Under the alternative, two new culverts would be required in order to accommodate modeled peak flow rates: (1) twin 10-foot span by 6-foot rise culverts crossing Kiefer Boulevard at Rancho Cordova Parkway, and (2) triple 9-foot-span by 5-foot-rise culverts crossing Kiefer Boulevard at the Shalako parcel. The detention basins in the SPA would have to be increased in size to ensure that post-development flows did not exceed pre-development flows. (See Appendix C in MacKay & Somps 2011c [DEIR/DEIS Appendix D] for a schematic design.)

Anatolia III - Alternative C. This scenario evaluates the potential changes to SunCreek hydrologic structures if both the existing on-site Anatolia III detention basin and channel completely removed from the Anatolia III development allowing for the detention basin and channel to be filled and developed. This scenario uses the model from Anatolia III - Alternative A as a starting point, but then includes an unsteady flow HEC-RAS model of the entire watershed above Florin Road. The Anatolia III channel would be relocated to the east side of Rancho Cordova Parkway and graded to drain to the south under Kiefer Blvd. The channel would than turn to the west, cross under Rancho Cordova Parkway, and run parallel along the southern Kiefer Boulevard right-of-way and connect to the open space preserve in the SPA. The 10-year, 24-hour runoff from the Anatolia III development would discharge into the existing Anatolia III water quality basin and then release into Kite Creek through the existing Kiefer Boulevard box culverts. Runoff on the Anatolia III property from the 100-year, 24-hour storm event would spill directly into Kite Creek at the Kiefer Boulevard box culvert location. The relocated channel

would require three new box culverts (the same sizes as described above in Anatolia III - Alternative B). The detention basins in the SPA would have to be increased in size to account for the loss of the Anatolia III detention basin. (See Appendix C in MacKay & Somps 2011c [DEIR/DEIS Appendix D] for a schematic design.)

Anatolia III - Alternative D. This scenario evaluates the potential changes to SunCreek drainage structures if the existing Anatolia III channel were replaced with twin 72-inch culverts. This scenario uses the model from Anatolia III - Alternative C as a starting point, but then includes an unsteady flow HEC-RAS model of the entire watershed above Florin Road. The proposed twin 72-inch culverts would intercept the runoff east of Rancho Cordova Parkway at the current location of the existing twin 8 x10-foot culverts. The twin 72-inch culverts would route the Anatolia III storm runoff south to Kiefer Boulevard, then west under Kiefer Boulevard to the existing 8x10-foot box culverts located in Kiefer Boulevard, where the runoff would then enter the open space preserve in the SPA. The twin 72-inch culverts are assumed to fit within the right-of-way and landscape corridors for Rancho Cordova Parkway and Kiefer Boulevard, such that the SPA would not lose any developable land. The detention basins in the SPA would have to be increased in size to ensure that post-development flows did not exceed pre-development flows. (See Appendix C in MacKay & Somps 2011c [DEIR/DEIS Appendix D] for a schematic design.)

Detention Basin Alternatives

Three additional detention basin alternatives were evaluated under the Proposed Project Alternative, as described further below.

Shalako Detention Basin Alternative. The Shalako property is located at the southwestern corner of the SPA, adjacent to the northwestern boundary of the Arboretum project site. To keep runoff from the developed portions of the SPA from entering the on-site preserve, several feet of fill dirt would need to be placed along the southernmost tier of lots within the Shalako property. The resulting lot pad elevations would be approximately 2 - 6 feet higher than the adjoining tier of lots on the Arboretum project site. The difference in elevations would create a substantial slope between adjoining lots, requiring either the construction of expensive retaining walls or requiring excessive lot depths. An alternative design was analyzed to determine if an acceptable grading solution could be implemented along the boundary between the two projects while still being able capture, treat, and attenuate the Shalako property storm runoff. This design alternative would require reducing the size (depth) of SPA detention basin no. 12 to lower the pad grades along the southern boundary of the Shalako property; making this detention basin smaller means it would no longer be able to detain the peak flow rates from the 100-year storm event. To compensate for the smaller size of detention basin no. 12, the sizes of SPA detention basin nos. 9, 10, and 11 would have to be increased. (For additional details see MacKay & Somps 2010a attached as Appendix E.)

Community Park Detention Basin Alternative. Detention Basin No. 5 is located on the proposed community park site and would be the largest detention basin (approximately 9.43 acres) within the SPA. The community park site is approximately 39 acres with approximately 24% of that area needed for Detention Basin No. 5. The CRPD has indicated they would allow for a portion of the community park to be designed as a joint use park/storm runoff/water quality treatment/detention facility, which would entail inundation of the park turf areas for no more than 72 hours during a peak storm event. Therefore, as an alternative to including in the community park a large detention basin that does not provide any other uses for a majority of the year, an alternative design was prepared for Detention Basin No. 5. This alternative design allows for the portion of the detention basin that is above the 10-year, 24-hour, hydromodification water surface elevation to have joint use capabilities so it can function as both a detention basin and a community park facility. (For additional details see MacKay & Somps 2010b attached as Appendix F.)

Stand-Alone Detention Basin Alternative. Three of the 12 subwatershed boundaries (Detention Basins Nos. 3, 5, and 7) extend beyond the SPA boundary. The "Baseline" Conditions model described above included these "off-site" subwatersheds as future development areas outside the SPA but connected them hydraulically to their

respective watershed's hydromodification basin. This means that the full area within each of the three subwatersheds was assumed to be detained within basins that would be located within the SPA, even though portions of the development in these subwatersheds would be outside the SPA. Thus, Detention Basins Nos. 3, 5, and 7 are oversized in order to accommodate the off-site development. This alternative analysis evaluated the potential change in size of these three detention basins if the three upstream off-site areas were to address their own peak flow, hydromodification, and water quality impacts within their own developments instead of within the SunCreek basins. (For additional details see MacKay & Somps 2010c attached as Appendix G.)

Preferred Drainage Plan

The applicants' preferred drainage plan consists of a combination of the following features (described in detail above):

1. Modified Hydromodification Basin Alternative B;
2. Anatolia III Alternative A;
3. Community Park Alternative Detention Basin;
4. Stand-Alone Detention Basins 3, 5 & 7; and
5. Shalako Detention Basin (either modified or unmodified).

This combination of drainage elements and/or alternatives minimizes the area required for detention basins and maximizes the developable areas within the SPA; addresses drainage, water quality, flood control and hydromodification issues; and provides the developers of Anatolia III the opportunity to reclaim 29 lots in the Anatolia III subdivision.

Potable Water

The SPA lies within the Sacramento County Water Agency's (SCWA's) existing water service areas. SCWA (Zone 40) would serve as the water wholesaler and along with Zone 41, would operate and maintain the distribution system in the specific plan area. Funds to construct water supply, treatment, and transmission facilities are collected through Zone 40 development fees. For purposes of sizing transmission/distribution facilities, the total average daily demand for the project is estimated to be 2.73 million gallons per day (mgd) and total maximum daily demand is estimated to be 5.46 mgd (MacKay & Somps 2010d). The peak hour demand is estimated to be 7584.4 gallons per minute (MacKay & Somps 2010d). The water supply and distribution facilities would provide adequate flow deliveries to maintain acceptable service pressures to all customers within the SPA. Facilities would also meet SCWA's operating criteria for transmission mains, as well as the fire flow requirements of the SMFD.

A preliminary on-site water system has been designed as a looping system following the major street alignments (see Exhibit 2-5). The transmission system would incorporate mainline pipe sizes from 16 inches to 24 inches in diameter. The on-site distribution system would consist of 8- to 12-inch diameter pipes, with the 12-inch lines looping near sites that require higher fire flow requirements, such as commercial, industrial, and school sites.

Water service to the SPA is planned to be provided in three phases, as described below.

- Phase 1 water service would involve using available groundwater capacity from the Anatolia Water Treatment Plant (see Exhibit 2-6), using groundwater that is extracted from the North Vineyard (Excelsior) Well Field as part of Zone 40's conjunctive use program. Connections to each plant would be established by constructing 16-inch conveyance pipelines in Sunrise Boulevard and Jaeger Road (now known as Rancho Cordova Parkway) south of Kiefer Boulevard, and a 24-inch conveyance pipeline in Kiefer Boulevard east of Rancho Cordova Parkway. (MWH 2008.) Other joint facilities, in concert with other developers in the Sunrise Douglas Community Plan area, such as wells, storage tanks, raw water conveyance, and groundwater treatment capacity,

may be needed in the future. The need, location, and sizing for such joint facilities would be determined at the time when connection to the existing water system were made. Future CEQA analyses of those facilities, should they be necessary, would be determined by SCWA and the City of Rancho Cordova.

- Phase 2 water service (see Exhibit 2-7) would the entail use of water delivered by the North Service Area Pipeline Project (NSAPP), which would transport water from the Vineyard Surface Water Treatment Plant (WTP), by way of the Freeport intake on the Sacramento River. Water conveyed through the NSAPP would be fed to two storage tanks in SCWA's North Service Area (NSA) (which includes the SPA) on Douglas Road. Water would then be pumped from these tanks to meet operating pressure requirements in the North Service Area. The pipeline would be approximately 8 miles long with diameters ranging from 42-66 inches. Additional storage tanks constructed as part of the NSAPP, called the Sunrise Douglas 2 Tanks, would be located on the SPA but would function as regional SCWA facilities to serve the southern portion of the North Service Area. (MWH 2008.)

- Phase 3 water service (see Exhibit 2-8) would not occur until the water demands of the North Service Area begin to approach the capacity of the NSAPP. At that time, SCWA anticipates that the Vineyard Surface WTP would be expanded to its full capacity (100 mgd). In addition, groundwater wells and a groundwater treatment plant would be constructed on the SPA to meet local (SunCreek) demands. A total of three groundwater wells, one of which would serve as a back-up, would be installed on site, with an estimated capacity of 1,500 gallons per minute. The SunCreek Water Treatment Plant would have a treatment capacity of 4.0 mgd. A 1.5-mgd storage tank and pump station with three booster pumps would also be constructed. Finally, a 12-inch raw water pipeline would be constructed off the existing 30-inch pipeline at Sunrise and Kiefer Boulevards would deliver excess water from the North Vineyard Well Field to the SPA. (MWH 2008.)

In addition to the NSAPP, two other of-site water facilities would be required to serve the project. These are the Florin Road/Sunrise Boulevard Pipeline and the Americanos Boulevard Parallel Pipelines. The NSAPP has already been analyzed under CEQA (Sacramento County 2010a). Section 3.17, "Water Supply" of this DEIR/DEIS includes a program-level CEQA/NEPA evaluation of the other two facilities described below (for additional details see MacKay & Somps 2011b attached as Appendix H).

Florin Road/Sunrise Boulevard Pipeline. This 30-inch-diameter water conveyance pipeline would function as a northeastern extension of the NSAPP. It would be installed within existing roads or road rights-of-way along Florin Road to Sunrise Boulevard, where it would connect with the proposed on-site water facilities at the intersection of Sunrise and Kiefer Boulevards (see Exhibit 2-11). The pipeline would cross Jackson Road via the jack-and-bore construction method; otherwise open trench construction methods would be used. The trenches would vary from 5 to 6 feet wide and from 5 to 10 feet deep. Where the pipeline crosses the Folsom South Canal, it would either need to be suspended underneath the existing Florin Road bridge, placed within a future roadway bridge to be constructed over the canal, or placed in a separate utility bridge. Construction staging areas could be up to 10 acres in size, but potential staging locations are not known at this time. Two crews totaling approximately 16 to 18 workers would be employed during normal daytime construction hours, except when nighttime is anticipated for work crossing the major roads. This facility is not included within the current SCWA financing plan; therefore, it is not possible to determine when this facility would be constructed.

Americanos Boulevard Parallel Pipelines. Two parallel 24-inch transmission pipelines would be constructed within the future right-of-way of the planned extension of Americanos Boulevard from Douglas Road to the future intersection with Chrysanthy Boulevard. These pipelines are shown in Exhibits 2-8, 2-9, 2-10, and 2-12, traversing through the Douglas 103, Grantline 208, and Arista del Sol properties prior to connection with the SPA. These pipelines are necessary in order to extend Zone 6 water service to the SPA.

The Americanos Boulevard pipelines would convey water from existing North Douglas storage tanks to the SPA through two new 24-inch diameter parallel pipelines. The North Douglas storage tanks are located north of Douglas Road and east of Americanos Boulevard along Edington Drive. An existing 30-inch diameter pipeline

currently conveys water from the North Douglas storage tanks south along Edington Drive to its intersections with Americanos Boulevard. From this point, the existing pipeline travels south to a check valve on Douglas Road. The new Americanos Boulevard pipelines would begin at this check valve and travel approximately 6,800 feet south along the future Americanos Boulevard road right-of-way then connect with the SPA's proposed on-site water system at the future intersection of Americano Boulevard and Chrysanthy Boulevard (Appendix H).

The Americanos Boulevard pipelines would be installed in open trenches using conventional trenching techniques. The trenching techniques include surface grading, trench excavation, pipeline installation, and backfilling and surface grading. A backhoe or excavator would be used to dig trenches for pipe installation. In general, trenches would be 4 to 5 feet wide and 5 to 10 feet deep. Trenches deeper than 5 feet would require shoring to prevent trench failure. The trenches would have vertical sidewalls to minimize construction easement width and amount of soil excavated. Excavated roadways would be repaved. For unpaved areas, restoration would generally involve re-grading and planting with annual grasses (Appendix H). Where the pipelines would cross the tributary of Morrison Creek within the Douglas 103 property, jack and bore techniques would be employed to avoid work in the bed or bank of this tributary. Boring would likely occur to a depth of approximately 10 feet.

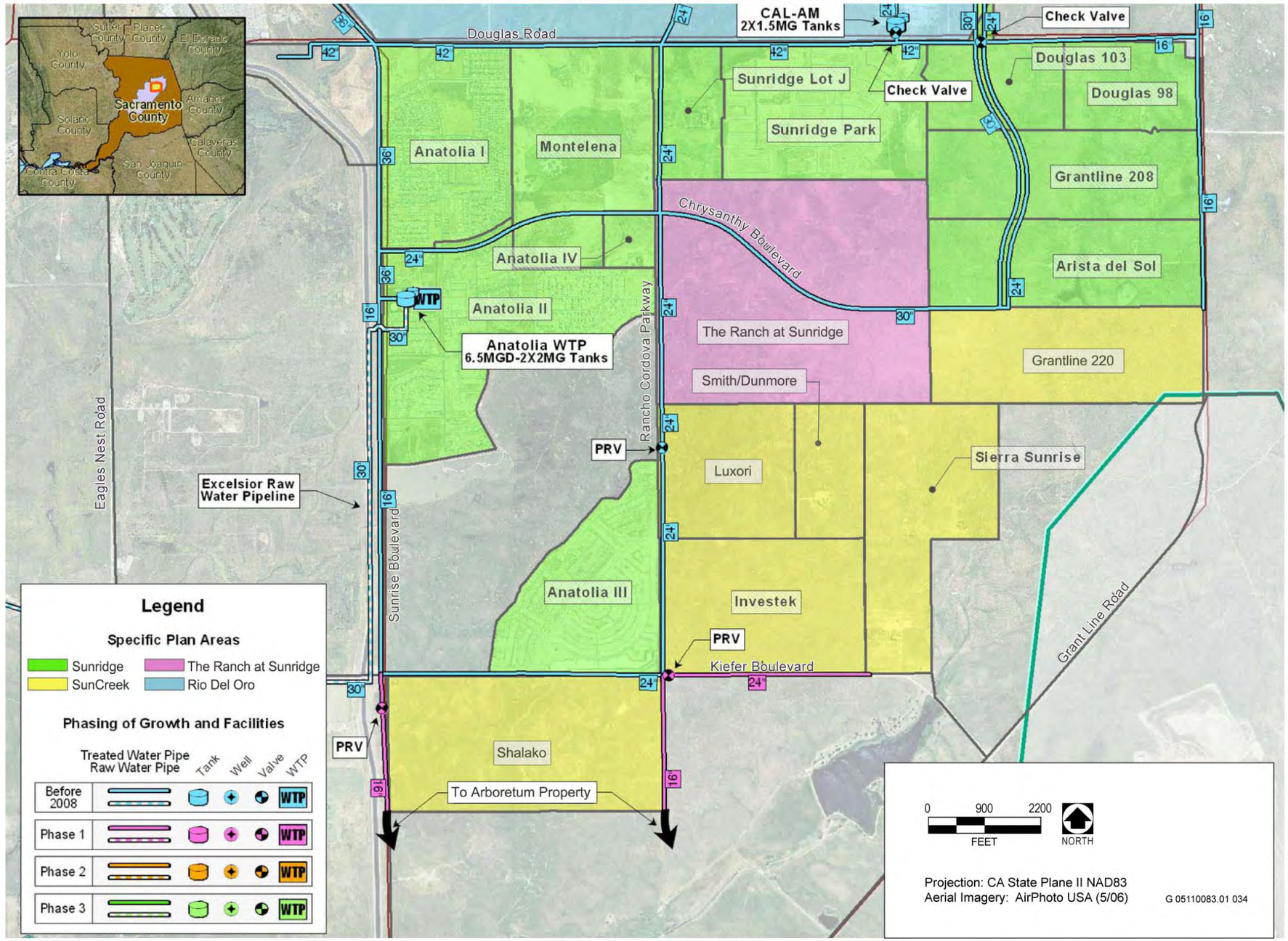
Staging areas may be up to 5 acres in size and their potential locations are presently unknown. It is anticipated that less than 5 acres per day would be disturbed during construction activities. SCWA anticipates two crews of 16 to 18 construction workers would install the pipeline and would possibly work at opposite ends of the alignment. Construction activities would only occur during the daytime hours (Appendix H). Jack and bore activities underneath the Morrison Creek tributary would likely require approximately three weeks.

In the event that construction of the NSAPP were to be delayed, an alternative interim water conveyance mechanism to serve the SPA was identified (see MacKay & Somps 2011a attached as Appendix W)—the existing Anatolia Water Treatment Plant raw water pipeline could be converted to a treated surface water transmission pipeline. This alternative is described below and the environmental impacts of constructing this alternative are evaluated in Section 3.17, "Water Supply." (For additional details see MacKay & Somps 2011b attached as Appendix H.)

Anatolia Raw Water Pipeline Conversion. As a lower cost, first-step alternative to constructing the NSAPP in the early stages of project development, portions of the existing 30-inch-diameter raw groundwater pipeline that currently conveys groundwater pumped from the Excelsior well field to the Anatolia Groundwater Treatment Plant could be converted on an interim basis to a treated surface water transmission pipeline (see Exhibit 2-13). To accomplish this conversion, the following steps would be necessary:

- Construct Phase 1 of the NSAPP.
- Temporarily shut down the existing groundwater wells at the Excelsior well field.
- Temporarily shut down the Anatolia Groundwater Treatment Plant.
- Install a new 66-inch pipeline extending approximately 4,600 feet easterly along Florin Road to Excelsior Road, and install 30-inch diameter piping extending approximately 2,500 feet northerly along Excelsior Road to a point of connection in Sunrise Boulevard with the 30-inch pipeline that currently conveys raw groundwater to the Anatolia Groundwater Treatment Plant.
- Install minor piping modifications at the Anatolia Groundwater Treatment Plant site to connect the converted raw groundwater conveyance pipeline directly to the treated water side of the plant.

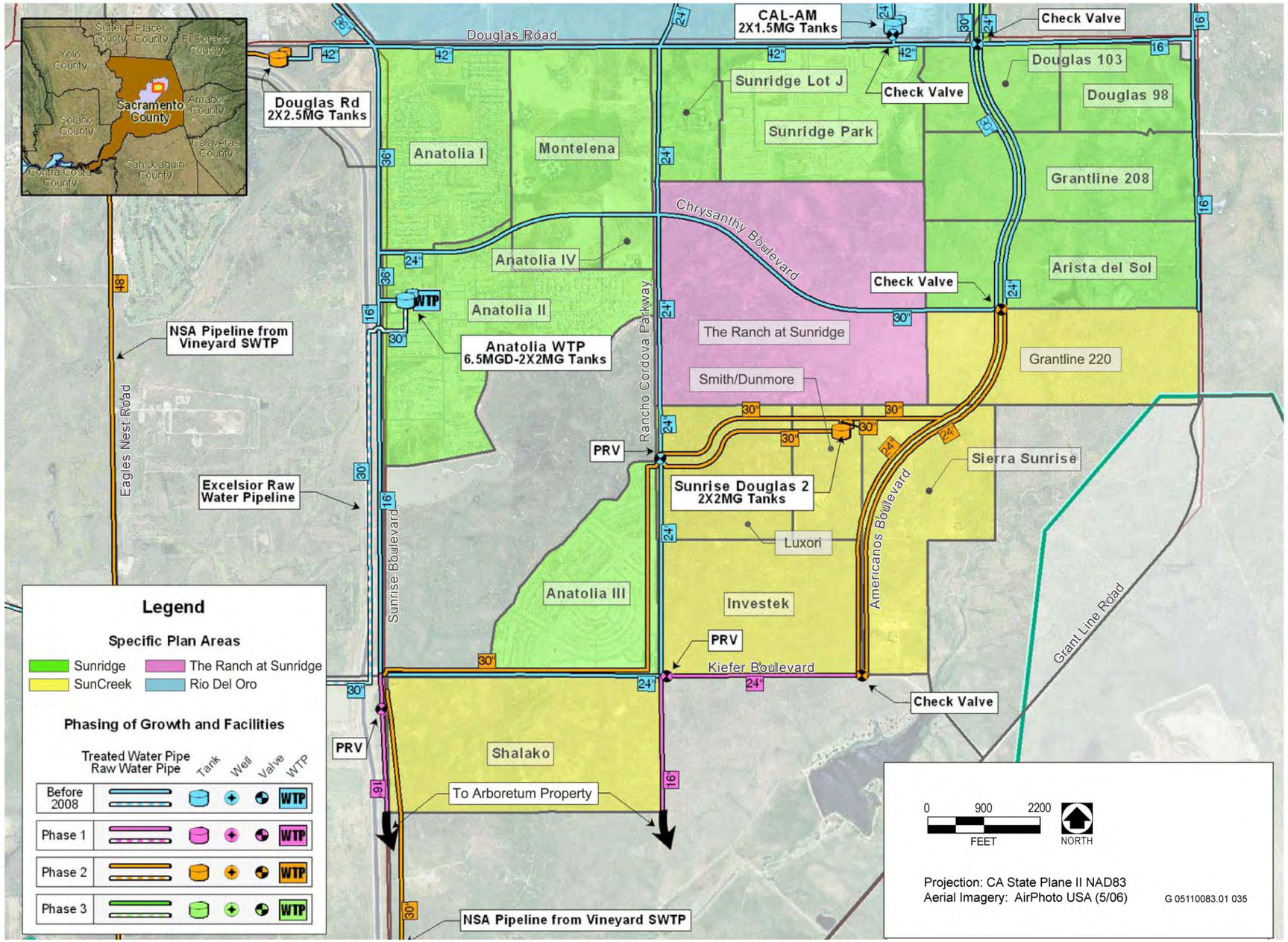
The new pipeline would be installed within existing roads or road rights-of-way and open trench construction methods would be used. The trenches would vary from 5 to 8 feet wide and from 5 to 10 feet deep. Construction staging areas could be up to 10 acres in size, but potential staging locations are not known at this time. Two crews totaling approximately 16 to 18 workers would be employed during normal daytime construction hours, except when nighttime is anticipated for work crossing Florin Road.



Source: Montgomery Watson Harza 2008

Proposed Potable Water Supply System - Phase 1

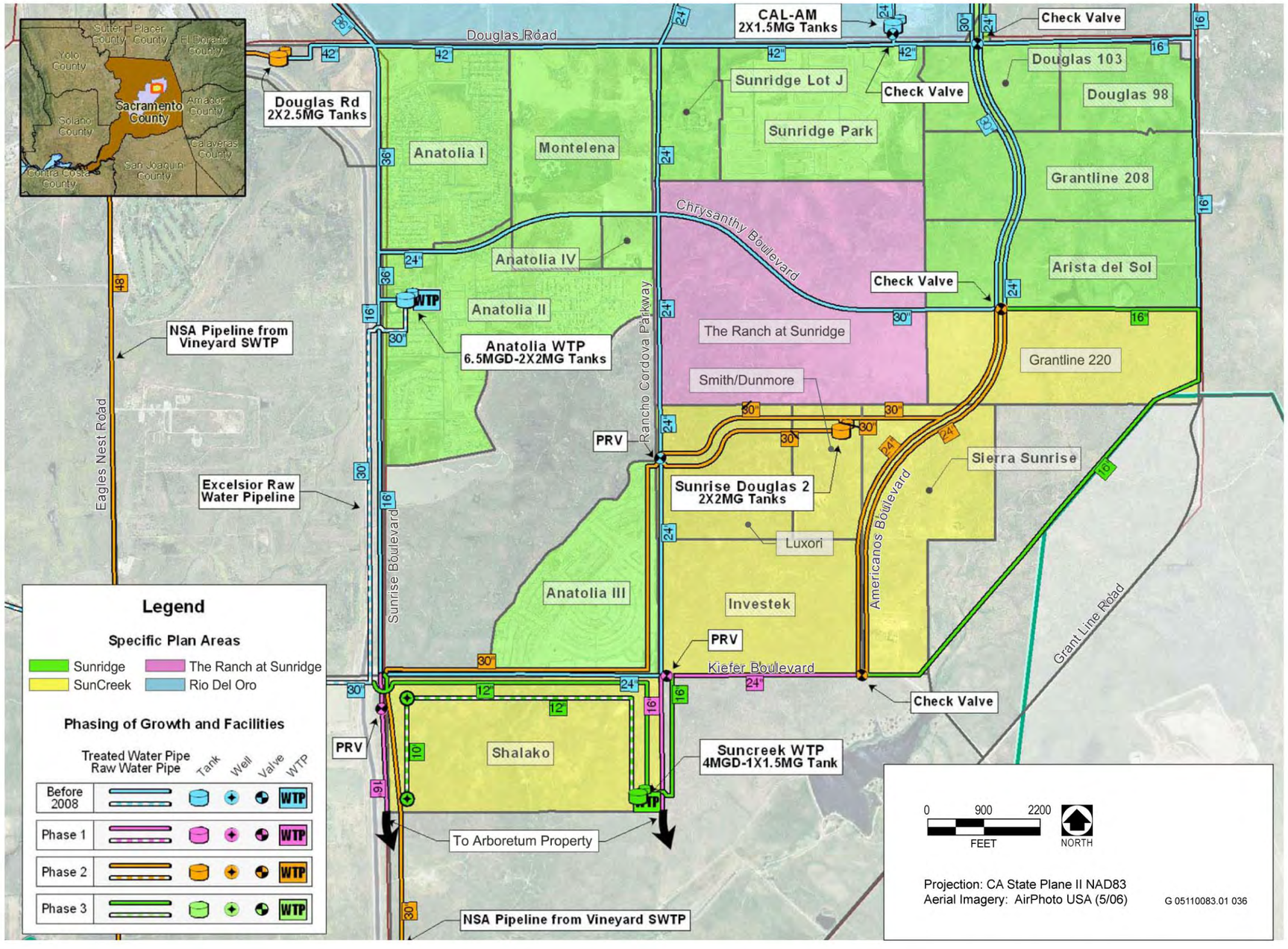
Exhibit 2-8



Source: Montgomery Watson Harza 2008

Proposed Potable Water Supply System - Phase 2

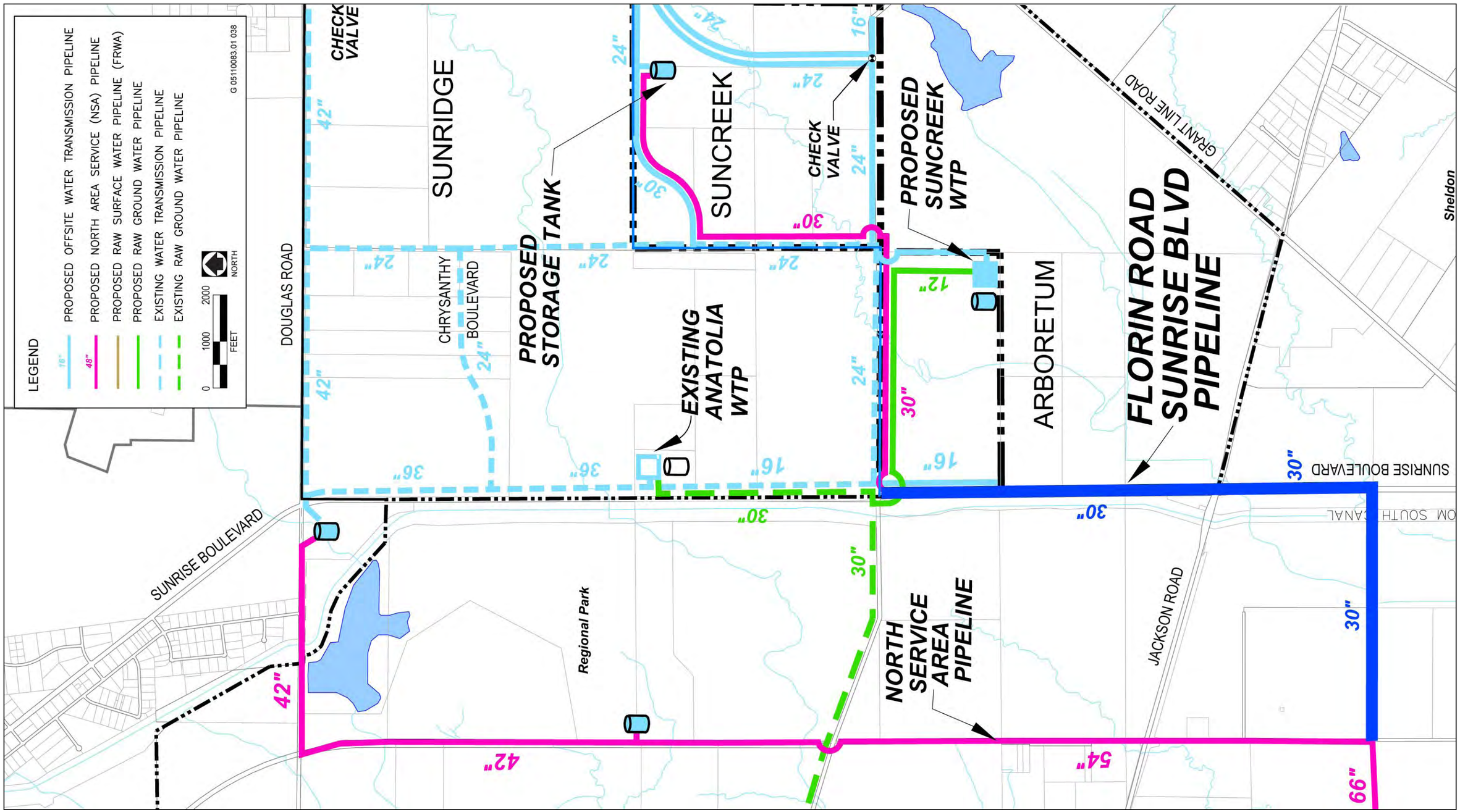
Exhibit 2-9



Source: Montgomery Watson Harza 2008

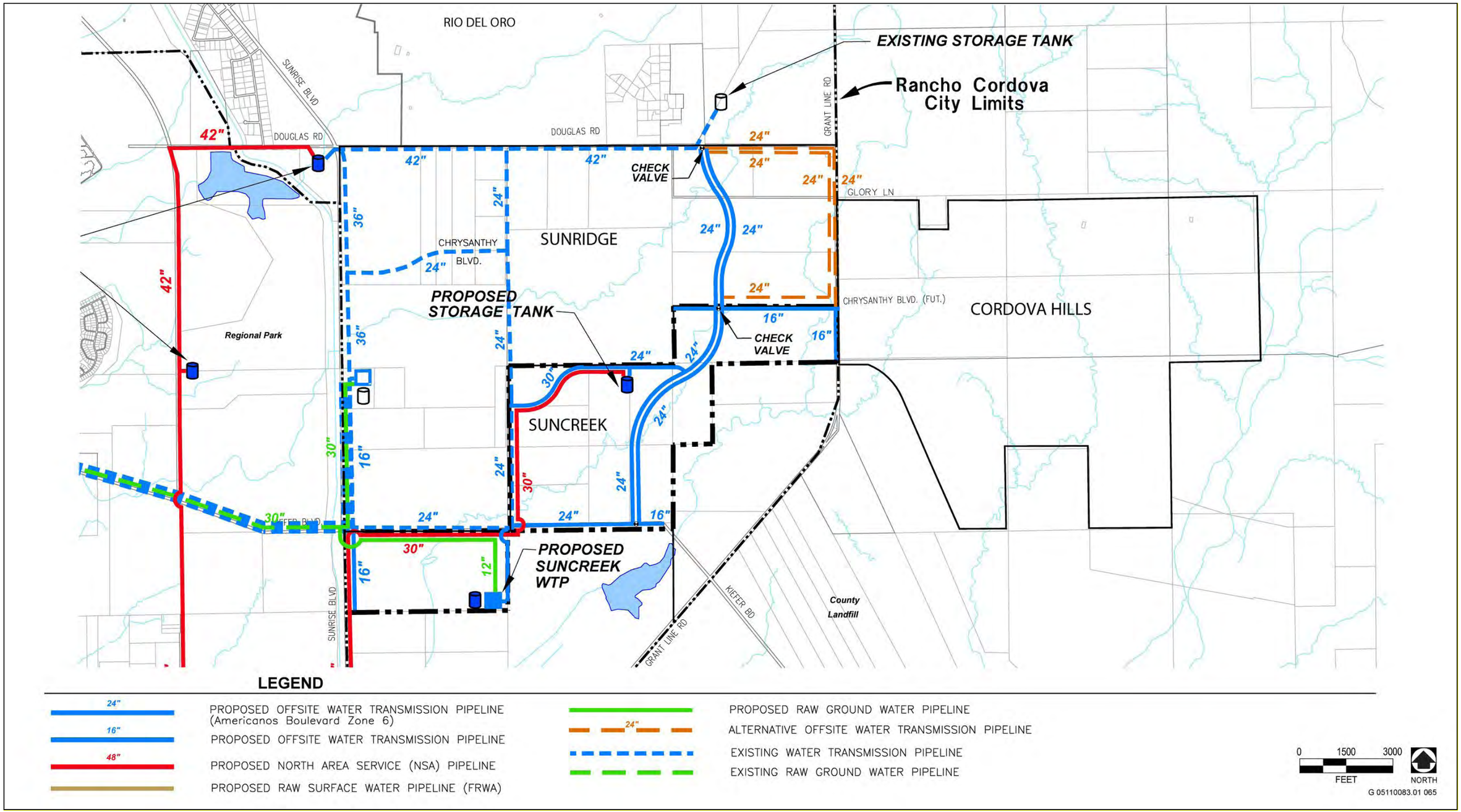
Proposed Potable Water Supply System - Phase 3

Exhibit 2-10



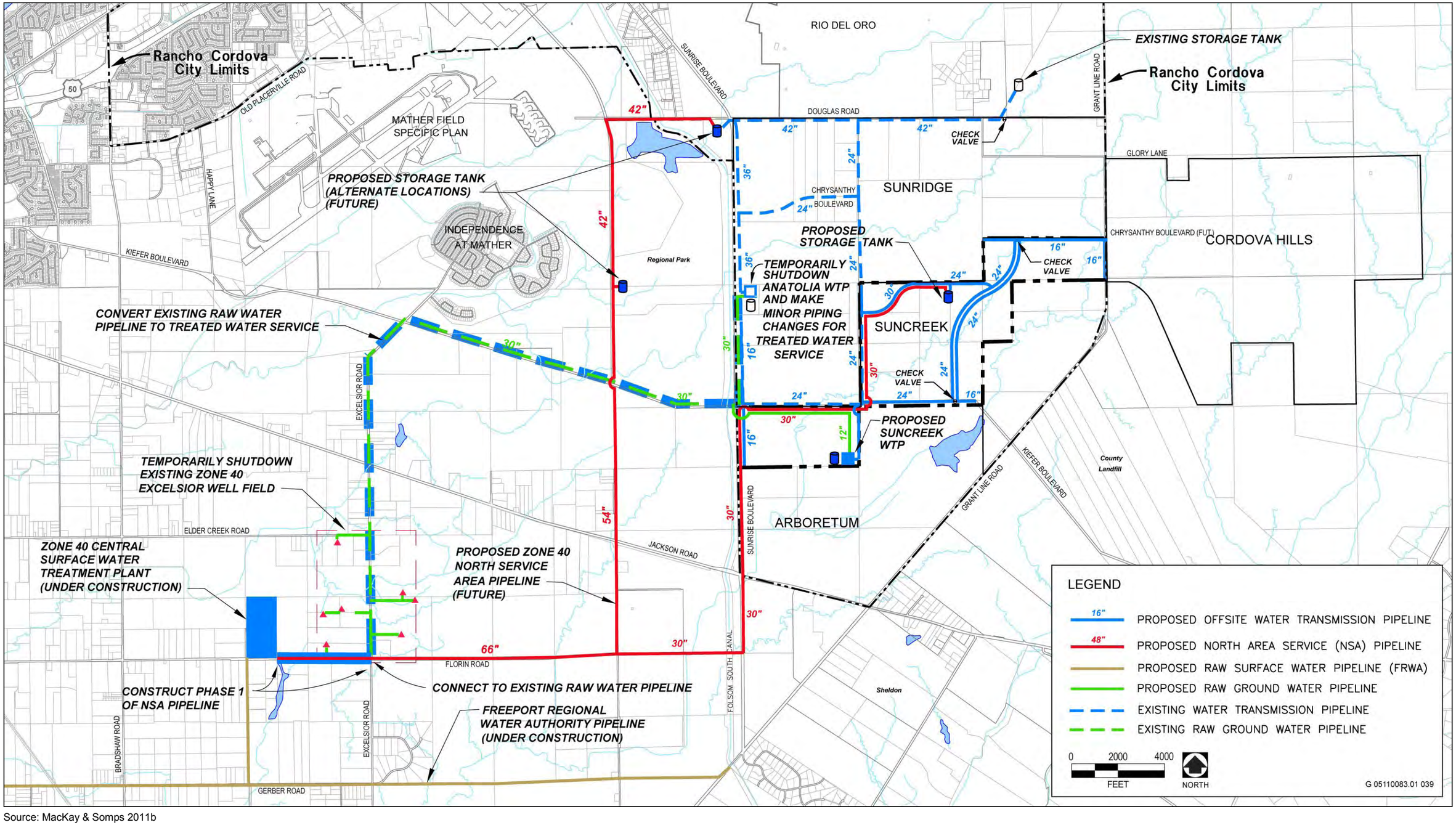
Source: MacKay & Somps 2011b

Proposed Off-Site Florin Road/Sunrise Boulevard Water Pipeline **Exhibit 2-11**



Source: MacKay & Somps 2011b, Adapted by AECOM in 2012

Proposed Americanos Boulevard Parallel Pipelines **Exhibit 2-12**



Source: MacKay & Somps 2011b

Proposed Off-Site Anatolia Pipeline Conversion **Exhibit 2-13**

Water Supply Alternatives

Water supplies for the SPA would be provided as follows. Surface water would be diverted from the Sacramento River via the Freeport Regional Water Project (FRWP) facilities and conveyed to the Vineyard Surface WTP for treatment. Treated water would then be conveyed to the NSA through the NSAP and Florin Road/Sunrise Boulevard pipeline. (As a short-term alternative to the NSAP and Florin Road/Sunrise Boulevard pipeline, surface water could be provided in the interim through the temporary conversion of the Anatolia raw groundwater transmission pipeline to a treated surface water transmission pipeline after the Vineyard Surface WTP becomes operational). Water from Zone 6 would also be provided to the SPA through the Americanos Boulevard parallel pipelines. Groundwater would be provided by the North Vineyard Well Field (NVWF), Mather Housing groundwater system, and SunCreek groundwater wells.

In the long term, SCWA anticipates the majority of water demands in the NSA (including the SPA) would be met with surface water. However, the year-to-year mix of surface and groundwater varies depending on a large number of variables and surface water and groundwater supplies would be adjusted as necessary to meet the demands of the NSA as part of its conjunctive use program. To account for this variability, four potential water supply scenarios were developed (see Appendix W), evaluated in terms of water supply availability and reliability in Section 3.17 "Water Supply," and modeled as related to effects on groundwater levels (see Section 3.9, "Hydrology and Water Quality"). These four scenarios are briefly described below.

- **Accelerated Construction of the North Service Area Pipeline (NSAP).** This scenario assumes the existing capacity of the NVWF and Mather Housing groundwater system would meet water demands of the SPA until 2012. This scenario further assumes that the NSAP would be constructed and online by 2012 and would provide surface water to meet the remaining water demands of the SPA at that time.

- **Delayed Construction of the NSAP.** This scenario assumes the existing capacity of the NVWF and Mather Housing groundwater system would meet water demands of the SPA until 2012. At this point, the NVWF would require expansion to its full capacity. Under this scenario, the NSAP is anticipated to be constructed and online by 2013 and would provide surface water to meet the remaining water demands of the SPA at that time.

- **Conversion of the Anatolia Raw Groundwater Transmission Pipeline.** This scenario assumes the existing capacity of the NVWF and Mather Housing groundwater system would meet water demands of the SPA until 2012. At this point, the Vineyard Surface WTP would be operational and the Anatolia raw groundwater transmission pipeline would be converted to a treated surface water transmission pipeline and the NVWF and Anatolia WTP would be temporarily shut down. Under this scenario, the NSAP is anticipated to be constructed and online by 2019 and would provide surface water to meet the remaining water demands of the SPA at that time. The NVWF and Anatolia WTP would then be reactivated to provide groundwater extraction and treatment to the SPA.

- **Groundwater Intensive Development with the SunCreek Groundwater Wells.** This scenario assumes the existing capacity of the NVWF and Mather Housing groundwater system would meet water demands of the SPA until 2012. At that point, this scenario assumes that the NVWF would require expansion to its full capacity and the SunCreek groundwater wells and treatment plant would be constructed and operational by 2013. This scenario further assumes that the NSAP would be operational in 2015 and would provide surface water to meet the remaining water demands of the SPA at that time.

Non-Potable Water

Non-potable water would also be used at the SPA for irrigation of public landscaping areas such as parks, schools, and streetscapes. Although the non-potable water distribution system would be installed within major on-site roads at the same time as the potable water system (see Exhibit 2-5), non-potable water is not expected to be available in the near future. Potential sources of nonpotable water include: (1) remediated groundwater from

groundwater extraction and treatment (GET) facilities, or (2) recycled water from the Sacramento Regional County Sanitation District (SRCSD). Nonpotable water from both of these sources is still being studied from a feasibility standpoint, and is outside the control of the either of the lead agencies or the project applicants.

A Non-Potable Water Master Plan for the Sunrise Douglas Planning Area, which includes SunCreek, was prepared by Wood Rodgers in 2007, under contract with SCWA. Nonpotable water would be supplied to the SPA and other projects in the vicinity via an interconnected system. Until nonpotable water becomes available, the proposed non-potable water system would be cross-connected with the potable water system as shown in Exhibit 2-14. The proposed non-potable water system at full project buildout is shown in Exhibit 2-15. In the full project buildout condition, the cross-connections with the potable water system would be shut off. A storage tank would need to be constructed at Rancho Cordova Parkway near Douglas Road to receive remediated groundwater from Aerojet GET facilities or recycled water from SRCSD (see Exhibit 2-15).

The Master Water Study for the SunCreek Specific Plan, prepared by Montgomery Watson Harza (2008) under contract with SCWA, used the Wood Rodgers plan to calculate non-potable water demands for the Proposed Project Alternative as follows: 1.85 mgd total maximum day demand and am average annual demand of 825.4 acre-feet per year (afy).

Sanitary Sewer

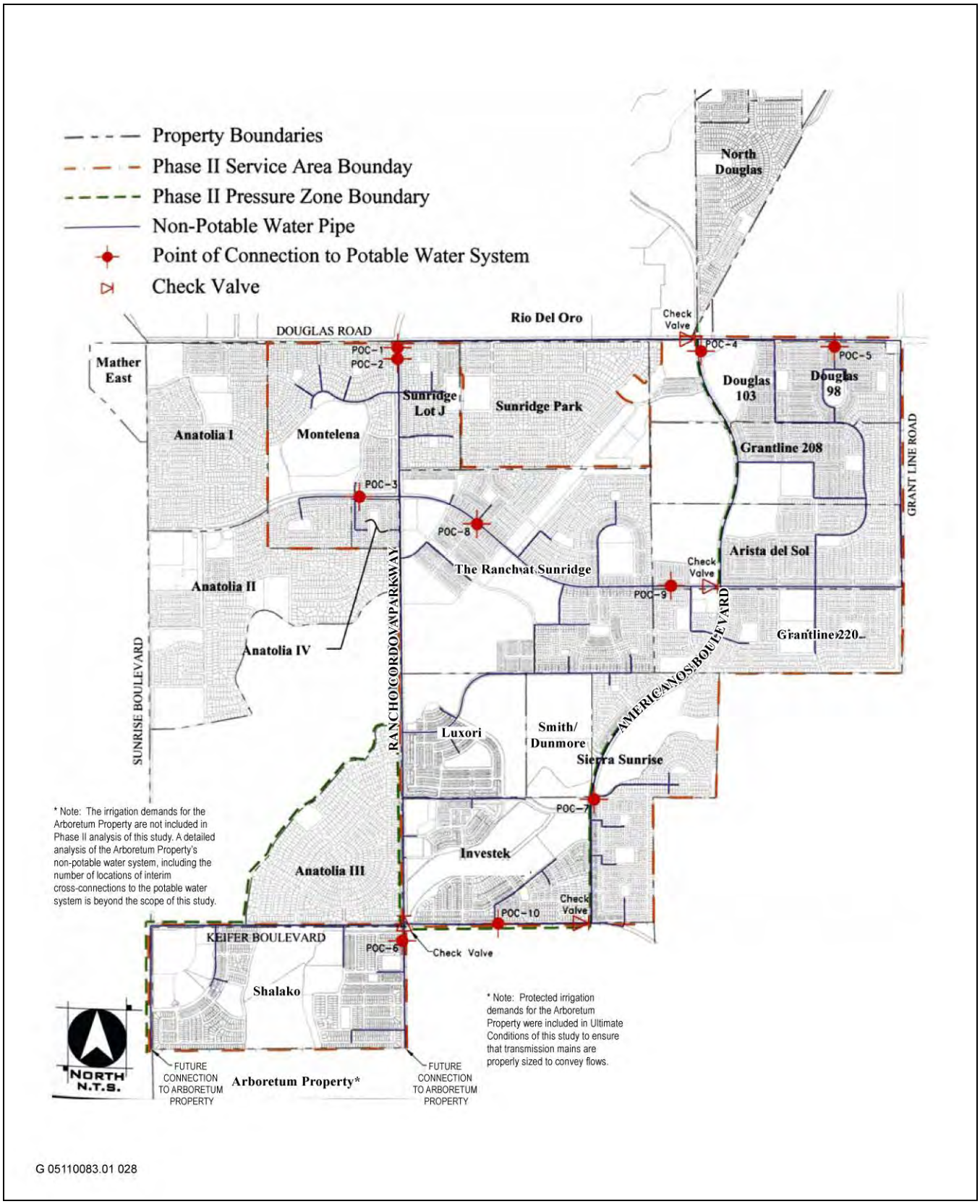
All land uses proposed in the specific-plan area must be served by a public sanitary-sewer system, pursuant to the City General Plan's policy requiring that all commercial and industrial development, as well as all residential development with lots smaller than 2 acres, must connect to a public sewer system. The following discussion summarizes the proposed sewer service.

Sanitary-sewer service for the SPA would be provided by SRCSD, which is responsible for collection by interceptors (sanitary sewers that are designed to carry flows in excess of 10 mgd) and for wastewater treatment in Sacramento County. This district owns, operates, and is responsible for the interceptor sewer systems throughout Sacramento County as well as the Sacramento Regional Wastewater Treatment Plant (SRWTP) located south of the community of Freeport. Sewer collection and trunk sewers that collect and deliver flows to the SRCSD system where flows are less than 10 mgd are owned, operated, and maintained by the Sacramento Area Sewer District (SASD).

A diagram of on-site sewer facilities that would serve development under the specific plan is shown in Exhibit 2-16. Details regarding proposed sanitary sewer service to the SPA are contained in the Sanitary Sewer Study Level Two prepared by MacKay & Somps (2009) and attached as Appendix I. Furthermore, the recently adopted Sewer System Capacity Plan 2010 Update (SASD 2012) includes other facilities that may be used to provide sewer service to the SPA. The on-site sanitary sewer system would consist of gravity pipelines and force mains ranging in size from 8 inches to 30 inches in diameter and would be installed at a minimum depth of 8 feet. The on-site wastewater system would be incrementally expanded to meet the demands of the SPA. SRCSD is planning to adopt its updated sewer master plan later this year, which will reflect the recent adoption of SASD's sewer system capacity plan.

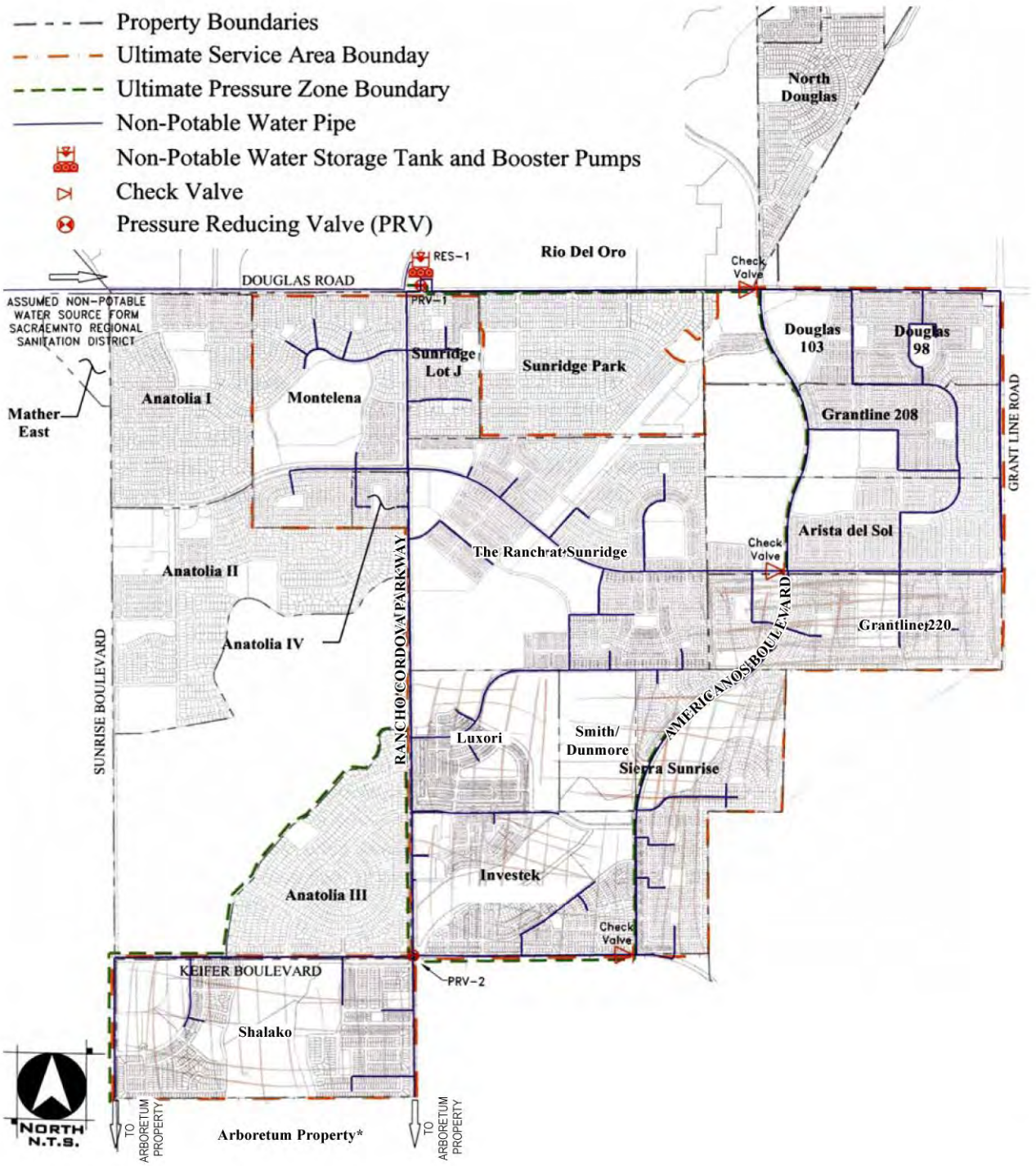
SunCreek Specific Plan Sewer Service Options

Project-related wastewater flows would be conveyed from the SPA to the SRWTP via the Laguna Creek Interceptor (LCI) Sections 1–5. The project would construct SRCSD's Section 5 of LCI that is within the SPA. Both the SunCreek and Arboretum projects would be receiving sewer service through common off-site sanitary sewer infrastructure (see "Off-Site Sewer Conveyance Facilities," below). Initially, on-site wastewater flows would be conveyed through Section 5 of the LCI to either the SunCreek sewer pump station located at the southwestern corner of the SPA east of Sunrise Boulevard or the Arboretum sewer pump station located east of Sunrise Boulevard and south of the SPA on the Arboretum project site. The SunCreek sewer pump station would be equipped with odor control devices.



Source: Wood Rodgers 2007 cited in Montgomery Watson Harza 2008

Proposed Non-Potable Water System in Interim Condition **Exhibit 2-14**



Source: Wood Rodgers 2007 cited in Montgomery Watson Harza 2008

Proposed Non-Potable Water System in Full Project Buildout Condition **Exhibit 2-15**

LEGEND

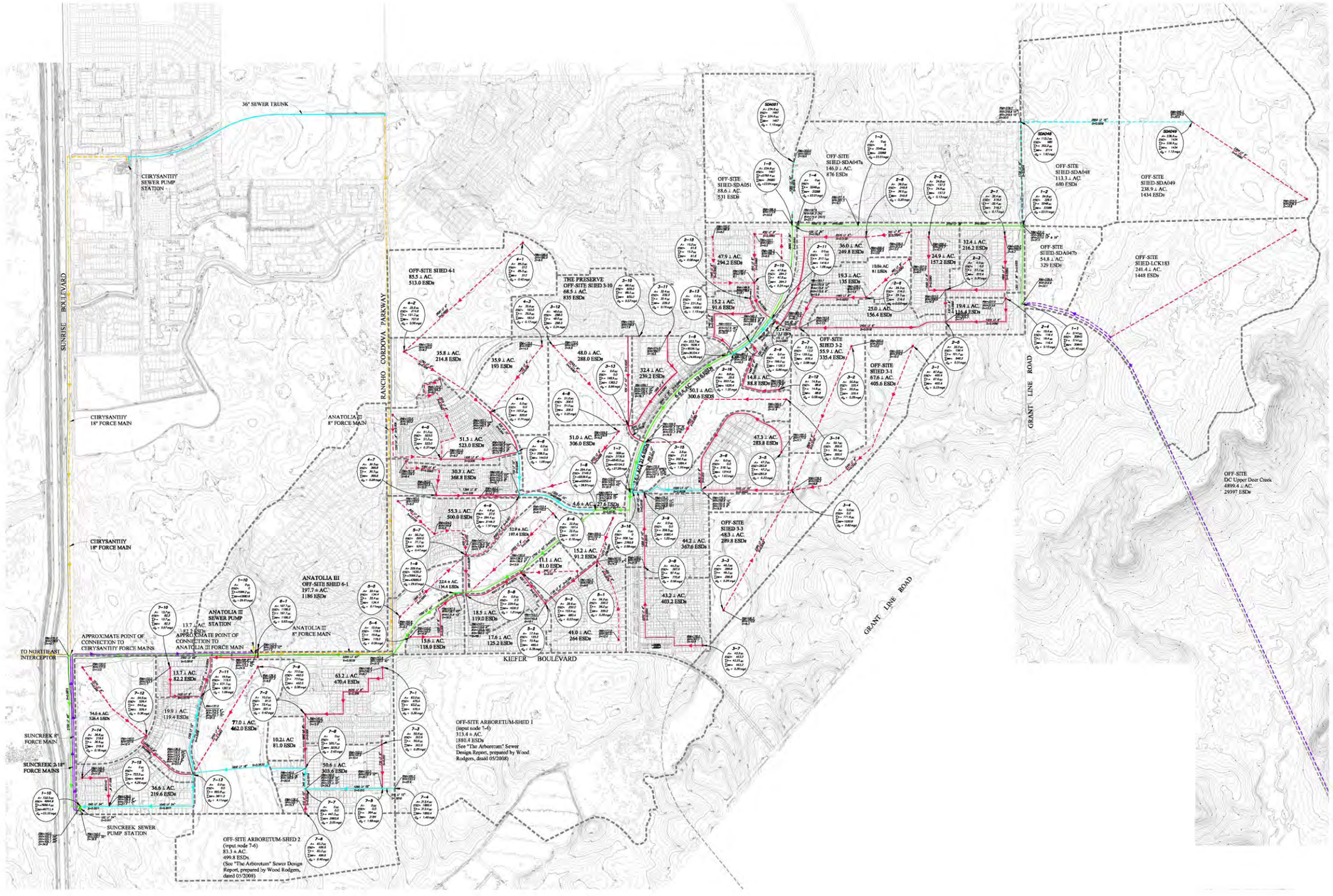
- Sanitary Sewer Interceptor
- Sanitary Sewer Trunk
- Sanitary Sewer Collector
- Schematic Sanitary Sewer
- Proposed Force Main
- Existing Force Main
- Sewer Shed Boundary

Manhole/Node Number
Contributing Area (acres)
Contributing Equivalent Single Family Dwellings
Cumulative Area (acres)
Cumulative Equivalent Single Family Dwellings
Peak Wet Weather Flow (million gallons per day)

NOTES

1. All inverts shown are out inverts unless otherwise specified.

2. The elevations and topography shown are per NGVD 88.



Source: MacKay & Somps 2009

Proposed Sanitary Sewer Plan **Exhibit 2-16**

Since it is not known which project would be constructed first, the SunCreek sewer study includes two potential scenarios. Each scenario would consist of three phases of sewer service and are summarized below. Detailed sewer plans and descriptions for each scenario and each phase are contained in Appendix I. Common sewer facilities that would be constructed on the Arboretum project site would receive CEQA coverage under the Arboretum project's EIR. To the extent that the scenarios and phases below contain more than one option for sewer service in the future, this DEIR/DEIS does not provide CEQA or NEPA coverage for any off-site facilities associated with those future options. If those options were to be implemented in the future, SRCSD and/or the City of Rancho Cordova would determine what type of CEQA or NEPA coverage, if any, were required prior to construction of the facilities associated with those options.

Scenario One: SunCreek Develops First Followed by Arboretum

Phase 1. The project would construct Section 5 of the LCI that is within the SPA as well as the on-site sewer collectors, sewer trunks, and the 2.26-mgd SunCreek sewer pump station. If construction of the Arboretum project begins during this phase, the Arboretum project would construct a 1.5-mgd sewer pump station that would pump sewer flows north along Sunrise Boulevard through the proposed Arboretum force main to the SunCreek sewer pump station. The Anatolia III sewer pump station would be decommissioned and sewer flows from the Anatolia III residential development would be conveyed to the SunCreek sewer pump station through a new gravity sewer pipeline.

Sewer flows would be conveyed from the SunCreek sewer pump station north through the proposed SunCreek force main to the Anatolia III force main and then to the Chrysanthy Boulevard sewer pump station. From this point, sewer flows would be conveyed through the existing Sunrise Boulevard segment of the Chrysanthy Boulevard force main to Kiefer Boulevard and then to the Northeast Interceptor.

Phase 2. The capacity of the SunCreek sewer pump station would be increased to 9.91 mgd and the capacity of the Arboretum sewer pump station would be increased to 4.3 mgd. The Arboretum sewer pump station would continue to pump sewer flows through the Arboretum force main to the SunCreek sewer pump station. The Mather Interceptor would be constructed and the Chrysanthy Boulevard sewer pump station would be decommissioned. The existing Sunrise Boulevard segment of the Chrysanthy Boulevard force main would be used to convey sewer flows to the Mather Interceptor.

As the 9.91-mgd SunCreek sewer pump station reaches capacity, the SRCSD could upgrade the SunCreek sewer pump station to a 19.0-mgd regional pump station, and sewer flows would be conveyed through the proposed Sunrise Boulevard force main to Kiefer Boulevard and then to the Northeast Interceptor.

Phase 3. Sections 1-4 of the LCI would be constructed from the SRWTP and connected to Section 5 of the LCI. The SunCreek and Arboretum projects' gravity sewer systems would be connected to the LCI and the SunCreek and Arboretum projects' sewer pump stations and associated force mains would be decommissioned.

Scenario Two: Arboretum Develops First Followed by SunCreek

Phase 1. The Arboretum project would construct gravity sewer collectors, sewer trunks, and a 1.5-mgd Arboretum sewer pump station. The capacity of the Anatolia III sewer pump station would be increased to 2.26 mgd. If construction of the SunCreek project begins developing during this phase, two scenarios would be available to provide sewer service to the SPA:

- The SunCreek project would construct a 2.26-mgd sewer pump station. Sewer flows from the Arboretum sewer pump station would be conveyed north along Sunrise Boulevard through the proposed Arboretum force main to the SunCreek sewer pump station. The Anatolia III sewer pump station would be decommissioned and sewer flows from the Anatolia III residential development would be conveyed to the SunCreek sewer pump station through a new gravity sewer pipeline. Sewer flows would be pumped from the SunCreek sewer pump station back to the Arboretum force main through the proposed SunCreek force main. From this point,

the Arboretum sewer force main would pump sewer flows north to the Anatolia III force main and then to the Chrysanthy Boulevard sewer pump station.

- The SunCreek project could extend either Section 5 of the LCI or construct a smaller gravity sewer pipeline to the southwest corner of the SPA. A gravity sewer pipeline would be constructed from the SPA to the Arboretum sewer pump station. The Anatolia III sewer pump station would not be decommissioned and sewer flows would be pumped from the Arboretum sewer pump station north through the proposed Arboretum force main to the 2.26-mgd Anatolia III sewer pump station and then conveyed through the Anatolia III force main to the Chrysanthy Boulevard sewer pump station.

From the Chrysanthy Boulevard sewer pump station, sewer flows would be conveyed through the existing Sunrise Boulevard segment of the Chrysanthy Boulevard force main to Kiefer Boulevard and then to the Northeast Interceptor.

Phase 2. The capacity of the Arboretum sewer pump station would be increased to 9.91 mgd and the Arboretum force main constructed in Phase 1 would be decommissioned. The Mather Interceptor would be completed and operational. Sewer flows from the Arboretum sewer pump station would be pumped north through the proposed Sunrise Boulevard force main to the existing Sunrise Boulevard segment of the Chrysanthy Boulevard force main and then to the Mather Interceptor. If construction of the SunCreek project begins developing during this phase, two scenarios would be available to provide sewer service to the SPA:

- The SunCreek project would construct a 1.5-mgd sewer pump station and the Arboretum force main constructed in Phase 1 and 2.26-mgd Anatolia III sewer pump station would remain operational. Sewer flows generated by the project would be conveyed to the SunCreek sewer pump station and then would be pumped from the SunCreek sewer pump station to the Arboretum force main. Sewer flows would then be pumped from the Arboretum sewer pump station to the Anatolia III sewer pump station. From this point, sewer flows would be pumped north from the Anatolia III sewer pump station through the Anatolia III force main to the Chrysanthy Boulevard gravity sewer pipeline and then to the Mather Interceptor.

- The SunCreek project could extend either Section 5 of the LCI or construct a smaller gravity sewer pipeline to the southwest corner of the SPA. The Anatolia III sewer pump station would be decommissioned and sewer flows from the Anatolia III residential development would be conveyed to the SunCreek sewer pump station through a new gravity sewer pipeline. The Arboretum force main constructed in Phase 1 would be decommissioned and a gravity sewer pipeline would be constructed from the SPA to the Arboretum sewer pump station. Sewer flows from the Arboretum sewer pump station would be pumped through the proposed Sunrise Boulevard force main to the existing Sunrise Boulevard segment of the Chrysanthy Boulevard force main and then to the Mather Interceptor.

As the 9.91-mgd Arboretum sewer pump station reaches capacity, the SRCSD could upgrade the Arboretum sewer pump station to a 19.0-mgd regional pump station. Sewer flows would continue to be conveyed from the Arboretum sewer pump station through the proposed Sunrise Boulevard force main and the Sunrise Boulevard segment of the Chrysanthy Boulevard force main and to the Mather Interceptor. A parallel force main would be constructed on Sunrise Boulevard from the Arboretum sewer pump station to Kiefer Boulevard and sewer flows would then be conveyed to the Northeast Interceptor.

Phase 3. Sections 1-4 of the LCI would be constructed from the SRWTP and connected to Section 5 of the LCI. The SunCreek and Arboretum projects' gravity sewer systems would be connected to the LCI and the SunCreek and Arboretum projects' sewer pump stations and associated force mains would be decommissioned.

Under either scenario, there would be approximately 3 to 4 wastewater pumping stations located on the SPA, and these facilities would have controls that would prevent the release of objectionable odors.

SASD Sewer System Capacity Plan

The recently adopted sewer system capacity plan outlines SASD's most current plans to extend sewer service to developing areas, including the East County area in general and the SPA in particular. Under the current plan, the future Laguna Interceptor would be dropped by SRCSD in favor of the White Rock, Aerojet-2, and Douglas Interceptors that would convey flows from the East County area westerly to the existing Bradshaw Interceptor. Accordingly, Section 5 of the LCI would be downsized to trunk sewer status. This trunk sewer would convey flows from the SPA to the SunCreek sewer pump station, including the Anatolia III area, thereby abandoning the Anatolia III sewer pump station. A force main would be extended to the existing Anatolia III force main for conveyance to the Chrysanthy sewer pump station. From the existing Chrysanthy sewer pump station the flows would be conveyed through the existing Kiefer Force Main and delivered to the Northeast Interceptor and/or the Bradshaw Interceptor.

By the time that the Kiefer Force Main reaches capacity, SRCSD would have constructed the Aerojet-2 and White Rock Interceptors, and flows from the Chrysanthy pump station would be diverted to the Aerojet-2 and White Rock Interceptors. This diversion would then free up capacity in the Kiefer Force Main and allow flows from the SunCreek sewer pump station to utilize the capacity of the Kiefer Force Main to deliver flows to the Northeast and/or Bradshaw Interceptors. Eventually, as development continues within the SPA and the Kiefer Force Main again reaches capacity, a new Sunrise Boulevard force main would be constructed along Sunrise Boulevard from the SunCreek sewer pump station to the Chrysanthy pump station. At that time, sewer flows from SunCreek would be pumped from the SunCreek pump station to the Chrysanthy pump station, where they would be lifted into the Aerojet-2 Interceptor that would flow by gravity into the White Rock Interceptor and then to the Bradshaw Interceptor.

Summary of Project Sewer Facilities by Phase

The specific facilities that are known at the time of writing of this DEIR/DEIS that would be constructed during each phase of sewer service are listed below.

Phase 1

- The 2.26-mgd SunCreek sewer pump station and associated 8-inch force main.
- Segment 5 of the Laguna Creek Interceptor from the SunCreek pump station to Americanos Boulevard.

Phase 2

- Increased capacity of the SunCreek sewer pump station to 9.91 mgd.
- Two 18-inch force mains from the SunCreek pump station to the Chrysanthy Boulevard force main.

Phase 3

- Segment 5 of the Laguna Creek Interceptor from Americanos Boulevard to Grant Line Road.

Alternatively, a new 18-inch-diameter sewer force main from the SunCreek sewer pump station to the Chrysanthy pump station could be constructed. SRCSD would be responsible for constructing the White Rock, Aerojet-2, and Douglas Interceptors after additional CEQA analysis. Included in these facilities would be the downsizing of the on-site portions of Section 5 of the LCI to sewer trunk status with on-site main sizes from 8-inch to 27-inch diameter.

Electricity

Electrical service would be provided by Sacramento Municipal Utility District (SMUD). All electrical lines less than 69 kilovolt (kV) would be routed underground within the rights-of-way of on-site project streets. Following

consultation between the project applicants and SMUD, SMUD has determined that the following electrical facilities, shown on Exhibit 2-17, are required to serve the proposed development:

1. Use of a substation that SMUD already plans to build at the northwest intersection of Village Way and Rancho Cordova Parkway (within the Anatolia III Specific Plan area).

2. Construction of a new substation south of the SPA, but immediately adjacent to the southeast corner of the SunCreek SPA. This substation site could range from 0.5 to 0.75 acre. SMUD has indicated that a typical substation is approximately 150 x 150 feet.

3. Installation of a 69 kV electrical line along Grant Line Road from Kiefer Boulevard to Douglas Road.

4. Installation of a 69 kV electrical line along Kiefer Boulevard that would connect the existing 69 kV electrical line at Grant Line Road to the substation that would be constructed at the southeast corner of the SunCreek SPA.

Additional details regarding electrical service are contained in Appendix J (MacKay & Somps 2010e). SMUD would provide any necessary CEQA and/or NEPA coverage of its facilities, as they determine necessary in the future.

Natural Gas

Natural gas service would be provided by Pacific Gas and Electric Company (PG&E), and would be routed underground within the rights-of-way of SPA streets. Following consultation between the project applicants and PG&E, PG&E has provided the following information regarding natural gas facilities, as shown on Exhibit 2-18:

1. PG&E has tentative plans to upgrade its existing 8-inch steel distribution line that runs along Sunrise Boulevard between Douglas Road and Kiefer Boulevard, to a larger transmission main that would operate at a higher pressure.

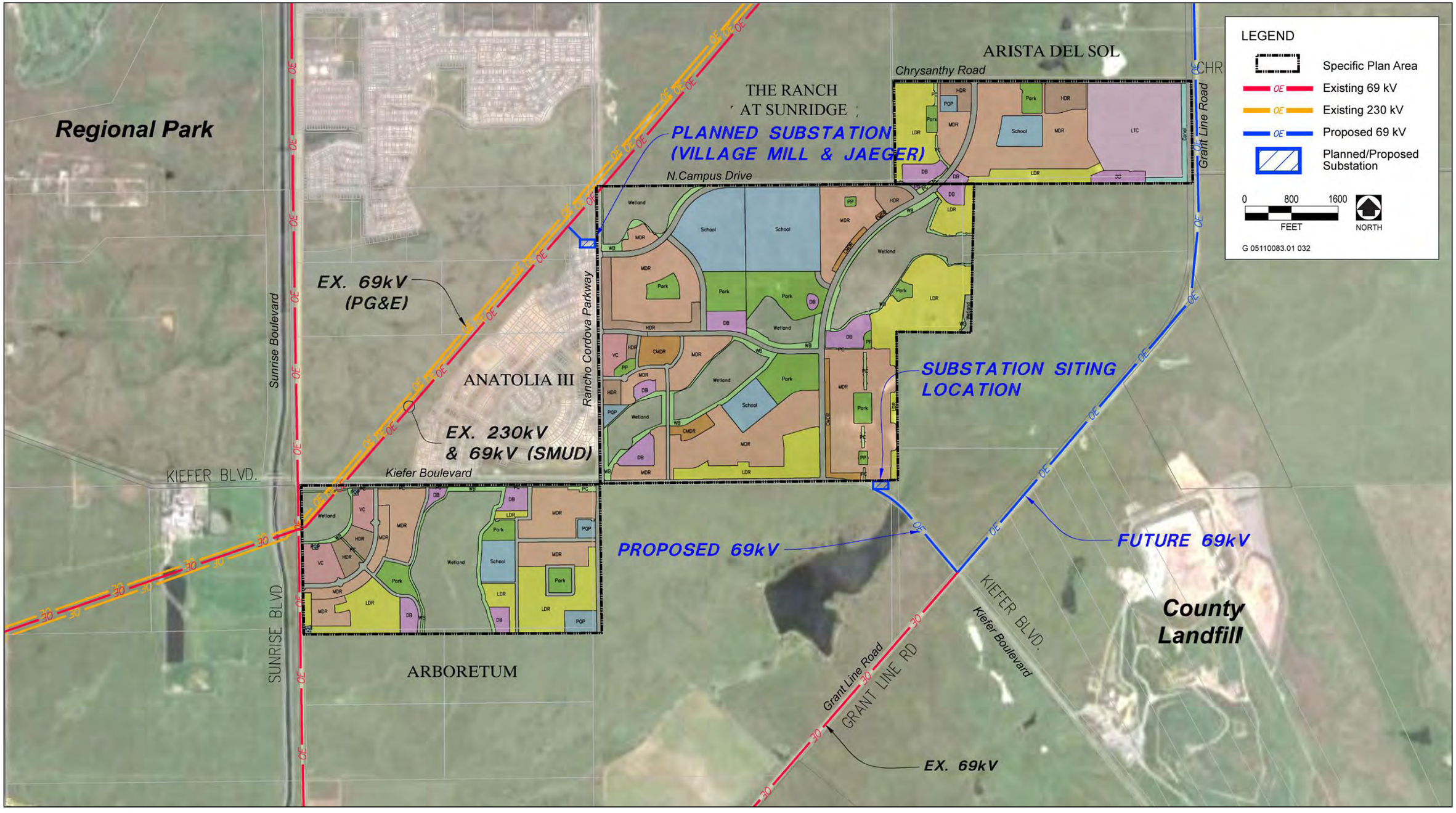
2. PG&E plans to install a new distribution regulator station at the intersection of Kiefer Boulevard and Sunrise Boulevard.

3. The timing, size, and exact location of these future facilities has not been determined by PG&E at this time. Furthermore, PG&E would be responsible for determining whether or not these facilities described in items 1 and 2 above require analysis under CEQA or NEPA, and performing such analysis if it is required.

PG&E has indicated that it may provide service to the SunCreek SPA by extending service from one or more of its existing distribution lines along Kiefer Boulevard or Rancho Cordova Parkway (shown on Exhibit 2-18), or from its existing distribution line along Douglas Road (north of the SPA). Service extensions from all three locations would occur within existing or planned roadways. PG&E would provide any necessary CEQA and/or NEPA coverage of its facilities, as they determine necessary in the future. Additional details regarding natural gas service are contained in Appendix J (MacKay & Somps 2010e).

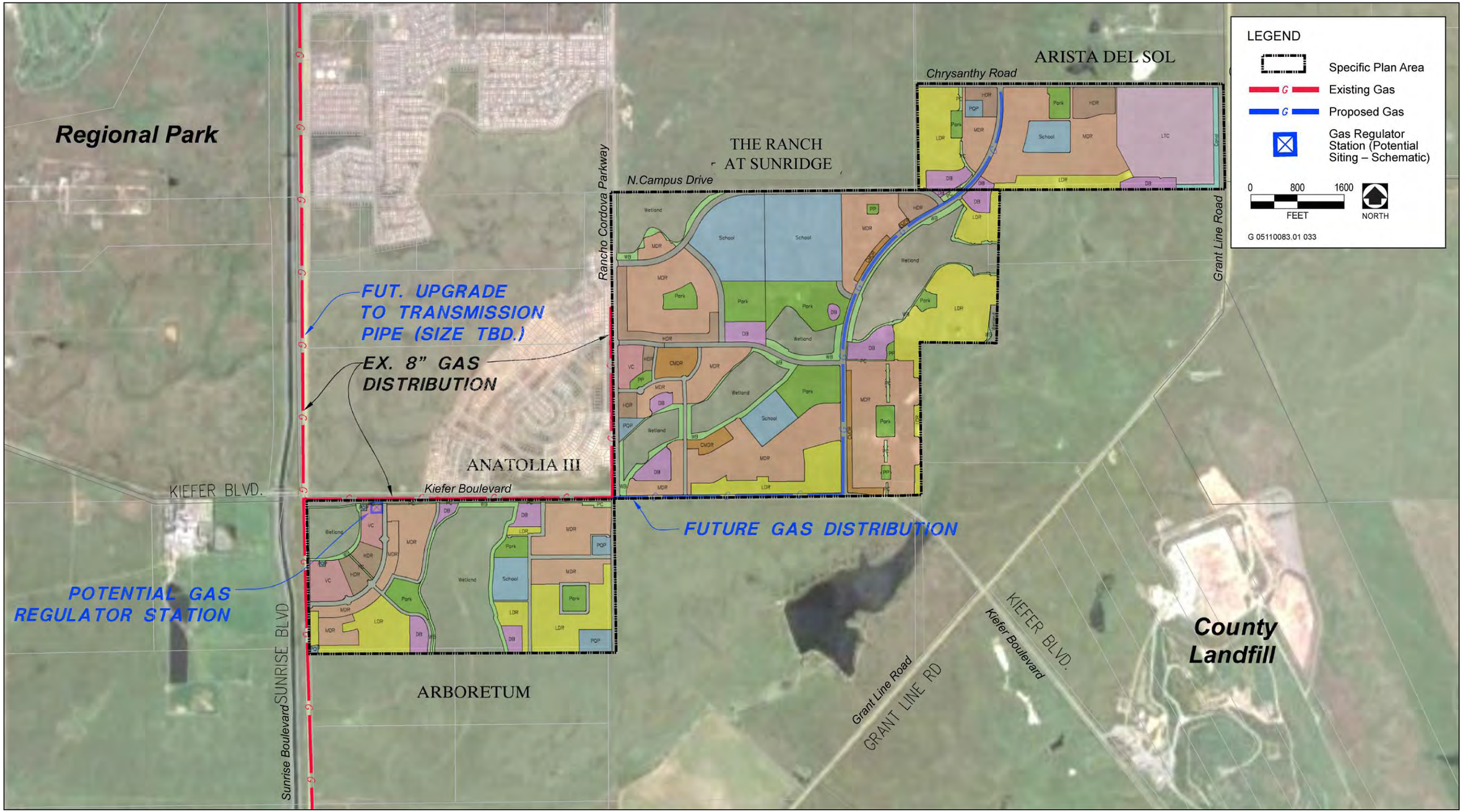
Communications

The Grantline 220 parcel is within the service area of AT&T, which maintains overhead lines along Grantline Road. The remainder of the SPA would be served by Frontier Communications, which has existing overhead lines along Sunrise Boulevard and existing underground lines within Kiefer Boulevard (from Sunrise Boulevard to approximately Country Garden Drive). Service to the SunCreek SPA would be provided through connections with these existing lines (see Exhibit 2-19). Additional details regarding communications facilities are contained in Appendix J (MacKay & Somps 2010e).



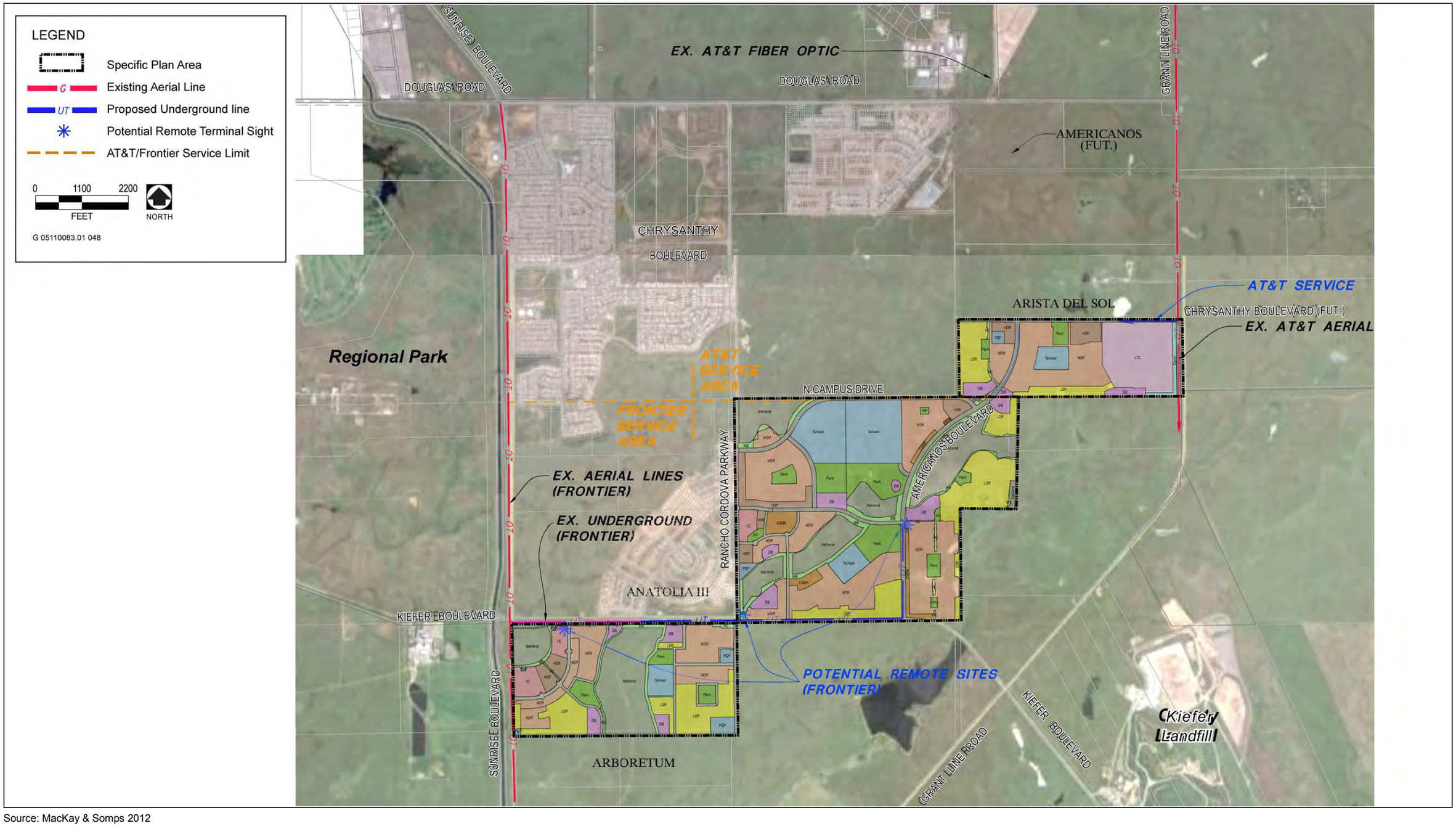
Source: MacKay & Somps 2012

Proposed Electrical Facilities Plan **Exhibit 2-17**



Source: MacKay & Somps 2012

Proposed Natural Gas Facilities Plan **Exhibit 2-18**



Source: MacKay & Somps 2012

Proposed Communications Facilities Plan **Exhibit 2-19**

Solid Waste Disposal

In 2008, Rancho Cordova disposed of approximately 61,638 tons of solid waste (California Integrated Waste Management Board 2010). Allied Waste Services provide solid waste and recycling collection services to the city. Solid waste is transported to the Kiefer Landfill, near the intersection of Grant Line Road and Kiefer Boulevard.

Businesses and multifamily residential properties with 5 or more units that generate four or more cubic yards per week of solid waste are required to implement an on-site recycling program (Title 6, Chapter 6.21 of the Rancho Cordova Municipal Code). The program requires businesses and multifamily residential properties to keep recyclable materials separate from all other solid waste, to provide signs and labeled containers for the storage and collection of recyclable materials, and to either self-haul or enter into a written service agreement with a franchise hauler (i.e., Allied Waste Services, Atlas Disposal Industries, and Waste Management of Sacramento) for the collection and subsequent delivery of recyclable materials to an authorized recycling facility.

Off-Site Facilities for Public Utilities

Off-site infrastructure improvements would be needed to support the proposed SunCreek project as outlined in the specific plan. The project applicants have initiated coordination with the various service providers regarding provision of these services. Many of the off-site conveyance facilities that would be used by the project have either already been constructed, or are planned to be constructed by another agency and have already received CEQA (and NEPA, if applicable) coverage. The only exceptions are discussed below.

Water Supply

- Florin Road/Sunrise Boulevard Pipeline
- Anatolia Pipeline Conversion

Roadway Improvements

- **Off-Site Roadway Improvements.** As discussed in detail in Section 3.15, "Traffic and Transportation," various off-site roadway improvements would be required and have been included as project-specific mitigation measures. Section 3.15, "Traffic and Transportation," of this EIR/EIS provides a broad program-level discussion of the types of environmental impacts that could be associated with constructing those recommended off-site roadway improvements.

Electrical Facilities

- **Substation.** A new electrical substation on a 1/2- to 3/4-acre parcel would be constructed south of and immediately adjacent to the southeastern project boundary, and service to SunCreek would also be provided from a new substation constructed within the Anatolia development north of the SPA. SMUD would be responsible for constructing these substations and providing any necessary CEQA or NEPA coverage.

- **Electrical Lines.** New 69kV electrical lines would be installed overhead along Kiefer Boulevard and Grant Line Road. SMUD would be responsible for installing these lines and providing any necessary CEQA or NEPA coverage.

Natural Gas Facilities

- **Natural Gas Conveyance Pipeline.** Potential extension of natural gas service from PG&E's existing distribution line along Douglas Road (north of the SPA). PG&E would be responsible for installing this distribution line (if it is required) and providing any necessary CEQA or NEPA coverage.

Sewer Facilities

- **White Rock, Aerojet-2, and Douglas Interceptors.** SRCSD is responsible for construction and installation of these sewer interceptors, and would provide CEQA coverage as part of its planned update to its sewer system master plan in late 2012.

Circulation Improvements

As shown in Exhibit 2-20, the project includes the development of an estimated 79 acres of major roadways and associated landscaping within the SPA. Access and circulation within the SPA would be provided through the construction of the following major roadways:

- Rancho Cordova Parkway, a north-south connector between Douglas Road and Kiefer Boulevard, in the central part of the SPA. Four lanes are proposed. Rancho Cordova Parkway (currently known as Jaeger Road) would include a landscape corridor/public utilities easement on either side, 15-foot-wide bus-rapid-transit (BRT) lanes in both directions, and a 15-foot-wide median that would provide BRT access.

- Americanos Boulevard, a north-south connector between Douglas Road and Kiefer Boulevard, in the eastern part of the SPA. Four lanes are proposed along the entire length, with a 15-foot-wide landscape corridor on both sides, bicycle lanes, and a 14-foot-wide landscaped median.

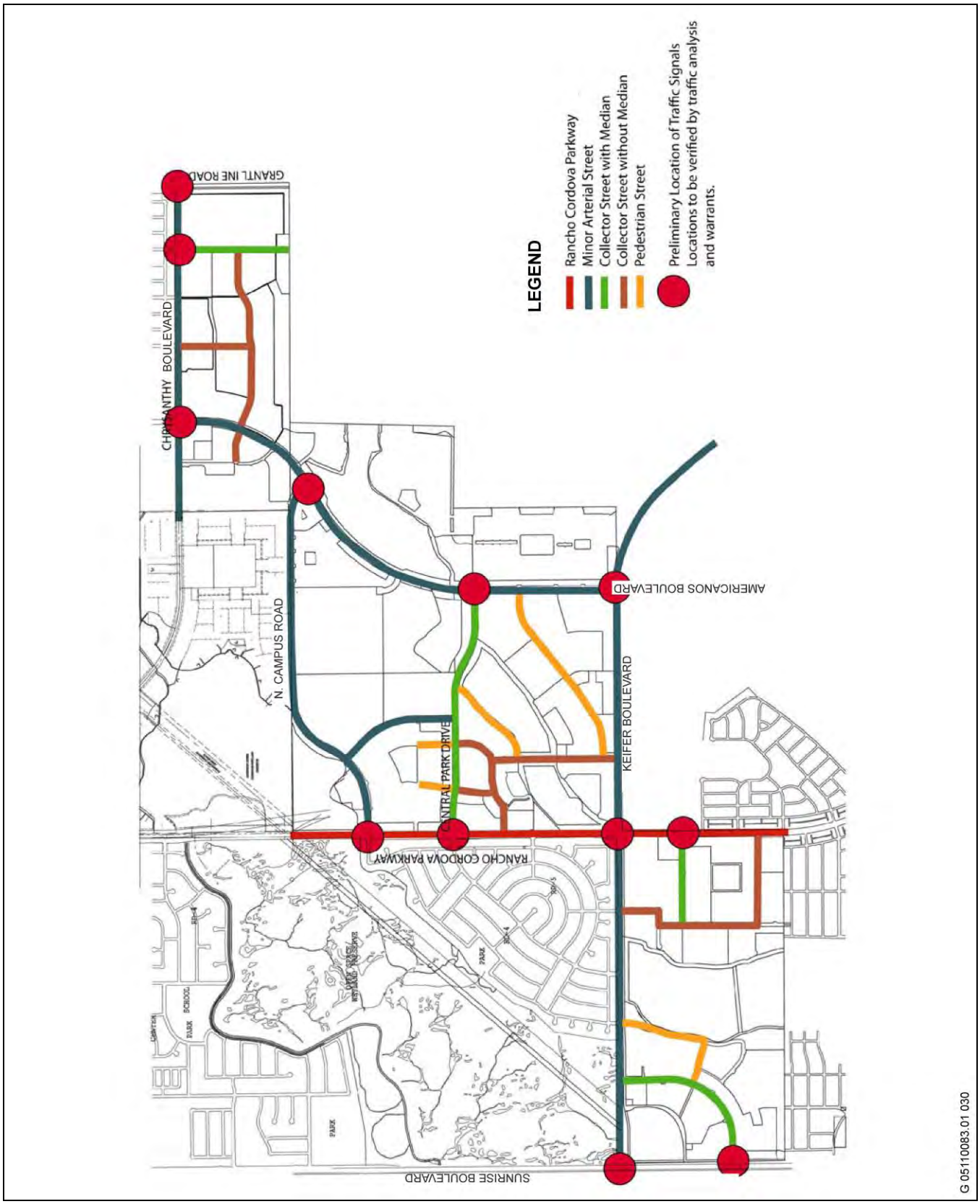
- Kiefer Boulevard, Chrysanthy Road, and North Campus Road, east-west connectors within the SPA. Four lanes are proposed on each roadway, with a 15-foot-wide landscape corridor on both sides, bicycle lanes, and a 14-foot-wide landscaped median.

In addition, a number of two-lane internal roadways are proposed as collector streets and to accommodate front-on lots. These collector streets would contain a bicycle lane, an on-street parking lane, and an adjacent 13-foot-wide landscape corridor incorporating 7-foot-wide sidewalks. The project applicants would be required to pay their fair share of various regional and local roadway improvements, which are discussed in Chapter 3.15, "Traffic and Transportation." CEQA or NEPA analysis of environmental impacts associated with the future construction and operation of any required off-site roadway improvements is not provided in this DEIR/DEIS. As shown in Exhibit 2-20, the proposed roadway network provides direct connectivity with existing and proposed development to the north and south of the SPA.

Collector streets and residential streets may include traffic calming devices to slow traffic and discourage non-resident traffic in neighborhoods. The measures also encourage people to walk by slowing traffic and provide shorter crossing distances at intersections. In compliance with the City's Neighborhood Traffic Management Plan, Chapter 7, the potential traffic calming measures within the SunCreek SPA include, but are not limited to, the following: traffic circles, roundabouts, intersection "bulb-outs," and lane width restrictions. For additional details regarding the proposed circulation network and proposed traffic calming measures, see Chapter 4, "Circulation" of the SunCreek Specific Plan (Appendix C).

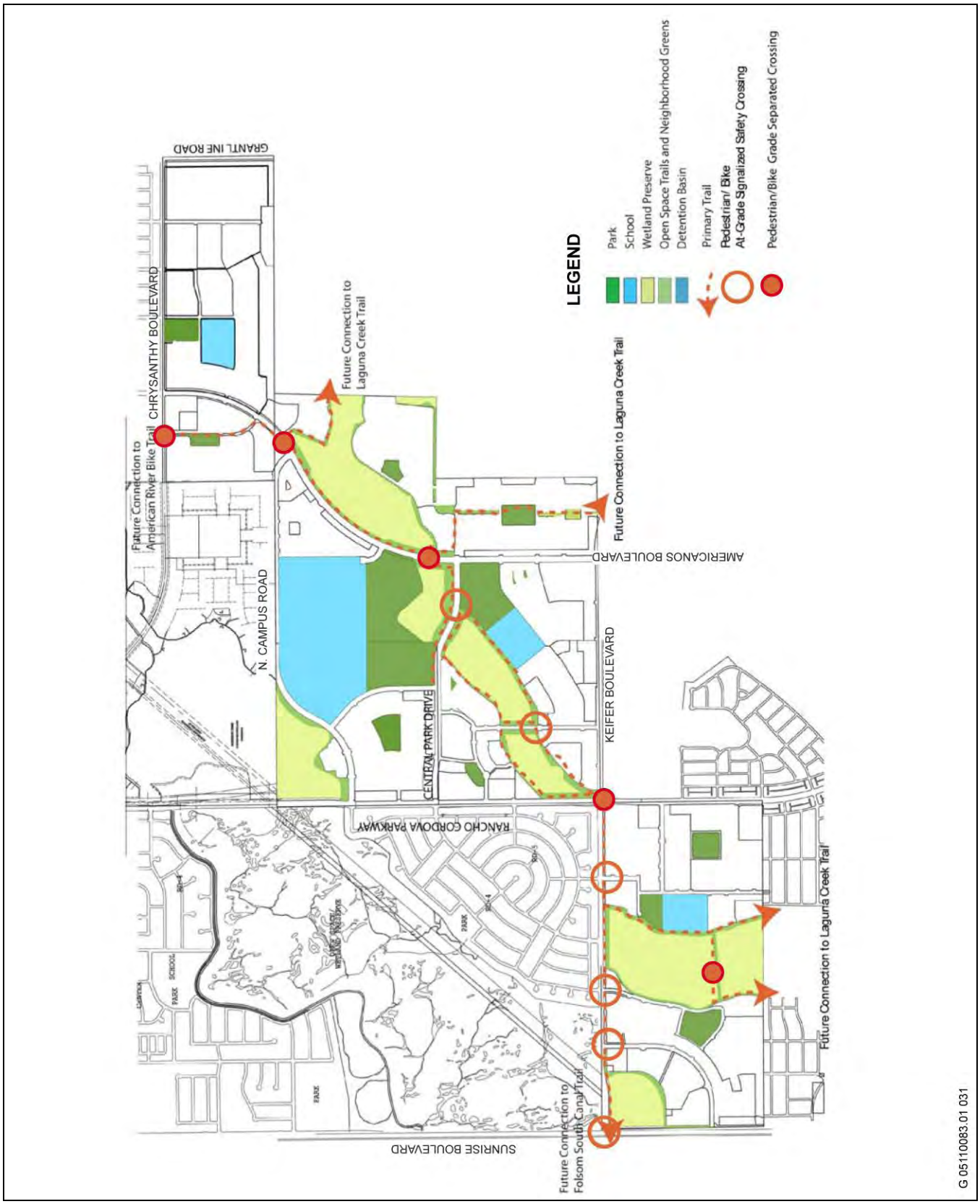
As shown in Exhibit 2-21, the project includes the development of on-site bicycle and pedestrian trails. In addition to sidewalks, more than 9 miles of Class I paved off-street bike paths would be provided. Class II bicycle lanes would be provided along paved streets within neighborhoods. Bike path corridors would also be provided in the wetland buffer areas.

Several of the on-site bicycle and pedestrian trails would provide direct connectivity to regional or local trails, such as the American River Bike Path, the Laguna Creek Trail, and the Folsom South Canal Trail. Connection to these local and regional trails also provides for direct bicycle and pedestrian access to planned and proposed development to the north and south of the SPA, which furthers the City of Rancho goals to create a walkable community and provide access via alternative forms of transportation. For additional details regarding the proposed trail network, see Chapter 4, "Circulation" of the SunCreek Specific Plan (Appendix C).



Source: Wade Associates 2010

Proposed Major Roadway Circulation Plan **Exhibit 2-20**



Source: Wade Associates 2010, Adapted by AECOM in 2010

Proposed Bike Trail Master Plan **Exhibit 2-21**

2.3.5 PROJECT PHASING AND CONSTRUCTION

It is estimated for purposes of this DEIR/DEIS that the project would be constructed in three phases, as shown in Exhibit 2-22, with an estimated project start date of 2012 and an estimated end date of 2030. The proposed phasing plan shown in Exhibit 2-22 is not intended to preclude development from occurring in the future in a different manner, nor is it intended to require full build-out of an earlier phase of development before initiating development activities in a subsequent phase of the project (MacKay & Somps 2010f). The phasing plan represents the City's and the USACE's best estimate as to the way the SPA would be developed for use primarily in air quality modeling and in evaluation of the construction of on-site utilities.

Construction staging areas would be established as each area of the specific plan is developed. Staging areas would be fenced and would be used for storage of vehicles, equipment, materials, fuels, lubricants, and solvents. The stockpiling or vehicle staging areas would be identified in the improvement plans and would be located as far as practical from protected resources in the area such as specimen trees and native vegetation. All staging areas would be sited in disturbed areas.

2.4 NO USACE PERMIT ALTERNATIVE

This alternative was designed to avoid the placement of dredged or fill material into waters of the U.S. (including wetlands) from the project, thus eliminating the need for a USACE Section 404 CWA permit. As a result, there would be no fill of waters of the U.S. under this alternative, compared to 22.56 acres of fill under the Proposed Project Alternative. The No USACE Permit Alternative, however, would likely still require that the project applicants consult with the USFWS to comply with Section 7 of the Endangered Species Act (ESA). A conceptual land use map showing proposed development is provided in Exhibit 2-23.

A summary comparison of the long-term environmental benefits to be gained, or adverse impacts to be avoided, among all alternatives is provided at the end of this chapter; detailed comparisons are provided within each section of Chapter 3, "Affected Environment, Environmental Consequences, and Mitigation Measures."

Under this alternative, the approximately 203-acre wetland preserve that would be created under the Proposed Project Alternative, which would require continuing activities as part of a Mitigation and Monitoring Plan approved by the USACE, would not exist because it would not be proposed or imposed as mitigation for impacts associated with the fill of Federally regulated wetlands. Instead, 607 acres of the SPA would be designated "Natural Resources" under the City's General Plan. Land with this use designation would be set aside as natural habitat with no urban development. While open space trails may be located adjacent to areas designated as Natural Resources, the City of Rancho Cordova would prohibit public access into the area.

Proposed backbone infrastructure improvements for the No USACE Permit Alternative are illustrated in Exhibit 2-24. The projected water demand for this alternative is approximately 2,033 afy, as compared to the 3,058 afy demand for the Proposed Project Alternative. This represents a 33.5% decrease in the total annual water demand. The alignment of pipelines and facilities would change substantially from those required to serve the Proposed Project Alternative. While these facilities would be proportionally smaller in size to handle the decreased demands resulting from the decrease in development proposed in this alternative, the lack of opportunities for looping of transmission mains would, in all likelihood, result in an increase in main sizes in spite of the decreased demands resulting from this alternative. Because of the lack of an interconnected street system and the substantial change in the spatial distribution of the developable areas between this alternative and the Proposed Project Alternative, a substantial change in the location of major sewer trunk and interceptor lines would be required. While a substantial upstream sewer shed exists that conveys sewer flows though the SPA, the alignment of the interceptor sewer that conveys these flows would change substantially. The developed area of this alternative would be approximately 606 acres as compared to approximately 869 acres for the Proposed Project Alternative, which represents a 31% decrease in developed area. This would result in a corresponding decrease in the amount of impervious surfaces and runoff. The location of storm drainage and detention facilities

required to serve this alternative would be similar to the Proposed Project Alternative, but would be smaller. Under this alternative, Americanos Boulevard would be realigned further east through the SPA to accommodate the increased amount of land designated as Natural Resources, and the on-site circulation network would be more severely constrained as compared to the Proposed Project Alternative. This alternative would require more expensive/time-consuming, methods of construction for roadways and utilities. The realignment of Americanos Boulevard would not be consistent with the planned City General Plan roadway network.

Under the No USACE Permit Alternative, approximately 92 acres less residential acreage would be developed and approximately 338 fewer residential units would be constructed as compared to the Proposed Project Alternative. Furthermore, under the No USACE Permit Alternative, the Local Town Center would not be constructed. Approximately 75 fewer acres of total commercial land uses would be constructed under this alternative as compared to the Proposed Project Alternative. Tables 2-3 and 2-4 list the total estimated residential and commercial development under this alternative.

Table 2-3
Summary Comparison of Residential Development under the No USACE Permit Alternative and the Proposed Project Alternative

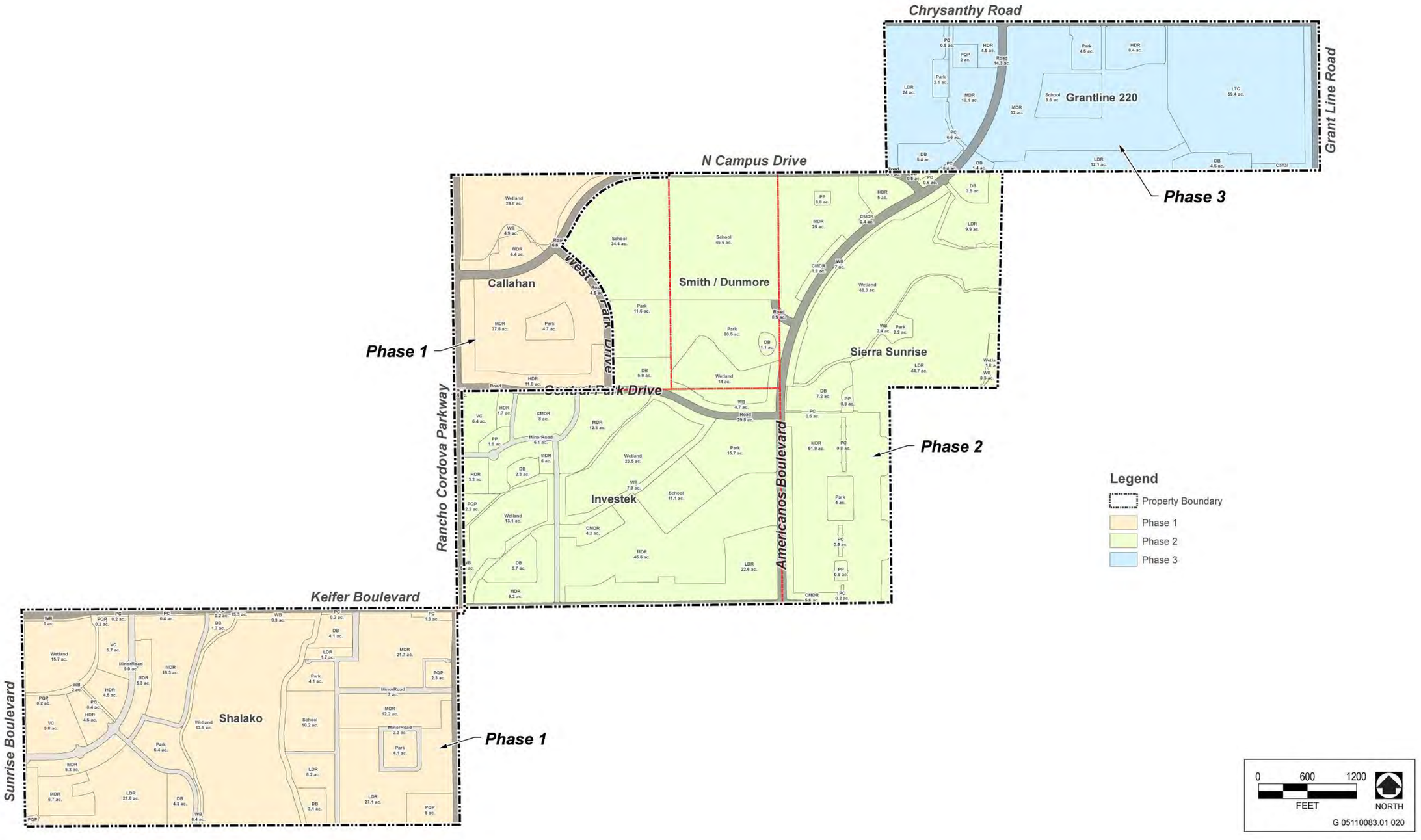
Land Use Type	No USACE Permit Alternative			Proposed Project Alternative		
	Acres	du/ac[1]	Units[2]	Acres	du/ac[1]	Units[2]
Low Density Residential	54.3	5.31	288	169.4	5.31	900
Medium Density Residential	287.1	7.80	2,239	322.7	7.80	2,517
Compact Medium Density Residential	97.7	14.26	1,393	20.1	14.23	286
High Density Residential	18.1	21.25	385	43.6	22.80	994
Commercial Mixed Use	6.7	8.12	54	N/A	N/A	N/A
Total	**463.9**		**4,359**	**555.8**		**4,697**

Notes:
[1] du/ac = average dwelling units per acre
[2] numbers have been rounded
Source: MacKay & Somps 2012

Table 2-4
Summary Comparison of Commercial Development under the No USACE Permit Alternative and the Proposed Project Alternative

	No USACE Permit Alternative Acres	Proposed Project Alternative Acres
Local Town Center	0	59.4
Commercial Mixed Use	6.7	0
Village Commercial	0	22.9
Total	**6.7**	**82.3**

Source: MacKay & Somps 2012

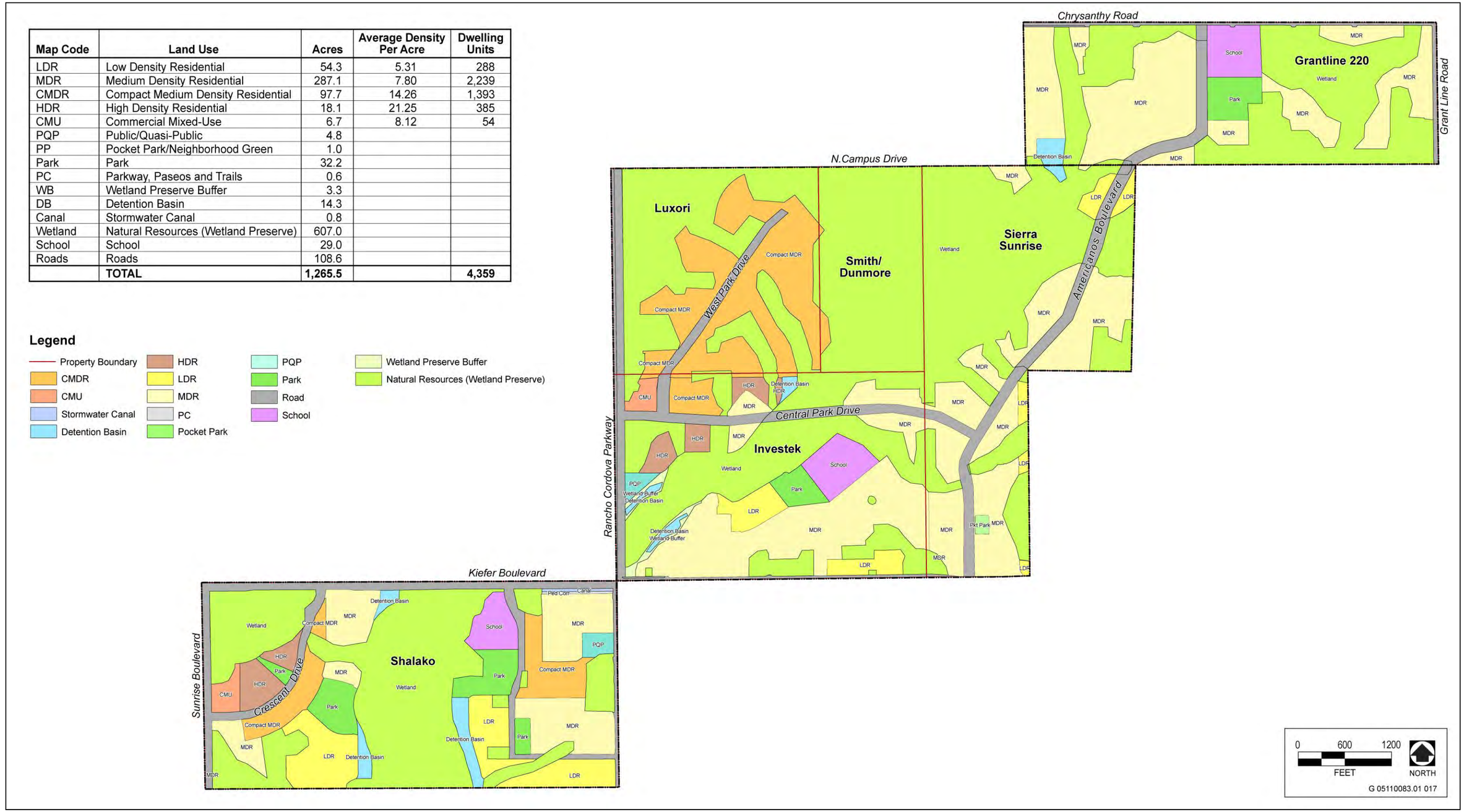


Source: MacKay & Somps 2012

Proposed Project Phasing

Exhibit 2-22

Map Code	Land Use	Acres	Average Density Per Acre	Dwelling Units
LDR	Low Density Residential	54.3	5.31	288
MDR	Medium Density Residential	287.1	7.80	2,239
CMDR	Compact Medium Density Residential	97.7	14.26	1,393
HDR	High Density Residential	18.1	21.25	385
CMU	Commercial Mixed-Use	6.7	8.12	54
PQP	Public/Quasi-Public	4.8		
PP	Pocket Park/Neighborhood Green	1.0		
Park	Park	32.2		
PC	Parkway, Paseos and Trails	0.6		
WB	Wetland Preserve Buffer	3.3		
DB	Detention Basin	14.3		
Canal	Stormwater Canal	0.8		
Wetland	Natural Resources (Wetland Preserve)	607.0		
School	School	29.0		
Roads	Roads	108.6		
	TOTAL	**1,265.5**		**4,359**



Source: MacKay & Somps 2010

No USACE Permit Alternative Land Use Plan **Exhibit 2-23**

INFRASTRUCTURE ABBREVIATIONS

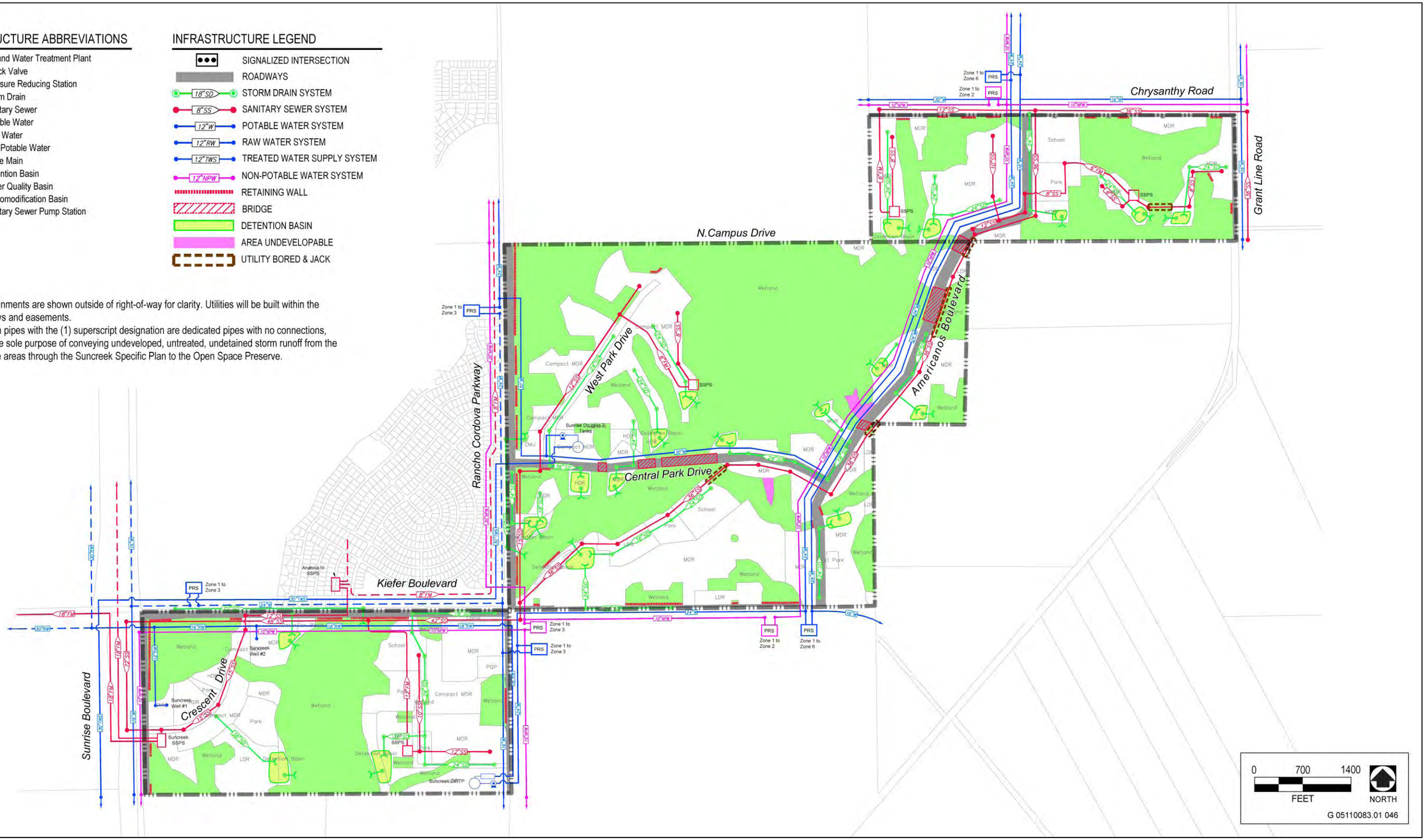
GWTP	Ground Water Treatment Plant
CV	Check Valve
PRS	Pressure Reducing Station
SD	Storm Drain
SS	Sanitary Sewer
W	Potable Water
RW	Raw Water
NPW	Non-Potable Water
FM	Force Main
DB	Detention Basin
WQB	Water Quality Basin
Hydro	Hydromodification Basin
SSPS	Sanitary Sewer Pump Station

INFRASTRUCTURE LEGEND

- SIGNALIZED INTERSECTION
- ROADWAYS
- STORM DRAIN SYSTEM
- SANITARY SEWER SYSTEM
- POTABLE WATER SYSTEM
- RAW WATER SYSTEM
- TREATED WATER SUPPLY SYSTEM
- NON-POTABLE WATER SYSTEM
- RETAINING WALL
- BRIDGE
- DETENTION BASIN
- AREA UNDEVELOPABLE
- UTILITY BORED & JACK

NOTES:

1. Utilities alignments are shown outside of right-of-way for clarity. Utilities will be built within the right-of-ways and easements.
2. Storm drain pipes with the (1) superscript designation are dedicated pipes with no connections, sized for the sole purpose of conveying undeveloped, untreated, undetained storm runoff from the open space areas through the Suncreek Specific Plan to the Open Space Preserve.



Source: MacKay & Somps 2010

No USACE Permit Alternative Backbone Infrastructure **Exhibit 2-24**

2.5 BIOLOGICAL IMPACT MINIMIZATION ALTERNATIVE

The Biological Minimization Alternative was designed to preserve additional areas of high-quality biological resources.

Under this alternative, the wetland preserve would be approximately 411 acres, which is approximately 200 acres larger than the Proposed Project Alternative. Under the Biological Impact Minimization Alternative, project components would be reconfigured to avoid many of the impacts on waters of the U.S., including wetlands and high-quality biological habitat, and the level of residential development would be decreased to reduce the amount of project-generated traffic, air quality emissions, and noise. A permit for wetland fill would still be required under this alternative; 14.73 acres of waters of the U.S. would be filled, which is 9.44 fewer acres than would be filled by the Proposed Project Alternative.

The objectives and criteria in developing the Biological Minimization Alternative consisted of the following:

- preserve the maximum acreage of sensitive biological resources on site;
- preserve buffers around sensitive resources to minimize adverse indirect impacts;
- Maintain connectivity for wetland habitats (vernal pools, seasonal wetlands, ephemeral drainages) to preserve hydrologic function;
- maintain connectivity for upland (annual grassland) habitats to preserve migration corridors;
- preserve lands in both the Laguna Creek and Morrison Creek Watershed;
- provide opportunities for on-site restoration and mitigation; and
- maintain consistency with vernal pool recovery plan.

Although no commercial land uses would be built under this alternative, the types and locations of the other land uses and general infrastructure improvements under the Biological Impact Minimization Alternative would be substantially similar to those that would be built under the Proposed Project Alternative. Exhibit 2-25 illustrates the conceptual land use plan for this alternative.

Exhibit 2-26 illustrates proposed backbone infrastructure improvements. The projected water demand for this alternative is approximately 2,672 afy, as compared to the 3,058 afy demand for the Proposed Project Alternative. This represents a 12.7% decrease in the total annual water demand. The alignment of pipelines and facilities would change substantially from those required to serve the Proposed Project Alternative. While these facilities would be proportionally smaller in size to handle the decreased demands resulting from the decrease in development proposed in this alternative, the lack of opportunities for looping of transmission mains would likely result in an increase in water main sizes in spite of the decreased demands resulting from this alternative. Additionally, it would be difficult to provide service to portions of the developable areas shown on this alternative that are more isolated in nature. Sewer flows for this alternative would be approximately the same as those projected for the Proposed Project. Although this alternative would have a substantially similar amount of sewer flows, the lack of an interconnected street system and the substantial change in the spatial distribution of the developable areas between this alternative and the Proposed Project Alternative would result in a substantial change in the location of major sewer trunk and interceptor lines. While a large upstream sewer shed exists that conveys sewer flows though the SPA, the alignment of the interceptor sewer that conveys these flows would change substantially. The developed area of this alternative would be approximately 730 acres as compared to approximately 869 acres for the Proposed Project Alternative, which represents a 16% decrease in developable area as compared to the Proposed Project Alternative. Therefore, the amount of impervious surface and

corresponding amount of runoff would also decrease by approximately 16%. The location of storm drainage and detention facilities required to serve this alternative would vary considerably from the Proposed Project Alternative due to both the difference in street alignments and the spatial distribution of the developable areas, and smaller size facilities. Because Americanos Boulevard would not be connected through the proposed wetland preserve, the on-site circulation network would be more constrained as compared to the Proposed Project Alternative, and this alternative's roadway network would not be consistent with the planned City General Plan roadway network.

As shown in Table 2-5, implementation of the Biological Impact Minimization Alternative would result in substantially the same acres of residential housing, but approximately 466 fewer residential units would be constructed as compared to the Proposed Project Alternative. As shown in Table 2-6, no commercial land uses would be developed under this alternative, for a total of approximately 82 fewer acres of commercial development as compared to the Proposed Project Alternative.

Table 2-5
Summary Comparison of Residential Development under the Biological Impact Minimization Alternative and the Proposed Project Alternative

Land Use Type	Biological Impact Minimization Alternative			Proposed Project Alternative		
	Acres	du/ac[1]	Units[2]	Acres	du/ac[1]	Units[2]
Low Density Residential	166.7	5.3	883	169.4	5.31	900
Medium Density Residential	391.3	7.8	3,052	322.7	7.80	2,517
Compact Medium Density Residential	11.6	14.2	165	20.1	14.23	286
High Density Residential	6.2	21.2	131	43.6	22.80	994
Commercial Mixed Use	--	--		N/A	N/A	N/A
Total	**575.8**		**4,231**	**555.8**		**4,697**

Notes:
[1] du/ac = average dwelling units per acre
[2] Numbers have been rounded
Source: MacKay & Somps 2012

Table 2-6
Summary Comparison of Commercial Development under the Biological Impact Minimization Alternative and the Proposed Project Alternative

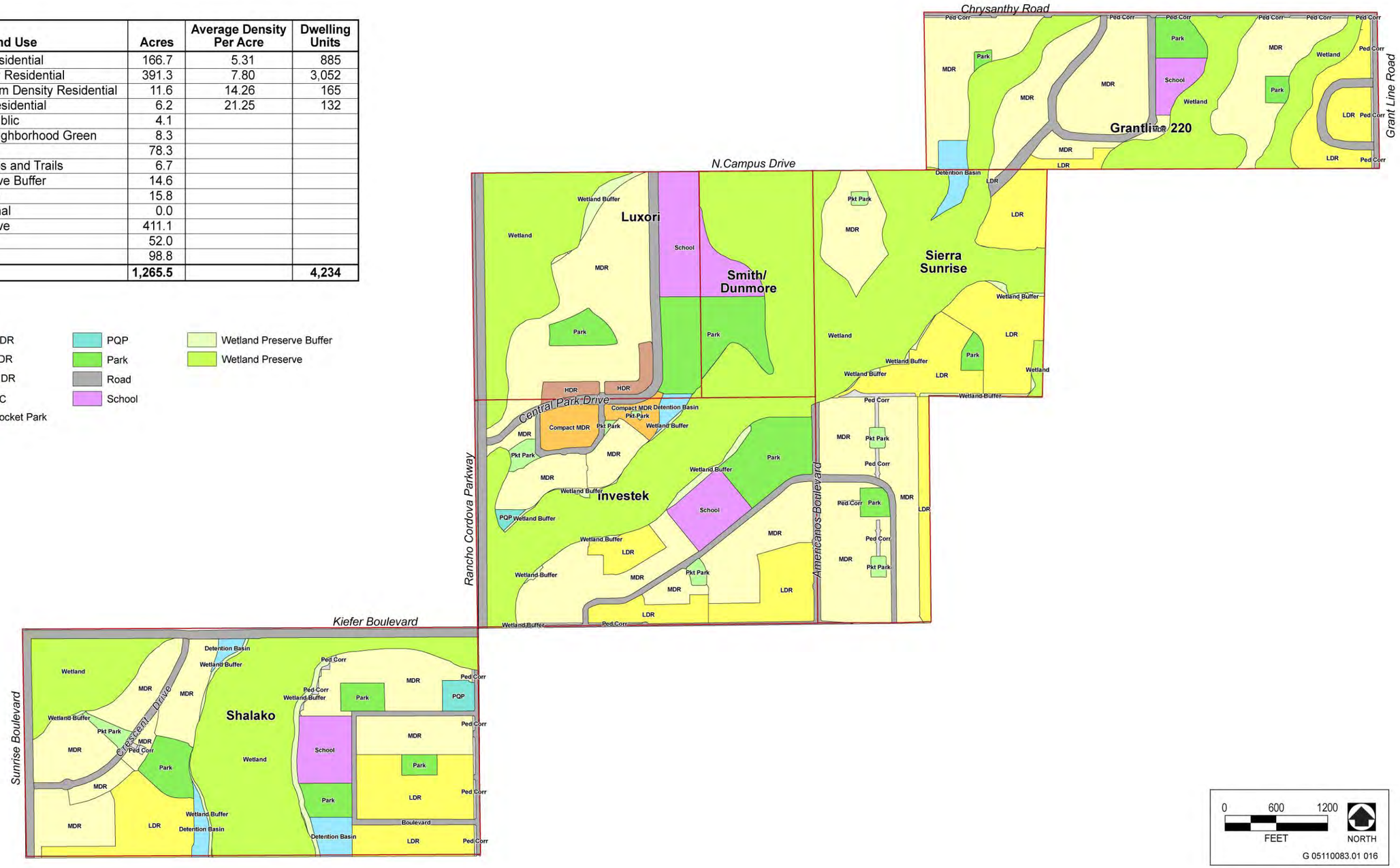
	Biological Impact Minimization Alternative Acres	Proposed Project Alternative Acres
Local Town Center	0	59.4
Commercial Mixed Use	0	0
Village Commercial	0	22.9
Total	**0**	**82.3**

Source: MacKay & Somps 2012

Map Code	Land Use	Acres	Average Density Per Acre	Dwelling Units
LDR	Low Density Residential	166.7	5.31	885
MDR	Medium Density Residential	391.3	7.80	3,052
CMDR	Compact Medium Density Residential	11.6	14.26	165
HDR	High Density Residential	6.2	21.25	132
PQP	Public/Quasi-Public	4.1		
PP	Pocket Park/Neighborhood Green	8.3		
Park	Park	78.3		
PC	Parkway, Paseos and Trails	6.7		
WB	Wetland Preserve Buffer	14.6		
DB	Detention Basin	15.8		
Canal	Stormwater Canal	0.0		
Wetland	Wetland Preserve	411.1		
School	School	52.0		
Roads	Roads	98.8		
	TOTAL	**1,265.5**		**4,234**

Legend

- Property Boundary
- CMDR
- CMU
- Stormwater Canal
- Detention Basin
- HDR
- LDR
- MDR
- PC
- Pocket Park
- PQP
- Park
- Road
- School
- Wetland Preserve Buffer
- Wetland Preserve



Source: MacKay & Somps 2010

Biological Impact Minimization Alternative Land Use Plan

Exhibit 2-25

INFRASTRUCTURE ABBREVIATIONS

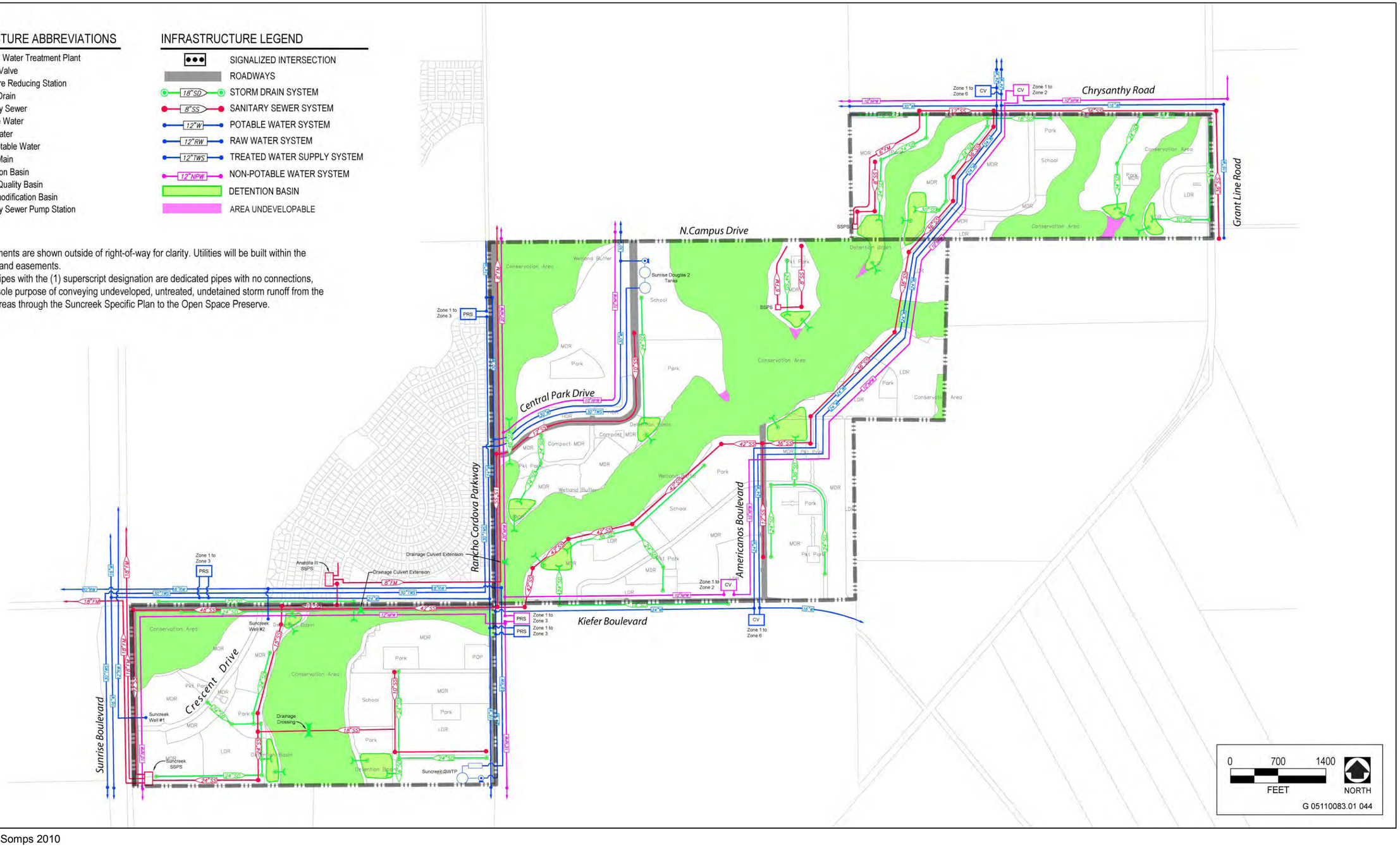
GWTP	Ground Water Treatment Plant
CV	Check Valve
PRS	Pressure Reducing Station
SD	Storm Drain
SS	Sanitary Sewer
W	Potable Water
RW	Raw Water
NPW	Non-Potable Water
FM	Force Main
DB	Detention Basin
WQB	Water Quality Basin
Hydro	Hydromodification Basin
SSPS	Sanitary Sewer Pump Station

INFRASTRUCTURE LEGEND

- SIGNALIZED INTERSECTION
- ROADWAYS
- STORM DRAIN SYSTEM
- SANITARY SEWER SYSTEM
- POTABLE WATER SYSTEM
- RAW WATER SYSTEM
- TREATED WATER SUPPLY SYSTEM
- NON-POTABLE WATER SYSTEM
- DETENTION BASIN
- AREA UNDEVELOPABLE

NOTES:

1. Utilities alignments are shown outside of right-of-way for clarity. Utilities will be built within the right-of-ways and easements.
2. Storm drain pipes with the (1) superscript designation are dedicated pipes with no connections, sized for the sole purpose of conveying undeveloped, untreated, undetained storm runoff from the open space areas through the Suncreek Specific Plan to the Open Space Preserve.



Source: MacKay & Somps 2010

Biological Impact Minimization Alternative Backbone Infrastructure **Exhibit 2-26**

2.6 CONCEPTUAL STRATEGY ALTERNATIVE

Beginning May 10, 2002, the County initiated a series of conflict resolution meetings regarding potential wetlands and endangered species permitting strategies for the geographic area known as the Sunrise Douglas Community Planning Area. The meetings were attended by a majority of the landowners, as well as developers, biologists, attorneys, project advocates, staff from Congressman Doug Ose's office and the Federal Agencies (i.e., EPA, USACE, and USFWS, collectively the "Federal Agencies"). The group met regarding issues involving wetland and endangered species protection and project development for the unpermitted areas within the Sunridge Specific Plan area began, referred to as the "Plan Subarea."

For 7 months, the Federal Agencies, local agencies, landowners of the unpermitted areas, stakeholders, biological consultants, and attorneys participated in numerous meetings to review issues involving site development and wetland and endangered species protection within the Plan Subarea.

In March 2004, Congressman Doug Ose initiated separate meeting with the Federal Agencies, local agencies, and the landowners/property representatives to facilitate resolution of differences of opinion that had emerged during the initial phase of meetings. Congressman Ose encouraged the Federal Agencies to develop a conceptual strategy both for the conservation of on-site wetland and aquatic resources in the planning area and to address general issues regarding the appropriate mitigation of those resources that could not feasibly and practicably be preserved on-site. The parties worked cooperatively to follow the mandates of Federal law, the need to preserve ecosystem integrity and the habitat of endangered species, the need to acknowledge the planning policies and objectives of the City of Rancho Cordova, and the need to account for the economic realities facing private sector developers. These meetings continued through June 2004.

In June 2004, the Federal Agencies developed an advisory document known as the Conceptual Level Strategy for Avoiding, Minimizing, and Preserving On-Site Aquatic Resource Habitat in the Sunrise Douglas Community Plan area ("Conceptual Level On-Site Avoidance Strategy, herein after referred to as "Strategy"). The Conceptual Level Strategy laid out general planning, ecological, and biological principles based on the best available information at the time. EPA, USACE, and USFWS also developed an accompanying map to provide general guidance on a development/preservation footprint that could potentially be permitted subject to appropriate review (see Exhibit 1-1 in Chapter 1, "Introduction").

After EPA, USACE, and USFWS released the Conceptual Level Strategy map, individual property owners and representatives held additional discussions with the City and EPA, USACE, and USFWS on the Conceptual Level Strategy map, based upon more detailed, project-level information. In response to comments, the landowners revised the map in September 2004 to reflect the more detailed analysis and to incorporate what they understood to be acceptable modifications based upon the guidance provided in the meetings.

The Conceptual Strategy Alternative would preserve approximately 107 more acres of biological habitat (designated as "wetland preserve") as compared to the Proposed Project Alternative. This alternative would fill 23.33 acres of waters of the U.S., which is 0.84 acres fewer than would be filled under the Proposed Project Alternative.

Although little commercial land uses would be built under this alternative, the types and locations of the other land uses and general infrastructure improvements under the Conceptual Strategy Alternative would be substantially similar to those that would be built under the Proposed Project Alternative. Exhibit 2-27 illustrates the conceptual land use plan for the Conceptual Strategy Alternative.

Exhibit 2-28 illustrates the proposed backbone infrastructure improvements. The projected water demand for this alternative is approximately 2,952 afy, as compared to the 3,058 afy demand for the Proposed Project Alternative. This represents only a 3.5% reduction in the total annual water demand. The alignment of pipelines and facilities would change from those required to serve the Proposed Project Alternative; however, while different in location, these facilities would be of the same magnitude in terms of size. The sewer system needed to serve this alternative

would not differ significantly from that of the Proposed Project Alternative, because the amount of sewer flows would be approximately the same. There would be minor variations in the location of the sewer system facilities to serve this alternative would vary somewhat from the Proposed Project Alternative due to the difference in street alignments and the spatial distribution of the developable areas. The developed area of this alternative would be approximately 827 acres as compared to approximately 869 acres for the Proposed Project Alternative, which represents only a 5% reduction in developed area. Therefore, since the amount of impervious surfaces would be substantially similar, the amount of runoff would be substantially similar. While the location of storm drainage and detention facilities required to serve this alternative would vary somewhat from the Proposed Project Alternative due to the difference in street alignments and the spatial distribution of the developable areas, the same (albeit slightly smaller) drainage/stormwater/water quality facilities would be constructed as under the Proposed Project Alternative. Finally, in order to avoid crossing over the on-site preserve, this alternative routes Americanos Boulevard further west, through the central portion of the SPA, to an intersection with Rancho Cordova Parkway. This routing change would be inconsistent with the planned City General Plan roadway network, and would result in decreased connectivity between communities within the City.

As shown in Table 2-7, implementation of the Conceptual Strategy alternative would result in approximately 15 additional acres of residential housing, but approximately 126 fewer residential units. As shown in Table 2-8, the Local Town Center included as part of the Proposed Project Alternative would not be built under this alternative. Approximately 70 fewer acres of total commercial development would be built as compared to the Proposed Project Alternative.

Table 2-7
Summary Comparison of Residential Development under the Conceptual Strategy Alternative and the Proposed Project Alternative

Land Use Type	Conceptual Strategy Alternative			Proposed Project Alternative		
	Acres	du/ac[1]	Units[2]	Acres	du/ac[1]	Units[2]
Low Density Residential	141.5	5.3	750	169.4	5.31	900
Medium Density Residential	410.9	7.8	3,205	322.7	7.80	2,517
Compact Medium Density Residential	18.5	14.2	263	20.1	14.23	286
High Density Residential	12.5	21.2	265	43.6	22.80	994
Commercial Mixed Use	10.9	--	88	N/A	N/A	N/A
Total	**594.3**		**4,571**	**555.8**		**4,697**

Notes:
[1] du/ac = average dwelling units per acre
[2] Numbers have been rounded
Source: MacKay & Somps 2012

Table 2-8
Summary Comparison of Commercial Development under the Conceptual Strategy Alternative and the Proposed Project Alternative

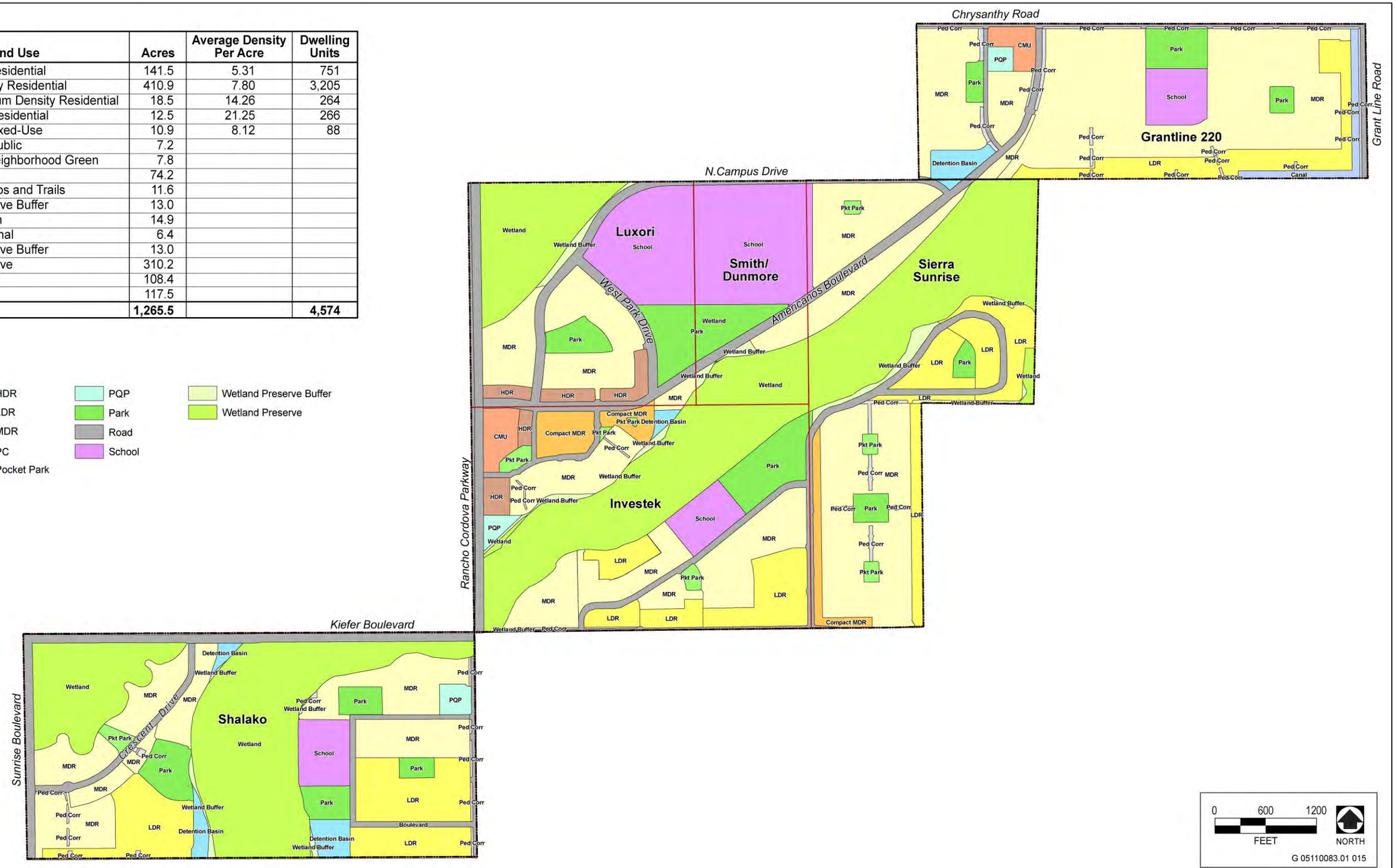
	Conceptual Strategy Alternative Acres	Proposed Project Alternative Acres
Local Town Center	0	59.4
Commercial Mixed Use	10.9	0
Village Commercial	0	22.9
Total	**10.9**	**82.3**

Source: MacKay & Somps 2012

Map Code	Land Use	Acres	Average Density Per Acre	Dwelling Units
LDR	Low Density Residential	141.5	5.31	751
MDR	Medium Density Residential	410.9	7.80	3,205
CMDR	Compact Medium Density Residential	18.5	14.26	264
HDR	High Density Residential	12.5	21.25	266
CMU	Commercial Mixed-Use	10.9	8.12	88
PQP	Public/Quasi-Public	7.2		
PP	Pocket Park/Neighborhood Green	7.8		
Park	Park	74.2		
PC	Parkway, Paseos and Trails	11.6		
WB	Wetland Preserve Buffer	13.0		
DB	Detention Basin	14.9		
Canal	Stormwater Canal	6.4		
WB	Wetland Preserve Buffer	13.0		
Wetland	Wetland Preserve	310.2		
School	School	108.4		
Roads	Roads	117.5		
	TOTAL	**1,265.5**		**4,574**

Legend

- Property Boundary
- CMDR
- CMU
- Stormwater Canal
- Detention Basin
- HDR
- LDR
- MDR
- PC
- Pocket Park
- PQP
- Park
- Road
- School
- Wetland Preserve Buffer
- Wetland Preserve



Source: MacKay & Somps 2010

Conceptual Strategy Alternative Land Use Plan

Exhibit 2-27

INFRASTRUCTURE ABBREVIATIONS

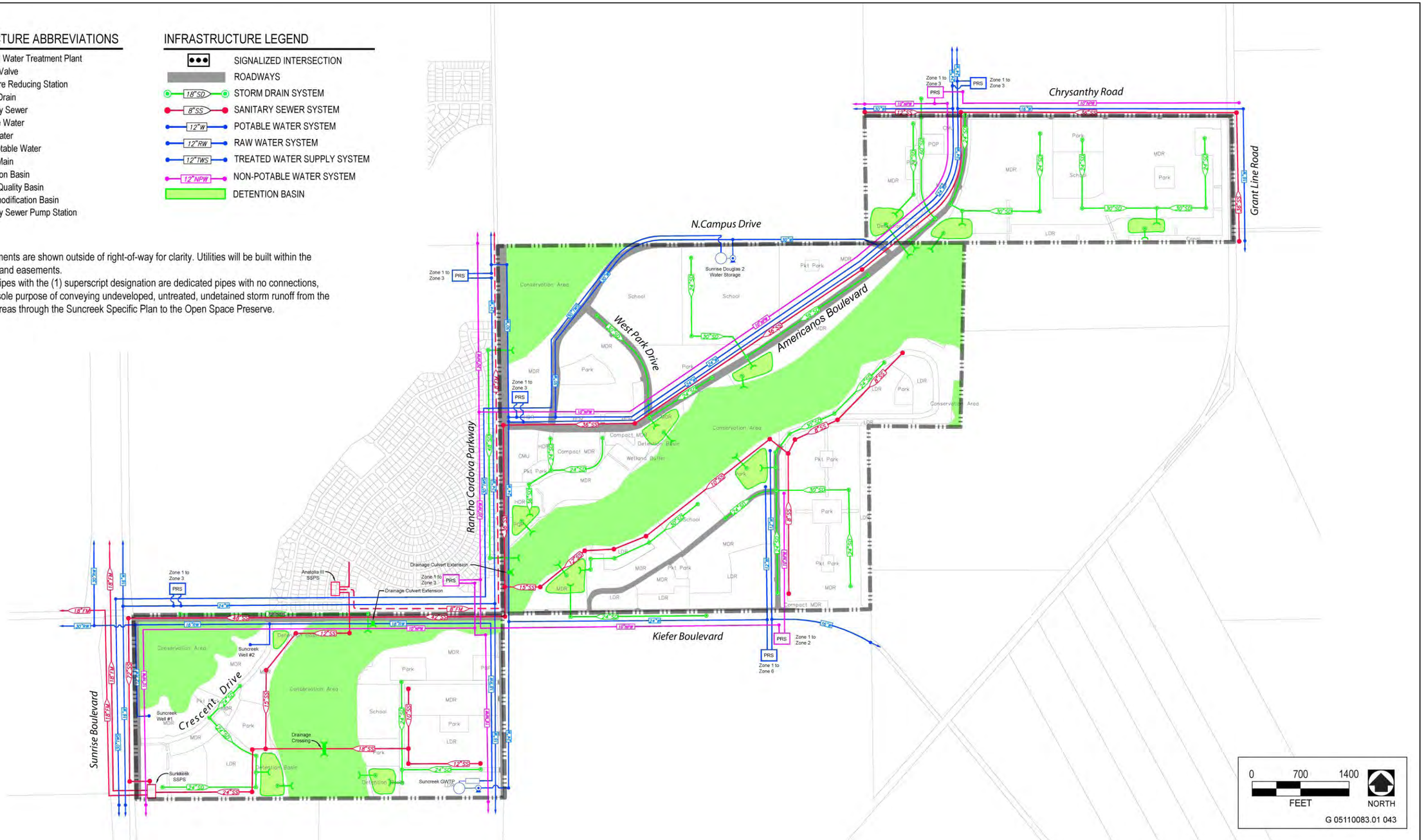
GWTP	Ground Water Treatment Plant
CV	Check Valve
PRS	Pressure Reducing Station
SD	Storm Drain
SS	Sanitary Sewer
W	Potable Water
RW	Raw Water
NPW	Non-Potable Water
FM	Force Main
DB	Detention Basin
WQB	Water Quality Basin
Hydro	Hydromodification Basin
SSPS	Sanitary Sewer Pump Station

INFRASTRUCTURE LEGEND

- SIGNALIZED INTERSECTION
- ROADWAYS
- 18"SD — STORM DRAIN SYSTEM
- 8"SS — SANITARY SEWER SYSTEM
- 12"W — POTABLE WATER SYSTEM
- 12"RW — RAW WATER SYSTEM
- 12"TWS — TREATED WATER SUPPLY SYSTEM
- 12"NPW — NON-POTABLE WATER SYSTEM
- DETENTION BASIN

NOTES:

1. Utilities alignments are shown outside of right-of-way for clarity. Utilities will be built within the right-of-ways and easements.
2. Storm drain pipes with the (1) superscript designation are dedicated pipes with no connections, sized for the sole purpose of conveying undeveloped, untreated, undetained storm runoff from the open space areas through the Suncreek Specific Plan to the Open Space Preserve.



Source: MacKay & Somps 2010

Conceptual Strategy Alternative Backbone Infrastructure **Exhibit 2-28**

2.7 INCREASED DEVELOPMENT ALTERNATIVE

The land use plan shown in this alternative was the original development proposed for the SunCreek SPA before the negotiations with the regulatory agencies as described above in Section 2.6, "Conceptual Strategy Alternative," which resulted in agreement by the project applicants to preserve additional on-site wetlands. This alternative would fill 32.86 acres of waters of the U.S., which is 8.69 acres more than would be filled under the Proposed Project Alternative. The wetland preserve within the SunCreek SPA would decrease to approximately 97 acres; therefore, under this alternative, approximately 106 fewer acres of biological habitat would be preserved, as compared to the Proposed Project Alternative. Although this alternative does not meet the CEQA requirements to reduce or avoid any of the project's environmental impacts, it was included in order to show the progression over time of the increased amount of on-site biological resources that have been preserved from the original land use plan to the current land use plan.

As shown in Exhibit 2-29, this alternative would entail a substantially different mix of land uses, at different locations within the SPA, as compared to the Proposed Project Alternative. Most of the SPA would consist of low-density residential housing, as compared to the mix of residential housing densities, schools, parks, public, and commercial land uses contemplated under the Proposed Project Alternative.

Exhibit 2-30 illustrates proposed backbone infrastructure improvements. The projected water demand for this alternative is approximately 3,478 afy, as compared to the 3,058 afy demand for the Proposed Project Alternative. This represents a 12.1% increase in the total annual water demand. The alignment of water pipelines and facilities, while slightly larger in size, would not change substantially from those required to serve the Proposed Project Alternative. The sewer system needed to serve this alternative would not differ substantially from that of the Proposed Project Alternative because the amount of sewer flows would be approximately the same. There would be minor variations in the location of the sewer system facilities to serve this alternative because of the difference in street alignments and the spatial distribution of the developable areas. The developed area of this alternative would be approximately 1,072 acres as compared to approximately 869 acres for the Proposed Project Alternative, which represents a 19% increase in developed area. Therefore, the amount of impervious surfaces would be larger, as would the amount of runoff. While the location of storm drainage and detention facilities required to serve this alternative would vary somewhat from the Proposed Project Alternative due to the difference in street alignments and the spatial distribution of the developable areas, the same, substantially larger, drainage/stormwater/water quality facilities would be constructed as under the Proposed Project Alternative.

As shown in Table 2-9, implementation of this alternative would result in approximately 276 more acres of residential housing, and approximately 701 more residential units that would be constructed as compared to the Proposed Project Alternative. However, most of the housing would be constructed as low-density (larger lot) residential under this alternative, whereas under the Proposed Project Alternative, most of the housing would be constructed as medium-density residential. As shown in Table 2-10, the Local Town Center would not be built under this alternative. Approximately 64 fewer acres of commercial development would be built as compared to the Proposed Project Alternative.

2.8 NO PROJECT/NO ACTION ALTERNATIVE

Under this alternative, the project would not be developed. The SPA would remain under the jurisdiction of the City. A Section 404 permit for wetland fill would not be required from USACE. Although this No Action/No Project Alternative (referred to elsewhere in this document as the "No Project Alternative") is evaluated herein, consistent with CEQA and NEPA requirements, it is an unlikely long-term alternative for the SPA because, according to the City's General Plan, the SPA is located in an area planned for urban development. Entitlements are actively being sought for development in the vicinity of the SPA (e.g., Sunrise Douglas Community Plan, Mather Field Redevelopment Project, Easton Planning Area, Rio del Oro Specific Plan, and the Anatolia, Arboretum, and The Ranch at Sunridge projects). Infrastructure planning is also occurring for the area, as part of the South County Water Authority's Water Treatment Plant, SASD Sewer Master Plan, SRCSD Interceptor System

Table 2-9
Summary Comparison of Residential Development under the Increased Development Alternative and the Proposed Project Alternative

Land Use Type	Increased Development Alternative			Proposed Project Alternative		
	Acres	du/ac[1]	Units[2]	Acres	du/ac[1]	Units[2]
Low Density Residential	609.8	5.31	3,238	169.4	5.31	900
Medium Density Residential	173.0	7.80	1,349	322.7	7.80	2,517
Compact Medium Density Residential	0	0	0	20.1	14.23	286
High Density Residential	31.4	21.25	667	43.6	22.80	994
Commercial Mixed Use	17.7	8.12	144	N/A	N/A	N/A
Total	**831.9**		**5,398**	**555.8**		**4,697**

Notes:
[1] du/ac = dwelling units per acre
[2] Numbers have been rounded
Sources: MacKay & Somps 2012

Table 2-10
Summary Comparison of Commercial Development under the Increased Development Alternative and the Proposed Project Alternative

	Increased Development Alternative Acres	Proposed Project Alternative Acres
Local Town Center	0	59.4
Commercial Mixed Use	17.7	0
Village Commercial	0	22.9
Total	**17.7**	**82.3**

Source: MacKay & Somps 2012

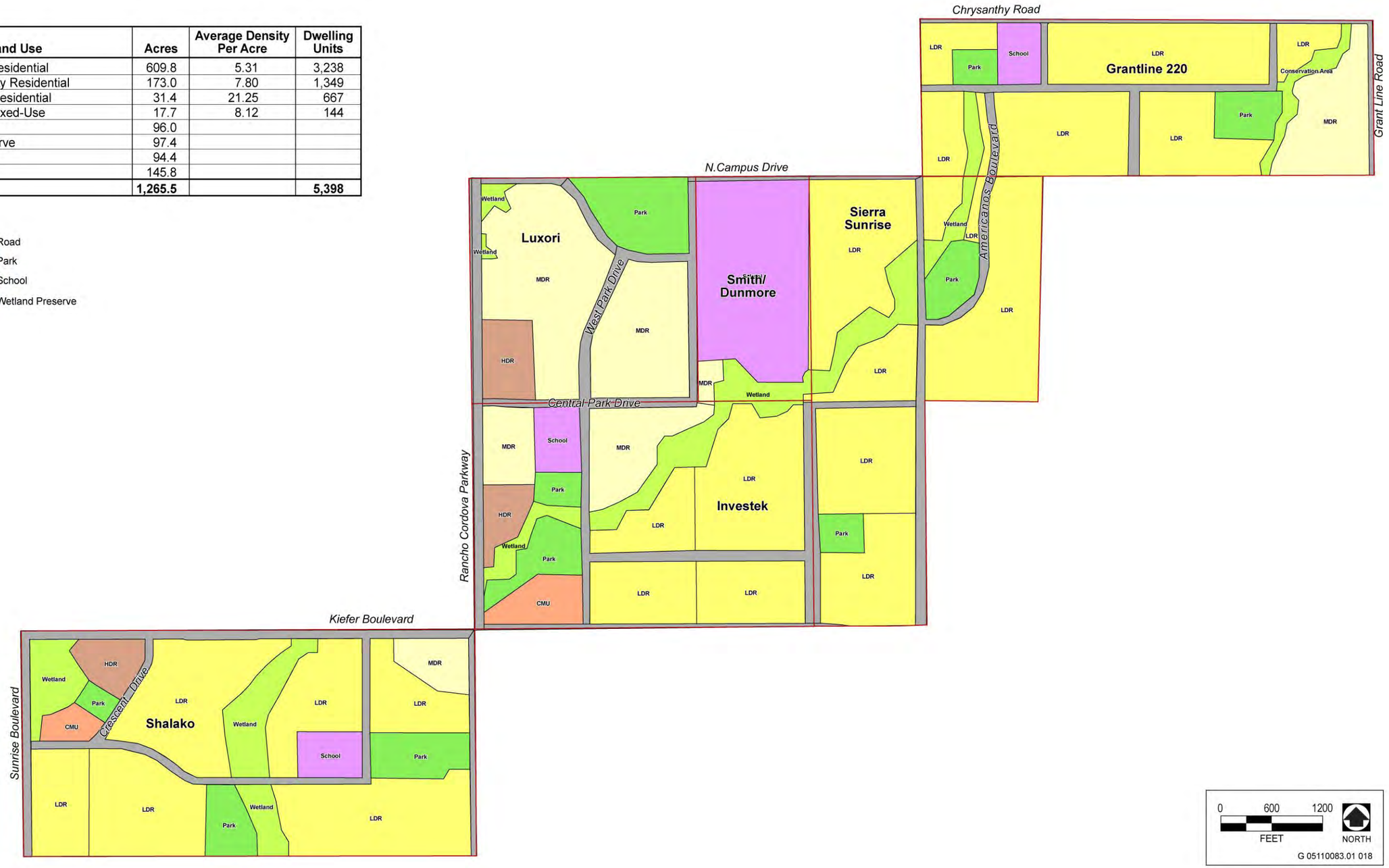
Master Plan, Alta-Sunrise Interchange, Zinfandel Drive Extension, and Douglas Road Extension. The regional economic base is expected to continue to expand as a result of these and other development projects in the region, and the associated growth in housing demand will increase the development pressure on the SunCreek SPA. The City General Plan indicates that the SPA is designated as a "Special Planning Area," within which a wide variety of land uses are permitted. The general plan includes a layout for the SPA with land uses, but it is specifically designated as "conceptual"; therefore it does not include acreages, densities, or dwelling units. Without this information, it would be speculative to predict the environmental impacts that would occur from development at the SPA other than the Proposed Project and alternatives already evaluated herein. Consistent with CEQA requirements, the No Project Alternative is evaluated in this DEIR/DEIS; however, for the reasons stated above, it is assumed to be a "no development" scenario.

Consistent with CEQA and NEPA requirements, this No Project/No Action Alternative is evaluated in this DEIR/DEIS. The No Action/No Project Alternative would not meet the project purpose, need, or objectives of the proposed SunCreek project as described in Chapter 1, "Introduction and Statement of Purpose and Need," because no development would occur.

Map Code	Land Use	Acres	Average Density Per Acre	Dwelling Units
LDR	Low Density Residential	609.8	5.31	3,238
MDR	Medium Density Residential	173.0	7.80	1,349
HDR	High Density Residential	31.4	21.25	667
CMU	Commercial Mixed-Use	17.7	8.12	144
Park	Park	96.0		
Wetland	Wetland Preserve	97.4		
School	School	94.4		
Roads	Roads	145.8		
	TOTAL	**1,265.5**		**5,398**

Legend

- Property Boundary
- CMU
- HDR
- LDR
- MDR
- Road
- Park
- School
- Wetland Preserve



Source: MacKay & Somps 2010

Increased Development Alternative Land Use Plan **Exhibit 2-29**

INFRASTRUCTURE ABBREVIATIONS

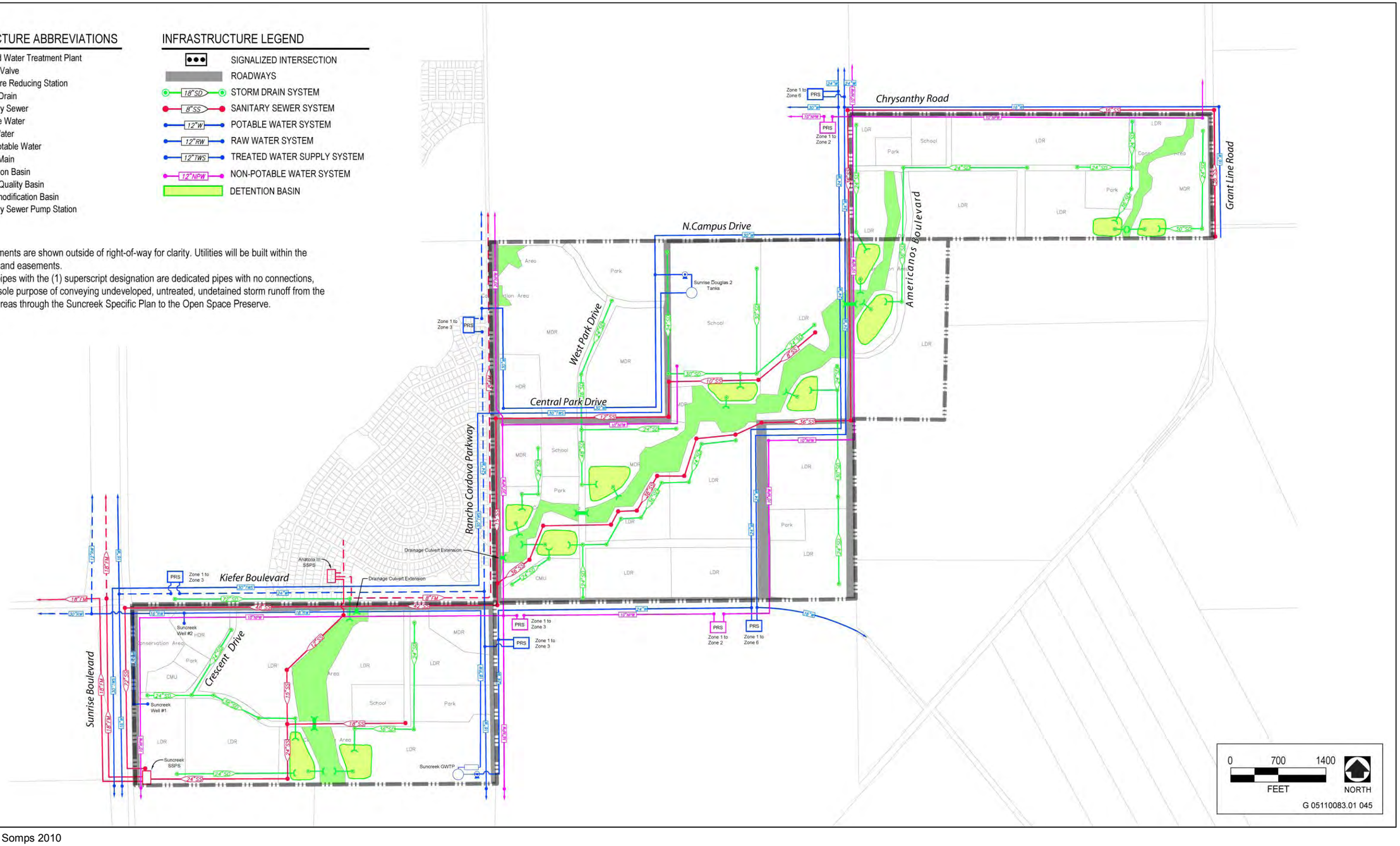
GWTP	Ground Water Treatment Plant
CV	Check Valve
PRS	Pressure Reducing Station
SD	Storm Drain
SS	Sanitary Sewer
W	Potable Water
RW	Raw Water
NPW	Non-Potable Water
FM	Force Main
DB	Detention Basin
WQB	Water Quality Basin
Hydro	Hydromodification Basin
SSPS	Sanitary Sewer Pump Station

INFRASTRUCTURE LEGEND

- SIGNALIZED INTERSECTION
- ROADWAYS
- 18"SD — STORM DRAIN SYSTEM
- 8"SS — SANITARY SEWER SYSTEM
- 12"W — POTABLE WATER SYSTEM
- 12"RW — RAW WATER SYSTEM
- 12"TWS — TREATED WATER SUPPLY SYSTEM
- 12"NPW — NON-POTABLE WATER SYSTEM
- DETENTION BASIN

NOTES:

1. Utilities alignments are shown outside of right-of-way for clarity. Utilities will be built within the right-of-ways and easements.
2. Storm drain pipes with the (1) superscript designation are dedicated pipes with no connections, sized for the sole purpose of conveying undeveloped, untreated, undetained storm runoff from the open space areas through the Suncreek Specific Plan to the Open Space Preserve.



Source: MacKay & Somps 2010

Increased Development Alternative Backbone Infrastructure **Exhibit 2-30**

2.9 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD FOR FURTHER EVALUATION

Alternatives that were considered and eliminated from further consideration in this EIR/EIS for detailed review consist of alternatives that were considered as part of the Draft Section 404(b)(1) alternatives analysis (attached to this EIR/EIS in Appendix X). The Draft Section 404(b)(1) alternatives information contains additional on-site alternatives for each of the participating landowners, as well as alternatives to the proposed backbone infrastructure and off-site alternatives.

Under both NEPA and CEQA, the range of alternatives is governed by the rule of reason. The State CEQA Guidelines Section 15126.6 requires that "an EIR shall describe a range of reasonable alternatives to the project, or to 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." In relationship to NEPA alternatives, the CEQ suggests, "When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS. … What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case." (CEQ 1981)

This EIR/EIS evaluates four action alternatives (No USACE Permit, Biological Impact Minimization, Conceptual Strategy, and Increased Development) at a similar level of detail as the Proposed Project Alternative, each of which would entail different land uses and different amounts of on-site preservation and avoidance of wetland fill. Therefore, since this EIR/EIS considers and evaluates a reasonable range of potentially feasible alternatives, the alternatives listed below from the Draft Section 404(b)(1) analysis were not carried forward for further evaluation because all of the on-site alternatives consist of minor variations of the existing five action alternatives that would all entail a redesign of proposed land uses and relocation of proposed infrastructure, which are already covered by the spectrum of alternatives carried forward for detailed analysis. The off-site alternatives are infeasible because they consist of too many separate parcels of land (74 and 351, respectively) that could not all be acquired.

2.9.1 SIERRA SUNRISE ALTERNATIVES

The alternatives evaluated on the Sierra Sunrise parcel of the SPA are listed below.

- **Alternative 1**: avoids a portion of a larger avoidance area that connects to the proposed project preserve on the Jaeger Ranch property. Wetland fill avoided: 1.092 acres.
- **Alternative 2:** avoids a small vernal pool/swale by extending the open space area in that portion of SPA that would be provided as a buffer to Laguna. Wetland fill avoided: 0.181 acres.
- **Alternative 3:** avoids a swale on the southern portion of the adjacent Smith Property and extends northward, with tributary swales branching out to the west and east. Wetland fill avoided: 3.7 acres.

2.9.2 SMITH PROPERTY ALTERNATIVES

The alternatives evaluated on the Smith parcel of the SPA are listed below.

- **Alternative 1a:** extends the area evaluated in the backbone infrastructure northward to allow connectivity to Alternatives 1b and 1c. Wetland fill avoided: 0.073 acres.

- **Alternatives 1a, 1b, and 1c:** avoids an additional area within an existing preserve area that would connect to a potential additional preserve in the southern portion of the Smith property. Wetland fill avoided: 1.395 acres.

- **Alternatives 1a and 1b:** avoids the system and associated vernal pools that branch off in the western portion of the overall potential additional avoidance area. Wetland fill avoided: 0.724 acres.

- **Alternatives 1a and 1c:** additional avoidance of the system and associated vernal pools that branch off in the eastern portion of the overall potential additional avoidance area. Wetland fill avoided: 0.598 acres.

2.9.3 SHALAKO PROPERTY ALTERNATIVES

The alternatives evaluated on the Shalako parcel of the SPA are listed below.

- **Alternative 1:** avoids additional wetlands located in the northwestern corner of the site south of the existing preserve. Wetland fill avoided: 0.066 acres.

- **Alternative 2:** avoids additional wetlands located in the center of the site and extends the proposed preserve to the east. Wetland fill avoided: 0.207 acres.

2.9.4 JAEGER RANCH (INVESTEK) PROPERTY ALTERNATIVES

The alternatives evaluated on the Jaeger Ranch (Investek) parcel of the SPA are listed below.

- **Alternative 1:** avoids additional wetlands located in the northwestern corner of Jaeger Ranch at the corner of Rancho Cordova Parkway and a major east-west thoroughfare. Wetland fill avoided: 1.236 acres.

- **Alternative 2:** avoids additional wetlands located in the northeastern portion of Jaeger Ranch and establishes an additional 6.597 acres of wetland preserve and open space. Wetland fill avoided: 0.092 acres.

2.9.5 BACKBONE INFRASTRUCTURE ALTERNATIVES

The alternatives evaluated to the backbone infrastructure of the SPA are listed below.

- **Alternative B1**: avoids and preserves a vernal pool located south of the currently proposed preserve in the northwest corner of the Shalako property that is located within a proposed well site. Wetland fill avoided: 0.087 acres.

- **Alternative B2**: avoids additional wetlands within the proposed preserve located in the south-central portion of the Shalako Property by relocating/realigning the proposed sewer line. Wetland fill avoided: 0.235 acres.

- **Alternative B3:** avoids additional wetlands by re-aligning and/or redesigning portions of several roads to avoid impacts to the alternative preserve near Rancho Cordova Parkway. Wetland fill avoided: 0.235 acres.

- **Alternative B4:** avoids additional wetlands in the center of the SPA on the community park site by relocating a joint use hydromodification/water quality/detention basin. Wetland fill avoided: 0.457 acres.

- **Alternative B5:** avoids additional wetlands by re-aligning North Campus Drive. Wetland fill avoided: 0.231 acres.

- **Alternative B6:** avoids additional wetlands by re-aligning Americanos Boulevard and a sewer line, storm drain piping, and a trail along the western boundary of this alternative. Wetland fill avoided: 0.056 acres.

- **Alternative B7:** avoids additional wetlands by re-aligning a proposed arterial roadway and relocating two hydro-modification/water quality/detention basins. Wetland fill avoided: 0.174 acres.

- **Alternative B8:** avoids additional wetlands by re-aligning and/or redesigning Chrysanthy Road and an arterial road that connects to Chrysanthy Road. Wetland fill avoided: 0.182 acres.

2.9.6 OFF-SITE ALTERNATIVES

The two off-site alternatives that include available land are listed below.

- **Alternative 1:** consists of a 1,491-acre area, located west of Excelsior Road, east of Bradshaw Road, north of Elder Creek Road, and south of Kiefer Boulevard. The site is comprised of 74 parcels and consists of developed and disturbed areas. Commercial and industrial uses include two cemeteries, a sand and gravel mining operation, and other smaller businesses. The area also includes rural residential developments, agricultural fields, and cleared and graded area. A total of approximately 39.71 acres of wetlands and other waters may occur within the alternative's boundaries. Development on this alternative site would likely result in more impacts to waters of the U.S. than the Proposed Project Alternative.

- **Alternative Site 2:** consists of a 1,692-acre area comprised of approximately 351 parcels, and is located west of Bradshaw Road, east of Hedge Avenue, north of Elder Creek Road, and south of Kiefer Boulevard. The site consists of developed and disturbed areas. Commercial and industrial developments within the area include sand and gravel operations, a wholesale florist enterprise, construction building services, and other smaller commercial businesses. The area also includes the Cordova Golf Course, agricultural land, and rural residential areas. A total of approximately 19.17 acres of wetlands and other waters may occur within the parcel boundaries. In addition, an established conservation area is located in the southwestern quadrant of the alternative area. Constructing the project on this site would likely result in similar impacts to waters of the U.S. as compared to the Proposed Project Alternative.

2.10 ENVIRONMENTALLY SUPERIOR ALTERNATIVE – CEQA ONLY

The State CEQA Guidelines CCR Section 15126.6(e)(2) requires identification of an environmentally superior alternative from among the Proposed Project Alternative and the other alternatives evaluated. Federal NEPA regulations also recommend that an environmentally preferred alternative be identified; however, under NEPA, that alternative does not need to be identified until the final record of decision is issued. Therefore, the discussion in this section of the environmentally superior alternative is intended to satisfy only the state (CEQA) requirements.

The No Project Alternative would have the fewest environmental impacts, because the project would not be built. If the No Project Alternative is environmentally superior, State CEQA Guidelines CCR Section 15126.6(e)(2) requires identification of the "environmentally superior alternative" other than the No Project Alternative from among the proposed project and the alternatives evaluated.

Table 2-11 provides a comparison of some of the project characteristics between the alternatives and Table 2-12 presents a comparison of the environmental impacts among all five "action" alternatives (i.e., Proposed Project, No USACE Permit, Biological Impact Minimization, Conceptual Strategy, and Increased Development). Table 2-12 does not show all of the environmental impacts evaluated in this DEIR/DEIS; rather, Table 2-12 presents those topic areas where implementation of the alternatives would result in different levels of significance as compared to the Proposed Project Alternatives. For a complete listing of all of the environmental impacts, mitigation measures, and significance conclusions for all alternatives (including No Project) evaluated in this DEIR/DEIS, see Table ES-1 in the "Executive Summary."

Table 2-11
Comparative Summary of Characteristics of the Proposed Project and the Other Four Action Alternatives[1]

Project Characteristics	Alternative				
	Proposed Project	No USACE Permit	Biological Impact Minimization	Conceptual Strategy	Increased Development
Population (number of residents)	12,589	11,685	11,349	12,260	14,469
Residential Development					
Total Acreage	556	464	576	594	832
Total Units	4,697	4,360	4,235	4,574	5,399
Commercial Development (approximate acreage)	82.3	7	0	11	18
Employment (number of jobs)	2,854	299	196	480	609
Jurisdictional Waters of the U.S. and Wetlands Filled (approximate acreage)[2]	24	0	15	23	33
On-Site Wetland Preserve (approximate acreage)	204	607	411	310	97
Sufficiency of Parkland (approximate acreage)	+24	-26	+21	+13	+24
Number of Students Generated and Sufficiency of On-Site Schools	3,062 (Sufficient)	1,867 (1,357 Shortfall)	2,931 (Sufficient)	3,119 (Sufficient)	3,593 (Sufficient)
Water Consumption (acre-feet per year at full buildout)	3,058	2,033	2,672	2,952	3,478

Notes: "+" = surplus; "-" = deficit

[1] Acreages have been rounded to the nearest whole number.

[2] Acreage of waters of the U.S. and other wetlands differs among the alternatives because each alternative has a different backbone infrastructure footprint outside of the SPA boundary.

Source: Data compiled by AECOM in 2012

Table 2-12
Comparison of Impacts of the Action Alternatives[1]

Environmental Issue	Alternative				
	Proposed Project	No USACE Permit	Biological Impact Minimization	Conceptual Strategy	Increased Development
Air Quality					
3.2-1	S	S (Lesser)	S (Similar)	S (Similar)	S (Greater)
Biological Resources					
3.3-1	S Direct Impact	No Direct Impact (Lesser)	S Direct Impact (Lesser)	S Direct Impact (Similar)	S Direct Impact (Greater)
3.3-2	S	No Impact (Lesser)	S (Similar)	S (Similar)	S (Similar)
3.3-3	S	S (Lesser)	S (Lesser)	S (Similar)	S (Greater)
Climate Change					
3.4-1	S	S (Lesser)	S (Lesser)	S (Similar)	S (Greater)
Hydrology and Water Quality					
3.9-1	S	S (Lesser)	S (Lesser)	S (Lesser)	S (Greater)
3.9-2	S	S (Lesser)	S (Lesser)	S (Lesser)	S (Greater)
Noise					
3.11-3	S	S (Lesser)	S (Lesser)	S (Lesser)	S (Greater)
Cumulative Traffic Noise	LTS	LTS (Greater)	LTS (Greater)	LTS (Greater)	S (Greater)
Parks and Recreation					
3.12-1	LTS	S (Greater)	LTS (Similar)	LTS (Similar)	LTS (Similar)
Population and Housing					
3.13-2	LTS	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Greater)
Public Services					
3.14-2	S	S (Similar)	S (Similar)	S (Similar)	S (Greater)
3.14-6	LTS	LTS (Greater)	LTS (Similar)	LTS (Similar)	LTS (Similar)

Table 2-12
Comparison of Impacts of the Action Alternatives[1]

Environmental Issue	Alternative				
	Proposed Project	No USACE Permit	Biological Impact Minimization	Conceptual Strategy	Increased Development
Traffic and Transportation					
3.15-1f	S	LTS (Lesser)	S (Similar)	S (Similar)	S (Similar)
3.15-1i	S	LTS (Lesser)	LTS (Lesser)	S (Similar)	S (Similar)
3.15-1l	S	LTS (Lesser)	LTS (Lesser)	S (Similar)	S (Similar)
3.15-1p	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-1r	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-1x	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5e	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5x	S	S (Similar)	S (Similar)	LTS (Lesser)	S (Similar)
3.15-5ee	S	S (Similar)	LTS (Lesser)	S (Similar)	S (Similar)
3.15-5ff	S	S (Similar)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-5gg	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5hh	S	LTS (Lesser)	S (Similar)	S (Similar)	S (Similar)
3.15-5ii	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5jj	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5nn	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-5oo	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5pp	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-5qq	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.15-5rr	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-5uu	S	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	S (Similar)
3.15-5xx	S	S (Similar)	S (Similar)	LTS (Lesser)	S (Similar)
Utilities and Service Systems					
3.16-4	LTS	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)
3.16-5	LTS	LTS (Lesser)	LTS (Lesser)	LTS (Lesser)	LTS (Similar)

Table 2-12
Comparison of Impacts of the Action Alternatives[1]

Environmental Issue	Alternative				
	Proposed Project	No USACE Permit	Biological Impact Minimization	Conceptual Strategy	Increased Development
Water Supply					
3.17-1	LTS	LTS (Similar)	LTS (Similar)	LTS (Similar)	LTS (Greater)
Total Number of Each Significance Conclusion[1]	5 LTS 30 S	2 No Impact 21 LTS 12 S	22 LTS 13 S	21 LTS 14 S	11 LTS 24 S
Total Number of Each Level of Impact[1]	N/A	26 Lesser 6 Similar 3 Greater	24 Lesser 10 Similar 1 Greater	20 Lesser 13 Similar 1 Greater	7 Lesser 17 Similar 11 Greater

Notes: LTS = Less-than-Significant Impact; S = Significant Impact

[1] This table presents a comparison of only those topic areas where at least one environmental impact of the Proposed Project Alternative would be avoided or substantially lessened by implementation of one of the other action alternatives, or where one of the other alternatives would have a greater impact as compared to the Proposed Project Alternative. A complete listing of all the environmental impacts of all alternatives is contained in Table ES-1 in the "Executive Summary."

Source: Data compiled by AECOM in 2012.

The No USACE Permit Alternative would be the environmentally superior alternative after the No Project Alternative. The No USACE Permit Alternative would result in least amount of development, the largest on-site wetland preserve, the fewest significant environmental impacts and lowest overall level of impact, and would not result in fill of any waters of the U.S. or other wetlands, including waters of the state.

It should also be noted that while Table 2-12 indicates that the Proposed Project Alternative would have a larger total number of significant impacts as compared to the Increased Development Alternative, that occurs solely because the Proposed Project Alternative includes an approximately 32-acre commercial center, and the addition of the commercial center results in several additional significant traffic impacts at intersections and roadways in the project vicinity (i.e., a large commercial center results in changes in traffic patterns). However, in all other topics areas analyzed in the DEIR/DEIS, the Increased Development Alternative has a greater level of impact as compared to the Proposed Project Alternative. This is particularly true in the case of biological resources, where the Increased Development Alternative would include only a 97-acre on-site wetland preserve and would fill approximately 33 acres of waters of the U.S. and other wetlands while the Proposed Project Alternative would include an approximately 204-acre wetland preserve and would fill approximately 24 acres of waters of the U.S. and other wetlands. Furthermore, as compared to the Proposed Project Alternative, the Increased Development Alternative would also result in an increased generation of construction-related emissions of criteria air pollutants, increased generation of GHGs, increased level of hydrology and water quality effects, increased generation of noise, increased population, and a substantially increased need for fire protection services (because an on-site fire station would not be constructed).