



PLANNING AND BUILDING
DEPARTMENT

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
ROOM 300
SACRAMENTO, CA
95814-2998

PLANNING DIVISION

ENVIRONMENTAL PLANNING
SERVICES
916-264-1909
FAX 916-264-5328

NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, make declare, and publish this Negative Declaration for the following described project:

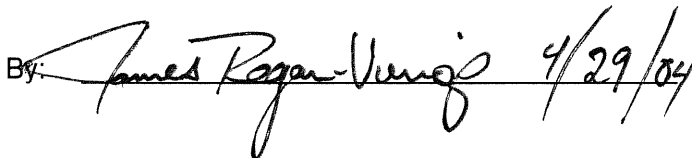
Del Paso Regional Park Detention and Filtration Wetland Project (CIP #LV96) – The Parks and Recreation Department and Utilities Department propose to create a filtration wetland, expand an existing catchment pond into a sedimentation basin, construct a water control structure and check-weir structures in Norris Tributary, construct buried culverts and swales to connect the upstream and downstream ends of the wetland to Norris Tributary, oak woodland riparian habitat restoration along Norris Tributary, and provide for environmental education and passive recreational opportunities in the Del Paso Regional Park Nature Area.

The City of Sacramento, Planning and Building Department, has reviewed the proposed project and on the basis of the whole record before it, has determined that there is no substantial evidence that the project, as proposed, will have a significant effect on the environment. This conclusion is based on information contained in the attached Initial Study and reflects the lead agency's independent judgement and analysis. An Environmental Impact Report is not required pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

This Negative Declaration has been prepared pursuant to Title 14, Section 15070 of the California Code of Regulations; the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

A copy of this document and all supportive documentation may be reviewed/obtained at the City of Sacramento, Planning and Building Department, Planning Division, 1231 I Street, 3rd Floor, Sacramento, California 95814.

Environmental Services Manager, City of Sacramento,
California, a municipal corporation

By:  4/29/04

Initial Study/Negative Declaration
**Del Paso Regional Park Detention and
Filtration Wetland Project**

Lead Agency:

City of Sacramento
Development Services Department
1231 I Street, Suite 300
Sacramento, CA 95814
Contact: Dana Allen
916/808-2762

Department of Parks and Recreation
1231 I Street, Suite 400
Sacramento, CA 95814
Contact: Amy van Riessen
916/808-1949

Department of Utilities
1395 35th Avenue
Sacramento, CA 95822
Contact: Patrick Sanger
916/808-1726

Environmental Consultant:

Jones & Stokes
2600 V Street
Sacramento, CA 95818-1914
Contact: Gerrit Platenkamp
916/737-3000

April 2004

**DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT
(CIP#LV96)
INITIAL STUDY/NEGATIVE DECLARATION**

This Initial Study/Negative Declaration has been prepared by the Development Services Department, the Department of Parks and Recreation, and the Department of Utilities, 1231 I Street, Suite 400, Sacramento, CA 95814, pursuant to Title 14, Section 15070 of the California Code of Regulations; the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento; and the Sacramento City Code.

This project is consistent with the implementation approach in the CALFED Record of Decision (ROD) and has been developed in the context of the overall CALFED Bay-Delta Program. As such, the project meets the policy commitments described in the ROD that each project implementing the Bay-Delta Program will be subject to the appropriate type of environmental analysis and will evaluate and use the appropriate programmatic mitigation strategies described in the Programmatic Environmental Impact Statement/Environmental Impact Report and the ROD. (CALFED Bay-Delta Program Programmatic Record of Decision, pp. 29-30, 32-35, and Appendix A.)

This Initial Study is organized into the following sections:

SECTION I—BACKGROUND: Page 3—Provides summary background information about the project name, location, sponsor, the date the Initial Study was completed, and a project introduction.

SECTION II—PROJECT DESCRIPTION: Page 5—Includes a detailed description of the project.

SECTION III—ENVIRONMENTAL CHECKLIST AND DISCUSSION: Page 16—Contains the Environmental Checklist form together with a discussion of the checklist questions. The checklist form is used to determine the following for the project: (1) "Potentially Significant Impacts" that may not be mitigated with the inclusion of mitigation measures, (2) "Potentially Significant Impacts unless Mitigated" that could be mitigated with incorporation of mitigation measures, and (3) "Less-than-Significant Impacts" that would be less than significant and do not require the implementation of mitigation measures.

SECTION IV—ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Page 71—Identifies which environmental factors were determined to have either "Potentially Significant Impacts" or "Potentially Significant Impacts unless Mitigated," as indicated in the Environmental Checklist.

SECTION V—DETERMINATION: Page 71—Identifies the determination of whether impacts associated with development of the project are significant, and what additional environmental documentation may be required.

SECTION VI—REFERENCES: Page 72—Identifies the references cited in this Initial Study/Negative Declaration.

SECTION VII—LIST OF PREPARERS: Page 75—Identifies individuals who contributed to this Initial Study/Negative Declaration.

SECTION I—BACKGROUND

File Number, Project Name:

CIP#LV96, DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT

Project Location:

Del Paso Regional Park is located at 3565 Auburn Boulevard in the City of Sacramento in the northeast portion of the city and Sacramento County. The park is located less than ½ mile east of Interstate 80.

Project Sponsor and Contact Persons:

Development Services Department

Dana Allen, Associate Planner
1231 I Street, Suite 300
Sacramento, CA 95814
(916) 808-2762

Department of Parks and Recreation

Amy van Riessen, Natural Resources Specialist
1231 I Street, Suite 400
Sacramento, CA 95814
(916) 264-1949

Department of Utilities

Patrick Sanger, Public Outreach/Education Coordinator
1395 35th Avenue
Sacramento, CA 95822
(916) 808-1726

Date Initial Study Completed: April 28, 2004

Introduction

The following Initial Study/Negative Declaration has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code 1500 et seq.). The City of Sacramento is the lead agency for the preparation of the Initial Study/Negative Declaration for the Del Paso Regional Park Detention and Filtration Wetland Project proposed by the City of Sacramento (City) Department of Parks and Recreation and Department of Utilities.

This environmental review examines project effects that are identified as potentially significant effects on the environment or that may be substantially reduced or avoided by the adoption of revisions or conditions to the design of project-specific features. It is believed at this time that the project will not result in potentially significant impacts based on the analysis contained in this report and the background technical reports prepared for the project. Therefore, a Negative Declaration is the appropriate environmental document to prepare for this project.

This analysis is incorporating by reference the general discussion portions of earlier environmental documents (State CEQA Guidelines Section 15150[a]). These documents are available for public review at the City of Sacramento, Planning and Building Department, 1231 I Street, Suite 300, Sacramento.

This document will be circulated for a 30-day public review period between April 30, 2004 and June 1, 2004. The City expects to receive comments from agencies and the public and will consider these comments as well as the results of this Initial Study and supporting technical documents in its decision to adopt the Negative Declaration. Please send comments on the environmental document to the attention of Dana Allen, Associate Planner, Development Services Department, Environmental Planning Department, 1231 I Street, Suite 300, Sacramento, CA 95814.

SECTION II—PROJECT DESCRIPTION

Project Location

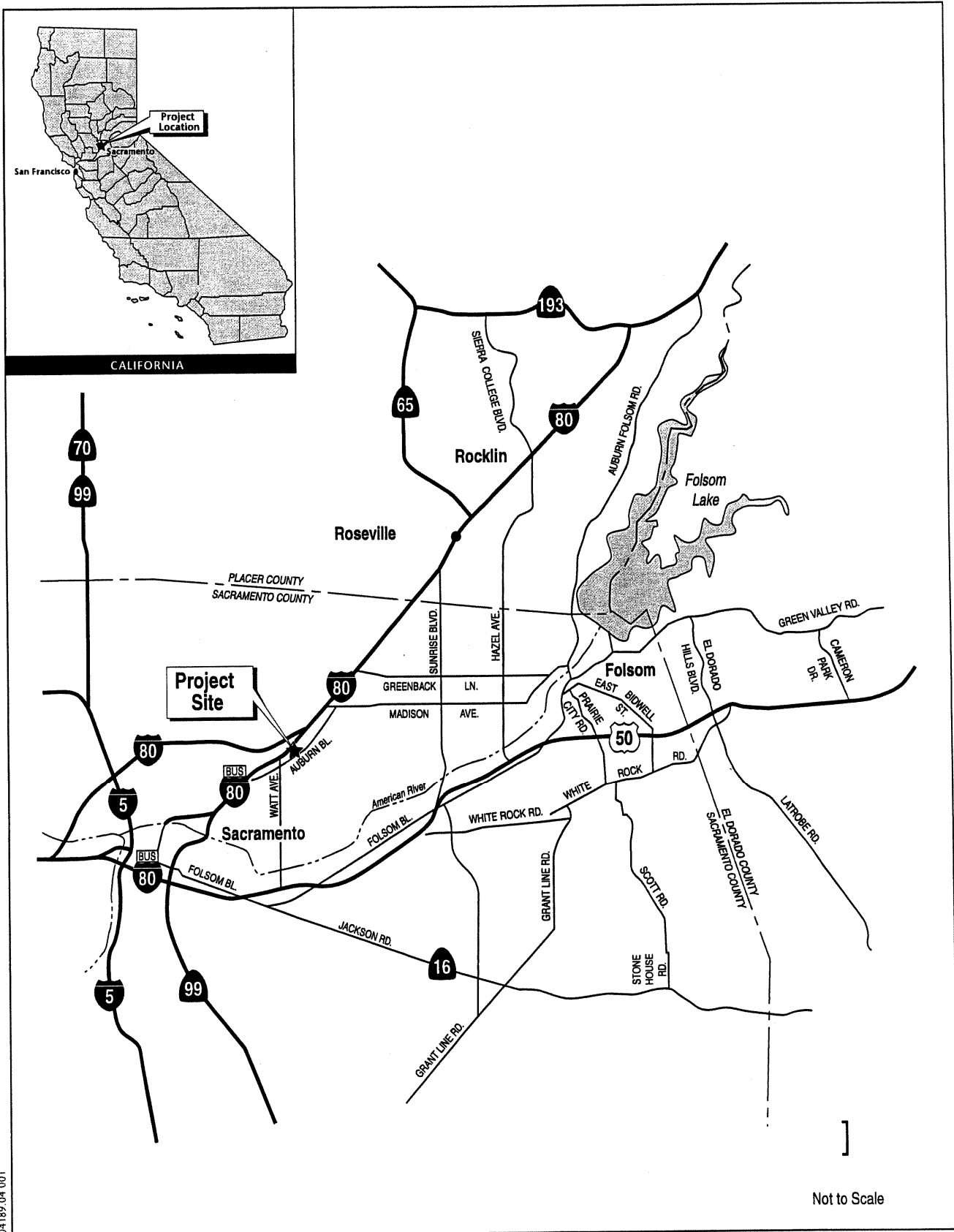
Del Paso Regional Park is located at 3565 Auburn Boulevard in the City of Sacramento in the northeast portion of both the city and Sacramento County. The park is located less than ½ mile east of Interstate 80 (Figure 1). Del Paso Regional Park encompasses 83 developed acres (680 total acres) and includes portions of Arcade Creek, picnic areas, walking and equestrian trails, play areas, golf course, a softball complex and restroom facilities. The park spreads east and west of Watt Avenue adjacent to Longview Drive, the Capital City freeway, Roseville Road, and Auburn Boulevard. Figure 2 shows the location of the Project Boundary, henceforth referred to as the nature area, within the Del Paso Regional Park Nature Area.

Project Background

The Arcade Creek basin has undergone a significant change in the past 60 years. Land previously developed for agriculture is now used for residential, commercial, and industrial uses. Stormwater runoff that previously infiltrated the ground or slowly traveled by surface flow to Arcade Creek now flows quickly into storm drains and into the creek channel. Drainage from the area south of Auburn Boulevard, between Watt and Norris Avenues, enters Arcade Creek via a culvert under Auburn Boulevard near Norris Avenue (Norris Tributary). Norris Tributary is approximately 900 feet long and 10 to 20 feet wide. Flows into Norris Tributary are comprised of return flows from garden and lawn watering, runoff from rainfall, leakage from water mains and sewers, and groundwater interception. Some water in the tributary and the creek is absorbed into the stream embankments and surrounding vegetation. Arcade Creek is fed by irrigation return and storm drainage flows and runs westerly until it joins with the Natomas East Main Drainage Canal (NEMDC)/Steelhead Creek. The area along this section of Arcade Creek is now subject to flash flood conditions because of channel incision and a loss of soil along the banks in the study area (Foothill Associates 2002).

In addition to flooding issues, water quality degradation occurs in the area. Water quality degradation results from a variety of urban runoff contaminants, including the improper use of household and garden chemicals, vehicle use, and unmanaged animal wastes. The degradation of water quality adversely affects aquatic life in the creek as well as wildlife in the surrounding area (Foothill Associates 2002). Other users of the creek are also affected, including local residents and anglers. In addition, Arcade Creek eventually flows to the Sacramento and American Rivers and can affect water quality in these water bodies.

Another environmental consequence of development has been the loss of wetlands. Wetlands help to detain storm peak flows and filter pollutants. They also provide habitat for waterfowl and many other species.



04189.04.001

Figure 1
Regional Location Map



Figure 2
Project Site

Existing Conditions

The topography of the project site is relatively level with a long gentle slope running north toward Arcade Creek. Norris Tributary runs southeast to northwest roughly through the center of Del Paso Regional Park. The stream channel and floodplain of Norris Tributary are a low-lying area where the drainage flows from a culvert under Auburn Boulevard and Norris Avenue to Arcade Creek. The open meadows to the west and east of Norris Tributary are mainly covered by annual grassland species. Large oaks and other riparian vegetation line the creek corridor. Most of the nature area portion of the park is in open, undeveloped space, although there are some picnic areas and trails along the interior.

The project drainage area is typified by suburban development, surrounded mainly by residential land uses with some pockets of intermixed commercial and industrial land uses. Higher density residential developments exist to the south and east with lower-density residential development immediately north of the project site. There are some commercial uses to the southwest.

Project Purpose

The Arcade Creek Feasibility Study (Foothill Associates 2002) and Phase I Watershed Plan (Foothill Associates 2003) identified construction of a flood detention basin and filtration wetland in Del Paso Regional Park as a high priority. Currently, Arcade Creek is impaired for copper, diazinon, and chlorpyrifos (Regional Water Quality Control Board [RWQCB] Clean Water Act [CWA] Section 303[d] list). In addition, drainage and flooding have become a problem in the Arcade Basin as land previously used for agriculture is developed for urban uses. Increased paving and construction of impervious surfaces have resulted in a reduction in filtration functions and wildlife habitat, flooding impacts downstream, and erosion of upland habitat.

In order to address this priority issue identified in the Arcade Creek Feasibility Study, the City of Sacramento proposes the Del Paso Regional Park Detention and Filtration Wetland Project. The objective of the project is to divert approximately half of the first-flush flow and subsequent storm events from Norris Tributary through a sedimentation basin and filtration wetland located to the east of the tributary. A sedimentation basin located on Norris Tributary, adjacent to Auburn Boulevard, will trap larger-sized sediment carried by storm events prior to entering the filtration wetland. The filtration wetland is designed to treat first-flush storm events and subsequent storm events during the rainy season. Based on a preliminary hydrology analysis in process by Northwest Hydraulics Consultants, the first-flush storm events are expected to be approximately 30 cubic feet per second (cfs). Of the 30 cfs entering Norris Tributary during the first-flush storm events, approximately 15 cfs will remain in Norris Tributary and 15 cfs will be diverted in the filtration wetland to improve water quality of the diverted flow. Subsequent storm events, up to 15 cfs, will also be diverted into the filtration wetland. Preliminary analysis also indicates that a minimum flow of at least approximately 0.2 cfs will remain in Norris Tributary during the dry season to maintain existing riparian vegetation. It is the City's goal with the proposed project to improve water quality in Arcade Creek, decrease the amount of flood flow through the Del Paso Regional Park, improve valley oak riparian woodland, and provide for environmental education and recreation.

Project Components

The preferred design concept is a combination of anticipated components. It is not known at this time specifically where these components will be placed in the nature area; however, the environmental analysis evaluates each possible component's environmental impact. The project may include the following:

- construction of a new filtration wetland to the east of Norris Tributary (1 to 3 acres);
- enhancement or expansion of the existing catchment pond immediately downstream of Norris Avenue to serve as a sedimentation basin;
- construction of a water control structure that diverts some flow from Norris Tributary into a buried culvert feature or swale that drains into the wetland and construction of a swale that diverts flow from the wetland back into Norris Tributary;
- construction of check-weir structures in Norris Tributary to reduce flow velocities, trap and store larger-sized sediment, and create a backwater effect to force water up on the tributary's floodplain;
- replacement of culverts associated with the existing trail crossings;
- valley oak riparian woodland and seasonal wetland habitat restoration; and
- creation of interpretive educational signage, including construction of a new wetland overlook and amphitheater.

Construction:

As part of construction of these elements, the following construction activities would be conducted.

Grading and Excavation

Grading of the site would occur mainly in the eastern grassland where a wetland will be created (east of Norris Tributary). There will also be grading at the existing catchment pond, and at the upstream and downstream ends of the wetland for culverts or swales to divert and then return flows to Norris Tributary.

Spoil material from project excavation will be used on site. A high-ground spoils storage area may be sited along the eastern edge of the new culvert or swale just north of the existing foot trail. Excess material may also be used to construct an outdoor amphitheater and wetland overlook adjacent to the northwestern edge of the wetland. No electricity is proposed for the amphitheater, which is expected to be used for education/interpretive activities. In addition, excess material may be used to construct berms or other structures along Auburn Boulevard to dampen noise from existing vehicle traffic and increase the recreational experience of users visiting the project site. No excess materials will be disposed of in an area identified by the Federal Emergency Management Agency (FEMA) as a 100-year floodplain.

Installation of Buried Culvert and Swale

A new buried culvert or swale will be installed to convey stormwater from the new sedimentation basin immediately downstream of Norris Avenue to the upstream end of the new filtration wetland. A new swale will be installed from the downstream end of the wetland back into Norris Tributary to return diverted flow. Installation of the buried culvert and swales will require grading and possibly the removal of valley oak trees along the alignment. Design and construction of

the buried culvert and swales will be conducted so as to minimize the impacts on resident oaks to the maximum extent possible.

Control Structures

A water control structure will be required to divert some flow from Norris Tributary into the wetland. The water control structure will be located off the new sedimentation basin or downstream of the sedimentation basin and will drain into a new buried culvert or swale for eventual travel to the wetland. In addition, check-weir structures may be placed in Norris Tributary to reduce flow velocities, trap and store larger-sized sediment, and create a backwater effect to force water up on the tributary's floodplain. The structures will be spaced so as to maximize energy dispersion to slow runoff and will most likely be constructed of rock material.

Replacement of Culverts

Several culverts exist throughout the project site. These are located at the origin of Norris Tributary, at the upstream pedestrian trail crossing, and farther north at the equestrian trail crossing near the confluence of Norris Tributary and Arcade Creek. As part of the project, these culverts will be cleaned to remove obstructions. In the event that the water passage through the existing culvert cannot be sufficiently improved after the removal of obstructions, the culverts will be replaced.

Habitat Restoration and Plantings

Valley oak riparian woodland will be restored at sites that are currently occupied by nonnative grassland after lowering the grade and establishing suitable hydrology for riparian species. Restoration will consist of planting valley oaks, either as acorns and/or seedlings, and other associated riparian species, adjacent to Norris Tributary, around the filtration wetland, and around the recreation components (e.g., amphitheater and overlook). Other native riparian vegetation will be planted around the new filtration wetland as part of the project design. The seasonal wetland will be created in the filtration wetland by establishing a lower grade and suitable hydrological and soil conditions for wetland plants, and by planting wetland plants in areas currently occupied by nonnative grasslands. Implementation of the project will result in the enhancement of the existing valley oak riparian woodland and creation of seasonal wetland habitat. Existing trees located in the project site will be undisturbed to the maximum extent possible. In the event that any heritage oak trees (as identified by City Code section 12.64.020) are removed for construction purposes, the City will replace them according to the procedures described later in this section under Environmental Commitments and in collaboration with local stakeholder groups and Tree Services.

Operation:

As part of the ongoing operation of these elements, the following activities would be implemented.

Monitoring and Maintenance

As part of the project, the City's Department of Utilities will create and implement a maintenance and operations plan. This plan will include specifications for monitoring water quality, the growth and build up of vegetation, and the accumulation of sediment in all the water features, including the filtration wetland. In the event that an undesired amount of vegetation or sediment accumulates in the sedimentation basin or the filtration wetland, the City will remove the material and dispose of it according to applicable regulations.

Interpretive Activities

As part of the project, the City will also create an interpretive educational and passive recreational area. This will include the placement of signage around the filtration wetland. This signage will outline the hydrologic processes occurring at the site and describe the beneficial uses of the wetland for habitat and water quality improvement. An overlook is also planned at the upstream end of the filtration wetland to enhance wildlife viewing in the area.

Environmental Commitments

As part of the project, the City has made the following environmental commitments that would be part of the project implementation:

1. To minimize impacts on water quality and erosion, the construction contractor shall:
 - a. employ erosion control best management practices (BMPs) before, during, and after construction. As a performance standard, these BMPs will represent the best available technology that is economically achievable, and shall be designed to achieve maximum sediment control. The specific BMP will be selected after project design is complete.
 - b. comply with the City of Sacramento Code 15.88.250 requiring preparation of an Erosion Sediment and Pollution Control Plan (ESC). This ordinance will require project applicants to prepare erosion, sediment, and pollution control plans for both during and after construction of a proposed project, as well as preliminary and final grading plans.
 - c. prepare a Storm Water Pollution Prevention Plan (SWPPP) to comply with the RWQCB's National Pollutant Discharge Elimination System (NPDES) General Permit, which will also require implementation of approved BMPs to limit the effect of project construction on stormwater quality. This may be integrated with the ESC to the extent practicable.
2. To minimize impacts from the handling and use of potentially hazardous materials, the contractor shall follow all necessary precautions according to the California Health and Safety Codes to prevent any spill of a toxic or hazardous substance. These precautions include preparation of a spill prevention plan to maintain safety of the drainage waterways. In addition, the City may request that the contractor be made available, through contract change order, to provide additional services as needed for the completion of the work. Additional services may consist of retaining subcontractors who possess a California license for hazardous substance removal and remedial actions.

Hazardous or contaminated materials may be removed and disposed of from the project site only in accordance with the following provisions:

- a. All work is to be completed in accordance with the following regulations and requirements:
 - i. Chapter 6.5, Division 20, California Health and Safety Code;
 - ii. California Administration Code, Title 22, relating to Handling, Storage, and Treatment of Hazardous Materials; and
 - iii. City of Sacramento Building Code and the Uniform Building Code, 1997 edition.

- b. Coordination shall be made with the County of Sacramento Environmental Management Department, Hazardous Materials Division, and the necessary applications shall be filed.
- c. Any hazardous materials shall be disposed of at an approved disposal site and shall be hauled only by a current California registered hazardous waste hauler using correct manifesting procedures and vehicles displaying a current Certificate of Compliance. The contractor shall identify by name and address the toxic substances disposal site. No payment for removal and disposal services shall be made without a valid certificate from the approved disposal site that the material was delivered.

None of the aforementioned provisions shall be construed to relieve the contractor from his responsibility for the health and safety of all persons (including employees) and from the protection of property during the performance of the work. This requirement shall be applied continuously and not be limited to normal working hours.

3. To minimize the impacts on energy facilities and hazardous materials, the City will follow both the Caltrans Standard Specifications and the City's adopted manual, Standard Specifications for Public Works Construction (1989). These measures include:

Protection of Existing Improvements

Existing improvements, utility, and adjacent property shall be protected from damage resulting from the contractor's operations. The contractor shall protect all trees, shrubs, fences, walls, underground utilities, and other improvements not to be removed under this contract throughout the construction period.

Excavating and Backfilling

The excavations required for the installation of conduit, foundations, and other appurtenances shall be performed in such a manner as to cause the least possible injury to the streets, sidewalks, and other improvements. All improvements disturbed in excavating shall be replaced or reconstructed with the same kind of material found on the work or with materials of equal quality. The trenches shall not be excavated wider than necessary for the proper installation of the electrical appurtenances and foundations. Excavating shall not be performed until immediately before installation of conduit and other appliances.

4. To minimize the potential impacts on public health, the City will work with the Sacramento-Yolo County Mosquito and Vector Control District to monitor for possible disease vectors and implement the required protection measures as specified by the District. The Vector Control District will also provide input during the design phase of the project.
5. To minimize potential air quality impacts associated with NO_x emission, the City shall:
 - a. provide a plan for approval by the City of Sacramento and the Sacramento Metropolitan Air Quality Management District (SMAQMD). This plan will:
 - i. demonstrate that the heavy-duty (>50 horsepower) 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

reduction¹ compared to the most recent California Air Resources Board (CARB) fleet average at time of construction.

- ii. include a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will 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 or fuel throughput for each piece of equipment and shall be updated and submitted monthly to the City of Sacramento and SMAQMD 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.
- b. provide SMAQMD with the anticipated construction timeline including start date and name and phone number of the project manager and on-site foreman, at least 48 hours prior to the use of subject heavy-duty off-road equipment.
- c. ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) shall be repaired immediately, City of Sacramento and SMAQMD shall be notified within 48 hours of identification of noncompliant equipment.
- d. conduct a visual survey of all in-operation equipment at least weekly and provide a summary of the visual survey results monthly to SMAQMD. The summary shall 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.

The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD or state rules or regulations.

6. To minimize the impacts on noise, the City shall limit construction activities to the hours between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays
7. To reduce the risk of fire, the contractor shall take necessary precautions to ensure that a clear space of at least 3.1 m (10 feet) shall be maintained between piles of cleared vegetation during removal activities.
8. To minimize impacts on cultural resources, the City shall require that a qualified archaeologist monitor all ground-disturbing activities at a depth greater than 130 cm (51 in) below the present ground surface in areas mapped as Reiff fine sandy loam, 0–2% slopes, occasionally flooded (Tugel 1993: Sheet 3) (The description of Reiff fine sandy loam states that this soil unit contains a buried surface layer, or A horizon, of dark brown loam at a depth

¹ 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.

ranging from 130 cm (51 inches) to 163 cm (64 inches) (Tugel 1993:91)). The City shall require a minimum of 48 hours' notice provided to the archaeologist prior to construction below 130 cm. In addition, the City will coordinate prior to and during the monitoring period with the local Native American community. The archaeologist shall be authorized to direct the pace of construction and halt construction as required to examine excavated trenches and spoils for the presence of archaeological materials. In the event that archaeological materials are identified during construction monitoring, the archaeologist shall halt construction within 31 m (100 ft) and determine whether the materials represent an intact archaeological deposit. If the archaeological deposit appears to be intact, the archaeologist shall devise a work plan to evaluate the significance of the resource and recover materials in danger of destruction, in consultation with the City.

9. If buried cultural resources, such as chipped or ground stone, historic debris, or building foundations, are discovered during ground-disturbing activities, work shall stop in that area and within 31 m (100 ft) of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City. If human burials are encountered, all work in the area shall stop immediately and the Sacramento County Coroner's office shall be notified immediately. If the remains are determined to be Native American in origin, both the Native American Heritage Commission and any identified descendants will be notified and recommendations for treatment solicited (14 CCR 15064.5; California Health and Safety Code 7050.5; PRC 5097.94 and 5097.98).
10. To minimize the impacts on migratory birds and raptors:
 - a. a preconstruction survey for nesting raptors shall be conducted by a qualified biologist within 30 days prior to the onset of construction to determine the activity status of any nests found on the project site. In the event that nesting raptors are found, a 250-foot no-construction zone shall be established around the nest until the young have fledged or U.S. Fish and Wildlife Service (USFWS) determines that the nest has failed. If active nests are present, the City shall consult with California Department of Fish and Game (DFG) and/or USFWS to determine the measures necessary to mitigate or avoid impacts on the species. Any required permits or approvals shall be obtained from DFG and/or USFWS prior to disturbance of the nest site.
 - b. no construction activities that may cause nest abandonment or forced fledging of Swainson's Hawk, White-Tailed Kite, or Cooper's Hawk will be initiated within 0.4 km (0.3 mile) of an active nest between March 1 and August 15.
11. To minimize the impacts on riparian habitat, the City and/or the contractor shall:
 - a. prohibit any storage, parking, or construction staging within 50 feet of oak trees and riparian vegetation to be avoided as part of the project.
 - b. ensure that the unnecessary removal or disturbance of oak trees and riparian vegetation adjacent to the project site is avoided by installing orange construction barrier fencing between the construction site and the vegetation to be protected. The protected areas will be designated as an *Environmentally Sensitive Area*. The fencing will be installed by the contractor prior to the initiation of construction activities and will be maintained by the

contractor throughout the construction period. The following paragraphs will be provided in the construction notes for Environmentally Sensitive Areas:

- i. The contractor's attention is directed to the areas designated as Environmentally Sensitive Areas. These areas are protected, and no entry by the contractor for any purpose will be allowed unless specifically authorized in writing by the City. The contractor shall take measures to ensure that contractor's forces do not enter or disturb these areas, including giving written notice to his/her employees and subcontractors.
 - ii. The contractor shall install temporary fences around Environmentally Sensitive Areas at the first order of work. Temporary fences shall be furnished and constructed, maintained, and later removed as shown on the plans, as specified in the special provisions, and as directed by the project engineer. Fabric for temporary fences shall be commercial-quality polypropylene, orange in color, a minimum of 48 inches high, and approved by the City for the purpose of temporary fencing.
12. The contractor will avoid long-term impacts on oak trees and riparian vegetation by hiring a certified arborist to trim trees and shrubs rather than remove the entire woody species. Where possible, shrubs and trees should be cut at least 1 foot above the ground level to leave the root systems intact and allow more rapid regeneration following construction. In the event that any heritage oaks will be affected by construction activities, the City shall adhere to City Code section 12.64.040, which states that without the express written permission of the director of Tree Services, no person shall:
- a. change the amount of irrigation provided to any heritage tree from that which was provided prior to the commencement of construction activity;
 - b. trench, grade, or pave into the drip line area of a heritage tree;
 - c. change, by more than 2 feet, grade elevations within thirty (30) feet of the drip line area of a heritage tree;
 - d. park or operate any motor vehicle within the drip line area of any heritage tree;
 - e. place or store any equipment or construction materials within the drip line area of any heritage tree;
 - f. attach any signs, ropes, cables, or any other items to any heritage tree;
 - g. cut or trim any branch of a heritage tree for temporary construction purposes;
 - h. place or allow to flow into or over the drip line area of any heritage tree any oil, fuel, concrete mix, or other deleterious substance.

Where written permission of the director is sought under this section, the director may grant such permission with such reasonable conditions as may be necessary to effectuate the intent and purpose of this section. (Prior code § 45.04.216)

13. To reduce the impacts on water resources at the project site, the City and/or contractor shall:
- a. limit in-channel construction activities to the summer low-precipitation period (May 15 to October 1). By restricting the construction period to low-precipitation months, the risk of bank erosion is also decreased. All falsework activities and all work affecting the flowing water will occur between these dates. No work will be allowed before or after these

- dates. If permit conditions from the Corps, DFG, or Central Valley RWQCB have date restrictions different from these, the most stringent shall apply.
- b. hydroseed or plant grass plugs on erodible disturbed slopes with an appropriate native species. If hydroseeding is used, a jute mesh-type or equivalent matting will be placed over the hydroseeding, installed according to the manufacturer's instructions. This matting will have either no plastic incorporated into it or, if the matting does have plastic in it, the plastic will be a photodegradable type that breaks down in 1 to 2 years. In no case will the entire mat be constructed of plastic. Substitution of materials or erosion control methods will require prior written approval from DFG.
 - c. minimize water contact with wet concrete. Water that comes in contact with wet concrete and has a pH greater than 9.0 must be pumped to a separate plastic-lined basin outside the riparian corridor, then pumped to a truck or upland for disposal or treatment (not within the banks of any waterway). Alternatively, the material may be pumped directly to a truck for disposal.
 - d. meet the Central Valley RWQCB water quality objective by ensuring that increases in turbidity downstream of the construction site will not exceed 20% of natural turbidity levels. Turbidity levels will be measured by the contractor daily during construction. If the increases exceed 20% at any time during construction, mitigation measures will be implemented immediately to reduce and maintain the increase at or below 20%. This level will be maintained by such actions as
 - i. minimizing disturbance of soils,
 - ii. constructing a silt barrier immediately downstream of the construction site, and
 - iii. reducing the rate of construction activities.
 - e. The possible placement of fill material into waters of the United States (Arcade Creek and Norris Tributary will be compensated for at a minimum 2:1 ratio (2 acres replaced for every 1 acre affected). The project is estimated to result in the fill of 0.008 hectare (0.019 acre). Compensation ratios shall be based on site-specific information and determined through coordination with state and federal agencies as part of the permitting process. The compensation will occur on site as part of the construction of the filtration wetland and inlet or outlet swales.
14. The contractor will be responsible for avoiding the introduction of new noxious weeds and the spread of weeds previously documented at the project site. Accordingly, the following measures will be implemented during construction:
- a. Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weed infestations.
 - b. Seed all disturbed areas with certified weed-free native and nonnative mixes. Mulch with certified weed-free mulch; rice straw may be used to mulch upland areas.

- c. Use native, noninvasive species or nonpersistent hybrids in erosion control plantings to stabilize site conditions and prevent colonization by invasive species.
15. To minimize the impact on traffic and circulation and public safety, the City shall design and implement a traffic control plan, as per the requirements of the Standard Specifications for Public Works Construction Section 6(6). The traffic control plan will be prepared to reduce the effects of the construction on the roadway system throughout the construction period. Elements will include, but not be limited to, the following requirements:
- a. Detour signs and barricades will be positioned at certain locations throughout the construction zone to direct traffic in the event that a portion of Auburn Boulevard is occupied by construction equipment for an extended period of time.
 - b. Travel to and from, and access to, the project site by contractors and personnel associated with construction will be limited to Auburn Boulevard. Operation of construction equipment and vehicles will be limited to the immediate vicinity of the project site. Storage of construction equipment and vehicles will remain within the staging area of the project.
 - c. Prior to construction, the contractor will notify emergency service providers (e.g., police and fire departments) of potential limited access.

To minimize inconvenience of construction vehicles in the residential areas, construction vehicles will be limited to the major arterial streets and remain within the staging area of the project.

Permits/Approvals

The following permits and project approvals are anticipated to apply to the project:

- CWA Section 404 nationwide permit (Nationwide Permit 23: Categorically Excluded Projects) from the Corps
- CWA Section 401 water quality certification from the Central Valley RWQCB (all Section 404 permits require a Section 401 water quality certification from RWQCB)
- SWPPP to comply with the RWQCB's National Pollutant Discharge Elimination System (NPDES) General Permit
- Section 1601 Streambed Alteration Agreement from DFG
- Heritage tree removal permit from the City
- Approval by FHWA Division Administrator for Section 4(f) (USDOT Act of 1966) evaluation requirements
- Local permits (e.g., ESC)

SECTION III—ENVIRONMENTAL CHECKLIST AND DISCUSSION

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
1. LAND USE			
<i>Would the proposal:</i>			
A) Result in a substantial alteration of the present or planned use of an area?			✓
B) Affect agricultural resources or operation (e.g., impacts on soils or farmlands, or impact from incompatible land uses?)			✓

Environmental Setting

Del Paso Regional Park is located within the Arden-Arcade Community Plan area of the City of Sacramento. The park is designated as a regional park (zoned Parks-Recreation-Open Space) and is also located within and adjacent to City of Sacramento and Sacramento County public road rights-of-way. The nature area portion of the park is bounded to the north and east by Park Road, to the south by Auburn Boulevard, and to the west by Bridge Road. Land use in the vicinity of the park consists of low-density residential (zoned Standard Single-Family [R-1]), which is mainly unincorporated land under the jurisdiction of Sacramento County. Arcade Creek (creek) flows northeast to southwest through the northern edge of the project site and is confined by banks on the north and south. Del Paso Regional Park is included in the City's Parks and Recreation Master Plan.

Standards of Significance

For the purposes of this analysis, an impact is considered significant if the project would substantially alter an approved land use plan that would result in a physical change to the environment or affect agricultural resources. Impacts on the physical environment resulting from the project are discussed in subsequent sections of this document.

Answers to Checklist Questions

Question A

The project is intended to support and enhance the recreational land uses of the park. Therefore, continued use of the facilities as a result of the project would be consistent with the City's General Plan, Community Plan, Parks and Recreation Master Plan, and zoning. This impact is considered to be less than significant on land uses.

Question B

While portions of Del Paso Regional Park were historically used for agriculture, no active agricultural operations are located within or adjacent to the project site. Therefore, the project would not affect agricultural operations. This impact would be less than significant.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impacts on land uses.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
2. POPULATION AND HOUSING			
<i>Would the proposal:</i>			
A) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?			✓
B) Displace existing housing, especially affordable housing?			✓

Environmental Setting

The project site is located on land that is designated in the General Plan as Parks-Recreation-Open Space and does not contain any housing. The area surrounding the site is fully developed with homes and recreation facilities. Although there are homes near the site, no homes are planned for the project site.

Standards of Significance

For the purposes of this analysis, an impact is considered significant if the project would induce substantial growth that is inconsistent with the approved land use plan for the area or displace existing affordable housing.

Answers to Checklist Questions

Questions A and B

The project is consistent with the General Plan and Community Plan land use designations for the site. Implementation of the project involves the enhancement of an existing recreational facility's wetland and floodplain features for drainage and water quality improvement and will not affect housing or result in the displacement of any existing housing. The surrounding community is already developed and well established. In addition, the project will be used to benefit existing development by reducing flooding potential in the area and filtering suburban runoff to benefit the recreational and environmental uses of the watershed. Therefore, the activities will neither encourage population growth nor result in the displacement of existing housing at the project site. These impacts are less than significant.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impacts on population and housing.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
3. SEISMICITY, SOILS, AND GEOLOGY			
Would the proposal result in or expose people to potential impacts involving:			
A) Seismic hazards?			✓
B) Erosion, changes in topography, or unstable soil conditions?			✓
C) Subsidence of land (groundwater pumping or dewatering)?			✓
D) Unique geologic or physical features?			✓

Environmental Setting

Regional Geography

The project site is located in the Sacramento Valley, which is part of the larger Great Central Valley. The Great Central Valley is a deep trough that extends 400 miles from the Klamath Mountains in the north to the Tehachapi Mountains in the south. The Sacramento Valley is drained by the Sacramento River and its tributaries, which flow south and west toward San Francisco Bay (City of Sacramento 1988). Published geologic literature indicates that the project area is underlain by Holocene-age alluvial deposits consisting of relatively unconsolidated silt, sand, and gravel. The sediments consist of medium dense to dense arkosic silts, sands, and gravels of the Pleistocene-age Turlock Lake Formation (España Geotechnical Consulting 2002). The site does not contain unique geologic or physical features.

Topography and Soils

The terrain in the project vicinity is characterized by flat areas and gently rolling hills. The elevation of the project site is generally level except for the Arcade Creek channel. The project site has an elevation of about 18 m (60 feet) above sea level. The height of the creek embankments from the base of the creek is approximately 3 m (10 feet). The existing creek embankment slopes vary in grade, from approximately 1:1 to 2:1 (horizontal to vertical) and are exposed without stabilizers. Arcade Creek water surface elevations based on a 100-year storm frequency are between 19.1 and 20 m (62.7 and 65.2 feet). Surface soil conditions consist of loose silty sand. The soils underlying the site have a low susceptibility to liquefaction and dynamic settlement.

Norris Tributary runs in a generally straight path between Auburn Boulevard and Arcade Creek. Based on the watershed topography, the historic channel was probably smaller than the existing channel. The existing alignment, cross-section geometry, and land use history suggest the channel was modified by human activity to convey more flow in the channel and reduce flooding on the historical floodplains. The channel has no significant erosion between Auburn Boulevard and the equestrian trail. Downstream of the equestrian trail, recent bed and bank erosion of the channel is visible at multiple locations.

Seismicity

No geologic features such as faults or Alquist-Priolo Earthquake Fault Zoning Act special studies zones are known to occur in or near the project site. The site is located approximately 22.5 km (14 miles) west of the Prairie Creek-Spenceville-Deadman branch of the Foothills Fault System (España 2002). According to the California Division of Mines and Geology, the site is within a Low Severity Zone, which is subject to potential damage from earthquake groundshaking at a maximum intensity of VIII of the Modified Mercalli Scale. An earthquake of intensity VIII could cause alarm, and structural damage would be moderate depending on structural design. The risk of seismically induced slope failure appears to be low.

Standards of Significance

For the purposes of this analysis, an impact is considered significant if construction of the project will expose people or structures to geologic or seismic hazards without protection against those hazards.

Answers to Checklist Questions

Question A

The project would not result in the exposure of people or structures to risks associated with rupture of a known fault, strong seismic groundshaking, liquefaction, or landslides because the risk of these occurrences in the project area is low. Therefore, this impact would be less than significant.

Question B

Construction activities could result in a short-term increased potential for erosion. Because the project site is larger than 1 acre, the City will be required to complete a SWPPP as part of the NPDES General Permit. This SWPPP will meet the RWQCB requirements and provide guidelines for implementing BMPs to minimize the potential for erosion to a less-than-significant level.

Soil erosion during project operation will be minimized by implementation of the project as a result of the construction of sediment control features throughout the floodplain. A sedimentation basin will be constructed where Norris Tributary emerges from under Auburn Road to trap and store larger-sized sediment before it enters the wetland and Norris Tributary. Construction of check-weir structures in Norris Tributary will also help to slow the flow of water to Arcade Creek and allow more time for sediment to settle before entering Arcade Creek during periods of storm peak overflow. Therefore, this impact would be less than significant.

Question C

The potential for landslides, subsidence, or the possibility of other geological hazards is relatively low because of the flat topography and nature of the soils of the project site. No known unstable soils exist on the project site. This impact would be less than significant.

Question D

No unique geologic features or physical structures exist on the project site. Arcade Creek is not considered a unique feature because it most likely achieved its present course between 1908 and 1935 as a result of adjacent agricultural uses. Norris Tributary developed as a result of human activity. This is a less-than-significant impact.

Mitigation Measures

No mitigation is required.

Findings

Implementation of the BMPs described as Environmental Commitments in Section 2, as well as the incorporation of specific erosion control design features, would result in less-than-significant impacts with respect to geologic or seismic hazards.

DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT (CIP# LV96)
INITIAL STUDY/NEGATIVE DECLARATION

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
4. WATER Would the proposal result in or expose people to potential impacts involving:			
A) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?			✓
B) Exposure of people or property to water-related hazards such as flooding?			✓
C) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen, or turbidity)?			✓
D) Changes in currents, or the course or direction of water movements?			✓
E) Change in the quantity of groundwaters, either through direct additions or withdrawal, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?			✓
F) Altered direction or rate of flow of groundwater?			✓
G) Impacts on groundwater quality?			✓

Environmental Setting

Surface Water/Groundwater. The project is located in and adjacent to Norris Tributary, a tributary to Arcade Creek. Flows into Norris Tributary are comprised of return flows from garden and lawn watering, runoff from rainfall, leakage from water mains and sewers, and groundwater interception. Arcade Creek is fed by irrigation return and storm drainage flows and runs westerly until it joins with the Natomas East Main Drainage Canal (NEMDC)/Steelhead Creek. Some water in the tributary and the creek is absorbed into the stream embankments and surrounding vegetation. Annual precipitation in the project vicinity is approximately 43.2 cm (17.0 inches) (U.S. Soil Conservation Service 1993, WRCC 2004).

The City of Sacramento has obtained a municipal stormwater NPDES permit from the State Water Resources Control Board (SWRCB) under the requirements of the Environmental Protection Agency and Section 402 of the CWA. The goal of the permit is to reduce pollutants found in urban storm runoff. The general permit requires the permittee to employ BMPs before, during, and after construction. The primary objective of the BMPs is to reduce non-point source pollution into waterways. These practices include structural and source control measures for residential and commercial areas, and BMPs for construction sites. BMP mechanisms minimize erosion and sedimentation and prevent pollutants such as oil and grease from entering the stormwater drains. BMPs are approved by the Department of Utilities prior to construction (the BMP document is available from the Department of Utilities, Flood Control and Sewers Division, 1395 35th Avenue, Sacramento, CA). Components of BMPs include:

- maintenance of structures and roads;
- flood control management;
- comprehensive development plans;
- grading, erosion, and sediment control ordinances;
- inspection and enforcement procedures;
- educational programs for toxic material management;
- reduction of pesticide use; and
- site-specific structural and nonstructural control measures.

Flooding. The Arcade Creek system provides flood protection to areas of North Sacramento east of Steelhead Creek (City of Sacramento 1996). FEMA publishes Flood Insurance Rate Maps (FIRMs) that delineate flood hazard zones for communities. The 1998 FEMA map designates Norris Tributary as Zone X. Areas designated as Zone X do not have clearly identified floodplains and may include areas within or outside of a 100-year or a 500-year floodplain. Near the project site, Arcade Creek has been designated as Zone AE, which means base flood elevations have been determined. Downstream of the project site, 100-year stormwater surface elevations (WSEL) in Arcade Creek have ranged from 19.1 m to 20.1 m (Nolte Associates 2002).

Permits

The following permits and approvals are necessary prior to commencement of construction activities:

Preconstruction Notification and Nationwide Permit 23

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged and fill material into "waters of the United States" under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act of 1899 through the issuance of permits. A nationwide permit is a form of general permit that authorizes a category of activities throughout the nation. These permits are valid only if the conditions applicable to the permits are met. If the conditions cannot be met, a regional or individual permit would be required. The Corps jurisdiction over non-tidal waters of

the United States extends to the "ordinary high water mark provided the jurisdiction is not extended by the presence of wetlands" (33 CFR Part 328 Section 328.4).

Section 401 Water Quality Certification

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters, shall provide a certification from the state in which the discharge originates, that any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

Certification provided by the Central Valley RWQCB under this section shall set forth limitations and monitoring requirements necessary to ensure that the City will comply with any applicable limitations under section 301 or 302 of this act, standard of performance under section 306 of this act, or prohibition, effluent standard, or pretreatment standard under section 307 of this act, and with any other appropriate requirement of state law identified in the certification. Compliance with the requirements identified by the RWQCB in certification of water quality will ensure that the project will be designed and implemented in a manner that is least likely to result in discharge into surface waters or other alteration of surface water quality.

Section 1601 Streambed Alteration Agreement

Under Section 1601 of the California Fish and Game Code, the City of Sacramento must notify DFG if it proposes to (1) divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by DFG in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit, (2) use materials from the streambeds designated by DFG, or (3) dispose of or deposit debris, waste, or other materials containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake so designated.

If DFG determines that the project could result in substantial adverse effects on an existing fish or wildlife resource, it will inform the City that a Streambed Alteration Agreement is required. DFG will propose measures necessary to protect the affected fish or wildlife through a draft streambed alteration agreement. If appropriate mitigation has already been developed through the Section 404, NEPA, and CEQA processes, DFG may not require additional mitigation as part of the Streambed Alteration Agreement.

Streambed Alteration Agreements are issued by the DFG Regional Offices and are intended to minimize water quality impacts, protect fish and wildlife habitat, and ensure best operating practices, such as erosion control and revegetation. Compliance with Section 1601 of the California Fish and Game Code will ensure that the project will be designed and implemented in a manner that will minimize water quality impacts.

Standards of Significance

Surface/Groundwater. For purposes of this analysis, an impact is considered significant if the project would substantially degrade water quality and violate any water quality objectives set by the SWRCB, as a result of increased sediments and other contaminants generated by construction and/or operation activities.

Flooding. An impact is considered significant if the project would substantially increase exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

Answers to Checklist Questions

Question A

The project involves the creation of a seasonal wetland that acts as natural filtration for water quality improvement, expansion of an existing catchment pond into a sedimentation basin to trap large sediment before it enters the wetland feature, construction of a water control structure and check-weir structures in Norris Tributary, construction of buried culverts and swales to connect the upstream and downstream ends of the wetland to Norris Tributary, and oak woodland riparian habitat restoration. Modification of the sedimentation basin, construction of the wetland, and construction of check-weir structures will change the land surface and therefore may change the drainage patterns of areas within or adjacent to the project site. Potential drainage pattern changes would be slight and would not cause substantial drainage pattern changes in Arcade Creek or increase surface runoff. The project would divert high flows through the catchment pond and the wetland and therefore would be expected to increase the absorption of surface runoff by potentially capturing more runoff during storm events. No impermeable surfaces would be created as a result of this project. Therefore, impact on absorption, drainage and runoff would be less than significant.

Question B

A specific floodplain designation has not been given to the project site. Thus, it is unknown if the project site is subject to 100-year or 500-year flood events. The proposed wetland and sedimentation basin will be designed to reduce and slow some stormwater flows in Norris Tributary.

The project will alter the direction of water flows by diverting some flows. However, the project will not contribute additional water to the volume of Arcade Creek. By slowing flows and allowing greater surface water absorption, the project will not result in an increase of water levels and will likely decrease water levels during peak flows. Therefore, the project will have a less-than-significant impact on the exposure of people or property to water-related hazards such as flooding.

Question C

Construction-related activities have the potential to affect water quality. Construction activities would involve grading and excavating to create the new wetland; installing buried culverts and swales; constructing the water control and check-weir structures; the potentially replacing culverts; and restoring habitat and plantings. These activities could cause the release of sediments or materials into the waterways. A notice of intent to comply with NPDES Construction Activities Storm Water General Permit Order No. 99-08-DWQ from the SWRCB will be required, and will include the City's commitment to implement BMPs to reduce erosion.

The degree of construction-related impacts on water quality is partially determined by the duration of the various construction activities and rainfall distribution. Scheduling construction

activities during the low-rainfall season (i.e., summer) will decrease the project's potential to generate sediments and other pollutant levels that may degrade water quality. This impact on water quality is considered potentially significant. With incorporation of the environmental commitments identified in the project description (Section II), the potential for the project to result in impacts involving discharge into surface waters or other alteration of surface water quality would be reduced to a less-than-significant level.

Operation-related impacts of the wetland and sedimentation basin would be beneficial. The project would improve the water quality of Norris Tributary and potentially Arcade Creek by increasing retention time and consequently, the removal of sediments and pollutants from the water. The impact on surface water quality would be less than significant.

Question D

The project will include modifications to the site involving the redirection of water flows. By diverting the water flows through the sedimentation basin and wetland, the currents in Norris Tributary and Arcade Creek will likely change during high flows. Changes in currents could result in changes to erosion or sedimentation rates, and to the risk of flooding. However, the project will be designed to minimize any negative impacts from potential current changes. The general course and direction of water movements would not change as flows would be directed to the tributary and ultimately Arcade Creek. Potential impacts on changes in water currents or the course or direction of water movement are less than significant.

Temporary dewatering would be necessary for some aspects of construction within Norris Tributary. Compliance with the dewatering provisions of the NPDES General Construction Permit as outlined in the Environmental Commitments would ensure that this impact would be less than significant.

Questions E, F, and G

The groundwater quantity near the project site may increase as stormwater flows are slowed and groundwater recharge is potentially enhanced in the wetland or sedimentation basin. Implementation of the project would not cause the groundwater quantity to be altered through direct additions or withdrawal, or through interception of an aquifer by cuts or excavations. The construction activities would not be expected to substantially alter the direction or rate of flow of groundwater or to degrade groundwater quality. During the project's operation, contaminants could accumulate in the wetland soils or vegetation as pollutants and sediments settle from the water column as the flows decrease. These contaminants could potentially infiltrate the groundwater basin. However, because groundwater levels at the project site are at least 60 feet below the land surface (DWR 2004), the risk of groundwater contamination is minimal. Therefore, impacts on the quantity, flow, or quality of groundwater would be less than significant.

Mitigation Measures

No mitigation is required.

Findings

With implementation of the BMPs described as Environmental Commitments in the Project Description (Section II), impacts on drainage, surface water, groundwater, and water quality are less than significant.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
5. AIR QUALITY.			
<i>Would the proposal:</i>			
A) Violate any air quality standard or contribute to an existing or projected air quality violation?			✓
B) Expose sensitive receptors to pollutants?			✓
C) Alter air movement, moisture, or temperature, or cause any change in climate?			✓
D) Create objectionable odors?			✓

Environmental Setting

Regional Climate and Atmospheric Conditions

The prevailing winds through the City of Sacramento are from the south and west, primarily because of marine breezes through the Carquinez Strait, located about 50 miles to the southeast. During the winter, sea breezes diminish and winds from the north occur more frequently. The project vicinity has episodes of poor atmospheric mixing caused by inversion layers. Inversion layers form when temperature increases with elevation or when a mass of warm, dry air settles over a mass of cooler air near the ground. Surface inversions (0-500 feet) are most frequent in winter, and subsidence inversions (1,000-2,000 feet) are most frequent in summer. Inversion layers limit vertical mixing in the atmosphere, trapping pollutants near the surface.

Air Pollutants and Ambient Air Quality Standards

Both the State of California and the federal government have established ambient air quality standards for several different pollutants. For some pollutants, separate standards have been set for different periods of the year. Most standards have been set to protect public health,

although some standards have been based on other values, such as protection of crops, protection of materials, or avoidance of nuisance conditions. The pollutants of greatest concern in the project area are carbon monoxide (CO), ozone, and inhalable particulate matter smaller than or equal to 10 microns in diameter (PM-10). Table AIR-1 summarizes these standards.

Existing Air Quality Conditions

Air quality data for 2001–2003 from the nearest monitoring stations in the vicinity of the project site are summarized in Table AIR-2. The nearest monitoring stations are Sacramento Del Paso Manor and El Camino stations. Data from 2003 are the most recently available. Because some monitoring stations do not monitor all pollutants, monitoring stations were chosen for each pollutant that would best represent conditions at the project site. The data show that state and federal CO levels have not exceeded state and federal standards the last 3 years for which monitoring data are available. The state ozone standard has been exceeded several times each year, while the federal standard has been occasionally—one to two times each year. The state 24-hour PM-10 standard has been exceeded several times each year, and the federal has not. The federal 24-hour particulate matter smaller than or equal to 2.5 microns in diameter (PM2.5) standard has been exceeded between zero and three times each year.

Regulatory Setting

Air quality management responsibilities exist at local, state, and federal levels of government. Air quality management planning programs were developed during the past decade generally in response to requirements established by the federal Clean Air Act (CAA). The enactment of the California Clean Air Act of 1988 (CCAA) produced additional changes in the structure and administration of air quality management programs in California.

Air Quality Management at the Federal Level

The CAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The Environmental Protection Agency (EPA) is responsible for implementing most aspects of CAA. CAA requires that EPA establish National Ambient Air Quality Standards (NAAQS) and reassess, at least every 5 years, whether adopted standards are adequate to protect public health based on current scientific evidence.

Air Quality Management at the State Level

The CCAA substantially added to the authority and responsibilities of the state's air pollution control districts. The CCAA established an air quality management process that generally parallels the federal process. The CCAA process, however, focuses on attainment of the state ambient air quality standards that, for certain pollutants and averaging periods, are more stringent than the comparable federal standards.

The CCAA requires that an air district prepare an air quality attainment plan if the district violates state air quality standards for CO, SO₂, NO_x, or ozone. No locally prepared attainment plans are required for areas that violate the state PM10 standards. The CCAA requires that the state air quality standards be met as expeditiously as practicable, but it does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards. The least stringent requirements are set for

Table AIR-1. Ambient Air Quality Standards Applicable in California

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
Ozone	O ₃	1 hour	0.09	0.12	180	235	If exceeded	If exceeded on more than 1 day per year
		8 hours	NA	0.08	NA	157	NA	If fourth highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor within an area
Carbon monoxide	CO	8 hours	9	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
(Lake Tahoe only)		8 hours	6	NA	7,000	NA	If equaled or exceeded	NA
Nitrogen dioxide	NO ₂	Annual average	NA	0.053	NA	100	NA	If exceeded on more than 1 day per year
		1 hour	0.25	NA	470	NA	If exceeded	NA
Sulfur dioxide	SO ₂	Annual average	NA	0.03	NA	80	NA	If exceeded
		24 hours	0.04	0.14	105	365	If exceeded	If exceeded on more than 1 day per year
Hydrogen sulfide	H ₂ S	1 hour	0.25	NA	655	NA	If exceeded	NA
		1 hour	0.03	NA	42	NA	If equaled or exceeded	NA
Vinyl chloride	C ₂ H ₃ Cl	24 hours	0.01	NA	26	NA	If equaled or exceeded	NA
Inhalable particulate matter	PM10	Annual geometric mean	NA	NA	20	NA	If exceeded	NA
		Annual arithmetic mean	NA	NA	NA	50	NA	If exceeded at each monitor within area
		24 hours	NA	NA	50	150	If exceeded	If exceeded on more than 1 day per year

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)	Violation Criteria	
			California	National		California	National
PM2.5		Annual geometric mean	NA	NA	12	NA	NA
		Annual arithmetic mean	NA	NA	NA	15	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	NA	NA	NA	65	If 3-year average of 98 th percentile at each population-oriented monitor within an area is exceeded
Sulfate particles	SO ₄	24 hours	NA	NA	25	NA	If equaled or exceeded
Lead particles	Pb	Calendar quarter	NA	NA	NA	1.5	If exceeded no more than 1 day per year
		30 day average	NA	NA	1.5	NA	If equaled or exceeded

Notes: All standards are based on measurements at 25°C and 1 atmosphere pressure.
 National standards shown are the primary (health effects) standards.
 NA = not applicable.

Source: California Air Resources Board, "Area Designations for State and National Ambient Air Quality Standards."

Table AIR-2. Ambient Air Quality Monitoring Data at the Sacramento Del Paso Manor and El Camino Monitoring Stations

Pollutant Standards	2001	2002	2003
Ozone (O₃)—Del Paso Manor Station			
Maximum 1-hour concentration (ppm)	.142	.135	.134
Number of Days Standard Exceeded ^a			
NAAQS 1-hour (>0.12 ppm)	1	2	2
CAAQS 1-hour (>0.09 ppm)	11	32	21
Carbon Monoxide (CO)—Del Paso Manor Station			
Maximum 8-hour concentration (ppm)	5.28	3.50	4.27
Maximum 1-hour concentration (ppm)	5.9	4.4	8.5
Number of Days Standard Exceeded ^a			
NAAQS 8-hour (≥9.0 ppm)	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0
NAAQS 1-hour (≥35 ppm)	0	0	0
CAAQS 1-hour (≥20 ppm)	0	0	0
Carbon Monoxide (CO)—El Camino and Watt Station			
Maximum 8-hour concentration (ppm)	4.75	4.16	4.50
Maximum 1-hour concentration (ppm)	5.6	7.8	6.7
Number of Days Standard Exceeded ^a			
NAAQS 8-hour (≥9.0 ppm)	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0
NAAQS 1-hour (≥35 ppm)	0	0	0
CAAQS 1-hour (≥20 ppm)	0	0	0
Particulate Matter (PM₁₀)^b—Del Paso Manor Station			
National ^c maximum 24-hour concentration (µg/m ³)	66.0	84.0	33.0
National ^c second highest 24-hour concentration (µg/m ³)	60.0	55.0	32.0
State ^d maximum 24-hour concentration (µg/m ³)	72.0	91.0	55.0
State ^d second highest 24-hour concentration (µg/m ³)	64.0	57.0	54.0
National ^c annual average concentration (µg/m ³)	NA	24.3	20.6
State ^d annual average concentration (µg/m ³)	NA	25.7	21.8
Number of Days Standard Exceeded ^a			
NAAQS 24-hour (>150 µg/m ³) ^e	NA	0	0
CAAQS 24-hour (>50 µg/m ³) ^e	NA	29.5	12.3

Pollutant Standards	2001	2002	2003
Particulate Matter (PM_{2.5})—Del Paso Manor Station			
Maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	78.0	77.0	65.0
Second highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	37.0	49.0	54.0
National ^b annual average concentration ($\mu\text{g}/\text{m}^3$)	NA	NA	NA
State ^c annual average concentration ($\mu\text{g}/\text{m}^3$)	NA	NA	NA
Number of Days Standard Exceeded ^a			
NAAQS 24-hour ($>65 \mu\text{g}/\text{m}^3$)	1	3	0

Notes: CAAQS = California Ambient Air Quality Standards.
 NAAQS = National Ambient Air Quality Standards.
 NA = Insufficient data available to determine the value.

^a An exceedance is not necessarily a violation.

^b Measurements usually collected every 6 days.

^c National statistics are based on standard conditions data.

^d State statistics are based on local conditions data, except in the South Coast Basin, which are based on standard conditions data.

^e Mathematically estimation of how many days concentrations would have been greater than the standard level of each day exceedances were monitored.

Sources: California Air Resources Board 2004; Environmental Protection Agency 2004.

areas expected to achieve air quality standards by the end of 1994. The most stringent requirements are set for areas that cannot achieve the standards until after 1997.

Air Quality Management in Sacramento County

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for control of stationary- and indirect-source emissions, air monitoring, and preparation of air quality attainment plans in the Sacramento County portion of the Sacramento Valley Air Basin (SVAB). The SMAQMD is responsible for preparing and submitting air quality attainment plans to the Air Resources Board (ARB) for criteria pollutants for which the Sacramento County portion of the SVAB is not in attainment. ARB must then review these plans and forward them, along with the plans of the other districts throughout the state (collectively called the State Implementation Plan [SIP]), to EPA Region IX for approval. EPA requires a separate compliance plan for each nonattainment pollutant.

Based on ozone levels recorded between 1988 and 1991, the Sacramento County portion of the SVAB was classified by the CAA as a severe nonattainment area, with attainment required by 1999. However, no feasible controls could be identified that would provide the needed reductions by 1999. The earliest possible attainment date identified was 2005.

Sacramento County is also federally designated as a moderate nonattainment area for PM10. Consequently, a PM10 SIP is also required. Monitoring data have verified that no violation of the federal PM10 standards has occurred in the four most recent years for which data are available, allowing the SMAQMD to request a redesignation from nonattainment to attainment of the federal standards. SMAQMD is currently working with the EPA in preparing a report for the redesignation from nonattainment to attainment, and it is expected to be completed within the next few years. For CO, the region is designated as unclassified/attainment by the EPA. The State of California has designated the region as being a serious nonattainment area for ozone, and a nonattainment area for PM10. For CO, the region is designated as being in attainment by the State.

Standards of Significance

On March 28, 2002, the SMAQMD Board adopted revisions to the thresholds used in Sacramento County. Project-related air emissions would have a significant effect if they resulted in concentrations that create either a violation of an ambient air quality standard (as identified in Table AIR-1) or contribute to an existing air quality violation. Table AIR-3 below presents the allowable contaminant generation rates at which emissions are considered to have a significant effect on air quality throughout the SMAQMD.

Table AIR-3. SMAQMD Significance Thresholds

	Ozone Precursor Emissions			
	ROG (lbs./day)	NO _x (lbs./day)	CO (lbs./day)	PM10 (lbs./day)
Construction (short-term)	None	85	CAAQS	CAAQS
Operational (long-term)	65	65	CAAQS	CAAQS

As indicated in Table AIR-3, the SMAQMD has established both construction and operational significance thresholds for NO_x and PM10. The construction-related thresholds were used to evaluate the significance of this project's emissions, as there is no operational component that would emit any pollutants. Project-related emissions were considered significant if emissions would increase by more than 85 pounds per day (ppd) of NO_x, or would cause or contribute to an existing or projected violation of the California Ambient Air Quality Standard (CAAQS) for PM10. A project's contribution to the CAAQS is considered significant by SMAQMD if it emits pollutants that increase ambient concentrations by 5% or more of the CAAQS. Emissions of CO from construction activities are not considered to be an issue of concern because the SMAQMD does not consider construction activities to be a major source of CO. In addition, the District is in attainment status for CO. Consequently, emissions of CO are not addressed in this analysis.

Answers to Checklist Questions

Question A

Construction of the project may cause a temporary degradation of air quality from emissions generated by construction equipment and generation of fugitive dust. Construction activities would involve cleaning debris in the site, grading along the eastern side of Norris Tributary, construction of a new sedimentation basin, construction of buried culverts and swales to connect the wetland to Norris Tributary, and potential replacement of culverts at the pedestrian and equestrian trail crossings. The type of equipment to be used during construction would vary according to activity. Generally, construction of the project is anticipated to include the use of an excavator, a backhoe, and a haul truck. Construction emissions were estimated using the URBEMIS2002 model. To estimate construction emissions, URBEMIS2002 analyzes the type of construction equipment used and the duration of the construction period. It was assumed that construction activities would begin in summer 2004, occur over a 3-month period, and occur for 8 hours per day. The results of the URBEMIS2002 modeling indicate that construction of the project will result in daily NO_x emissions of 42.28 pounds. Because emissions of NO_x would not exceed the SMAQMD's threshold of 85 ppd, this impact is considered less than significant. However, while this impact is less than significant, the SMAQMD has developed standard construction mitigation language that it recommends for all construction projects. These measures are listed in Section 2 as Environmental Commitments and will be implemented as part of the project.

Construction activities could also potentially generate significant levels of PM10. Construction of the project will disturb less than 5 acres. Guidance provided by the SMAQMD indicates that for projects less than 5 acres in size, PM10 impacts are considered less than significant (Jones pers. comm. April 17, 2003). Consequently, PM10 impacts are considered less than significant, and no mitigation is required.

Question B

The project is not expected to expose sensitive receptors to substantial pollutant concentrations. Changes in air quality would occur during the construction period and over a short period of time, but would be less than significant. While this impact is less than significant, the SMAQMD has developed standard construction mitigation language that it recommends for all construction projects. The measures described in the project description as Environmental Commitments will further ensure that this impact is less than significant.

Question C

The project does not include the construction of such facilities or the modification of land areas that would result in the alteration of air movement, moisture, temperature, or in any change in climate, either locally or regionally. The project includes improvements for drainage and water quality that will require short-term construction in a limited area. Therefore, impacts on air movement, moisture, or temperature would be less than significant.

Question D

The wetland will be designed to promote aeration and minimize stagnation; however, ponded water in the filtration wetland area has the potential to become stagnant and filled with decaying organic matter if left unmaintained. Unmaintained vegetation leads to larger amounts of decomposition and subsequent re-release of the nutrients and other pollutants that have been absorbed by the plants, which can also have the effect of release of objectionable odors. Department of Utilities will monitor the wetland as often as deemed necessary to ensure that the wetland does not become stagnant. Therefore, this impact will be less than significant.

Mitigation Measures

No mitigation is required.

Findings

With compliance with the recommendations set forth by the SMAQMD, the City of Sacramento, and Environmental Commitments Section 2, a less-than-significant air quality impact is anticipated.

DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT (CIP# LV96)
INITIAL STUDY/NEGATIVE DECLARATION

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
6. <u>TRANSPORTATION/CIRCULATION</u> Would the proposal result in:			
A) Increased vehicle trips or traffic congestion?			✓
B) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓
C) Inadequate emergency access or access to nearby uses?			✓
D) Insufficient parking capacity on site or off site?			✓
E) Hazards or barriers for pedestrians or bicyclists?			✓
F) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			✓
G) Rail, waterborne, or air traffic impacts?			✓

Environmental Setting

The nature area portion of Del Paso Regional Park is located within and adjacent to City of Sacramento and Sacramento County public road rights-of-way. The park is bounded to the north by Park Road, which continues southeast along the eastern northern edge of the park to connect with Auburn Boulevard. Auburn Boulevard marks the southern boundary of the park, and Bridge Road marks the westernmost boundary. Bridge Road is the only crossing over Arcade Creek in the vicinity of the project site.

Average daily traffic (ADT) volume on the Bridge Road Bridge, as measured in April 2000, was 420. The most recent record for Park Road lists an ADT at its intersection with Auburn Boulevard of approximately 11,000. Auburn Boulevard is a four-lane road and a major arterial in the project area. It connects with Watt Avenue less than ½ mile west of the project site, which is the closest access to the Interstate 80 interchange. The ADT westbound from Watt Avenue is approximately 23,000, and the ADT in the eastbound direction is approximately 16,000 (City of Sacramento 2004).

Public Transportation. Regional Transit (RT) is the major public transportation service provider within Sacramento County. RT provides 20 miles of light rail service and fixed-route bus service on 65 routes. An RT light rail station, located approximately 0.6 km (0.4 mile) northwest of the Bridge Road Bridge, is scheduled for 64 stops per day Monday through Friday. Generally, the light rail station's schedules coincide with public bus service in the area. Three bus routes, No. 1, No. 9, and No. 10, currently stop at the light rail station and include travel on the section of Auburn Boulevard south of Bridge Road. No bus routes currently include travel or stops on Bridge Road or Park Road.

Bikeways. The project site is not designated as a bikeway in City planning documents. An off-road bike trail is proposed along Arcade Creek near Bridge Road (City of Sacramento 2002).

Parking. No parking is allowed on the project site; however, parking is allowed on the roadway north of Bridge Road Bridge, in the designated parking lot for Renfree Field east of the bridge, and in the overflow parking area southwest of Bridge Road Bridge.

Standards of Significance

Roadway Traffic. An impact is considered significant for roadways or intersections when the project causes the facility to change from the level of service (LOS) from C or better to LOS D or worse. For facilities that are, or will be, worse than LOS C without the project, an impact is also considered significant if the project: (1) increases the average delay by 5 seconds or more at an intersection, or (2) increases the volume-to-capacity ratio by 0.02 or more on a roadway.

Bikeways. A significant bikeway impact would occur if a project hindered or eliminated an existing designated bikeway, or if the project interfered with the implementation of a proposed bikeway. A significant bikeway impact would occur if a project were to increase bicycle/pedestrian or bicycle/motor vehicle conflicts.

Regional Transit. An impact is considered significant if the project will cause transit boardings to increase beyond the crush load of a transit vehicle or the project will cause a 10% or greater increase in travel time along any route.

Parking. A significant impact on parking would occur if the anticipated parking demand of the project exceeded the available or planned parking supply.

Answers to Checklist Questions

Question A

Some traffic will be generated during project construction from construction vehicles, mainly on Auburn Boulevard near Norris Avenue. However, the proposed construction activities would be only short-term and would result in few construction-related trips overall because most of the necessary materials will be stored on site. In addition, the traffic control plan included as an Environmental Commitment in the project description will ensure a less-than-significant impact on vehicle congestion. The City will also coordinate the traffic plan with that of the Bridge Road Bridge Project being implemented to the west of the project site. This impact is considered less than significant.

Questions B and C

The project will not result in the construction of any new roadways or the completion of any roadway improvements. Therefore, no roadway hazards would result from implementation of this project. In addition, because there are no changes proposed for roadways or access facilities, there would be no effect on the implementation of any emergency access plans. These impacts are considered less than significant.

Question D

Construction activity is anticipated to be short-term and will not permanently affect area residents' on-street parking. Construction parking will be provided within the Del Paso Regional Park facilities. Implementation of the traffic control plan described in Section 2 as an Environmental Commitment will also help to address potential parking concerns. Therefore, this impact is considered less than significant.

Question E

It is possible that construction of the project could result in the construction of temporary structures to block off portions of the project site as a safety precaution. However, these structures would be only temporary and would include safety signage to clearly demark any possible hazards to pedestrians and bicyclists. In addition, implementation of the traffic control plan described in the project description as an Environmental Commitment would ensure that this impact would be less than significant. The project will not result in the construction of any permanent structures that would obstruct safe passage for pedestrians or bicyclists. Rather, implementation of the project would improve the existing trail crossings and result in the creation of a new pedestrian viewing platform. This impact is considered less than significant.

Question F

Regular bus route schedules along Auburn Boulevard will not be affected by the project because the level of construction traffic generated by the project is expected to be low. In addition, implementation of the traffic control plan described as an Environmental Commitment in the project description will ensure that this impact is less than significant.

Question G

There are no waterborne or air transportation resources using Del Paso Regional Park facilities. It is not anticipated that construction of the project would interfere with any existing modes of transportation because all construction and resulting permanent changes will be limited to the project site. Therefore, no impacts on rail, waterborne, or air traffic would occur.

Mitigation Measures

No mitigation is required.

Findings

The project would not result in significant impacts on transportation or circulation.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
7. BIOLOGICAL RESOURCES Would the proposal result in impacts on:			
A) Endangered, threatened, or rare species or their habitats (including, but not limited to plants, fish, insects, animals, and birds)?			✓
B) Locally designated species (e.g., heritage or city street trees)?			✓
C) Wetland habitat (e.g., marsh, riparian, and vernal pool)?			✓

Environmental Setting

Analysis of the project's impacts on biological resources is based on a search of the California Natural Diversity Database (CNDDDB) and a reconnaissance-level, habitat-based field assessment conducted by a Jones & Stokes botanist and wildlife biologist. The project vicinity supports both important and common biological communities. Important natural communities in the study area are freshwater marsh (within Arcade Creek and Norris Tributary), and oak woodland riparian habitat (along Norris Tributary and Arcade Creek). Common biological communities in the study area are nonnative annual grassland and ruderal habitat. Nonnative and invasive tree species become more prevalent along the upstream portion of Norris Tributary.

Vegetation communities in the study area and Arcade Creek have been disturbed by ongoing human use in the form of unauthorized camping within the riparian woodland and use of the area by recreationalists.

Plants

On April 12, 2004, a Jones & Stokes botanist conducted a reconnaissance-level field survey of the study area to assess habitat suitability for sensitive plants. Dominant nonnative annual grassland species common in the study area include Italian thistle (*Carduus pycnocephalus*), common vetch (*Vicia sativa* ssp. *sativa*), wild oats (*Avena fatua*), yellow star-thistle (*Centaurea solstitialis*), riggut brome (*Bromus diandrus*), wild radish (*Rhaphanus sativus*), and redstem filaree (*Erodium* spp.). Common ruderal and developed-area plant species include spotted spurge (*Chamaesyce maculata*), common knotweed (*Polygonum arenastrum*), doveweed (*Eremocarpus setigerus*), and yellow star-thistle. Invasive species identified at the project site

by the Jones & Stokes botanist are black mustard (*Brassica nigra*), yellow star-thistle, Bermuda grass (*Cynodon dactylon*), bindweed (*Convolvulus arvensis*), French broom (*Genista monspessulana*), Himalayan blackberry (*Rubus discolor*), Italian thistle, poison hemlock (*Conium maculatum*), tree-of-heaven (*Ailanthus altissima*), and puncture vine (*Tribulus terrestris*).

A list of sensitive plant species identified as potentially occurring in the vicinity of the study area was prepared based upon surveys conducted by a Jones & Stokes botanist and a search of CNDDDB records. This list is presented as Table BIO-1. One sensitive plant, Sanford's arrowhead, was determined to have moderate potential to occur in the study area based on the presence of suitable habitat conditions; however, the plant survey was conducted prior to the flowering period of this plant. Results of the CNDDDB search indicated that six special-status plant species have been recorded within 16 km (10 miles) of the study area: Sanford's arrowhead, dwarf downingia, legenere, Boggs Lake hedge-hyssop, Sacramento Orcutt grass, and Ahart's dwarf rush. With the exception of Sanford's arrowhead these species all occur in vernal pools, but no vernal pool habitat was found in the study area.

Wetland Habitat

During a field visit on April 12, 2004, two types of wetland habitat were identified at the site: riparian woodland and freshwater marsh. The riparian woodland is dominated by valley oak (*Quercus lobata*), with interior live oak (*Quercus wislizenii*) at somewhat drier locations, and a few blue oaks (*Quercus douglasii*) at even drier sites. Understory species include box elder (*Acer negundo*), California blackberry (*Rubus ursinus*), Himalayan blackberry, and a number of exotic tree or shrub species, including tree-of-heaven, and cherries (*Prunus* spp.). The valley oak-dominated riparian woodland that is below the ordinary high-water mark and on hydric soil was considered jurisdictional wetland. At higher elevations, farther away from the channel, the riparian woodland transitions into annual grassland. The riparian woodland consists of trees of various age classes and shows evidence of active regeneration of the three oak species. On lower floodplain surfaces smaller size classes of valley oak are evident, and these areas appear suitable for valley oak regeneration.

Within the riparian woodland, the channel and banks of Norris Tributary and Arcade Creek support small patches of freshwater marsh dominated by obligate wetland plants, including rushes (*Juncus* species) and cattails (*Typha* species). Several of these trees are large enough to be considered heritage trees by the City and are protected under City Code 12.64.040. City Code section 12.64.020 defines heritage trees as:

1. Any tree of any species with a trunk circumference of one hundred (100) inches or more, which is of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape and location for its species.
2. Any native *Quercus* species, *Aesculus californica* or *Platanus racemosa*, having a circumference of 36 inches or greater when a single trunk, or a cumulative circumference of 36 inches or greater when a multi-trunk.
3. Any tree 36 inches in circumference or greater in a riparian zone. The riparian zone is measured from the centerline of the watercourse to 30 feet beyond the high-water line.

4. Any tree, grove of trees, or woodland trees designated by resolution of the city council to be of special historical or environmental value or of significant community benefit. (Prior code § 45.04.211)

Wildlife

On April 12, 2004, a Jones & Stokes wildlife biologist conducted a reconnaissance-level field survey of the study area to assess habitat suitability for sensitive wildlife. Numerous riparian-associated bird species such as Tree Swallow (*Tachycineta bicolor*), Oak Titmouse (*Baeolophus inornatus*), Spotted Towhee (*Pipilo maculatus*), House Wren (*Troglodytes aedon*), Nuttall's Woodpecker (*Picoides nuttallii*), Red-Shouldered Hawk (*Buteo lineatus*), and others, were observed using the project area. Although most of these species are not considered special-status wildlife species, their occupied nests and eggs are protected by California Fish and Game Code Sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act (MBTA) (50 CFR 10 and 21).

A search of the CNDDDB indicated that 13 special-status wildlife species have been recorded within 16 km (10 miles) of the study area (Table BIO-2): Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) (VELB), California Linderiella (*Linderiella occidentalis*), Vernal Pool Fairy Shrimp (*Branchinecta lynchi*), Vernal Pool Tadpole Shrimp (*Lepidurus packardii*), Giant Garter Snake (*Thamnophis gigas*), Western Pond Turtle (*Clemmys marmorata*), Swainson's Hawk (*Buteo swainsoni*), White-Tailed Kite (*Elanus leucurus*), Tricolored Blackbird (*Agelaius tricolor*), Burrowing Owl (*Athene cunicularia*), Purple Martin (*Progne subis*), Great Egret (*Ardea alba*), Great Blue Heron (*Ardea herodias*), and Bank Swallow (*Riparia riparia*).

Based on the reconnaissance-level, habitat-based site assessment conducted on April 12, 2004, and a review of existing information, including the CNDDDB records search and species distribution and habitat requirements data, 11 of these sensitive wildlife species were determined to have potential to occur within the project region: Swainson's Hawk, Cooper's Hawk, White-Tailed Kite, Loggerhead Shrike, Western Pond Turtle, VELB, Great Egret, and Great Blue Heron. In addition, Pallid Bat (*Antrozous pallidus*), Yuma Myotis (*Myotis yumanensis*), and Townsend's Big-eared Bat (*Corynorhinus townsendii*) are sensitive species that could occur in the project region. The state and federal status of these species, their distribution in California, habitat requirements, and probability of occurrence in the project area are summarized in Table BIO-2.

Standards of Significance

For purposes of this environmental document, an impact would be significant if the proposed project could result in any of the following conditions:

- The creation of a potential health hazard or the use, production or disposal of materials that would pose a hazard to plant or animal populations in the area;
- Substantial degradation of the quality of the environment, reduction of habitat, or reduction of special-status species populations below self-sustaining levels;
- Effects to other resources of concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or

Table BIO-1. Sensitive Plant Species Documented or Identified as Potentially Occurring in the Vicinity of the Study Area

Species Name	Legal Status ^a		CNPS	Geographic Distribution	Habitat Requirements	Blooming Period	Potential Occurrence in the Study Area ^b
	Federal	State					
<i>Dwarf downingia</i> <i>Downingia pusilla</i>	—	—	2	California's Central Valley and South America	Vernal pools and mesic valley and foothill grasslands, 1,500 feet asl	March–May	None; suitable habitat is not present in study area
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	—	E	1B	Inner north Coast Ranges, Central Sierra Nevada foothills, Sacramento Valley and Modoc Plateau—Fresno, Lake, Lassen, Madera, Modoc, Placer, Sacramento, Shasta, San Joaquin, Solano, and Tehama Counties	Clay soils in areas of shallow water, lake margins and vernal pool margins	April–August	None; suitable habitat is not present in study area
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	—	—	1B	Eastern Sacramento Valley—northeastern San Joaquin Valley—Butte, Calaveras, Placer, Sacramento, and Yuba Counties	Vernal pool margins and mesic grassland, 100–330 feet asl	March–May	None; suitable habitat is not present in study area
Legenere <i>Legenere limosa</i>	—	—	1B	Primarily in lower Sacramento Valley, also north Coast Ranges, northern San Joaquin Valley, and Santa Cruz Mountains	Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks, below 2,900 feet asl	April–June	None; suitable habitat is not present in study area
Sacramento Orcutt grass <i>Orcuttia viscida</i>	E	E	1B	Endemic to Sacramento County	Vernal pools below 330 feet asl	April–July	None; suitable habitat is not present in study area
Sanford's arrowhead <i>Sagittaria sanfordii</i>	—	—	1B	Scattered in Central Valley and Coast Ranges	Freshwater marshes, sloughs, canals, and other slow-moving water habitats, below 1,000 feet asl	May–October	Moderate; suitable habitat present in the study area

^a Status explanations:
— = no listing.

Federal
E = listed as endangered under the federal Endangered Species Act.

State

E = listed as endangered under the California Endangered Species Act.

California Native Plant Society

1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.

^b Potential occurrence in the study area:

Moderate: CNDDB or other documents record the known occurrence of the plant in the region (a 10-mile radius of the study area). Suitable habitat conditions are present but suitable microhabitat conditions are not.

Low: CNDDB or other documents do not record occurrence of the plant in the region (a 10-mile radius of the study area), and/or habitat conditions are of poor quality.

None: CNDDB or other documents do not record occurrence of the plant in the region (a 10-mile radius of the study area), and/or suitable habitat is not present in any condition.

Table BIO-2. Wildlife Species Potentially Occurring in the Project Area Based on the California Natural Diversity Database

Common and Scientific Name	Status *		California Distribution	Habitats	Occurrence in Study Area
	Federal/State				
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i>	T/--		Streamside habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant	No blue elderberry bushes observed, but could occur if elderberry shrubs are present
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i>	T/--		Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	No suitable habitat in the project area
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i>	E/--		Shasta County south to Merced County	Vernal pools and ephemeral stock ponds	No suitable habitat in the project area
Giant Garter Snake <i>Thamnophis couchii gigas</i>	T/T		Central Valley from the vicinity of Burrell in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter	No suitable habitat in the project area
Western Pond Turtle <i>Clemmys marmorata</i>	SC/SSC		Occurs from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests	Observed in Arcade creek immediately adjacent to the project area.
Swainson's Hawk <i>Buteo swainsoni</i>	--/T		Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields	Observed immediately adjacent to the project area.
White-Tailed Kite <i>Elanus leucurus</i>	--/FP		Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Observed in the project area.

Common and Scientific Name	Status *		California Distribution	Habitats	Occurrence in Study Area
	Federal/State				
Cooper's Hawk <i>Accipiter cooperii</i>	--/SSC		Throughout California except high altitudes in the Sierra Nevada. Winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range	Nests in a wide variety of habitat types, from riparian woodlands and digger pine-oak woodlands through mixed conifer forests	Suitable nesting habitat occurs in the project area.
Tricolored Blackbird <i>Agelaius tricolor</i>	SC/SSC		Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	No suitable habitat in the project area
Western Burrowing Owl <i>Athene cunicularia hypugea</i>	SC/SSC		Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	No suitable habitat in the project area
Purple Martin <i>Progne subis</i>	--/SSC		Coastal mountains south to San Luis Obispo County, west slope of the Sierra Nevada, and northern Sierra and Cascade ranges. Absent from the Central Valley except in Sacramento. Isolated, local populations in southern California	Nests in abandoned woodpecker holes in oaks, cottonwoods, and other deciduous trees in a variety of wooded and riparian habitats. Also nests in vertical drainage holes under elevated freeways and highway bridges	No suitable habitat in the project area
Bank Swallow <i>Riparia riparia</i>	--/T		Occurs along the Sacramento River from Tehama County to Sacramento County, along the Feather and lower American Rivers, in the Owens Valley; and in the plains east of the Cascade Range in Modoc, Lassen, and northern Siskiyou Counties. Small populations near the coast from San Francisco County to Monterey County	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam	No suitable habitat in the project area

Common and Scientific Name	Status *		California Distribution	Habitats	Occurrence in Study Area
	Federal/State				
Yuma Myotis <i>Myotis yumanensis</i>	SC/--		Common and widespread throughout most of California except the Colorado and Mojave Deserts	Found in a wide variety of habitats from sea level to 11,000 ft., but uncommon above 8,000 ft. Optimal habitat is open forests and woodlands near water bodies	Suitable roosting and foraging habitat occurs in the project area.
Pallid Bat <i>Antrozous pallidus</i>	--/SSC		Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Suitable roosting and foraging habitat occurs in the project area.

*Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- FP = fully protected under the California Fish and Game Code.
- SSC = species of special concern in California

- Violations of the Heritage Tree Ordinance (City Code 12.64.040).

Answers to Checklist Questions

Question A

Sensitive and Special-Status Species

No sensitive plant species have been reported in the study area, and none were found during the field surveys. Because no sensitive plants were observed, less than significant effects on sensitive plants are anticipated.

Based upon research and field investigations, the following special-status wildlife species were determined to potentially occur at the project site: Swainson's hawk, Cooper's Hawk, White-Tailed Kite, Loggerhead Shrike, Western Pond Turtle, VELB, Great Egret, Great Blue Heron, Pallid Bat, Yuma Myotis, and Townsend's Big-Eared Bat.

During the field visit on April 12, 2004, a Western Pond Turtle was observed in Arcade Creek. No blue elderberry shrubs (*Sambucus mexicana*), the host plant for VELB, were observed at the project site. However, because a full census-survey was not conducted, it is possible, although unlikely, that VELB could occur at the project site. The structure and composition of the riparian habitat along Arcade Creek is generally appropriate for nesting for Swainson's hawk, Cooper's Hawk, White-Tailed Kite. For these species to occur, appropriate foraging habitat must also be available. The following summarizes the foraging requirements of each species, the suitability of the habitat at the project site as foraging habitat, and the impact of the proposed project with respect to impacts on foraging habitat.

Swainson's Hawk

The Swainson's hawk requires large open grassland or agricultural foraging habitat where they forage primarily on small rodents and insects. They rarely forage in small in-fill parcels or small isolated patches of suitable habitat less than 20 acres. While they are known to nest in urban areas, foraging habitat for these urban-nesting pairs is typically outside of the urban area, which generally occurs within two and occasionally three miles from the nest. If Swainson's hawk were nesting in the project area, the small amount of adjacent grassland habitat would not be an important foraging habitat, and certainly not sufficient to successfully reproduce. In addition, the conversion from annual grassland to seasonal wetland would not result in loss of foraging habitat conditions for this species since the area would likely be dry during the spring and summer months when Swainson's hawks are present in the Central Valley.

Cooper's Hawk

The Cooper's hawk is typically a riparian nesting species. While few nesting pairs have been documented on the valley floor in recent years, the species could potentially nest in the project area. As a hawk that forages primarily on small birds, its primary foraging habitat is also within the riparian zone. This species does, however, occasionally use adjacent upland areas to forage. However, seasonal wetland habitat is not necessarily inconsistent with suitable foraging habitat for this species, and may in fact attract more bird prey than annual

grasslands. During the spring and summer months, the seasonal wetland area will be dry and would likely develop more appropriate structure and have greater plant species diversity that would also attract more abundant and diverse prey for foraging Cooper's hawks.

White-tailed Kite

The white-tailed kite nests in a variety of habitat types, including riparian forests. Of the three special-status raptors, it has the greatest potential to occur on the site. Kites nest in trees, usually on the edges of riparian forest and forage in adjacent upland habitats, including annual grasslands. Unlike the Swainson's hawk, the white-tailed kite will use smaller parcels for foraging. Thus, the existing condition on the project site is suitable for kite nesting and foraging; however, additional foraging habitat is required for successful kite nesting, and thus a nesting pair would also use other suitable foraging habitat in the surrounding area. As above, the conversion of a portion of the site to seasonal wetlands would not necessarily be inconsistent with kite foraging, and could in fact create more optimal conditions. During the spring and summer months, when kites could be nesting on site, the seasonal wetland area will be dry and be more structurally complex than annual grassland, thereby providing the potential for a greater abundance and diversity of prey.

Based on the project description and work plan, it would not be feasible to avoid construction activities during the Swainson's Hawk, White-Tailed Kite, Cooper's Hawk, or Loggerhead Shrike breeding season (March 1 through August 15). If a pair of Swainson's Hawks, White-Tailed Kites, and/or Cooper's Hawks were nesting in the study area, construction activities, including tree removal, associated with the project could result in the disturbance of the nesting birds, loss of eggs, or nestling mortality.

Actions that result in the direct or indirect mortality of a Swainson's Hawk, a state-listed threatened species, incidental to otherwise lawful activities would be considered "take" as defined under the California Endangered Species Act (CESA). Such actions would be considered an adverse effect on Swainson's hawk and would be a violation of California Fish and Game Code Section 2081 and the MBTA. White-tailed Kite is a fully protected species; take of the species is prohibited under the California Fish and Game Code Section 3511. For Cooper's Hawk, such actions would be a violation of California Fish and Game Code Section 3503.5 (active raptor nests) and the MBTA; and for Loggerhead Shrike, such actions would be a violation of the MBTA. Implementation of the measures described as Environmental Commitments in the project description will ensure that the potential for impact on these species will be less than significant.

Migratory Bird and Other Raptor Species

The project could affect nesting habitat for nonsensitive migratory bird and raptor species. Migratory birds such as American Goldfinch, House Wren, Bewick's Wren, and Black-Throated hummingbird commonly nest in riparian vegetation in the project region. Raptors such as Red-Tailed Hawk, Red-Shouldered Hawk, and Great Horned owl also nest in large trees within riparian forest. Migratory bird species that were observed in the study area and have the potential to nest in riparian habitat are White-Breasted Nuthatch, Nuttall's Woodpecker, Yellow-Billed Magpie, and Western Scrub-Jay. No raptors were observed in the study area during the April 12, 2004 field survey.

The generally common species identified are abundant locally and regionally. Therefore, removal or disturbance of a small amount of nesting habitat for nonsensitive migratory birds and raptors would not constitute a significant impact. However, construction activities occurring at the project site during the breeding season that result in death of nestlings or destruction of eggs would violate California Fish and Game Code Sections 3503 (active bird nests) and 3503.5 (active raptor nests) and the MBTA.

The project may result in impact on certain sensitive and special-status species, migratory bird species, and wildlife that may occur at the project site. These impacts are considered potentially significant. Implementation of the measures described as Environmental Commitments in the project description will ensure that these impacts are less than significant.

Question B

Heritage Oak Trees

Several of the trees at the project site qualify for protection as heritage trees under City Code section 12.64.040. During project construction, some of these trees may have to be removed to clear the area for grading activities mainly occurring east of Norris Tributary for construction of the filtration wetland. In addition, it is possible that trees will be removed from the eastern banks of Norris Tributary in the event that the floodplain is widened to accommodate peak overflow and from along the north side of Auburn Boulevard to make room for expansion of the existing catchment pond. Adherence to City Code 12.64.040, as described in the project description as an Environmental Commitment, will ensure that this impact is less than significant. In addition, the City will plant additional oak trees and riparian vegetation as part of the efforts to create and restore oak woodland riparian habitat along Norris Tributary and the new filtration wetland. Therefore, this impact is considered less than significant.

Question C

Wetland Habitat

The project would include creation of a filtration wetland and result in a substantial increase of wetland habitat area. The project could result in the disturbance and temporary loss of small patches of freshwater marsh and the placement of permanent fill within Norris Tributary. These impacts would result from the creation of an instream sedimentation basin, construction of a water control structure, placement of check-weirs in Norris Tributary, installation of buried culverts and swales to convey water between Norris Tributary and the filtration wetland, and installation of new culverts under trail crossings. This impact is considered less than significant, because the area lost will be smaller than the increase in wetland area that will result from the project.

Riparian Woodland

The project would include the creation of additional riparian woodland dominated by valley oak. A combination of grading, temporary irrigation, and planting of oak seedlings and/or acorns will be used to create new oak riparian habitat. The project could result in the disturbance and temporary loss of riparian woodland in Norris Tributary. This temporary impact would result from the creation of an instream sedimentation basin, placement of check-weirs in Norris

Tributary, placement of buried culverts and swales to convey water between Norris Tributary and the filtration wetland, and installation of new culverts under trail crossings. This impact is considered less than significant because the area of oak riparian woodland lost would be smaller than the increase in riparian woodland area that will result from the project.

Noxious Weeds

Implementing the project could result in the introduction or spread of noxious weed species, which could displace native species, thereby changing the diversity of species or number of any species of plants. Soil-disturbing activities during construction could promote the introduction of plant species that are not currently found in the project area, including exotic pest plant species. Construction activities could also spread exotic pest plants that already occur at the project site. This impact is considered potentially significant. Following completion of the construction activity, the affected areas will be restored to preproject conditions. Implementation of the measures described as Environmental Commitments will reduce this impact to a less-than-significant level.

Mitigation Measures

No mitigation is required.

Findings

With the implementation of the Environmental Commitments mentioned in Section 2, impacts on biological resources as a result of the implementation of the project would be less than significant.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
8. ENERGY Would the proposal result in impacts on:			
A) Power or natural gas?			✓
B) Use nonrenewable resources in a wasteful and inefficient manner?			✓
C) Substantially increase the demand of existing sources of energy or require the development of new sources of energy?			✓

Environmental Setting

Currently no gas or electrical service facilities are located within the project site. Gas and electrical service are provided to the adjacent neighborhoods. Pacific Gas and Electric Company (PG&E) is the natural gas utility for the City of Sacramento. Distribution pipelines are located throughout the city, usually underground along City and County public utility easements. The Sacramento Municipal Utility District (SMUD) supplies electricity to the City of Sacramento. Major SMUD electrical transmission lines are located in the northeastern portion of the city of Sacramento.

The City of Sacramento is a member of the Underground Service Alert (USA) one-call program. Under this program, the contractor is required to notify the USA 48 hours in advance of performing excavation work. The project applicant has the responsibility for timely removal, relocation, or protection of any existing utility services located on the site of any construction project.

The contractor shall comply with the Environmental Commitments Section 2 related to the protection of existing improvements, maintaining existing electrical facilities, and excavating and backfilling.

Standards of Significance

Gas Service. A significant environmental impact would result if a project would require PG&E to secure a new gas source beyond its current supplies.

Electrical Services. A significant environmental impact would occur if a project would result in the need for a new electrical source (e.g., hydroelectric and geothermal plants).

Answers to Checklist Questions

Questions A through C

The project does not include the installation of above- or underground electrical facilities such as conduit lines. Because of the limited size and duration of construction activities, the project will not require a significant amount of energy resources and is not anticipated to result in interruption to the current supply of electricity or natural gas services to the adjacent properties. However, construction activities associated with implementation of the project have the potential to disrupt existing gas or electrical service conveyance facilities in the immediate vicinity of the site. Such a disruption would affect services for the local community and may be considered a potentially significant impact. With compliance of the Standard Specifications for Public Works Construction listed as an Environmental Commitment in Section 2, the project would result in a less-than-significant impact on energy sources.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impact on electrical or natural gas systems.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
9. HAZARDS			
<i>Would the proposal involve:</i>			
A) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?			✓
B) Possible interference with an emergency evacuation plan?			✓
C) The creation of any health hazard or potential health hazard?			✓
D) Exposure of people to existing sources of potential health hazards?			✓
E) Increased fire hazard in areas with flammable brush, grass, or trees?			✓

Environmental Setting

Physical Setting

Before the project site became a park, it was used for pasture land and limited agricultural use. Various chemicals were used on the site for agricultural production; however, there is no evidence of soil contamination. No Phase I Environmental Site Assessment has been prepared for the project site.

Regulatory Setting

Federal Regulations

The principal federal regulatory agency responsible for ensuring the safe use and handling of hazardous materials is EPA. Key federal legislation pertaining to hazardous wastes is described below. Other applicable federal regulations are contained primarily in 29, 40, and 49 CFR.

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act enables EPA to administer a regulatory program that extends from the manufacture of

hazardous materials to their disposal, thus regulating the generation, transportation, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

Comprehensive Environmental Response, Compensation, and Liability Act. The Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund) was passed to facilitate the cleanup of the nation's toxic waste sites. In 1986, the act was amended by the Superfund Amendment and Reauthorization Act Title III (community right-to-know laws). Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the cleanup, even if the material was dumped illegally when the property was under different ownership.

State Regulations

California regulations are equal to or more stringent than federal regulations. EPA has granted California primary oversight responsibility for administering and enforcing hazardous waste management programs. State regulations require planning and management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human and environmental health. Several key laws pertaining to hazardous wastes are discussed below.

Hazardous Materials Release Response Plans and Inventory Act of 1985. The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused hazardous materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Hazardous Waste Control Act. The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in 26 CCR, which describes the following required aspects for the proper management of hazardous waste:

- identification and classification;
- generation and transportation;
- design and permitting of recycling, treatment, storage, and disposal facilities;
- treatment standards;
- operation of facilities and staff training; and
- closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and 26 CCR, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the California Department of Toxic Substances Control.

Emergency Services Act. Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including EPA, the California Highway Patrol (CHP), RWQCBs, air quality management districts, and county disaster response offices.

Standards of Significance

For the purposes of this document, an impact is considered significant if the project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

Answers to Checklist Questions

Questions A, C, and D

Construction of the project would involve the use of heavy equipment and small quantities of hazardous materials (e.g., petroleum and other chemicals used to operate and maintain construction equipment) that could potentially result in hazardous conditions on site in the event of a spill. Adherence to the Standard Specification for Public Works Construction included in the project description as an Environmental Commitment will ensure that this impact is less than significant. In addition, it is possible that the creation of new areas of ponded water could result in an increase in vector problems associated with mosquitoes. However, the City will coordinate with the Sacramento-Yolo Mosquito and Vector Control District and implement the recommended measures needed to ensure that this impact will be less than significant. The Vector Control District will also be involved in project design. Therefore, these impacts are considered to be less than significant.

Question B

The project site is not within the designated evacuation zones in the event of flood as identified in the *City of Sacramento Comprehensive Flood Management Plan*, February 1996. The project will not interfere with an emergency response plan or an evacuation in the event of an emergency. This impact is considered less than significant.

Question E

Construction activities will involve removing some vegetation. Removed vegetation may be flammable if not removed immediately, and may cause a fire hazard. As part of the project description, the contractor shall take necessary precautions to ensure that a clear space of at least 3.1 m (10 feet) shall be maintained between piles of removed vegetation during

construction and maintenance activities. Therefore, this impact is considered less than significant.

Mitigation Measures

No mitigation is required.

Findings

With implementation of the safety measures included as part of the project description, the project would result in less-than-significant impacts regarding hazards.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
10. <u>NOISE</u>			
<i>Would the proposal result in:</i>			
A) Increases in existing noise levels? Short Term Long Term			✓
B) Exposure of people to severe noise levels? Short Term Long Term			✓

Environmental Setting

The primary existing noise sources within the project site are from road traffic on I-80, Bridge Road, Park Road, and Auburn Boulevard. Other noise sources in the area originate from the recreational use of Del Paso Regional Park facilities, specifically from scheduled and unscheduled events at Renfree Field and from the trail along Arcade Creek. The closest sensitive noise receptors to the project site are the residences located within 100 feet of the park to the south across Auburn Boulevard.

The City General Plan states that noise levels for residential land uses are as follows:

- 0–60 decibel (dB)—Normally Acceptable
- 60–70 dB—Conditionally Acceptable
- 70–75 dB—Normally Unacceptable
- 75+—Clearly Unacceptable

where 60 dBA L_{dn} is the maximum acceptable exterior noise level for single- and multi-family residential areas.

The City General Plan states that noise levels for playgrounds and neighborhood park uses are as follows:

- 0–70 dB—Normally Acceptable
- 70–75 dB—Normally Unacceptable
- 75+ dB—Clearly Unacceptable

where 70 dBA L_{dn} is the maximum acceptable exterior noise level for playgrounds and neighborhood park uses.

The City of Sacramento noise ordinance states that exterior noise limits will not exceed 50 dBA between 10:00 p.m. and 7:00 a.m. and 55 dBA between 7:00 a.m. and 10:00 p.m. for residential and agricultural areas. However, construction activities between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and 9:00 a.m. and 6:00 p.m. on Sunday are exempt from this ordinance. The ordinance further states that internal combustion engines in use on construction sites must be equipped with "suitable exhaust and intake silencers that are in good working order."

Standards of Significance

Noise impacts associated with the project result mainly from construction activities. As specified in Section 8.68.080(e) of the City Code (City Noise Ordinance Section 66.20), construction-generated sound is exempt from limits if the construction activities take place between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays. Thresholds of significance are those established by the City's General Plan Noise Element and the City Noise Ordinance. Noise impacts resulting from the implementation of the project would be considered significant if:

- noise from construction activities would exceed any applicable City of Sacramento noise ordinance limits;
- noise from project operations would exceed the City's General Plan criteria of 60 dBA L_{dn} at single- and multi-family residential areas; or
- noise from project operations would exceed the City's General Plan criteria of 70 dBA L_{dn} at playgrounds and neighborhood park uses.

Answers to Checklist Questions

Question A

Construction of the project would generate additional noise, especially during grading and site preparation. Construction noise is generated by the machinery and equipment used in the construction process.

A detailed inventory of construction equipment that would be used for the project was not available; therefore, this analysis estimates project-related noise assuming that typical construction equipment would be used during construction activities. To determine a combined-source noise level, a reasonable worst-case assumption is that the three loudest pieces of equipment would operate simultaneously and continuously over at least a 1-hour period.

Based on the noise levels summarized in Table NOI-1, Table NOI-2 presents estimated construction sound levels as a function of distance. Simultaneous operation of an excavator, bulldozer, and truck, for a combined-source noise level of 92 dBA at 50 feet, is assumed. The magnitude of construction noise impacts was assumed to depend on the type of construction activity, the noise level generated by various pieces of construction equipment, and the distance between the activity and noise-sensitive land uses.

Table NOI-1. Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level 50 feet from Source (dBA)
Air Compressor	81
Backhoe	80
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Bulldozer	85
Excavator/Shovel	82
Generator	81
Grader	85
Loader	85
Scraper	89
Truck	88

Source: Federal Transit Administration 1995.

DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT (CIP# LV96)
INITIAL STUDY/NEGATIVE DECLARATION

Table NOI-2. Estimated Construction Noise in the Vicinity of an Active Construction Site

Entered Data:			
Construction Condition: Site leveling			
Source 1: Bulldozer—Sound level (dBA) at 50 feet =			85
Source 2: Truck—Sound level (dBA) at 50 feet =			88
Source 3: Excavator—Sound level (dBA) at 50 feet =			82
Average Height of Sources—Hs (ft) =			10
Average Height of Receiver—Hr (ft.) =			5
Ground Type (soft or hard) =			soft
Calculated Data:			
All Sources Combined —Sound level (dBA) at 50 feet =			92
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.62
Distance between Source and Receiver (ft.)	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Calculated Sound Level (dBA)
50	0	0	90
100	-6	-2	83
200	-12	-4	75
300	-16	-5	70
400	-18	-6	67
500	-20	-6	64
600	-22	-7	62
700	-23	-7	60
800	-24	-7	59
900	-25	-8	58
1000	-26	-8	56
1200	-28	-9	54
1400	-29	-9	53
1600	-30	-9	51
1800	-31	-10	50
2000	-32	-10	49
2500	-34	-10	46
3000	-36	-11	44

Calculations based on FTA 1995.

This calculation does not include the effects, if any, of local shielding, which may reduce sound levels further.

The results in Table NOI-2 indicate that residences located within 1,800 feet of an active construction site could potentially be exposed to construction noise in excess of the City's nighttime standard of 50 dB. However, by ensuring the construction will be limited to the hours between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays will ensure that this standard is not exceeded. Therefore, this impact is considered to be less than significant.

Operation of the project would involve recreational use of the area mainly through the use of the existing trail system. Recreational use of the trails and similar land uses are usually quiet in nature and do not typically generate substantial levels of noise. While a new amphitheater is proposed, the theater would not have electricity and would more likely be used for educational/interpretive activities. It is anticipated that noise generated by the use of the project

area falls within the City's standards as described above for both residential and recreational use. Consequently, this impact is considered less than significant.

Question B

As discussed in checklist item A, operation of the project is not expected to generate substantial noise levels. Although enhancement of the park facilities may encourage increased use of the park, recreational noise levels are generally considered to be low. Because the park currently exists and already includes recreational amenities, continued use as a result of implementing the project is not expected to result in a substantial permanent increase in noise. Also, as discussed in checklist item A, construction activities could result in exposure of people to severe levels of construction noise. However, as discussed above in checklist item A, limiting the hours of construction as indicated as an Environmental Commitment in the project description will ensure that this impact is less than significant.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impacts involving short-term increases in existing noise levels and short-term exposure of people to severe noise levels. Impacts from the project on long-term noise levels are also less than significant.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
11. PUBLIC SERVICES Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:			
A) Fire protection?			✓
B) Police protection?			✓
C) Schools?			✓
D) Maintenance of public facilities, including roads?			✓
E) Other governmental services?			✓

Environmental Setting

The City of Sacramento provides police protection service within the project site. Fire protection and emergency medical services as well as first response hazardous materials services are provided by the City of Sacramento Fire Department. The area surrounding the project site is mainly served by the San Juan Unified School District with the area to the west served by the Del Paso Heights School District. The park is maintained by the Department of Parks and Recreation while the drainage facilities are maintained by the Department of Utilities. Future maintenance will be implemented according to the maintenance plan described in Section 2.

Standards of Significance

For the purposes of this document, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services.

Answers to Checklist Questions

Questions A through E

The project involves improvement of an existing recreational facility to enhance water quality and drainage features. The project will not result in an increase in the need for fire or police protection services or in increased demand for schools or other governmental services. The Department of Utilities will be maintaining the project area. It is anticipated that maintenance requirements for the facilities will be infrequent and will not significantly add to the existing level

maintenance required for the existing Department of Utilities facilities located at the park. It is further anticipated, based on the design of the facilities that the removal of vegetation from the filtration wetland will occur on a 10-year interval. Impacts on traffic and circulation that could affect public safety are discussed in Section VI. The impacts on public services are less than significant.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impacts on public services.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
12. UTILITIES <i>Would the proposal result in the need for new systems or supplies, or substantial alterations to the following utilities:</i>			
A) Communication systems?			✓
B) Local or regional water supplies?			✓
C) Local or regional water treatment or distribution facilities?			✓
D) Sewer or septic tanks?			✓
E) Storm water drainage?			✓
F) Solid waste disposal?			✓

Environmental Setting

Water Supply

The sources of the City's surface water are the Sacramento and American Rivers. Water right permits issued by the SWRCB limit the quantity available from each source. The City's 1995 water right entitlement was 112,000 acre-feet per year from the American River and 81,800 acre-feet per year from the Sacramento River (Black and Veatch 1996). The City of Sacramento has ultimate water rights to 326,800 acre-feet of water per year from the Sacramento and American Rivers. Of this, Sacramento Municipal Utility District (SMUD) has rights to 15,000 acre-feet per year. Therefore, the City's ultimate available surface water supply is 311,800 acre-feet per year (City of Sacramento 1998).

The City of Sacramento provides treated surface water to its customers through the E.A. Fairbairn Water Treatment Plant and the Sacramento River Water Treatment Plant. The City is in the process of expanding the E.A. Fairbairn plant to increase treatment capacity to 200 million gallons per day (mgd) to meet increased water demands.

Wastewater and Surface Drainage Collection

All wastewater is treated by the Sacramento Regional County Sanitation District (SRCSD) at its regional plant in the South Sacramento area on Franklin Boulevard. Operation and maintenance of the local sewer system, which collects wastewater from individual discharges

and conveys it to an SRCSD interceptor or treatment plant, is provided by either the City of Folsom, the City of Sacramento, or the County Sanitation District No. 1. The SRCSD is responsible for the operation of all regional interceptors and wastewater treatment plants, while local collection districts operate the systems that transport less than 10 million gallons of waste flow daily.

Solid Waste

The Solid Waste Division of the City of Sacramento Department of Public Works provides City residents with solid waste services covering the full range of solid waste management, including collection, recycling, planning, and education. The City of Sacramento Landfill was closed to the acceptance of municipal solid waste on September 29, 1994. All residential solid waste and commercial putrescible solid waste collected by the City is transported to the Sacramento County Landfill located on Kiefer Boulevard. Commercial waste that is collected by private companies is delivered to the County's landfill site at Kiefer Boulevard or to Yolo County's landfill site (City of Sacramento 1995). City-collected waste is currently "tipped" under a long-term agreement at the Sacramento Recycling and Transfer Station. Under the terms of the agreement, 30% of the City-collected commercial solid waste and 50% of the neighborhood clean-up waste is recycled. The City also separately collects recyclables from single-family residences and commercial businesses.

Underground Service Alert

Construction associated with the project may affect the provision of utilities, including possible interruptions in service. The majority of existing utilities within the project vicinity are located between three and five feet below grade. The City of Sacramento is a member of the Underground Safety Alert (U.S.A.), which in addition to the City's Standard Specifications, requires the Contractor to notify the U.S.A. 48 hours prior to performing excavation work. The City will be responsible for the timely removal or protection of any existing utility facility located within construction areas. The Joint Utilities Coordination Committee has developed procedures to assist cities, counties, and utilities in coordinating public improvement projects to alleviate scheduling and construction conflicts.

Standards of Significance

For purposes of this document, an impact is considered significant if the project would:

- result in a detriment to microwave, radar, or radio transmissions;
- create an increase in water demand of more than 10 million gallons per day;
- substantially degrade water quality;
- generate more than 500 tons of solid waste per year; or
- generate stormwater that would exceed the capacity of the storm water system.

Answers to Checklist Questions

Questions A through F

The project would not permanently interfere with an existing communication system, water supply, water treatment, or sewer or septic system. Because the project is enhancing existing facilities, no additional demand for water supply or waste disposal is expected. Operation of the project would not result in an increased demand for any utilities that would require creation of new utility systems or substantial alterations to existing utility systems. No other impacts on existing services beyond those currently associated with the use of the site are anticipated. These impacts are considered less than significant.

Mitigation Measures

No mitigation is required.

Findings

The project would result in less-than-significant impacts on utility systems.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
13. <u>AESTHETICS, LIGHT, AND GLARE</u>			
Would the proposal:			
A) Affect a scenic vista or adopted view corridor?			✓
B) Have a demonstrable negative aesthetic effect?			✓
C) Create light or glare?			✓
D) Create shadows on adjacent property?			✓

Introduction and Methods

The term *aesthetics* typically refers to the perceived visual character of an area, such as of a scenic view, open space, or architectural façade. The aesthetic value of an area is a measure of its *visual character* and *visual quality* combined with *viewer response* (Federal Highway Administration 1983). This combination may be affected by the components of a project (e.g., buildings constructed at a height that obstructs views, hillsides cut and graded, open space changed to an urban setting), as well as changing elements, such as light, weather, and the length and frequency of viewer exposure to the setting. Aesthetic impacts are changes in viewer response as a result of project construction and operation.

Visual character is the appearance of the physical form of the landscape, composed of natural and human-made elements, including topography, water, vegetation, structures, roads, infrastructure, and utilities; and the relationships of these elements in terms of form, line, color, and texture.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity as modified by its visual sensitivity.

Vividness is the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.

Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well as natural settings.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the artificial landscape. (Federal Highway Administration 1983.)

High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Viewer response is the psychological reaction of a person to visible changes in the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., roadway or trail) (Federal Highway Administration 1983). The measure of the quality of a view must be tempered with the overall sensitivity of the viewer and viewer response. Viewer sensitivity is dependent on the number and type of viewers and the frequency (e.g., daily or seasonally) and duration of views (i.e., how long a scene is viewed). Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and the viewing duration.

Aesthetic Assessment Process

The concepts presented above are combined in a visual impact assessment process, which involves identification of the following:

- visual character and quality of the project area,
- relevant policies and concerns for protection of visual resources,
- general visibility of the project area and site using descriptions and photographs, and
- viewer response and potential impacts.

Environmental Setting

Surrounding Area

The project area character is typified by suburban development, surrounded mainly by residential land uses with some pockets of intermixed commercial and industrial land uses. Higher-density residential developments exist to the south and east with lower-density residential development immediately north of the project site. There are some commercial uses to the southwest. The I-80 interchange is located directly west of the project site. There is an equestrian facility to the northeast. The visual character of the surrounding area is fairly low mainly because of the dominance of human-made structures, such as residences and commercial buildings in the foreground. These structures break up the unity of the natural features and reduce the overall intactness of the viewshed.

Project Site

The topography of the project site is generally level with scattered patches of higher ground and a long gentle slope running north toward Arcade Creek (Figure 2). Norris Tributary runs southeast to northwest, roughly through the center of the park. The floodplain of Norris Tributary is also a lower-lying area where the drainage flows from the culvert at Auburn Boulevard and Norris Avenue to Arcade Creek. The open meadows to the west and east of Norris Tributary are mainly covered in annual grass species. Along the creek corridor are large oaks along with other riparian vegetation. Most of the park is in open, undeveloped space, although there are some picnic areas and trails along the interior. There is also a ball field, Renfree Field, located at the western end of the park.

The overall visual quality of the project site is high because of the relatively intact natural vegetation and unbroken views of Norris Tributary and Arcade Creek corridors from within the park. Views outside of the park are limited to the north by the large oak trees and riparian vegetation along the Arcade Creek corridor. Larger oak trees along the southern border of the park on Auburn Boulevard also block views of the road and the residences across the street, further enhancing the natural character and intactness of the site. In addition, the project may include the installation of berms along the park boundary, which would further screen views.

Viewer Groups

Viewers of the project site include park users and residents to the south of the site. Residents are considered to have a high sensitivity to changes that might take place in the park because they would be exposed to these changes for a prolonged period of time. However, views of the project site from south of Auburn Boulevard are likely to be obscured by the large trees along the southern edge of the park. Similarly, park users would have a high sensitivity to visual changes in the project site because their main intent in using the park is to enjoy the scenery and intact views of the natural vegetation.

Standards of Significance

Visual impacts would include obstruction of a significant view or viewshed or the introduction of a façade that lacks visual interest and compatibility and would be visible from a public gathering or viewing area.

Shadows

New shadows from developments are generally considered to be significant if they would shade a recognized public gathering place (e.g., park) or locate residence/child care centers in complete shade.

Glare

Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.

Light

Light is considered significant if it would be cast onto oncoming traffic or residential uses.

Answers to Checklist Questions

Questions A and B

The project involves creation of a new filtration wetland and improvements to the existing Norris Tributary floodplain. In addition, new elements of visual interest, including an overlook for wildlife-viewing and amphitheater for public use, are proposed. None of these activities would result in the construction of permanent objects that would obstruct scenic view from within or

outside of the park. Rather, the project may improve the visual interest and quality of the site and enhance opportunities for viewing.

During project construction, some large oak trees will be removed. Removal of vegetation could have a significantly adverse affect on the scenic resources within the park. However, as required in the Environmental Commitments in Section 2, the City will replace any trees removed during construction. In addition, the City will also plant native vegetation around the new wetland. Therefore, the impact on visual resources would be considered less than significant.

Questions C and D

The project does not include the creation of any new sources of lighting. Natural, non-reflective material will be used to construct the overlook for wildlife viewing and will not result in the creation of any sources of glare. Furthermore, no new structures are being proposed that would cast a significant shadow within the project site or on adjacent property. These impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Findings

With the incorporation of the Environmental Commitments in Section 2, the project will result in less-than-significant visual impacts.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
14. <u>CULTURAL RESOURCES</u>			
<i>Would the proposal:</i>			
A) Disturb paleontological resources?			✓
B) Disturb unique archaeological resources?			✓
C) Affect historical resources?			✓
D) Have the potential to cause a physical change that would affect unique ethnic cultural values?			✓
E) Restrict existing religious or sacred uses within the potential impact area?			✓

Environmental Setting

The project lies within the territory ascribed ethnographically to the Nisenan, or Southern Maidu (Kroeber 1976; Wilson and Towne 1978). No cultural resources were identified within or near the project site during site surveys (Jones & Stokes 2004).

Humans may have inhabited the Arcade Creek corridor or portions thereof, for as long as 10,000 years, according to archaeologist Clifford Curtice (1955, 1961). Curtice (1955, 1961:24) identified a prehistoric archaeological site (CA-Sac-201) downstream from the project area in the southern profile of Arcade Creek, buried under 2.7 m (9.0 ft) of alluvium. A total of approximately 113 artifacts have been recovered from CA-Sac-201, apparently as a result of surface collections and test excavations (Curtice 1961; Tremaine 1997). Observed artifacts included two projectile points (one basalt, one shale), complete and fragmentary millingslabs, complete and fragmentary handstones, pestles, abraders, a fragmentary mortar, other ground-stone tools, unifaces, cores, debitage, and hammerstones. All artifacts but the projectile points are made from sandstone, shale, andesite, granite, felsite, or quartzite.

Site CA-Sac-201 is primarily of interest in the present project context because of its discovery context 2.7 m below the present ground surface—a context not readily evaluated by standard archaeological surveys, which consist of surface inspection. In addition, proximity to the present courses of Arcade Creek and Norris Tributary may not be the best indicators of areas sensitive for the presence of buried archaeological sites. Historic topographic maps indicate that between 1901 and 1908–1909 the Arcade Creek channel was located approximately 406 m (1300 ft) north of its present course and the location of CA-Sac-201 (U.S. Geological Survey

1902, 1911). Arcade Creek probably achieved its present course between 1908–1909 and 1935, although it does not appear to have been significantly different near the project site.

Other relevant factors in the cultural resource setting of the project site are soil characteristics and depositional environment. The project site contains two soil types: Bruella sandy loam, 0–2% slopes, and Reiff fine sandy loam, 0–2% slopes, occasionally flooded (Tugel 1993: Sheet 3). The description of Reiff fine sandy loam states that this soil unit contains a buried surface layer, or A horizon, of dark brown loam at a depth ranging from 130 cm (51 in) to 163 cm (64 in) (Tugel 1993:91). The presence of a buried soil in the project site, also referred to as a paleosol, indicates that younger alluvial sediments buried an older, Holocene-EPOCH land surface. Reiff soils are located in the western third of the project site on both sides of Norris Tributary.

Standards of Significance

Cultural resource impacts may be considered significant if the project would:

- cause a substantial change in the significance of a historical resource or a unique archaeological resource as defined in 14 CCR 15064.5; or
- directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Answers to Checklist Questions

Question A

No geologic features or paleontological indicators have been identified within the project site.

Questions B and C

Jones & Stokes archaeologists conducted a cultural resource inventory of the project site, which included a record search, literature review, and archaeological survey of the project site (Jones & Stokes 2004). The archaeological survey was conducted by walking systematic parallel transects spaced 20 m (66 ft) apart. Because ground visibility was poor throughout the project site, inhibiting direct inspection of the ground surface, measures to improve visibility were employed during the survey. The archaeologist cleared 1-m (3-ft) patches of vegetation at 20-m (66-ft) intervals along each transect to better inspect the ground surface. No cultural resources meeting CEQA's definition of a unique archaeological resource (PRC 21083.2[g]) were identified as a result of the inventory. In addition, no cultural resources meeting the State CEQA Guidelines' definition of a historical resource (14 CCR 15064.5) were identified at the project site.

Although the cultural resource inventory did not identify the presence of cultural resources at the project site, the inventory was limited to a literature review and inspection of the ground surface. As described in the environmental setting above, however, the western third of the project site possesses qualities conducive to the burial and preservation of archaeological sites. First, at least one deeply buried archaeological site has been recorded in the Arcade Creek corridor (CA-Sac-201). Second, the western third of the project site contains a paleosol, which represents a former land surface that was subsequently buried under more recent alluvium.

That some 127 cm (50 in) of mineral sediments separate the paleosol from the surface A horizon suggests rapid alluvial deposition with little subsequent soil development (see Brown 1997:101). Combined with the relatively low-energy flow regimes of Arcade Creek and Norris Tributary, slow soil development atop the paleosol favors the preservation of buried archaeological sites.

Based on the discussion in the previous paragraph, approximately 19,600 m², or 1.96 ha (4.84 ac) of the project site has moderate to high potential to contain buried archaeological remains at a minimum depth of 130–163 cm (51–64 in). This sensitive area is located in the western third of the project site on both sides of a 140-m (459-ft) reach of Norris Tributary, as measured from its confluence with Arcade Creek. Excavation below 130 cm (51 in) in the project site is likely to result in the disturbance of as-yet-unidentified archaeological sites. Disturbance of buried archaeological sites would be a significant environmental impact under CEQA. Compliance with the Environmental Commitments listed in Section 2 would ensure that this impact is less than significant. In addition, the City has committed to coordinate monitoring efforts with interested Native American organizations and individuals.

Question D

The project would not cause a physical change that would affect unique cultural values. The impact is considered less than significant.

Question E

Examination of published literature on Nisenan religion and cosmology does not indicate the presence of religious or sacred use areas in the project area (Gifford 1927; Kroeber 1976; Wilson and Towne 1978). Therefore, the project would not restrict existing religious or sacred uses within the potential impact area. The impact is considered less than significant.

Mitigation Measures

No mitigation is required.

Findings

Implementation of the project will have a less-than-significant impact on cultural resources.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
15. RECREATION			
<i>Would the proposal:</i>			
A) Increase the demand for neighborhood or regional parks or other recreational facilities?			✓
B) Affect existing recreational opportunities?			✓

Environmental Setting

The project site is within the 680-acre Del Paso Regional Park. The park’s facilities include a pedestrian trail; equestrian trail; wetlands area; interpretive trails; trap shoot; three Class II picnic areas; four Class III picnic areas; two children’s play areas; four ball fields; a sand volleyball court; the Discovery Museum Science and Space Center; three golf courses (Haggin Oaks, Alister MacKenzie, and Arcade Creek); two food vendors; the City Sports Office; Renfree Field; and the Sacramento Softball Complex (Department of Parks and Recreation 2000 and 2003). Del Paso Regional Park and its facilities are under the jurisdiction of the City of Sacramento.

Answers to Checklist Questions

Question A

The project includes construction of a sedimentation basin and a filtration wetland. After the project is completed, high flows will be diverted through the basin and wetland. This diversion will improve the water quality of Norris Tributary and Arcade Creek, improve the habitat near the tributary, and provide flood flow attenuation. Interpretive signage associated with the basin and wetland may educate the public on the benefits the project provides. This is a beneficial impact on existing recreational facilities and is not expected to increase the demand for recreational facilities at the project site. Therefore, this impact is considered less than significant.

Question B

Construction of the project may occur concurrently with other park activities and could potentially disrupt existing recreational activities. Parking availability, construction activities, and any permitted events will be addressed in a traffic control plan. Details of the traffic control plan are discussed in the Transportation/Circulation section. During construction, staging areas will be located to avoid obstruction of the existing park trails and not to disrupt other recreational activities whenever possible. To ensure a less-than-significant impact on pedestrians and

bicyclists during construction, the contractor will comply with the traffic control plan, as described in the Transportation/Circulation section.

After the project's completion, the new wetland and basin will have a beneficial effect on existing recreational activities by creating interpretive signage and improving existing trail crossings. Therefore, implementation of the project will result in a less-than-significant impact on existing recreational resources.

Mitigation Measures

No mitigation is required.

Findings

The project will result in less-than-significant impacts on recreational resources.

Issues:	Potentially Significant Impact	Potentially Significant Impact unless Mitigated	Less-than-Significant Impact
16. MANDATORY FINDINGS OF SIGNIFICANCE			
A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			✓
B. Does the project have the potential to achieve short-term goals to the disadvantage of long-term environmental goals?			✓
C. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			✓
D. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? Disturb paleontological resources?			✓

Mandatory Findings of Significance Discussion

A. As discussed in the preceding sections, with adherence to the measures identified in the project description as Environmental Commitments, implementation of the project will not significantly degrade the quality of the environment, including effects on animals or plants, nor will it eliminate historic or prehistoric resources. The overall environmental effects of the project are beneficial and will result in the improvement of water conveyance and water quality, which will benefit natural wildlife and recreationists alike.

- B. As discussed under Item A above and in the project description in Section 2, the goal of the project is to improve drainage and water quality in Del Paso Regional Park and Arcade Creek. This is a long-term goal for the area that will have benefits in the short term and into the future.
- C. The project will not result in any cumulatively considerable impacts. The less-than-significant impacts related to air quality and noise are considered temporary, local, and would not make a cumulatively considerable contribution to any existing local or regional air or noise problems. Planting new trees will mitigate the loss of vegetation from removal of trees during construction. Furthermore, new plantings and the creation of the wetland will introduce new habitat for wildlife into the area. Overall, the project will improve water quality and drainage in the area. There would be no adverse cumulative effects resulting from implementation of the project.
- D. As discussed in the checklist sections above, the project will not result in environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly, nor will it disturb paleontological resources. The project is beneficial and will improve drainage and water quality; it will include an educational component and enhance use of the park.

Mitigation Measures

No mitigation is required.

Findings

Overall, the project is beneficial and will not result in any significant cumulative impacts or harm to wildlife or the human community.

SECTION IV—ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below potentially would be affected by this project.

- | | |
|---|---|
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Hazards |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Geological Problems | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Water | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Aesthetics, Light and Glare |
| <input type="checkbox"/> Transportation/Circulation | <input type="checkbox"/> Cultural Resources |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Energy and Mineral Resources | <input type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> None Identified | |

SECTION V—DETERMINATION

On the basis of the initial evaluation:

I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section III have been added to the project. A NEGATIVE DECLARATION will be prepared.

I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Dana Allen
Signature

4/29/04
Date

Dana Allen
Printed Name

SECTION VI - REFERENCES

Printed References

- Black and Veatch. 1996. *City of Sacramento water distribution system master plan*. Sacramento, CA.
- Brown, A. G. 1997. *Alluvial geoarchaeology: floodplain archaeology and environmental change*. Cambridge, U.K.: Cambridge University Press.
- California Department of Water Resources (DWR). 2003. Groundwater Level Data. Last posted or revised: 2003. Available: <http://wdl.water.ca.gov/gw/admin/main_menu_gw.asp>. Accessed: April 12, 2004.
- City of Sacramento. 1988. *City of Sacramento general plan*. Sacramento, CA.
- . 1995. *City of Sacramento master services element update*. Sacramento, CA.
- . 1998. *Granite Regional Park Planned Unit Development draft environmental impact report*. Sacramento, CA.
- . 2004. City of Sacramento Traffic Count Search. <<http://www.pwsacramento.com/traffic/trafficcounts/list.cfm?x=1>> Accessed April 12, 2004.
- City of Sacramento, Parks and Recreation Department. 2000. *City of Sacramento parks and recreation master plan*. April. Sacramento, CA.
- City of Sacramento, Department of Utilities. 1996. *City of Sacramento comprehensive flood management plan*. February. Sacramento, CA.
- Curtice, C. G. 1955. Archaeological site survey record for CA-Sac-201. On file at North Central Information Center, California State University, Sacramento.
- . 1961. Cultural and physical evidences of the prehistoric people of Sacramento County. M.A. thesis, Sacramento State College, CA.
- Espana Geotechnical Consulting. 2002. *Foundation report for the Bridge Road bridge replacement project*. October 7, 2002.
- Federal Highway Administration. 1983. *Visual impact assessment for highway projects*. (Contract DOT-FH-11-9694.) Washington, DC.
- Foothill Associates. 2002. *Arcade Creek Feasibility Study*. Sacramento, CA.
- . 2003. *Phase I Watershed Plan*. Sacramento, CA.
- Gifford, E. W. 1927. Southern Maidu religious ceremonies. *American Anthropologist* 29(3):214–257.

DEL PASO REGIONAL PARK DETENTION AND FILTRATION WETLAND PROJECT (CIP# LV96)
INITIAL STUDY/NEGATIVE DECLARATION

- Jones & Stokes. 2004. *Cultural resources inventory report for the Del Paso detention and filtration basin wetland project, City of Sacramento, California*. April. (J&S 04-189.) Sacramento, CA. Prepared for Department of Public Works, City of Sacramento, Sacramento, CA.
- Kroeber, A.L. 1976. *Handbook of the Indians of California*. Reprinted. Dover Publications, New York, NY. Originally published in 1925, Bulletin No. 78, Bureau of American Ethnology, Smithsonian Institution, Washington, DC.
- Nolte Associates, Inc. 2002. *Bridge Road bridge improvements at Arcade Creek, hydraulic evaluation*. September. Sacramento, CA.
- Tremaine, K. J. 1997. Letter regarding results of archaeological monitoring for the Park Road sewage pumping station (S-14), Sacramento County, California. Prepared by Tremaine and Associates, Inc., Dixon, CA. Prepared for Clyde G. Steagall, Inc. General Contracting, Loomis, CA. On file at North Central Information Center, California State University, Sacramento.
- Tugel, A. J. 1993. *Soil survey of Sacramento County, California*. U.S. Department of Agriculture Soil Conservation Service in cooperation with the University of California Agricultural Experiment Station. Washington, DC.
- U.S. Geological Survey. 1902. 15-minute Fair Oaks, California, quadrangle. Surveyed 1901. On file at North Central Information Center, California State University, Sacramento.
- . 1942. 7.5-minute Arcade, California, quadrangle. Reprint of 1911 ed. Surveyed 1908–1909. On file at North Central Information Center, California State University, Sacramento.
- U.S. Soil Conservation Service. 1993. *Soil Survey of Sacramento County, California*. U.S. Soil Conservation Service and Regents of the University of California (Agricultural Experiment Station). Washington, DC.
- Western Regional Climate Center (WRCC). 2004. Northern California Climate Summary (Sacramento, California). Available: <<http://www.wrcc.dri.edu/summary/climsmnca.html>>. Accessed: April 12, 2004. Last posted or revised: Unknown.
- Wilson N. L., and Towne A. H. 1978. Nisenan. Pages 387–397 in R. F. Heizer (ed.), *California*. Handbook of North American Indians, vol. 8, W. C. Sturtevant, general editor. Washington, DC.: Smithsonian Institution.

Personal Communications

Jones, Matt. Associate air quality planner analyst. Sacramento Metropolitan Air Quality Management District, Sacramento, CA. April 17, 2003—email to Shannon Hatcher, Jones & Stokes.

SECTION VII—LIST OF PREPARERS

The following individuals contributed to the preparation of this document:

City of Sacramento

Amy van Riessen. Natural resources specialist, Department of Parks and Recreation. B.S., 1997, biology, University of British Columbia, Vancouver, B.C. Dip. Tech, 1999, fish and wildlife management, B.C. Institute of Technology, Vancouver, B.C. Six years experience in stream and habitat restoration.

Patrick Sanger. Public outreach/education coordinator, Department of Utilities. M.A., in progress, public policy and administration, California State University, Sacramento. B.A., 1991, government, California State University, Sacramento. Three years in current position. Five years in Parks and Recreation at city and state level. Fifteen years experience in archaeology/CRM.

Dana Allen. Associate planner, Development Services Department. B.A., 1997, environmental studies, urban planning emphasis, San Jose State University. Eight years experience preparing and managing CEQA and NEPA documents.

Northwest Hydraulic Engineers, Inc.

Ken Rood. Principal. M.S., 1980, geomorphology; B.S., 1976, geography, Simon Fraser University, Vancouver, B.C. Twenty three years' experience in water resource planning, watershed analysis, and stream restoration design and construction.

Martin Fischer, PCE. Senior engineer. B.S., 1989, civil engineering, Saint Martin's College, Lacey, Washington. More than 10 years' experience in a variety of civil engineering disciplines related to water resources.

Steve Seville, PCE. Engineer. B.S., 1997, civil engineering, California State University, Sacramento, CA. Experience in field surveying and monitoring as well as design, construction, cost estimating, and monitoring of stream and wetland mitigation projects.

Jones & Stokes

Karen Leone. Project director/restoration planner. B.S., 1990, natural resources management, California Polytechnic State University, San Luis Obispo, CA. A.S., 1986, ornamental horticulture (focus in landscape design), Solano Community College, Suisun City, CA. More than 13

years of experience in all aspects of restoration work, including restoration planning, design, monitoring, and maintenance projects.

Gerrit Platenkamp. Project manager/botanist. Ph.D., 1989, ecology, University of California, Davis, CA. M.S., 1982, animal and plant ecology, University of Utrecht, Netherlands. B.S., 1978, biology, University of Utrecht, Netherlands. Experience in regional resource conservation and restoration planning projects with an emphasis on riparian and wetland resources and rare plant surveys.

Michael Murrell-Stevenson. Hydrologist/water quality specialist. M.S., 2000, watershed management and restoration, Yale University, School of Forestry and Environmental Studies. B.A., 1993, environmental studies, University of California, Santa Cruz. Extensive experience in CEQA and water quality issues.

Chris Elliot, L.A. Landscape architect. B.S., 1994, landscape architecture, University of California, Davis. Extensive experience in habitat restoration and open space planning, including master planning, site assessment, development of design objectives and guidelines, facilitation of public meetings, preparation of construction documents, and management planning specializing in riparian ecosystems.

Vanessa Rutter, A.S.L.A. Restoration planner. B.L.A., 2002, landscape architecture, Pennsylvania State University, University Park. Experience in habitat restoration/mitigation planning and design; park, trail, and open space planning and design; planting and grading design; construction document preparation; computer aided design (CAD); visual resource analysis; and graphic illustration.

Kim Marcotte. Project coordinator. M.S., 2002, environmental horticulture, University of California, Davis, CA. B.A., 1996, economics and Spanish, DePauw University, Greencastle, IN. One year experience coordinating CEQA projects.

Megan Robinson. Hydrologist. M.S., 2003, hydrology, University of Nevada, Reno. B.S., 2001, environmental sciences, University of California, Riverside. Experience includes a variety of fieldwork tasks including longitudinal surveys, river and lake water quality sampling, algae collection, and groundwater quality sampling.

Douglas Leslie. Biologist. M.S., 1993, wildlife biology, Colorado State University, Fort Collins, CO. B.S., 1988, wildlife biology, Humboldt State University, Arcata, CA. Extensive experience in designing and conducting special-status wildlife surveys and habitat assessments, conservation planning, wildlife management, natural resources planning and impact assessment, consultation and coordination with regulatory agencies, and project management.

Shannon Hatcher. Air quality and noise specialist. B.S., 2000, environmental science and environmental health and safety, Oregon State University, Corvallis, OR. Experience in environmental impact analysis, report preparation, and environmental noise monitoring, including field investigations and modeling assessments.

Gabriel Roark. Cultural resources specialist. B.A., anthropology, California State University, Sacramento. More than 3 years' broad experience in California CRM. Qualifies as Lead Archaeological Surveyor.

Ellen Unsworth. Technical editor. M.S., 1997, interdisciplinary studies (geology, biology, technical communication), Boise State University, ID. B.A., 1989, geology, California State University, Sacramento. More than 8 years of experience editing technical documents, primarily restoration-related documents, including scientific studies, monitoring reports, manuals, construction plans and specifications, and interpretive exhibits.