

**DRAFT INITIAL STUDY
PROPOSED MITIGATED NEGATIVE DECLARATION
OROVILLE RIVERFRONT IMPROVEMENTS FINAL PLAN PROJECT**

1. Project Title:	Oroville Riverfront Park Project – Final Improvements Plan
2. Applicant Name and Address:	City of Oroville 1535 Montgomery Street Oroville, CA 95965
3. Owner Name and Address:	Various
4. Type of Project:	Public access, roadway and recreational improvements and design plan
5. General Plan Designation:	Various
6. Zoning:	Various
7. Project Location:	The proposed project area is located in downtown Oroville, north of Montgomery Street and south of the Feather River. Specifically, the project boundaries are west of the intersection of Feather River Boulevard and Stafford Street, then easterly along the top of the levee of the Feather River to the Veteran’s Memorial Building, west of the intersection of Montgomery and Table Mountain Boulevard.

This document is an Initial Study (IS), which provides justification for a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA) for the development of the Oroville Riverfront Improvements Final Plan.

The Initial Study/Mitigated Negative Declaration is a public document to be used by the City of Oroville (City) to determine whether the project may have a significant effect on the environment pursuant to CEQA. If the City finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment that cannot be mitigated, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an environmental impact report (EIR) to analyze the project at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment with mitigation, a Negative Declaration shall be prepared with a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and therefore, why it does not require the preparation of an EIR (State CEQA Guidelines Section 15371). This IS/MND has been prepared in accordance with CEQA, Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines 14 California Code of Regulations (CCR) Section 15000 *et seq.*

I. BACKGROUND

8. Other Interested Public Agencies and Public Agencies Whose Consultation or Approval Is Required:

Butte County Air Quality Management District (BCAQMD): Compliance with Indirect Source Review Guidelines.

California Department of Fish and Game (CDFG): CDFG is a Trustee Agency and will review the environmental document for matters pertaining to fish and wildlife resources. Per Section 1601 of the State Fish and Game code, a Streambed Alteration Agreement, would need to be obtained for construction of this project.

California Department of Water Resources (DWR): Per California Code 66455.1, the City of Oroville Planning Department notified DWR of the proposed Oroville Riverfront Improvement Plan as it is located within one mile of State Water Project facilities. The project will require review from the Department of Water Resources in order to ensure that the Thermalito Diversion Pool, a State Water Project facility, is adequately protected during construction.

California Water Service Company: Consent to provide water service to the project.

Feather River Fish Hatchery: Notify Hatchery of construction plans, the outcome of consultation between the various regulatory agencies, and the City of Oroville's commitment to avoiding the Feather River and no adverse effect to any anadromous fish or other sensitive riverine species.

Feather River Recreation and Parks District: Consent to maintain project area.

Regional Water Quality Control Board (RWQCB): Compliance with Waste Discharge Permit, National Pollutant Discharge Elimination System (NPDES) Permit, Storm Water Pollution Prevention Program (SWPPP), and Water Quality Certification or Waiver, under Sections 401 and 402 of the Clean Water Act (CWA).

Sewerage Commission- Oroville Region (SC-OR): SC-OR is governed by a three party Joint Powers Agreement (JPA) to which the City of Oroville, Thermalito Irrigation District, and the Lake Oroville Area Public Utility District are the sole parties. The three sewer service providers collect wastewater and convey it to the wastewater treatment facility, owned and operated by the Sewerage Commission-Oroville Region.

State of California Reclamation Board: Construction within the river area and/or adjacent to the levee may require a permit from the State Reclamation Board, which oversees designated floodways and Central Valley Streams listed in Table 8.1 in Title 23 of the California Code of Regulations. The Feather River is a regulated stream.

United States Fish and Wildlife Service (USFWS): USFWS has jurisdiction over federally threatened and state species of concern that could be present in the riparian area near the proposed project. USFWS will review the environmental document for matters pertaining to fish and wildlife resources.

United States Army Corps of Engineers (USACE): USACE has jurisdiction over navigable waters of the US. The USACE would have jurisdiction over project activities governed by Section 10 of the Rivers and Harbors Act of 1899 and/or any project activities that are to occur below the ordinary high water mark (OHWM). USACE will review the environmental document for matters pertaining to construction on a levee and the potential for the discharge of fill material into waters of the US.

II. PROJECT DESCRIPTION

PROJECT LOCATION

The proposed Oroville Riverfront Park – Final Improvement Plan (referred to as “the Project”) is located in the City of Oroville in Butte County. See **Figure 1** for a Regional Map of the project location. The proposed project area is located in downtown Oroville, north of Montgomery Street and south of the Feather River. Specifically, the project boundaries are west of the intersection of Feather River Boulevard and Stafford Street, then easterly approximately 5,500 feet along the top of the levee of the Feather River to just past the Veteran’s Memorial Building, located just west of the intersection of Montgomery and Table Mountain Boulevard. On USGS topographical mapping, the location in Township and Range System is the south half of sections 7 & 8 of T. 19 N. R. 4 E.

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES

Project Site

The project site includes the southern bank of the Feather River levee. The top of the levee is currently improved with a public road, Arlin Rhine Drive, which connects the south bank of the levee to adjoining roadways in downtown Oroville. See **Figure 2** for an aerial depiction of the project site and adjacent area.

Generally, the foot print for the project would be located along an approximate one mile-long segment of the Feather River levee and would extend south from the levee 1) to an acre and a half parcel between Oak and Lincoln Streets to Arlin Rhine Drive and 2) from the eastern end of this levee segment into a half acre area at the Veterans Memorial Building, west of the intersection of Montgomery Street and Table Mountain Boulevard. The segment of the levee and associated property within the project site is owned and maintained by the City.

Project Site Circulation

Arlin Rhine Drive extends east from approximately 5th Street to approximately 250 feet past Oliver Street. Arlin Rhine Drive varies in width from approximately 14 to 120 feet and consists of a mix of gravel and paved surfaces. The street serves parking needs at the levee; however, west of Lincoln Street the road right-of-way does not provide vehicular access.

Main roadways adjacent to and within the project area include Montgomery, Oliver, Myers, Huntoon, Lincoln, Oak, and Pine Streets, and 1st, 2nd, and 5th Avenues. Feather River Boulevard currently ends at the parking lot for Bedrock Park. While the City’s road system provides a variety of travel routes for area residents between the levee and downtown, due to elevation changes and the river’s curvature, only six streets that make up the Oroville Riverfront Improvement Plan area provide access to the Feather River Levee. These streets are Feather River Boulevard, 5th Avenue, 1st Avenue, Lincoln Street, Huntoon Street, and Oliver Street.

Project Area and Surrounding Uses

The river edge is located approximately 100 to 200 feet from Arlin Rhine Drive. Portions of the north side of the levee from Arlin Rhine Drive are heavily vegetated from Bedrock Park west; the north side of the levee is more sporadically vegetated. The vegetation in these areas is a mixture of native and non-native trees, shrubs, and grasses.

Immediately north of the project site, between the southern edge of the river and the levee, lies the Oroville Bicycle Trail, a 2.5-mile Class I multi-use trail. The Oroville Bicycle Trail, which extends through Bedrock and River Bend Parks, offers scenic views of the Feather River and is part of the larger 41-mile Freeman Bicycle Trail, which loops around the Oroville Dam and Thermalito Afterbay.

Areas north of the project beyond the Feather River, include a large vacant and currently undeveloped parcel; elevated above the vacant parcel is an existing developed residential area. The Feather River Fish Hatchery is upriver and adjacent to this vacant parcel. The Hatchery is owned by the California Department of Fish and Game and was built to collect migrating salmon and steelhead for artificial spawning, as the Oroville Dam impedes the upstream migration of these fish.

The adjacent area to and south of the levee includes parts of downtown Oroville and contains various land uses. The area along Montgomery and Safford Streets south of the levee contains a mixture of commercial development, public parks, vacant lands and medium and high density residential uses.

To the west of the project area lies Bedrock and River Bend Parks, intermixed with blocks of vacant land and low density residential uses. Between Bedrock and River Bend Parks, State Highway 70 travels in a north-south direction and crosses over the Feather River.

To the east of the project area is Feather River Boulevard, which also travels in a north-south direction and crosses the Feather River. State Highway 70 and Feather River Boulevard provide vehicular access to Montgomery Street, which provides east-to-west access to the downtown Oroville area.

PROJECT PLANNING

Master Plan of Riverfront Improvements

The City of Oroville initiated a planning and design project for infrastructure improvements along the riverfront section in the downtown portion of the City. This effort resulted in a Master Plan for Riverfront Improvements that envisions improvements extending from Bedrock Park on the south to the Veterans Memorial Building on the north. The plan outlines a design concept for future improvements to the waterfront area. The concept is to create increased access and connection from downtown Oroville to the top of the levee and allow for viewshed of the Feather River. This Master Plan helps to provide guidance for community strategies for promoting the area's recreational use, improving vehicular access and parking, and will provide a connected pathway along the top of the levee.

The Master Plan envisions several elements to improve downtown Oroville and augment public access of the riverfront area. Ultimately, Bedrock Park would be connected to the proposed Centennial Plaza and Veterans Memorial Park via Arlin Rhine Drive and new pedestrian access features would open up the riverfront to enhanced downtown public spaces. A focal point of the Master Plan is an expanded plaza south from the levee into the downtown area between Lincoln and Oak Streets and north of Safford Street. This would include a water feature on the side of the levee toward the downtown area and a stage and amphitheater that would back up onto Stafford Street. The proposed improvements would further extend into a new town square between Safford and Montgomery Streets. Various civic and commercial projects are also considered in the Master Plan including; commercial infill and redevelopment, street improvements, and enhancement of the historic features of Downtown Oroville.

Oroville Riverfront Improvements Final Plan

The project, for the purposes of this Initial Study, is the Oroville Riverfront Park – Final Improvements Plan which was derived from the Master Plan. This proposed project was approved in concept for environmental analysis by the City Council on June 6, 2006. Conceptually, Oroville Riverfront Park – Final Improvements Plan can be viewed as a component of the overall Master Plan, and achieves some of the Master Plan goals for public access and recreational facilities. However, the Oroville Riverfront Park is proposed here as a stand-alone project; it is not dependent on future phases or construction of elements identified in the approved Master Plan. Other concepts in the Master Plan are being examined but were not sufficiently developed or not yet considered feasible for the implementation process and inclusion in project definition at this time. Additional development elements proposed in the Master Plan would be considered separately for environmental review.

PROJECT DESCRIPTION

The Oroville Riverfront Park calls for a number of improvements on top of the Feather River levee and at its inland base along the south bank of the Feather River adjunct to Oroville's downtown area. The elements included in the Oroville Riverfront Park provide for improved circulation and riverfront access, as well as a public plaza area atop the levee. These elements include: 1) improvements to and re-construction of portions of Arlin Rhine Drive and other connector streets downtown, 2) a continuous waterfront promenade with overlooks at the northern ends of key streets intersecting the levee, 3) access stairways at the end of those streets to the top of the levee, 4) Centennial Plaza in the center of the project, 5) parking and landscape improvements along the top of the levee, and 6) construction of Veteran's Memorial Park surrounding the Veterans Building at the eastern end of the project area. **Figure 3** illustrates the elements of the Oroville Riverfront Park.

Circulation Improvements

It is not yet determined to what extent these circulation improvements will occur in the first year of construction; however, future circulation improvements are expected to include all of these components described below:

- *Arlin Rhine Drive-realignment*

Arlin Rhine Drive currently east from approximately 5th Avenue in Bedrock Park to approximately 250 feet past Oliver Street and varies in width from approximately 14 to 120 feet. The street does not provide for through access along its length. West of Lincoln Street, the road does not provide vehicular access. The roadway consists of a mix of gravel and pavement surfaces. Improvements to Arlin Rhine Drive would include construction of a one-way eastbound 16 foot wide paved public street that would traverse the top of the levee from 5th Street to Oliver Street where it would then become a 24 foot wide two-way public street between Oliver Street to the proposed Veteran's Memorial Park. At the Park, the road would bend south and connect to Montgomery Street.

- *Oliver Street roundabout*

An 80 foot roundabout would be provided at the northern end of Oliver Street to define the transition of Arlin Rhine Drive as a one-way street between Huntoon and eastbound connector to a two-way section of Arlin Rhine Drive east of Oliver Street.

- *Downtown Transition connectors*

There would be two new 16 foot wide road segments that would transition from the top of the levee into the downtown. One segment would connect the top of the levee to the north end of Oak Street at Broderick Street via a one-way southbound connector to Oak Street. This half block segment (approximately 150 to 200 feet long) would be constructed on vacant public property. The other segment would be a one-way northbound connector on Lincoln Street, extending it from Stafford to the levee. This half block segment would be constructed on existing street right-of-way which is currently undeveloped. These connectors, along with Arlin Rhine Drive improvements, would improve vehicular access to the levee, proposed Plaza and Park discussed below.

- *Safford Street*

The Oroville Riverfront Park calls for Safford Street to eventually be closed to automobile traffic in three locations. It would become a linear plaza or pedestrian street between Pine and Oak Streets and Lincoln and Huntoon Streets. Huntoon Street, between Safford and Montgomery Street, would also be closed to traffic and be converted to a pedestrian street. These streets contain some on-street parallel parking spaces, which would be removed for development of the pedestrian right-of-way. Safford Street between Oak and Lincoln Street would be converted into a one-way east bound carrier that would be 16 feet wide.

Oroville Riverfront Promenade

- *Riverfront Promenade*

On the top of the levee north of Arlin Rhine Drive along the edge which overlooks the Feather River, a 16-foot wide continuous waterfront promenade would be constructed. The promenade would consist of a concrete walkway from Bedrock Park to the west to Veteran's Memorial Park to the east, a distance of 4,600 feet. The pedestrian promenade would be improved with street trees and benches along both the river and inland sides. The walkway would define the northern edge of Arlin Rhine Drive and would be separated by street trees and bollards from the roadway.

- *Scenic Overlooks*

A total of ten scenic overlook structures would be constructed on top of the levee, each a historic themed overlook structure. The overlook structures would contain interpretive exhibits and panels commemorating Oroville's history and culture. It is the intent that these structures would be open-air gazebos with an approximately 800 square foot platform that would be supported by columns extending into the northern side of the levee. Plans call for the columns to be placed either at or above the ordinary high water mark (OHWM) of 160' elevation on the levee. Further discussion of regulatory requirements for column placement on the levee can be found in the Initial Study under Section 4. Biological Resources.

- *Gateway, Stairways and Structures*

Stairways with gateway elements would provide connections to the top of the levee and connect too the overlook structures via ornamental pavement across Arlin Rhine Drive. The design and material of the gateway elements would be consistent with the design character of the overlook structures. Stairways would be constructed at the eastern end of Bedrock Park, and at the end of Second Avenue, 1st Avenue and Pine Street. There will also be stairways to the overlook structures in the stretch of Broderick Street between Pine Street and 1st Avenue. At-grade paving would extend over Arlin Rhine Drive to provide connections between the stairways and the riverfront promenade.

Parking Improvements:

There are a number of improvements proposed to reconfigure parking in the Oroville Riverfront Improvements Final Plan. In general, additional street parking would be provided via removal of parallel parking from streets listed below and replacing it with perpendicular or diagonal parking on one side of the street. Improvements include:

- Provision for 85 diagonal parking spaces along the stretch of Arlin Rhine Drive between 5th Avenue and Oak Street.
- A total of 30 perpendicular parking spaces facing the levee and Rotary Park on Broderick Street between 2nd Avenue and 1st Avenue.
- A total of 59 perpendicular parking spaces provided on the north side of Broderick Street between 1st Avenue and Pine Street.
- A total of 37 diagonal parking spaces provided along the north side of Arlin Rhine Drive between Lincoln Street and Oliver Street.
- A total of 36 diagonal parking spaces provided in the reconfigured parking area just east of the Municipal Auditorium and east of where Myers Street access this parking area.
- A total of 56 perpendicular parking spaces between the end of Oliver Street and the Veteran's Memorial Park.

The parking areas will be landscaped to separate parking spaces and provide shade.

Veteran's Memorial Park

Veteran's Memorial Park is proposed as a new half acre park situated at the levee east of Washington Street, extending from the levee to Montgomery Street (see **Figure 4** for a graphic representation).

Within the open space, the park will contain a north/south spine of walkways and plaza areas as well as monuments honoring Oroville's veterans. Shade trees will be provided throughout the park along with decorative plantings and large turf areas. The park would be divided into three separate themed plazas; one at the entry, another in the center, and the third as an overlook with granite slab memorials. The overlook would be an 800-square foot plaza, situated at the north end of the park levee's edge overlooking the river, similar to the overlooks described above.

The park site is currently vacant. The new Park's west property line will have an 8'-10' concrete masonry unit (cmu) block wall to screen adjacent property and serve as an ongoing donor wall. An east property line next to a residential structure will also have a cmu wall partially along the property boundary to exclude it from the park. A low fence will separate the adjacent restaurant at Montgomery Street from the park.

The park would be connected to the riverfront promenade by an 8 foot wide concrete path. An auto entrance and drop-off area from Montgomery Street would be provided, in addition to roadway access from Arlin Rhine Drive. Parking for the facility will occur along the levee and will provide whole access from the point.

Centennial Plaza

The Centennial Plaza, which is part of the Oroville Riverfront Park, is located north of Arlin Rhine Drive and centered on top of the levee roughly between the present terminuses of Oak Street and Lincoln Street. Property designated for Plaza improvements is currently vacant.

The intent of the Centennial Plaza is to create a large gathering area to provide the public with an opportunity to walk from downtown to the top of the levee to view the Feather River. This Plaza will also provide an open space at a central location near downtown. It also provides for future opportunities to expand access to the public and provide future recreational opportunities close to the Feather River. (See **Figure 5** for a graphical representation of the proposed Centennial Plaza).

The proposed Centennial Plaza is approximately one and a half acres in size, with Arlin Rhine Drive forming the south boundary of the plaza and the north edge of the levee forming the north boundary. The alignment of Arlin Rhine Drive will be shifted south of its present location to create space for the plaza on top of the levee which is approximately 120 feet wide at this location. Also at the point where Arlin Rhine Drive passes by Centennial Plaza, there would be 20 foot- wide of paving to allow two-way auto access around the plaza.

This expansion of the inland edge of the levee would be required to accommodate the road alignment and approximately 15,000 cubic yards of fill material will be needed to accommodate the proposed improvements. The fill would allow for a gradual gradient from the levee toward Safford Street. The realignment of Arlin Rhine Drive would also necessitate the removal of six cedar trees along the southern flank of the levee, as well as a radio tower that is no longer in operation, located east of the corner of Lincoln Street and the levee.

An overlook gazebo will be perched on the north edge of the levee, supported by pylons that will not encroach below the ordinary high-water flood mark (OHWM) of 160' elevation. The overlook structure within the plaza would be identical to the other overlook structures along the riverfront promenade. Additionally, there will be construction of a stairway to connect the top of the levee and Broderick Street and the end of 1st Avenue. Two handicapped parking spaces will be located on the landward side of the Arlin Rhine Drive alignment.

The design of Centennial Plaza includes a circular 7,850 square foot open space plaza area with a water feature and pavement for pathways with elevated planters. A decomposed granite path of approximately 580 feet in length will connect the Riverfront Promenade at-grade to the circular plaza. As an adjunct to the path, there would be semi-circular seating areas with benches and large flat granite boulders for seating surrounded by a cluster of trees to provide shade. Landscaping will be located at either end of the Centennial Plaza and between the waterfront promenade and the decomposed granite path. The stretch of the waterfront promenade at Centennial Plaza would be made of concrete and would contain street trees alternating between the edge of curb and the walkway. Large areas of turf would on be located on either side of the circular hardscape plaza between the riverfront promenade and the decomposed granite paths. The area at the top of the levee toward the river would include decomposed granite paths which will be planted with native plantings.

Figure 1 Regional Location Map

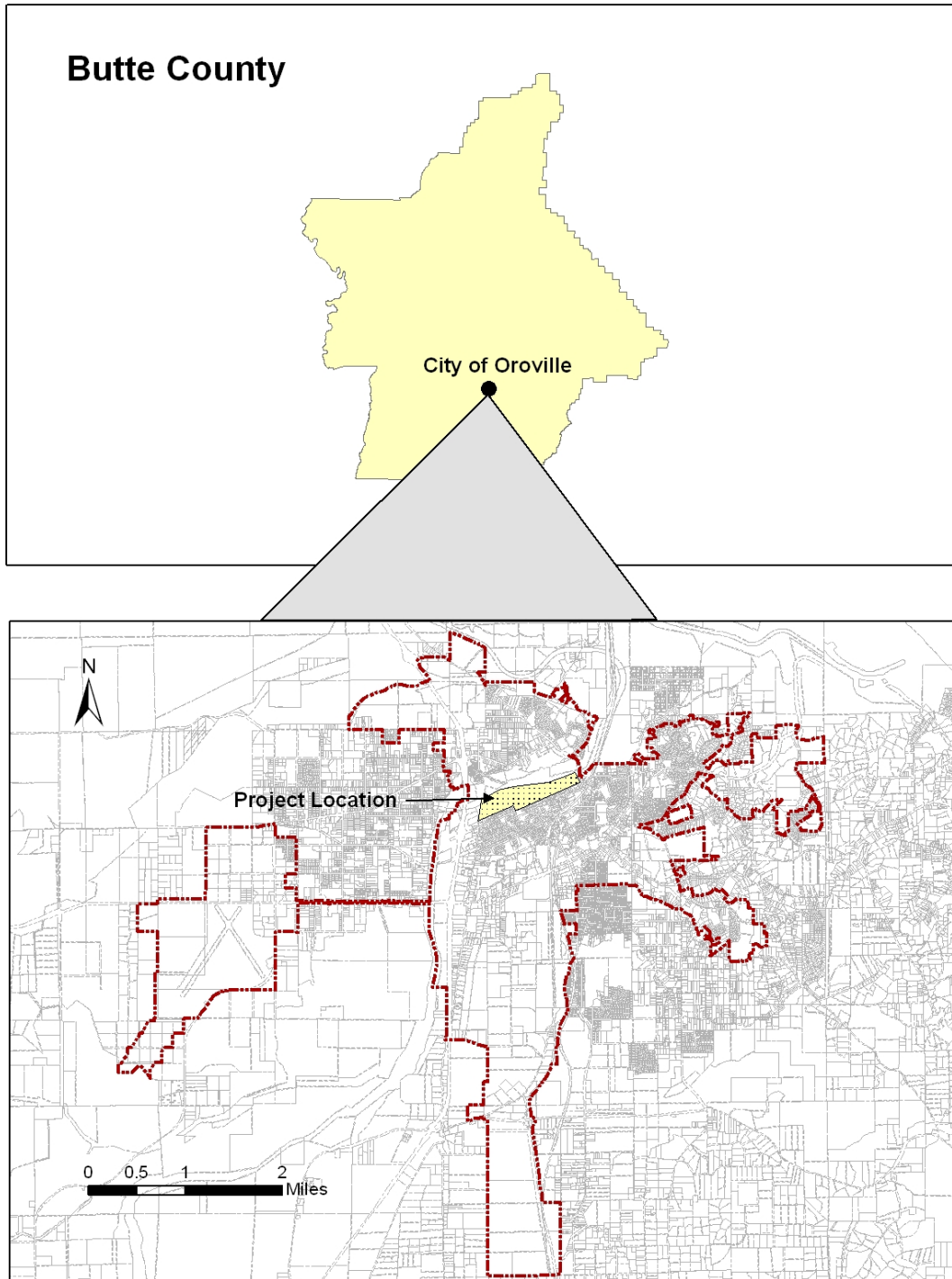


Figure 2 Aerial Photograph of Project Site



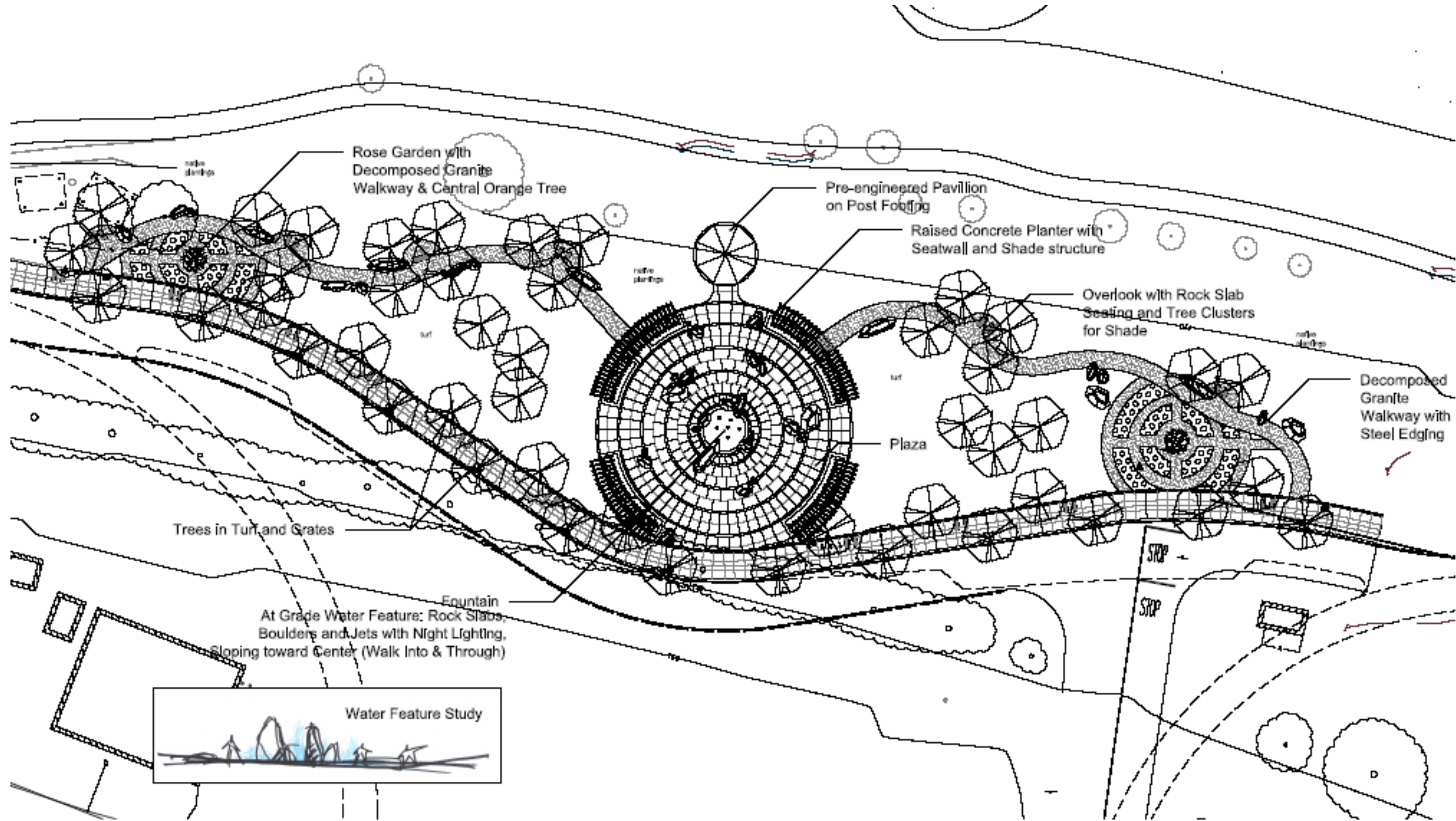
Figure 3 – Oroville Riverfront Park



Figure 4 - Veteran's Memorial Park



Figure 5 - Centennial Plaza



III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This document incorporates both an Initial Study (IS) and a proposed Mitigated Negative Declaration (MND). This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the Oroville Riverfront Improvements Final Plan (hereafter referred to as the "project"), as proposed, may have a significant effect upon the environment.

The environmental factors checked below could be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant With Mitigation Incorporated" as indicated by the environmental checklist in the Initial Study.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Land Use/Planning | <input checked="" type="checkbox"/> Transportation/Circulation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing | |

IV. DETERMINATION

After due consideration, the City of Oroville has found that with the implementation of mitigation measures identified in this Initial Study/Mitigated Negative Declaration, the proposed Project will not have a significant effect on the environment. Therefore, the Project will not require the preparation of an Environmental Impact Report, and the requirements of the California Environmental Quality Act (CEQA) will be met by the preparation of this Mitigated Negative Declaration. This decision is supported by the analysis in the Initial Study.

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. No further action is required.

Reviewed by:

Signature

Date

V. EVALUATION OF ENVIRONMENTAL IMPACT

All answers to Initial Study questions must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. A brief explanation is required for answers except "No Impact" answers that are adequately supported by the information sources cited in the response following each question.

- 1) A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific screening analysis.
- 2) If it is determined that a particular physical impact may occur, then the checklist responses must indicate whether the impact is "Potentially Significant", "Less Than Significant With Mitigation Incorporated", or "Less Than Significant". "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.
- 3) If all of the potentially significant impacts have been rendered less than significant with mitigation, a Negative Declaration may be prepared. The mitigation measures shall be described in the response, and it shall be explained how the mitigation measure reduces the potential effect to a less than significant level. Mitigation measures may be cross-referenced to other sections when one mitigation measure reduces the effect of another potential impact.
- 4) The response for each issue should identify the threshold or criteria, if any, used to determine significance and any mitigation measure, if any, to reduce a potential impact.
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Earlier analyses, if any, are cited at the end of the checklist). If an earlier analysis is used, the response should identify the following:
 - a) Earlier analysis used – Identify and state where the document is available.
 - b) Impacts adequately addressed – The responses will identify which impacts were within the scope of and were adequately analyzed in an earlier document pursuant to legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures – For effects that are "Less Than Significant With Mitigation Incorporated", the response will describe the mitigation measures which were incorporated or refined from the earlier analysis, and to the extent they address site-specific conditions for the project.
- 6) The checklist responses will incorporate references to inform sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where

the statement is substantiated. A source list should be attached and other sources used or individuals contacted should be cited in the discussion. References are noted in the Initial Study by bold numbers in parentheses (e.g., (10)) (See Section VI. References).

- 7) Individuals contacted and other outside supporting sources of information will be cited in Section VI. References.

VI. ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* Existing scenic views within the vicinity of the project site include the Feather River and the canyon through which it flows. The purpose of the project is to provide access to existing views of the River. This will enhance access and the visual character of the view point itself. Views from the developed area of downtown Oroville to the river are obstructed by the levee and by existing development. The levee has been constructed for flood protection purposes, and is unlikely to be removed. The plaza, promenade and overlooks will be visible from residential areas north of the river. The proposed design features would include earth tone colors, incorporate wood and other natural materials, and no reflective surfaces are anticipated. From a distance, view would include a decorative promenade instead of an unimproved road; therefore the project would not adversely affect views from this elevated residential area.
- b) *Less Than Significant With Mitigation Incorporated.* There are currently no state designated scenic highways within the Oroville area. However, some resources that may be considered scenic exist on the project site including large trees, native vegetation, and the Feather River. These resources could be directly or indirectly affected by activities associated with implementation of the project, which may include removal of existing vegetation in order to construct the scenic overlook component of the Centennial Plaza, Veteran's Memorial Park, and additional extension on the promenade and outlook areas along the levee. (Impacts related to the removal of native vegetation associated with the implementation of the project are further discussed in Section 4. Biological Resources.)

Vegetation is being partially removed for pilings within extending approximately 15' towards the river from the top of the levee feet under the scenic overlook structures that are spaced approximately 300' apart. Construction may require removal of additional vegetation

beyond the footprint of these pilings. Removal of vegetation, including potential loss of trees in the project vicinity, could be considered a loss to natural scenic resources and is considered a potentially significant impact and the following Mitigation Measure is suggested to reduce this impact.

Mitigation Measure:

MM 1.1 The scenic resources, including trees and native vegetation, should be noted and incorporated in the design of the trail ways and park areas along the sides of the levee. Large trees and native vegetation should be retained wherever possible.

Timing/Implementation: Prior to the onset of construction activities or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to scenic resources to a **less than significant** level.

- c) *Less Than Significant Impact.* The visual character of the project site from the south includes views to the river, vacant unvegetated parcels, a continuous paved levee, and a paved and graveled roadway (Arin Rhine Drive). The levee cuts off the downtown commercial and residentially developed portion of the City of Oroville from the Feather River. The river side of the levee and riverbed has a generally natural appearance that would be considered visually appealing. The project is designed to incorporate the existing visual character of the river in its design, and does not propose development that would substantially alter the character of the surrounding downtown development. Design of the promenade, plaza and overlooks would be seen from residential areas north of the river that are situated at a higher elevation than the project. The project, including materials and colors, would be designed to blend with the natural scenery and would not create a visual obstruction along the river.
- d) *Less Than Significant With Mitigation Incorporated.* It is not anticipated that there will be a significant increase in light and glare in the project area from illuminated signs, vehicle headlamps, mirrored windows, polished metal surfaces, and other highly reflective materials. Local roadways in the project vicinity, including Arin Rhine Drive, Oak Street, Lincoln Street, and Oliver Street, allow these existing light sources into the area.

Adjacent to and north of the levee, the river area currently has very little lighting as the levee is at a higher elevation than the downtown area and there is no lighting on the bike path. Only diffused lighting from downtown is seen from the project area. There are potential impacts from new sources of direct light and glare towards the river including the introduction of outdoor lighting from the proposed promenade, plaza area and river overlooks. This lighting would be more direct into natural river area but with mitigation measures are not anticipated to affect aesthetics or sensitive receptors. The lighting in the Plaza area would include path lighting and decorative street lighting along promenade for safety and security reasons, as well as providing for night activity. This would introduce light into an area that has very few light sources, which is considered a potentially significant impact and the following Mitigation Measure is suggested to reduce this impact.

Mitigation Measure:

MM 1.2 Outdoor light fixtures shall be low-intensity wherever possible. Where higher intensity lighting is required for security reasons, lighting will be shielded and/or directed away from any adjacent residential areas and the night sky. All light fixtures shall be designed, installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. Lighting plans shall be provided as part of facility improvement plans to the City to ensure that they meet the City's City Master Lighting design guidelines.

Timing/Implementation: *These measures shall be implemented during the subsequent design and construction of the Plaza and future phases of the project.*

Enforcement/Monitoring: *City of Oroville Planning Department.*

Implementation of the above mitigation measure would reduce impacts to project lighting to a **less than significant** level.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The California Resources Agency has not prepared an Important Farmland Map for Butte County, which grades soils on their suitability for farming. Instead, it has prepared an Interim Farmland Map that identifies lands with existing farming and grazing uses. According to the Interim Farmland Map, the project area is classified as being in "Urban and Built-Up Land" or "Other Land." No farming or grazing land was identified in the project area and no agricultural activities currently exist in the project area. Given existing urban development and the very limited amount of land along the Feather River, agricultural activity in the project area is not considered economically feasible.
- b) *No Impact.* The project would not infringe upon any lands with Williamson Act contracts, as there are no lands within the City limits subject to Williamson Act contracts.
- c) *No Impact.* As noted in a) above, there are no agricultural activities within the project area, and the land is currently classified as open space or other use.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* In 2003, an updated Air Quality Attainment Plan was prepared for the Northern Sacramento Valley Air Basin District (NSVAB) which includes all of Butte County. Butte County is currently designated as a non-attainment transitional zone for ozone standards. Ozone, the primary ingredient of smog, is a gas created when nitrogen oxides and volatile organic compounds react with the sun. The entire NSVAB is also classified as a non-attainment area for particulate matter less than 10 micrometers (PM₁₀). The main source of PM₁₀ is dust generated during clearing, grubbing, grading and other construction activities. Impacts to air quality attributable to such construction activities would be temporary and therefore cease once construction is completed.

The project applicant is responsible for adherence to the District's Standard Construction Mitigation Measures (SMM), as referenced in the Indirect Source Review Guidelines. Compliance with the Standard Construction Mitigation Measures and Standard Mitigation Measures would assist the District in implementing the Air Quality Attainment Plan and reduce the impacts and conflicts with the Air Quality Attainment Plan to a level that is considered less than significant.

b) & c) *Less Than Significant Impact with Mitigation.* The main source of potential air quality impacts associated with the project would be PM₁₀ found in dust and diesel exhaust generated during construction activities. Butte County is currently in non-attainment status for state PM₁₀ standards. Impacts to air quality attributable to construction activities are

temporary (approximately 6 to 12 months) and would cease once construction is completed. Nevertheless the project could contribute to and have short term impacts on PM₁₀ emissions levels. According to the Environmental Review Guidelines for the City of Oroville, adopted in May 1999 (Resolution #5434), based on the result of URBEMIS (Emissions modeling software), pollutants generated by construction of this project would not exceed a Level B Threshold. Level B threshold is any project that generates more than 25 pounds but not more than 137 pounds of ROG and NO_x per day, and more than 25 pounds but not more than 136 pounds of PM₁₀ per day. During the construction phase, this project is expected to generate approximately 8.93 pounds of ROG per day, 57.19 pounds of NO_x per day and 2.22 pounds of PM₁₀ per day. Once construction ceases, emissions on a daily basis in the project vicinity would emit low levels of pollutants that would not substantially contribute to cumulative air quality levels and would not exceed a Level A threshold. A Level A threshold is a project which does not exceed 25 pounds of ROG and NO_x per day and 80 pounds of PM₁₀ per day. The proposed project will not exceed this Level A threshold and is expected to generate approximately 3.91 pounds of ROG, 6.70 pounds of NO_x, and 4.47 pounds of PM₁₀ per day (Please see attached URBEMIS report for further information).

Because the project is in a non-attainment area, the project applicant is responsible for incorporating all feasible and applicable Standard Mitigation Measures (SMM) listed in the Indirect Source Review Guidelines and for adherence to the District's Standard Construction Mitigation Measures.

Mitigation Measure 3.0:

MM 3.0 The project applicant shall incorporate all Standard Construction Mitigation Measures into the project and recommends that the applicant incorporate as many Best Available Mitigation Measures, or Supplemental Mitigation Measures, as feasible into the project as recommended by the BCAQMD.

Timing/Implementation: To be implemented prior to commencement of grading and construction activities.

Enforcement/Monitoring: City of Oroville and Butte County Air Quality Management District.

Compliance with the Standard Construction Mitigation Measures and Supplemental Mitigation Measures would assist the BCAQMD in implementing the Air Quality Attainment Plan and reduce the impacts and conflicts with the Air Quality Attainment Plan to a level that is considered **less than significant**.

- d) *Less Than Significant Impact.* The project area contains single-family and multi-family residences approximately 30-40 feet from the project location. Residents could be exposed to dust generated by construction associated with the project. Implementation of the BCAQMD SMMs, and BAMMs if necessary as determined by and enforced by the city, for construction activities would reduce dust emissions to a level that would not significantly affect adjacent residences.
- e) *Less Than Significant Impact.* The project does not include uses that generate objectionable odors. During construction, various diesel-powered equipment may be used on the site and their use would create odors. These sources are mobile and transient in

nature, providing for dilution of odor-producing constituents. These odors would be temporary and unlikely to be noticeable beyond the project boundaries.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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4. BIOLOGICAL RESOURCES. Would the project:
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|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

A Biological Resources Constraints Analysis (PMC, 2006) was prepared for the project area. The project area studied is discussed in the Project Description and illustrated in **Figure 2**. Approximately 18 acres of land characterized as valley riparian foothill is situated in the project area from the river edge to the levee. The Constraints Analysis examined several biological databases, records and policies related to plant and animal habitat. The analysis included a general inspection of the project site, with emphasis on the potential to support special-status species habitat.

DISCUSSION OF IMPACTS

- a) *Less Than Significant with Mitigation Incorporated.* PMC biologists conducted a pedestrian survey on August 24, 2005, to identify the potential for plant or animal habitat, including potentially sensitive natural communities, within the project area. The project area included 18.2 acres of land characterized as valley riparian foothill from the river edge to the levee. Although it contains non-native species and is somewhat disturbed by the bike path, this area has the potential to support several special-status species that use the dense foliage for cover and nesting as well as forage near the flows of water. Within the project site, the north slope of the levee includes vegetation to the top at Arlin Rhine Road.

The Constraints Analysis listed special status species identified by the USFWS that may be affected by projects in Butte County as well as species listed in the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range. In addition, the Constraints Analysis also sited special status species identified in the City of Oroville General Plan as occurring within the project area (City of Oroville 1995).

Plants

In the course of this investigation, fourteen separate plant species of special status plants were identified as potentially occurring within the biological study area (Biological Constraints Analysis, 2005). One of these plants, pink creamsacs (*Castilleja rubicundula* ssp. *rubicundula*), is listed on the CNDDDB as potentially occurring at the project site. Therefore, the proposed project could impact special status plants both directly (through removal or loss of habitat) and indirectly (through increased human activity). Special status plant species are considered to be a sensitive resource by federal and state resource agencies, so that 1) substantial reduction of the plants habitat or 2) loss of individuals to the extent that the species is not self-sustaining within the project vicinity are considered potentially significant impacts.

Mitigation Measure:

- MM 4.1** The City of Oroville shall retain a qualified biologist to conduct a pre-construction botanical survey, within the months of April or May, to determine if there are any California Native Plant Society's (CNPS) List 1B plants, including the pink creamsacs, occurring onsite. If any special-status plant species occurrences are found onsite, the applicant shall 1) comply with the California Native Plant Protection Act, Sections 2062 and 2067, and confer with the California Department of Fish and Game (CDFG). Furthermore, construction activities shall be restricted based on CDFG guidance. Restrictions may include establishment of avoidance buffer zones, installation of silt fences, or alteration of the construction schedule to allow time for rescuing and replanting the sensitive species, if appropriate.

Timing/Implementation: Prior to the onset of construction activities or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to special status plant species to a **less than significant** level.

Wildlife

Information from 1) agencies regarding species known to occur in the project locale (as documented in the City of Oroville General Plan), 2) site characteristics noted during the reconnaissance visit, and 3) species habitat suitability data were reviewed to determine the potential for presence of special status wildlife in the project area. This analysis determined that several special status species might possibly forage, find cover, or reproduce within the project area and therefore may have the potential to be significantly impacted by the development.

The special status species found in the study area include the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), a federal listed threatened species. Within the vicinity of the project location, the Feather River is known to support Central Valley/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley steelhead (*Oncorhynchus mykiss irideus*), and spring-run Chinook salmon (*Oncorhynchus tshawytscha*). Foothill yellow-legged frog (*Rana boylei*) is a California species of concern. Northwestern pond turtle (*Emys marmorata marmorata*) is a California protected, California species of special concern, and U.S. Forest Service (USFS) sensitive species that occurs in northern California counties. Habitat at the project site provides suitable nesting and foraging opportunities for many avian species, including some raptors and migratory birds. Raptors and raptor nests are considered to be a special resource by federal and state agencies. Additionally, nine separate species of bat were identified as potentially occurring within the biological study area.

The proposed project could impact special status plants both directly (through removal or loss of habitat) and indirectly (through increased human activity). The Oroville Riverfront Park design calls for 10 overlook structures that could extend an approximate 15 feet over the north edge of the levee. The platform for each overlook structure would be supported by pylons footed in the north slope of the levee. Construction staging and placement of pylons for overlook structures could remove habitat. Vegetation shaded by overlooks, as well as the encroachment of development and increased activity adjacent to the riparian area could indirectly affect the habitat vegetation. Incidental take (loss) of any individual species discussed above from implementation of the proposed project is considered a potentially significant impact unless mitigated.

Mitigation Measures:

MM 4.2 The City of Oroville shall retain a qualified biologist to conduct surveys for:

- Elderberry, host plant of the valley elderberry longhorn beetle, within and directly adjacent to the project area. Should elderberry shrubs occur, the biologist will initiate informal consultation with the USFWS. Avoidance and protection measures shall be established onsite using the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). If encroachment within 100-feet (the avoidance radius established by USFWS for the beetle) of elderberry bushes at the project location cannot be avoided, then further mitigation may be required including but not limited to, formal consultation, an incidental take permit,

transplantation of the elderberry by a qualified firm, and/or biological monitoring of construction activities.

- Foothill yellow-legged frog and northwestern pond turtle, which may live within and near riparian areas impacted by project implementation. The survey shall be conducted no more than 24 hours prior to the onset of major construction activities. If either species is identified within or near the construction area during the survey, activity onsite shall be restricted to allow the animal to move out of harms way (without human interference). If the individual species does not move (after an appropriate amount of time to be determined by the biologist) CDFG shall be notified regarding appropriate avoidance or relocation measures. Furthermore, construction activities shall be restricted based on CDFG guidance.
- Local avian species, if future proposed construction activities are planned to occur during the nesting seasons (typically March 1st through August 31st). The surveys will be focused on active nests of raptors and migratory birds within and in the vicinity of (no less than 100-feet outside project boundaries, where possible) construction areas no more than 72 hours prior to ground disturbance. If an active nest is located during preconstruction surveys, USFWS and/or CDFG (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or resource agencies deem the potential for abandonment or loss of individuals to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100-feet around the nest) or alteration of the construction schedule. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through February 28th).
- Special-status bat species at the project site. The survey shall be conducted no more than 30 days prior to the onset of ground disturbance or major construction activities. If sensitive bat species or roosts are identified within the project area during pre-construction surveys, USFWS and/or CDFG shall be notified regarding appropriate avoidance or disturbance minimization measures. Furthermore, construction activities shall be restricted based on the regulatory agencies guidance. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) around the roost site, implementation of species-specific disturbance minimization measures, alteration of the construction schedule, and/or placement of one-way bat doors to prohibit re-entry of bats into the roosting location. If bat species are not identified onsite during the survey, no further action is necessary.

Timing/Implementation: Prior to the issuance of permits, onset of construction activities, or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would reduce impacts to special status wildlife species to a **less than significant** level.

- b) *Less Than Significant with Mitigation Incorporated.* The majority of the heavily vegetated area between the river and the levee consists of riparian area with sections of willow scrub associated with the Feather River watershed. Riparian habitat is considered to be a sensitive natural community under CEQA and is also discussed in the City of Oroville General Plan. Therefore, disturbance and potential loss of riparian habitat from implementation of the proposed project is considered a potentially significant impact unless mitigated.

Also, under the California Fish and Game Code, the CDFG has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake. At the project location, the top of the levee would be considered the top of the bank above the Feather River. Therefore, a Section 1602 Streambed Alteration Agreement would need to be obtained from the CDFG for any project activity proposed to occur at the top of the levee and northward to the river edge.

Mitigation Measure:

MM 4.3 Associated with MM 4.1 and MM 4.2, the City of Oroville shall retain a qualified biologist to conduct surveys to assess temporary and permanent project impacts anticipated by project final design and proposed construction plans. Appropriate mitigation will be developed in consultation with and with the approval of CDFG. The applicant is responsible for any costs associated with mitigation.

The project applicant shall obtain a Streambed Alteration Agreement from CDFG, as required by state law. The City shall comply with all permit conditions (established by the CDFG and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.

Timing/Implementation: Prior to project plan approval.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to sensitive natural communities to a **less than significant** level.

- c) *Less Than Significant with Mitigation Incorporated.* The Feather River watershed is considered a jurisdictional wetland feature, as defined by Section 404 of the Clean Water Act. The USACE also regulates navigable waterways under Section 10 of the River and Harbors Act. Feather River is considered a navigable waterway under Section 10 from the mouth of the river to the railroad bridge at Marysville. Therefore, the section within the project area in Oroville is not considered navigable and is outside the jurisdiction of the USACE under Section 10. Section 404 of the Clean Water Act and the Feather River watershed is considered an ACOE jurisdictional wetland feature. This waterway also supports riparian vegetation (see discussion under 4b), which occurs throughout on northern side of most of the project area.

Because the project occurs on top of and along the river side slope of a levee adjacent to jurisdictional waters, project activities could potentially be regulated by the **USACE** under Section 404 of the Clean Water Act. Any action that could possibly A) compromise the

integrity of the levee or b) result in 'fill material' entering the Feather River temporarily during construction or operation c) as permanent structure is considered potentially significant unless mitigated.

Project plans call for overlooks perched over the edge of the levee to be supported by columns positioned on the north slope of the levee, either at or above the ordinary high water mark (OHWM) elevation of 160 feet, above mean sea level (A.M.S.L.). All riverfront improvements and project activities are anticipated to be designed to occur above the OHWM (using water level data obtained from the California Department of Water Resources), thereby avoiding the need to obtain an Army Corps of Engineers Section 404 permit for construction in jurisdictional waters. However, to maintain design flexibility, the supports for the overlook structures could be placed below the ordinary high water mark with approval and proper permits from the Army Corps of Engineers. The levee is owned by the City of Oroville, therefore alteration of the levee structure in general would not be considered under the jurisdiction of the USACE.

Mitigation Measure

MM 4.4 The City shall coordinate with the USACE to develop a plan that ensures no construction materials and/or permanent fill will be placed in the Feather River or below the ordinary high water mark. It is anticipated that all phases of the project shall avoid any impacts to jurisdictional waters of the U.S. and the USACE will be consulted regarding construction above the OHWM. The City of Oroville shall include the OHWM on engineering plans for the project to clearly identify the limits of project activity. The engineering plans shall then be submitted to the USACE for final review and written confirmation that the proposed activities are outside USACE jurisdiction. If impacts to jurisdictional waters cannot be avoided, a no net loss of wetlands policy shall be employed and the appropriate permits (i.e., Section 404 permit) shall be obtained prior to issuance of grading approval.

In addition, the project applicant shall obtain a Section 401 certification from the RWQCB, as necessary. The City shall comply with all permit conditions and employ best management practices and measures (established by the ACOE and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.

Also, mitigation details (regarding agency restrictions) shall be noted on the design plans and information relevant to permits (such as the OHWM) shall be included in engineering drawings for the proposed project.

Timing/Implementation: Prior to project plan approval.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to the river as a jurisdictional water of the U.S. to a **less than significant** level.

- d) *Less Than Significant Impact.* The proposed project does not currently impact the Feather River directly. However, construction activities are planned adjacent to the river and there is a possibility that runoff, dust, or other project-related consequences could result in indirect impacts to a known fish run for spring-run Chinook salmon. Therefore, with the appropriate regulatory agency consultation (see 4c above) and subsequent permit

acquisition, which would outline best management practices and policies to be enforced onsite to prevent indirect impact to the Feather River, project implementation would have a less than significant impact to migratory wildlife.

- e) *Less Than Significant with Mitigation Incorporated.* The Biological Constraints Analysis revealed potential conflict with policies established by the regulatory agencies under the Federal Endangered Species Act, the California Endangered Species Act FESA, CESA, and local General Plan. In addition to the potential impacts discussed and mitigated above (such as impacts to jurisdictional wetlands, loss of riparian habitat, and take of any individual special status species) the project has the potential to further conflict with local policy regarding project activity within a riparian corridor and loss of individual oaks (*Quercus* sp.) as well as other locally significant trees. Therefore, conflict with local policies through implementation of the proposed project is considered a potentially significant impact unless mitigated.

Mitigation Measure

MM 4.5 For riparian areas: Mitigation for potential impact to riparian areas is identified in Mitigation Measures 4.1 through 4.3, which includes consultation with USFWS and/or CDFG for mitigation of potential impacts to habitat and special status species. In addition, the final project design should incorporate applicable City of Oroville General Plan Policies and Standards for Natural Resources (see Attachment A).

For locally significant trees: Individual oak trees on the project site that are unavoidably lost due to development shall be replaced with native genetic stock oak seedlings at the following replacement rates:

- Inventoried oak trees six inches or greater dbh shall be replaced at a ratio of 5:1.
- Oak trees 3-6 inches dbh shall be replaced at a ratio of 3:1.
- Oak trees less than three inches dbh shall be replaced at a ratio of 1:1.

Any proposed planting of oak seedlings as mitigation shall be included in a landscaping plan to be approved by the City of Oroville Parks and Trees Department. The oak plantings shall have an approved irrigation system, will be monitored for five years, and will be required to meet a success rate of 75% survival after five years. Remedial planting, if necessary, shall be monitored to ensure the 75% success rate.

Timing/Implementation: Prior to project completion.

Enforcement/Monitoring: City of Oroville Planning Department.

The above mitigation measures would eliminate conflict with policies regarding disturbance within a riparian area and preservation of oaks resulting in a **less than significant impact**.

- f) *No Impact.* This investigation revealed no adopted Habitat Conservation Plans (HCP) for the City of Oroville or conservation plans related to the project location; therefore, the project would not conflict with such plans and no project-related impact would occur with project development.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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5. CULTURAL RESOURCES. Would the project:
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- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

A Cultural Resources Constraints Analysis (PMC, 2005) was conducted for the project area. The analysis included records searches and a "windshield survey" of the project area (as generally outlined in **Figure 2**) and an area within a 0.5 mile radius of it. The Area of Potential Effect (APE) for the Riverfront Improvements Final Plan is defined as the project site in the Project Description.

Archaeological and historical investigations for the Oroville Riverfront Project included: a records search at the Northwest Information Center at Sonoma State University, Rohnert Park; search of the University of California Museum of Paleontology (UCMP) collections database; a sacred lands search conducted by the Native American Heritage Commission (NAHC); consultation with the Native American community; and pedestrian surface survey of the project APE (cf., Nadolski 2006).

Cultural resources investigations identified a number of prehistoric sites, historic sites, and historical buildings/structures in the broader project area. The area of downtown Oroville, in particular, is considered a historically sensitive area. There are several buildings in the project area that are either listed in the National Register of Historic Places (NRHP) and the CRHR or appear eligible for inclusion in the NRHP or CRHR.

DISCUSSION OF IMPACTS

- a) *No Impact.* Archaeological and historical investigations for the project did not identify any historical resources within the project site. The Constraints Analysis indicated that project activities such as improvements to Arlin Rhine Drive, the construction of facilities on the levee, and construction of river access on the levee do not have any significant cultural resources constraints. (Nadolski 2006).
- b) *Less Than Significant With Mitigation Incorporated.* Archaeological and historical investigations for the project did not identify any prehistoric sites, historic sites, historic buildings, or unique archaeological resources within the project site. In addition, there is

only a minimal possibility of unanticipated and accidental archaeological discoveries during ground-disturbing project-related activities because project activity would occur on an existing levee that consists of redeposited soils. However, there is the possibility that undiscovered resources may be found in the course of project development work, for instance during trenching for a new drainage system or other ground disturbances. If cultural resources are uncovered during the course of project development and construction, the following mitigation measure shall be implemented.

Mitigation Measure

MM 5.1 Pursuant to CEQA Guidelines Section 15064.5(e), in the event of the accidental discovery or recognition of prehistoric or historic resources in an area subject to development activity, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie similar resources and a professional archaeologist shall be consulted. Further, if human remains are discovered, the Coroner of Butte County must be contacted to determine that no investigation of the cause of death is required. If the County Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission within 24 hours.

Upon completion of the site examination, the archeologist shall submit a report to the County describing the significance of the finds and make recommendations as to its disposition. If human remains are unearthed during construction, the provisions of California Health and Safety Code Section 7050.5 shall apply. Under this section, no further disturbance of the remains shall occur until the County Coroner has made the necessary findings as to origin and disposition, pursuant to California Public Resources Code Section 5097.98. Mitigation measures, as recommended by the archaeologist and approved by the County in accordance with Section 15064.5 of the CEQA Guidelines, shall be implemented prior to recommencement of construction activity within the 50-foot perimeter.

Timing/Implementation: *During project construction.*

Enforcement/Monitoring: *City of Oroville Planning Department.*

Implementation of the above mitigation measures would ensure that potential impacts to cultural resources would be reduced to a less than significant level.

- c) *Less Than Significant With Mitigation Incorporated.* A search of the database at the University of California Museum of Paleontology did not identify any formally documented paleontological sites within the project area. In addition, there is only a minimal possibility of unanticipated and accidental paleontological discoveries during ground-disturbing project-related activities because project activity would occur on an existing levee that consists of redeposited soils. As mentioned above, any unanticipated and accidental paleontological discoveries during project implementation are considered a less than significant impact with mitigation by **MM 5.1**. These policies include stopping all work in the vicinity of any paleontological resources and requiring that a professional paleontologist complete a determination of their significance prior to resuming any work in the area of the discovery.

- d) *Less Than Significant Impact.* Archaeological and historical investigations for the project did not identify any human remains or evidence to suggest that human remains may be

present within project boundaries. In addition, there is a minimal possibility of the unanticipated and accidental discovery of human remains during ground-disturbing project-related activities because project activity would occur on an existing levee that consists of redeposited soils. These policies include stopping work in the vicinity of any human remains and a determination of their significance by a qualified archaeologist and/or the County Coroner.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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6. GEOLOGY AND SOILS. Would the project:

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|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:*
- i) *No Impact.* A review of known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, showed no known earthquake faults traversing the project site.

ii) *Less Than Significant Impact.* The area could be subject to occasional severe ground shaking due to regional faulting. An earthquake at the Cleveland Hills Fault southeast of Oroville generated an earthquake that shook Oroville and much of the Sacramento Valley in 1975. Damage in Oroville was minor to moderate.

According to the EIR for the Oroville General Plan, the intensity of the 1975 earthquake was VII on the Modified Mercalli Scale, which rates the intensity of earthquakes on a scale of I (least intense) to XII (most intense). According to the Butte County Seismic Safety Element, the Cleveland Hills Fault is capable of producing an earthquake with a maximum Modified Mercalli Scale intensity of VIII. Therefore, ground shaking generated by this fault is not expected to be significantly greater than that experienced in Oroville during the 1975 earthquake. Moreover, all new structures in Oroville must comply with the provisions of the Uniform Building Code, particularly the seismic design standards for buildings within Seismic Zone 3. Buildings constructed to these standards are expected to survive the predicted levels of ground shaking, as determined by the probabilistic ground shaking maps prepared by the U.S. Geological Survey, without suffering catastrophic collapse.

iii) *Less Than Significant.* The project area is located on the top of a levee, which protects Oroville from flooding from the Feather River. The existing levee consists of consolidated soils. No faults are known to exist in this area. Liquefaction tends to occur in areas of sandy or silty soils with a high water table which is induced by a seismic event. It is not anticipated that there will be any such impacts associated with liquefaction as a result of this project, because it is of the construction of the existing levee of consolidated soils and the levee is not typically in a saturated condition

iv) *Less Than Significant.* Landslides are most likely to occur in areas with steep slopes, and the majority of the project site contains generally flat terrain. However, the southern bank of the Feather River contains steep slopes. According to the Oroville General Plan, slopes with greater than 30 percent grade are areas considered to be prone to landslides. The river bank was not identified as having slopes greater than 30 percent, therefore the impacts to the potential of landslides within the area is considered less than significant.

b) *Less Than Significant with Mitigation Incorporated.* Certain soils are more susceptible to erosion. The characteristics of the soils within the project area are not known. In order to determine what type of soils exist on site, a geotechnical study is required to be completed prior to project construction. The project has the potential to result in erosion, especially on the top of levee where excavation will occur for paving. To ensure that significant erosions will not occur as a result of the project, the following mitigation measure shall be implemented:

Mitigation Measures

MM 6.1 A geotechnical report will be prepared for the project site to determine the soil attributes in this area. The construction of this project site shall follow the recommendations of this geotechnical report to ensure the stability of the project site.

MM 6.2 The following measures will be implemented during and after construction to ensure protection of the project area; hydro seeding and planting of native grasses will take place on any bare areas after final landscaping is installed, temporary erosion control measures will include silt fences, straw wattles, and installation of biofilters at downstream storm drain facilities.

MM 6.3 If this project disturbs more than one acre, a National Pollutants Discharge Elimination System (NPDES) General Construction Permit would be required from the Regional Water Quality Control Board (RWQCB). This permit requires preparation of a plan to reduce discharges of pollutants, including sediments.

Timing/Implementation: Prior to project construction.

Enforcement/Monitoring: City of Oroville Planning Department, Regional Water Quality Control Board.

Implementation of the above mitigation measures would ensure that potential impacts to erosion to be reduced to a **less than significant level**.

- c) *Less Than Significant with Mitigation Incorporated.* As noted in 6a)iii above, the project area is unlikely to be subject to a liquefaction hazard. However, as required in 6b) **MM 6.1** requires that a geotechnical study be performed prior to project construction and the recommendations of this geotechnical report shall be implemented to ensure the stability of the project site.

Because of the construction of the existing levee and embankments, it is assumed that they are extremely stable given the significant role they play in protecting downtown Oroville from flooding (Green Valley, 2006). However, to ensure that significant instability will not occur as a result of the project, the following mitigation measure shall be implemented:

Mitigation Measure

MM 6.4 Any penetration of levee or embankment with project features, such as footings or piles (including fill placed along the levee as proposed for construction of the amphitheatre), will be performed as recommended by a licensed geotechnical engineer to ensure the integrity of the project area is not affected. Any borings, etc. will be backfilled with concrete to enhance the stability of the underlying soil structure.

Timing/Implementation: During project construction.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would ensure that potential impacts to the stability to the existing levee and embankments will be reduced to a less than significant level.

- d) *Less Than Significant Impact.* Expansive soils generally have high clay content and characteristics of soils within the project area are not known at this time. However, **MM 6.1** requires that a geotechnical study to be performed. It is not anticipated that there will be any impacts to the existing soil structure as a result of this project; however, the following mitigation measure is required to ensure the stability of any expansive soils onsite.

Mitigation Measure

MM 6.5 Expansive type soils shall be investigated by a licensed geotechnical engineer during the geotechnical report. If expansive soils are identified, recommended

measures will be performed to ensure that the proposed improvements are constructed in accordance with standard engineering practices for expansive soil.

Timing/Implementation: *Prior to and during project construction.*

Enforcement/Monitoring: *City of Oroville Planning Department.*

Implementation of the above mitigation measures would ensure that potential impacts from expansive soils will be reduced to a less than significant level.

- e) *No Impact.* The project area is currently connected to SC-OR (Sewerage Commission - Oroville Region) sewer services. Future development within the project area would not use septic systems.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) and b) *Less Than Significant Impact.* The project would ultimately result in development of public use areas, including parks and improved walkways and access roads; land uses that are not associated with transport or use of hazardous materials.
- c) *No Impact.* The closest schools (Bird Street Elementary School and St. Thomas the Apostle School) are located over one quarter of a mile from the proposed project site. There are no schools proposed for development within one-quarter mile of the project site. The proposed land use (recreational) is not associated with handling of or generation of emissions of hazardous substances.
- d) *No Impact.* The California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site, or Cortese List, is a planning document used by State and local agencies in providing information about the location of hazardous materials release sites. A review of the publicly available California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site, or Cortese List, indicates that there are two hazardous substance sites located within the City of Oroville: Sierra Pacific and Koppers Industries. However, both the Sierra Pacific wood treatment plant and the Koppers Industries site, a 200-acre former wood treating facility, are located over 1 mile from the proposed project area.

There are no hazardous material sites located within the proposed project area, according to the latest Cortese List, thus there are no environmental conditions on or near the proposed project site that would create a significant hazard to the public or the environment.

- e) *No Impact.* The nearest public use airport is Oroville Municipal Airport. The project area is not within two miles of the airport, nor is it included in a safety zone designated by the Comprehensive Land Use Plan (CLUP) for the airport.
- f) *No Impact.* There are no private airstrips within the vicinity of the project site.
- g) *No Impact.* According to the Oroville General Plan Figure 8.60-A, *Evacuation Routes*, the closest evacuation route to the project site is Montgomery Street, which is within the project area boundaries. The project would not block or restrict the designated evacuation route and additional automobile traffic generated by the project would be accommodated by the both the existing roadway system, as well as the circulation improvements. These improvements would include Arlin Rhine Drive, Oliver Street, Lincoln, and Oak Street (as described in the Project Description above).
- h) *Less Than Significant Impact.* The project area is sited between the natural riparian habitat along the Feather River, which represents high fire potential and the heavily urbanized downtown Oroville, which is highly vulnerable to fire. The improvements associated with this project will include approximately 4,600 feet of area of impermeable paving for the Riverfront Promenade, approximately 7,850 square feet of hardscape for the Centennial Plaza, and approximately 580 feet of a decomposed granite path that will connect the Promenade to the Centennial Plaza. These are not highly combustible materials and would not further spread a fire started in the riparian area to the urban downtown area. The project will also include some grouped planting of trees to help provide for shade in the park areas, however, most of these plantings are planned to be native vegetation that would be similar to the type of vegetation that currently exists in the vicinity.

In partnership with surrounding fire and public safety agencies, the City of Oroville has established policies, programs, and practices which help to minimize wildland fire risk. The development and maintenance of Oroville's fire fighting infrastructure has resulted in an Insurance Services Office (ISO) fire risk rating of 3, indicating a relatively fire safe community. In addition, the City's ability to respond to wildland fires has been enhanced by the Wildland Fire Protection Agreement (WFPA), per Public Resources Code 4142. This cooperative agreement between the California Department of Forestry and Fire Protection (CDF) and the City of Oroville provides for a seamless response to wildland fires and eliminates any unnecessary delays in responding to an incident. In the event of wildland fire within the City Limits, the CDF would automatically respond with the same resources it uses to protect State Responsibility Areas. In addition, the City of Oroville, Butte County Fire/CDF, and the El Medio Fire District participate in Automatic Aid Agreement, a common dispatch agreement in which emergency calls are received and dispatched by Butte County. The closest available unit, regardless of jurisdiction, is dispatched to the call. Both the Wildland Fire Protection Agreement and the Automatic Aid Agreement essentially authorize the City of Oroville access to county and state-owned fire and emergency service resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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8. HYDROLOGY AND WATER QUALITY. Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Inundation by seiche, tsunami or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact with Mitigation Incorporated.* The downtown Oroville area is currently connected to SC-OR's (Sewer Commission Oroville Region) sewer system in order to dispose of wastes. No restroom facilities are proposed as a part of this project. However, as discussed below in c) and e), drainage patterns will not be changed as a result of the project. Impacts on water quality standards or waste discharge requirements from surface drainage changes are addressed in 6b) Geology and Soils above and **MM 6.1, 6.2, and 6.3** will reduce this impact to less than significant.
- b) *Less Than Significant Impact.* The developed portion of the project area is currently connected to the California Water Service Company's (Cal Water) water system, which has served the City of Oroville since 1927. Most of the water that is provided to Oroville is surface water from the west branch of the Feather River, which is processed at the company's water treatment plant. The surface water is supplemented by local groundwater produced by four wells (Cal Water, 2005). No additional wells would have to be drilled to provide water to the project.

The Centennial Plaza and Veteran's Park portion of the project has proposed features that will require additional water and irrigation including; planted areas, a fountain, as well as a re-circulating water feature. This will require additional water usage than the current existing condition, but will not be significant impact which would deplete groundwater supplies or interfere with groundwater recharge which would not support existing land uses. Additionally, the area along the Feather River remains mostly open space. Therefore, existing groundwater recharge occurring in the project area would not be diminished significantly.

- c) *Less Than Significant Impact.* The project area is located adjacent to the Feather River. While the proposed project includes development of a public gathering area adjacent to the river and roadway improvements, this development would not alter the river in any significant manner. It should be noted that construction and grading within the river area and/or adjacent to the levee may require a permit from the State Reclamation Board, which oversees designated floodways and Central Valley Streams listed in Table 8.1 in Title 23 of the California Code of Regulations, including the Feather River. Other conditions associated with the river area represent greater potential constraints (see Biological Resources section).

The current drainage pattern of the project site currently sheet flows across the existing levee towards the south and down the embankment, collecting into existing drop inlets near the toe of the slope. These drain inlets are then collected via an existing 18" city owned storm drain which outlets towards the north into the Feather River. The site is currently partially paved with the remaining area covered by gravel and minimal amounts of grasses and weeds. The proposed improvements associated with the Centennial Park will include concrete and decomposed granite pathways, an asphalt concrete roadway, and landscape plantings of various types. Proposed drainage flows will continue to sheet flow away from directly entering the Feather River and be collected into drain inlets throughout the site. These drain inlets will then be collected through an underground drainage system which will connect to the existing 18" city owned storm drain. Current drainage patterns will not be altered (Green Valley, 2006).

As described in **MM 6.3**, any construction project that disturbs more than one acre would be required to obtain a National Pollutant Discharge Elimination System (NPDES) General

Construction Permit from the Regional Water Quality Control Board (RWQCB). One of the conditions of this permit is the preparation of a Storm Water Pollution Prevention Plan, which includes proposed Best Management Practices that would be employed to reduce sedimentation.

- d) *Less Than Significant Impact.* As noted in c) above, the project would not alter the Feather River in any significant manner. Most of the project area is currently developed, and most drainage is collected in the City's drainage system. Project development is not expected to alter these basic drainage patterns and therefore this impact is considered to be less than significant.
- e) *Less Than Significant Impact.* As mentioned above, the City of Oroville's drainage system currently serves the project area. The existing storm drain system will continue be used for the project area (Green Valley, 2006). The existing levee will be paved with walkways, in public gathering areas, and improvements to existing roadways will require re-paving, which will result in more run-off as it will be an impermeable material. In addition, there will be irrigation systems installed for the new landscaping that will be an expansion of any existing system. The overall project will result in a decrease of permeable areas and an increase in impermeable areas by 13,500 square feet (Green Valley, 2006). The increase in runoff will be detained in existing underground storm drain facilities so that any discharge in receiving waters will not alter or change the existing peak hydrograph (Green Valley, 2006).
- f) *No Impact.* The project would have no other effects on water quality outside of those previously described.
- g) *No Impact.* As indicated in the City's General Plan, the project area is not within a 100-year floodplain as mapped by the Federal Emergency Management Agency (FEMA). Additionally, no housing is proposed as part of this project.
- h) *Less Than Significant Impact.* The project area is currently developed as an existing levee and associated roadways; redevelopment of this area would not significantly alter flood flows. Overlook pavillion structures are proposed by the project, however, these overlooks are to be constructed at or above 160' elevation, which is above the ordinary high water mark. If construction of the overlook structures associated with the riverfront improvements are designed to occur above the ordinary high water mark (using water level data obtained from the California Department of Water Resources) the project will not be placed within the USACE jurisdiction. No flood flows within the levee area are expected to be altered or obstructed. As noted in g) above, the project area is not located within a 100-year floodplain, and therefore is not at great risk for flooding.
- i) *Less Than Significant Impact.* As noted above, the project area is not located within a 100-year floodplain. The presence of Oroville Dam and the large storage capacity of its reservoir have greatly reduced the likelihood of a major flood occurring in the area. The levee within the project area further reduces the flood risk for existing structures.

The project site is located within the dam inundation area for Oroville Dam. After the 1975 earthquake, the Department of Water Resources did extensive engineering studies to determine the potential for failure of Oroville Dam. The results of the study indicated that the Oroville Dam could withstand an earthquake of an estimated magnitude of 6.5 without significant damage. The study also determined that a 6.5 magnitude earthquake exceeds the maximum credible event for the region.

- j) *No Impact.* Seiches and tsunamis are generally earthquake-induced events that pose risks to areas located near large bodies of water. The nearest large body of water to the project area is Lake Oroville, approximately five miles to the northeast. A seiche event could occur on Lake Oroville, but it would not likely affect the project area. A mudflow is the movement of water-saturated earth material possessing a high degree of fluidity. A less-saturated flowing mass is often called a debris flow. A mudflow originating on the flank of a volcano is referred to as a lahar. The proposed project is not located near any active volcanoes, so the potential for volcanic mudflow is low.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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9. LAND USE AND PLANNING. Would the project:

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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The project area is located along the southern bank of the Feather River in the City of Oroville. The surrounding area contains some established residential areas, which are extensions of the large residential area located south of the project area between Feather River Boulevard and Oak Street. The project is a redevelopment of an existing public access area, and it is not anticipated that this will affect existing residences in the surrounding area.
- b) *Less Than Significant Impact.* The project is proposing infrastructure and design improvements for a section of the riverfront portion of the City of Oroville. These activities are consistent with the existing General Plan and zoning designations for the project area. The General Plan designations for the Master Plan area include Parks, Environmental Conservation/Safety, Retail and Business Services, as well as Low, Medium and High Density Residential. Zoning designations include Open Space, Agricultural Residential, Medium and High Density Residential, Restricted and Heavy Commercial, Commercial Light Manufacturing and Neighborhood Commercial. The Oroville Riverfront Final Plan improvements are to be implemented as part of the Master Plan for Riverfront Improvements; however, this Oroville Riverfront Final Plan is to be implemented as a stand-alone project and is not dependent on future phases or construction of elements of the approved Master Plan. State law requires consistency between land use plans and the General Plan, and consistency between the General Plan and zoning. Although there are a variety of land use designations in this area, the project's proposed uses are consistent with the existing designations and uses.
- c) *No Impact.* No habitat conservation plans or natural community conservation plans are applicable to the project area.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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10. MINERAL RESOURCES. Would the project:
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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The California Geological Survey prepares mineral resource zone maps that identify potentially significant mineral deposits. No mineral resource zone maps have been prepared for the City of Oroville; therefore, no mineral resources considered significant to the state have been identified. The project area is located within a primarily developed portion of the City of Oroville. There are no mineral resource extraction activities within the project area or the vicinity.
- b) *No Impact.* The City's General Plan does not identify any mineral resource recovery sites in the Oroville planning area. No other local plans have identified such sites.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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11. NOISE. Would the project result in:
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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The project may allow for activities that would increase noise levels within the project area. The most significant potential noise source would be increased vehicle traffic, which is estimated to be 420 daily vehicle trips, from people visiting the park areas, including Centennial Park and Veteran’s Memorial Park. There will be future traffic improvements proposed with this project, however, traffic levels are not expected to increase significantly. With public gathering areas, noise levels are anticipated to increase from communications ranging from conversational levels to yelling or shouting levels. These noises may be heard from some residences near the park or levee area. These noise levels are a concern to the City, which has adopted a Noise Ordinance to regulate the maximum amount of noise that can reach sensitive land uses such as residences. This Ordinance states that “no person shall produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on residential property, a noise level more than five dB above the local ambient at any point outside of the property plane”. This

project area would be subject to these regulations in order to protect surrounding residential properties from excessive noise levels.

The project area contains some commercial activity and residential uses, but no major noise sources. Based on the City's General Plan, the nearest significant noise sources to the project area are State Route 70, Montgomery Street, Table Mountain Boulevard and the Union Pacific Railroad tracks. The Noise Element of the General Plan contains tables establishing future (2015) noise contours for 60-decibel (dB) noise levels. Based on these tables, the project area is located outside noise contours for State Route 70, Montgomery Street, Table Mountain Boulevard, and the Union Pacific Railroad tracks.

- b) *Less Than Significant Impact.* Groundborne vibrations are usually associated with heavy vehicle traffic (including railroad traffic) and with heavy equipment operations. To the southeast, the Union Pacific Railroad is located approximately 1,800 feet from the project area. At that distance, groundborne vibrations generated by rail traffic would be minimal once they reach the project area. Vehicle traffic on City streets is predominantly passenger cars and pickup trucks, particularly within the project area. Although development and roadway improvements associated with the project may cause increased traffic on nearby streets from people driving to the parks and public access areas, the general characteristics of this traffic are not expected to be different from existing conditions. Some heavy vehicle traffic occurs along Montgomery Street, however, since the roads to the north are dead-end streets, it is unlikely that these trucks drive directly to the levee or project site. Therefore, in terms of passenger to heavy truck ratios, the majority of the traffic is, and is expected to remain, passenger vehicle traffic. For this reason, vibration from truck traffic are not expected to increase as a result of this project.
- c) *Less Than Significant Impact.* There are basically two ambient noise level conditions within the project area. One is on the north side of the levee nearest the Feather River, which is relatively undeveloped and has few noise-generating activities. The area located to the south side of the levee contains urban development and has several activities that generate noise. Increases in vehicular and pedestrian traffic on top of levee would not lead to a significant noise increase to the north side of levee and surrounding project vicinity.
- d) *Less Than Significant Impact.* A temporary increase in noise levels due to construction associated with the project will occur. This increase would cease once construction is completed. Noise impacts would tend to be confined to the vicinity of the construction site. However, construction near residences 50 to 100 feet away could have adverse, albeit temporary, impacts. The City's Noise Ordinance regulates temporary and periodic noise associated with construction, which would reduce impacts. The Noise Ordinance restricts construction to the hours of seven a.m. and nine p.m. daily except Saturdays, Sundays and holidays, when the hours between ten a.m. and six p.m. shall be allowed. Additionally, the Noise Ordinance requires construction equipment to meet guidelines to further reduce noise impacts.
- e) *No Impact.* As discussed in the Hazards and Hazardous Materials section, the project is not within two miles of a public airport, nor is it included in a zone designated by the Comprehensive Land Use Plan (CLUP) for such an airport.
- f) *No Impact.* As discussed in the Hazards and Hazardous Materials section, there are no private airstrips within the vicinity of the project.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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12. POPULATION AND HOUSING. Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* This project would not induce substantial population growth in the area. The project area already contains infrastructure, induced population growth is not likely to occur.

- b) *No Impact.* A stated goal of the City of Oroville General Plan Housing Element is to “preserve existing affordable housing opportunities for lower income residents.” A project that displaces or removes 5 or more affordable housing units is considered to have a significant impact. However, the proposed project does not contain any existing housing that would substantially displace people to necessitate the need for housing elsewhere.

- c) *No Impact.* As previously mentioned in b), no residences exist within the project area. Therefore, no persons would be displaced as a result of the project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- | | | | | |
|-----------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The Oroville Fire Department already serves the project area. The Oroville City Council has adopted the Fire Department Standards of Coverage Guidelines in order to guide future growth. The goal statements include:

- Fire Department travel times should place a first-due unit at scene within five minutes travel time, for 90% of fire and medical incidents.
- Fire Department units shall be located and staffed such that an effective response force of four units with eight personnel minimum shall be available to all areas of the City within a maximum of ten minutes travel time, for 90% of all structure fires.

While the project may place additional demands on the Fire Department, such as calls regarding injuries or fires, these demands could be accommodated without the construction of new facilities or the expansion of existing facilities. As the project is re-development of existing public use areas, there are already people utilizing this area for parking and to gain access to the bike trail. The Fire Department facility on Lincoln Street is close enough to respond to emergency calls from the project area within five minutes, which meets the above standard for response time set by the City.

b) *Less Than Significant Impact.* The project area is currently served by the Oroville Police Department. While the project may place additional demands on the Police Department, such as calls for public assistance, these demands could be accommodated without the construction of new facilities or the expansion of existing facilities. The Police Department facility on Lincoln Street (co-located with the Fire Department facility) averages an estimated response time within the City of two to three minutes, which is considered adequate to serve present needs.

c) *No Impact.* No new residential housing is proposed with this project that would result in an increase in the student population in the area. This project is recreational access and not expected to place additional demands on the existing schools in the area, which are within

the jurisdictional boundaries of the Oroville Union Elementary School District and the Oroville Union High School District.

- d) *Less Than Significant Impact.* This project proposes improvements in infrastructure and park facilities in an area that currently allows for public access. The physical impacts that would result from development of the parks, walkways, and roadway improvements are addressed throughout this document. Development of the project site is intended to facilitate public access to the Feather River and this increased access may also result in increased use of adjacent parks, including Bedrock and Riverbend Park along this stretch of river. Increased use of the area parks could increase the City's maintenance costs, however, these factors have been anticipated for in the City's operating budget for parks.
- e) *Less Than Significant Impact.* Other public services that could be affected by the project include street maintenance. These services are currently provided to the project area, and additional demand could be accommodated without the need to construct new facilities or to expand existing facilities.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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14. RECREATION.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* As noted above in the Public Services section, the intent of this project is to facilitate public access to the Feather River and this increased access may also result in increased use of adjacent parks, including Bedrock and River Bend Parks. Increased use of the area parks could increase the City's maintenance costs, however, these factors have been anticipated for in the city's operating budget for parks. Additionally, there are a number of recreational facilities at Lake Oroville and within the surrounding area of the City of Oroville.
- b) *Less Than Significant Impact.* As noted in the Public Services section, the project is proposing a park and recreational facility in an area that is currently has public access, adjacent to the Feather River. The physical impacts that would result from development of the project are addressed throughout this document, and have been mitigated to a less than significant level.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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15. TRANSPORTATION/TRAFFIC. Would the project:

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|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* The proposed project is anticipated to attract traffic from the greater residential areas in the region and from downtown Oroville. Vehicular access to the project site is available primarily from Feather River Boulevard, Montgomery Street north to Lincoln Street, to the levee and along Arlin Rhine Drive. Arlin Rhine Drive is also accessible from 1st and 5th Avenue, Huntoon Street, and Oliver Street. See **Figure 6** for the Traffic Study Area. There is existing access to the project location currently, and there is a proposal to improve the existing roadways in the project area, including Arlin Rhine Drive, Lincoln Street, Oak Street, and Oliver Street.

In September 2006, a Traffic Study was completed which included an analysis of traffic conditions for the Oroville Riverfront Improvement Plan area. The study area consists of the Montgomery Street corridor and Feather River Boulevard-Arlin Rhine Drive along the Feather

River Levee from State Route 70 (SR 70) on the west to Washington Avenue on the east and includes the following intersections; Montgomery Street/Lincoln Street, Montgomery St./Feather River Blvd., Montgomery Street/SR 70 NB Off-ramp, and Montgomery Street/SR 70 SB Off-ramp. This analysis concluded that the future traffic conditions, utilizing the 2002 Butte County Association of Governments (BCAG) travel forecast model, determined that for the Year 2025, the Oroville Riverfront Improvement Plan area is expected to experience an increase in traffic volumes of approximately 72 percent, or approximately 2.4 percent per year. The highest anticipated volumes are projected to occur along the western segments of Montgomery Street. Assuming an increase of 72 percent along the Montgomery Street corridor, the study intersections would be expected to operate at LOS C or better, indicating acceptable traffic conditions according to the applied standards. The stop-controlled southbound approach of Lincoln Street to Montgomery Street is expected to operate at a LOS F; however, traffic volumes on this approach would be very low, so this would have a minor influence on the level of delay to the intersection as a whole. The City of Oroville General Plan Policy 5.10e states "Strive to maintain LOS C for all arterial and collector streets ..." Therefore, this project will not exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways.

As demonstrated by the traffic study, the anticipated traffic increase as a result of the Oroville Riverfront Park is expected to generate an average of 420 daily vehicle trips, which includes 17 a.m. peak hour trips and 34 p.m. peak hour trips. These projected trips represent the increase in traffic that the project would generate over existing trip levels, please see **Table 1** below. Under the existing traffic conditions plus the project conditions, all of the study intersections are expected to continue operating acceptably at LOS C or better, both overall and on all approaches, with very minimal increase in delays.

Table 1
Trip Generation Summary

Land Use	Units	Daily		A.M. Peak Hour				P.M. Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
City Park	21 acres	20	420	0.8	17	9	8	1.6	34	17	17

- b) *Less Than Significant Impact.* According to the Oroville General Plan, the Level of Service (LOS) classification system is a qualitative measure of traffic movement based upon a rating system from "A" to "F", with "A" being the best. Development approvals require demonstration that traffic improvements necessary to serve the development will not violate the level of service standards and will be in place in order to accommodate trips generated by the project.

As noted in a) above, according to the traffic study analysis, the proposed project is not expected to contribute to a significant increase in traffic volumes. This report conducted an analysis on the affect on the level of service (LOS) and additional trips on streets within and in the vicinity of the project area. This report was conducted for the Oroville Riverfront Park and anticipated increases in vehicular, pedestrian and bike traffic in the area as a result of the project. The City of Oroville has determined that a project that generates no more than 500 average daily trips is considered to be less than significant in its effect on an existing roadway level of service (LOS), unless the project contributes 100 or more peak hour trips to an existing roadway or intersection that is operating at an unacceptable LOS. The traffic analysis determined that the additional traffic generated by the project would result in approximately 420 daily trips.

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. A unit of measure that indicates a level of delay generally accompanies the LOS designation. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions.

Existing Traffic Conditions

Intersections along the Montgomery Street corridor were evaluated to determine existing operating conditions. The analysis focused on the intersections with Lincoln Street, Feather River Boulevard and the SR 70 ramps. These intersections would be expected to experience increased traffic with enhanced activity along the Riverfront area. Although other intersections along Montgomery Street provide access to the levee road, Lincoln Street was selected as a sample access location to assess impacts.

Traffic counts were collected at the study intersections in September 2005. Based on these traffic counts, all stop-controlled movements at the study intersections are operating at LOS B, with overall intersection operation of LOS A or B, indicating acceptable conditions. The signalized intersection of Montgomery Street/Feather River Boulevard is operating at LOS C, which is also considered acceptable. Intersection level of service calculations are summarized in **Table 2** below.

Table 2
Summary of Intersection Levels of Service

Intersection <i>Approach</i>	Existing Conditions		Existing plus Riverfront Master Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street <i>Southbound Lincoln Street</i>	1.2 <i>13.9</i>	A <i>B</i>	1.6 <i>13.6</i>	A <i>B</i>
2. Montgomery St./Feather River Blvd.	21.5	C	21.6	C
3. Montgomery Street/SR 70 NB Ramps <i>Northbound Off-ramp</i>	0.9 <i>10.3</i>	A <i>B</i>	0.9 <i>10.3</i>	A <i>B</i>
4. Montgomery Street/SR 70 SB Ramps <i>Southbound Off-ramp</i>	10.6 <i>11.8</i>	B <i>B</i>	10.7 <i>11.9</i>	B <i>B</i>

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

Future Traffic Conditions

The 2002 Butte County Association of Governments (BCAG) travel forecast model was used to assess potential growth in traffic volumes along the Montgomery Street corridor. BCAG's traffic model identifies total traffic volumes by road segment. Utilizing the BCAG's travel forecast model for the Year 2025, the Riverfront Planning Area is expected to experience an increase in traffic volumes of approximately 72 percent, or approximately 2.5 percent per year. The highest anticipated volumes are projected to occur along the western segments of Montgomery Street.

Assuming an increase of 72 percent along the Montgomery Street corridor, the study intersections were evaluated under the assumed Future 2025 base traffic volumes. Overall, the study intersections would be expected to operate at LOS C or better, indicating acceptable traffic conditions according to the applied standards. The stop-controlled southbound approach of Lincoln Street to Montgomery Street is expected to operate at a LOS F; however, traffic volumes on this approach would be very low, so have a minor influence on the level of delay to the intersection as a whole. The signalized intersection of Montgomery Street/Feather River Boulevard would be expected to continue operating at LOS C. Intersection level of service calculations are summarized in **Table 3** (W-Trans, 2006).

Table 3
Summary of Future PM Peak Hour Intersection Levels of Service

Intersection <i>Approach</i>	Future (2025) Conditions		Future (2025) plus Riverfront Improvement Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street <i>Southbound Lincoln Street</i>	2.3 <i>58.4</i>	A <i>F</i>	3.1 <i>66.6</i>	A <i>F</i>
2. Montgomery St./Feather River Blvd.	24.3	C	24.5	C
3. Montgomery Street/SR 70 NB Ramps <i>Northbound Off-ramp</i>	1.1 <i>12.9</i>	A <i>B</i>	1.1 <i>13.0</i>	A <i>B</i>
4. Montgomery Street/SR 70 SB Ramps <i>Southbound Off-ramp</i>	19.2 <i>22.5</i>	C <i>C</i>	20.0 <i>23.6</i>	C <i>C</i>

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

The City of Oroville General Plan Policy 5.10e states "Strive to maintain LOS C for all arterial and collector streets ..." Therefore, the Oroville Riverfront Improvement Plan will not exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways.

- c) *No Impact.* The project is located several miles away from the overflight zone of Oroville Municipal Airport, and would have no effect on air traffic patterns. The project would not induce changes in air traffic levels, as there are no local airports that provide regularly scheduled passenger service. The nearest such airports are in Chico and Sacramento.
- d) *Less Than Significant Impact with Mitigation Incorporated.* The Oroville Riverfront Improvement Plan area is laid out in a traditional grid pattern, oriented in a north-south direction. Wide residential streets on small, 300-foot blocks separate the Feather River Levee and its recreational amenities from Montgomery Street and the downtown core. The project proposes improvements to some of the roadways within the project area, including Arlin Rhine Drive which will include realignment and connection to Oak and Lincoln Streets. A roundabout will be provided at the northern end of Oliver Street. Additionally, a total of 303 parking spaces will be created within the Plan area.

The plan proposes a one-way exit at Oak Street where Oak Street is two-way, south of Montgomery and a one-way entry at Lincoln Street where it is one-way southbound, south

of Montgomery Street. (Huntoon Street is one-way northbound which forms the couplet with Lincoln Street.) The traffic report intersection analysis treated Lincoln Street as a two-way access to the riverfront in order to assess worst case access conditions. The intersection would be expected to operate acceptably overall. There are existing turn lanes in each direction on Montgomery Street to serve left-turns to the park as well as destined to southbound Lincoln Street. By converting Oak Street, north of Montgomery Street, to a one-way exit, the eastbound left-turn lane on Montgomery Street would no longer be needed. It is suggested that the eastbound be restriped. The center turn lane area could be reconfigured as a median. All other existing traffic control and lane geometrics would be considered acceptable (W-Trans, 2006).

Should the City choose to convert the Lincoln Street-Huntoon Street couplets to two-way streets, the following mitigation measure shall be implemented:

Mitigation Measure:

MM 15.1a As the majority of northbound traffic would most likely shift to Lincoln Street, at the intersection of Lincoln Street/Montgomery Street; a traffic signal will be installed.

MM 15.1b The addition of a westbound left-turn lane on Montgomery Street at Huntoon Street will be installed to serve new left-turn movements destined to the south.

Timing/Implementation: *Prior to project completion.*

Enforcement/Monitoring: *City of Oroville Public Works Department.*

Traffic within the project area is primarily cars and small trucks. The project would change some existing road and intersection characteristics, as described above, in order to improve existing vehicular traffic patterns in the area however. In addition to the car and truck traffic, the project is expected to attract pedestrians from the surrounding downtown area and adjacent neighborhoods. These pedestrian trips to the park would require crossings of Montgomery Street. There are existing uncontrolled marked crosswalks of Montgomery Street at key locations; however, these crossings lack enhanced crossing features which address pedestrian safety. Therefore, potential safety issues may arise (W-Trans, 2006). To ensure the safety of pedestrians and the following mitigation measure shall be implemented:

Mitigation Measure:

MM 15.2 Crosswalk enhancements, including high visibility treatments and bulbouts, should be provided across Montgomery Street at 1st Street, 5th Street, and Oliver Street to accommodate increased pedestrian traffic.

Timing/Implementation: *During project construction.*

Enforcement/Monitoring: *City of Oroville Public Works Department.*

The project is also expected to attract bicyclists from surrounding areas. Montgomery Street, the primary east-west street serving the area, does not have any enhanced bicycle facilities (W-Trans, 2006). To ensure that potential safety issues are addresses from bicycle traffic, and the following mitigation measure shall be implemented:

Mitigation Measure:

MM15.3 Install Class II bike lanes on Montgomery Street to facilitate bicycle access to and from the Riverfront area. Since Montgomery Street is approximately 46 feet wide, the recommended cross section would consist of two 11-foot travel lanes, two 5-foot bike lanes and two 7-foot parking lanes, provided that this configuration would allow adequate bus maneuverability. If so, the bike lanes may transition to a bike route through the downtown core.

Timing/Implementation: *During project construction.*

Enforcement/Monitoring: *City of Oroville Public Works Department.*

- e) *No Impact.* Emergency access to the developed portion of the project area is readily available from existing City streets however; Arlin Rhine Drive provides access for emergency vehicles called to assist individuals needing service in the river area. The existing bicycle path can also provide emergency access.

- f) *Less Than Significant Impact.* Development associated with the project may generate an increased demand for parking spaces. Therefore, as described in the Project Description, room for up to approximately 300 parking spaces has been planned for within the Oroville Riverfront Improvement Plan area. The number of parking spaces included in the project plan are more than adequate to accommodate estimated trips generated by the project. Parking demand varies by use. Parking demand in the downtown area is high; however, parking demand throughout the residential portions of the project area is generally low. Parking is widely available for visitors at Bedrock Park and along Arlin Rhine Drive (W-Trans, 2006).

- f) *Less Than Significant Impact.* There is an existing bicycle path north of the levee, adjacent to the Feather River. The project contains provisions that support pedestrian use and alternate forms of transportation. Local and regional fixed route transit in Oroville is provided by Butte Regional Transit's B-Line. Routes 20 and 31, which provide regional service to the communities of Chico and Paradise respectively, pass through the northeast core of the Riverfront Park area on Montgomery Street. All weather bus shelters are provided at select transit stops in the Plan area. Greyhound Bus Lines, which has a stop on Oroville Dam Road, provides daily interregional and interstate service (W-Trans, 2006).

Figure 6 – Traffic Study Area



Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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16. UTILITIES AND SERVICE SYSTEMS. Would the project:
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- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* As discussed in the Hydrology and Water Quality section, the project site is adjacent to an area that is already connected to the SC-OR's sewer system. However, no restroom facilities or new drainage systems are proposed with the project, and as a result this project will not result in additional wastewater demand or exceed requirements set by RWQCB.
- b) *Less Than Significant Impact.* As noted in a) above, wastewater generated from the project area can be accommodated without expansion of treatment facilities. Cal Water, a private company, operates and maintains the water system in the City south of the Feather

River. Water lines that exist in the project area will be required for irrigation and fountains, and it is anticipated that water demand would increase by an estimated 4,087 gallons per day (Green Valley, 2006), however, not significantly.

- c) *Less Than Significant Impact.* The current drainage pattern of the project site currently sheet flows across the existing levee towards the south and down the embankment, collecting into existing drop inlets near the toe of the slope. These drain inlets are then collected via an existing 18" city owned storm drain which outlets towards the north into the Feather River. The site is currently partially paved with the remaining area covered by gravel and minimal amounts of grasses and weeds. The proposed improvements associated with the Centennial Park will include concrete and decomposed granite pathways, an asphalt concrete roadway, and landscape plantings of various types. Proposed drainage flows will continue to sheet flow away from directly entering the Feather River and be collected into drain inlets throughout the site. These drain inlets will then be collected through an underground drainage system which will connect to the existing 18" city owned storm drain. Current drainage patterns will not be altered (Green Valley, 2006).
- d) *Less Than Significant Impact.* As described in b) above, the project would not have a significant impact on water supplies.
- e) *No Impact.* As described in a) above, the project would not have no impact on wastewater capacity.
- f) *Less Than Significant Impact.* The County landfill has adequate capacity to accommodate solid waste to the year 2018, and is currently seeking a permit to expand the landfill so that it can accommodate solid waste to the year 2034. The project is not expected to generate an amount of solid waste that would exceed available landfill capacity once the project is complete.
- g) *Less Than Significant Impact.* Solid waste collection and disposal within California is subject to the provisions of the California Integrated Waste Management Act. This legislation mandates a 50 percent reduction in the solid waste stream going to landfills by 2000. Development associated with the project would not affect the City's actions to achieve compliance with the California Integrated Waste Management Act.

- b) *Less Than Significant Impact.* The project will not contribute impacts that are cumulatively considerable. According to the base traffic conditions analysis, the cultural resources constraints analysis, the biological resources constraints analysis, and communications with Green Valley Engineering, Inc. (who will carry out the construction of this project), the implementation of this project is not likely to have cumulative impacts.

- c) *Less Than Significant Impact with Mitigation Incorporated.* There is no indication that implementation of the project would cause adverse affects on human beings, either directly or indirectly. However, as discussed in Geology and Soils, **Mitigation Measure 6.1** requires a geotechnical study (which currently has not yet been performed) be completed prior to project construction. It is not anticipated that there will be any impacts to the existing stability of the levee as a result of this project with the implementation of the recommendations contained within the geotechnical report. The existing levee and embankments are stable, constructed of a concrete core, overlain with boulders, dirt and native vegetation. Additionally, they have been extremely effective in protecting downtown Oroville from flooding.

VII. REFERENCES

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2. Cal Water website, www.calwater.com, accessed July 2006.
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VIII. DOCUMENT PREPARERS

This Draft Initial Study/Proposed Mitigated Negative Declaration (IS/MND) was prepared for the City of Oroville by Pacific Municipal Consultants (PMC), subconsultant to RRM Design Group.

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ATTACHMENT A

City of Oroville General Plan Policies for Natural Resources

The City of Oroville General Plan identifies specific objectives, policies, and programs regarding natural resources. Biotic resources objectives outlined in the General Plan are as follows:

- 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.
- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as "species of special concern" that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11e Through creative design recognize and enhance the links between biotic resources throughout the Oroville Planning Area and the desired life styles the Oroville community offers.
- 6.11f Search for and acquire State, Federal and foundation funding to preserve, protect, and enhance riparian and wildlife corridors connecting Blue Oak and other oak woodland habitat areas, vernal pools, the Feather River and other significant drainages, the Oroville Wildlife Area, South Table Mountain, Migratory and Resident Deer movement corridors, Areas of Special Biological Importance, Key Wildlife Areas, Unique Natural Areas mapped by the DFG and Butte County, wilderness areas such as the Plumas Forest to the east, and other open space areas that function as habitat.
- 6.11g Search for and acquire State, Federal and foundation funding to preserve, promote, restore, protect and enhance riparian corridors throughout the Planning Area.
- 6.11h Support a multi-use concept for riparian corridors that incorporates open space, aesthetic, habitat, and wildlife corridor values, while addressing the social, cultural, flood control and recreational needs of the Greater Oroville Community.
- 6.11i Where feasible, landscape public open space areas using native vegetation, to provide habitat for local species.
- 6.11j Encourage the Department of Water Resources to maintain water levels in State Water Project facilities, including Lake Oroville, to optimize protection of fisheries and other biotic resources, preserve open water as open space, and maximize recreational opportunities per the Department of Water Resources Bulletin 117-6, in addition to ensuring power generation, flood control, and water supply.

- 6.11k Encourage the DFG to manage and maintain the Oroville Wildlife Refuge for multiple uses, while protecting property values on land adjacent to the refuge.

Biotic resources implementing policies outlined in the General Plan are as follows:

- 6.11l Work toward the preparation of a Master Biotic Data Base for the Planning Area. Such a Data Base may include the following:
- An inventory of listed and common species;
 - Locations of habitat and natural communities, including mapping of native woodlands throughout the Planning Area; and
 - Confirmation of alignments and significance of riparian and wildlife corridors;
 - Species management plans, where relevant.
 - Agricultural fields and groves which may be of significant economic or habitat value to the community.

The above referenced Data Base may be prepared at a time certain through a city-wide effort, or through an incremental compilation of project/site specific studies and surveys.

- 6.11m Strive to minimize loss of wetland value or acreage consistent with the needs of wildlife and humans. Utilize mitigation banking (if available) to offset impacts to wetlands.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11p If sensitive plants are found to be located within a development site the developer shall be informed that he must mitigate project impacts in accordance with State Law.

Examples of mitigation may include:

- Establishing setbacks from the outer edge of the plant population area;
 - Prohibiting livestock grazing or drainage into the setback and plant population areas;
 - Construction of barriers to prevent compaction damage by foot or vehicular traffic.
- 6.11q Work with the Oroville Mosquito Abatement District and the Butte County Mosquito Abatement District to ensure that preservation, pre-planning and design of water features is coordinated with acceptable disease vector control measures.

- 6.11r Plan for freeway and arterial street undercrossings where necessary to effectively preserve wildlife corridors.
- 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
- 6.11t Work with Butte County to coordinate the maintenance of open space, habitat preservation, and mineral extraction at or near South Table Mountain.
- 6.11u Coordinate mineral resource extraction with habitat preservation and protection of plant and animal species where appropriate.
- 6.11v Work with Butte County and the DFG to ensure the continued presence and appropriate numbers of Migratory and Resident Deer in the Planning Area, by preserving habitat and movement corridors.
- 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
- 6.11x Encourage the coordinated design of large projects to preserve onsite open space, cluster development (where feasible), and conserve significant habitats that have been identified in the project area.
- 6.11y Make information available to interested parties concerning the presence and condition of species of special status.
- 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.
 - 6.11z.1 Continue to build the "urban forest" by implementing the Master Street Tree Plan (with amendments), revising the City's Official Street Tree List as needed to incorporate additional appropriate cultivars, and implementing the City's Tree Ordinance (Number 1174) and Street Tree Planting Standards.
 - 6.11z.2 Develop a plan to enhance individual oaks, oak woodlands and other tree groups throughout the Planning Area. The Plan will provide options for the management of oaks and other tree resources.
 - 6.11z.3 Development proposals on sites that contain significant oak woodlands and related habitat will require the preparation of a site specific tree management and preservation report by a certified arborist or landscape architect. This report shall include recommendations for the retention of healthy mature trees where feasible and promote the concept of oak regeneration corridors within the project design.

OROVILLE RIVERFRONT PROJECT

CULTURAL RESOURCES CONSTRAINTS ANALYSIS

1.0 EXISTING SETTING

1.1 PREHISTORY

The archaeology of the project area is primarily associated with the Mesilla, Bidwell, Sweetwater, and Oroville Complexes. Extensive archaeological investigations are relatively scant in the project area, but large-scale archaeological investigations were undertaken in the neighboring Lake Oroville area during the 1960s through the 1970s for the construction of Oroville Dam and Lake Oroville. Indeed, archaeological research in the Lake Oroville area may be used to characterize the prehistory of the project area. Ritter (1970) summarized the archaeological investigations in the area, which identified four prehistoric cultural complexes. These four cultural complexes are the: Mesilla, 1,000 B.C.-A.D. 1; Bidwell, A.D. 1-A.D. 800; Sweetwater A.D. 800-A.D. 1500; and Oroville A.D. 1500-A.D. 1850 (Ritter 1970).

The Mesilla Complex represents hunter-gatherer occupation of the foothills of the Sierra Nevada and is characterized by: large and heavy (usually weighing over 3.5 grams) leaf shaped, stemmed, or side notched projectile points made of local "non-glassy" material; boatstones; milling stones and manos; *haliotis* and *olivella* shell beads and ornaments; and flexed burials (Olsen and Riddell 1963; Ritter 1968, 1970). The Mesilla Complex projectile points show considerable similarity with points from Martis Complex sites, such as CA-Nev-15 which is only 35 miles from the Oroville area (Elsasser 1978). Shell beads, shell ornaments, and flexed burials, however, also suggest a relationship of the Mesilla Complex to the Middle Horizon of the Central Valley. Olsen and Riddell (1963:52) recognized the similarity of the Mesilla Complex to both the Martis Complex and the Middle Horizon of the Central Valley, but they believed that the Mesilla Complex had unique elements and its "intermediate" geographic position in the foothills between the other two cultures warranted its designation as a distinct complex. Kowta (1988) also discusses the similarities of the Mesilla Complex to the Martis Complex, the Middle Horizon of Central California, and other cultural complexes further to the north of Butte County in Tehama and Shasta counties. He identifies similarities across the entire area, particularly regarding point types, shell beads, the presence of manos and milling stones, and type of burial. Kowta (1988:101) assumes that the relationship between the Martis and Mesilla Complexes is due to their association with the earlier Northern Milling Stone Horizon.

The Bidwell Complex represents a continuation and elaboration of the Mesilla Complex, with an increase in the number of traits adopted from the Central Valley, and an intensification and diversification of subsistence activities (Ritter 1970; Kowta 1988). The Bidwell Complex is characterized by: large corner and side-notched, wide stemmed, leaf shaped, small corner-notched, and stemmed projectile points primarily made of basalt; large basalt drills; net weights; steatite vessels; wooden mortar and pestles; and bone awls (Olsen and Riddell 1963; Ritter 1968; Ritter 1970).

The Sweetwater Complex represents a period of population growth and intensification of acorn use during the Late Period (Kowta 1988:152). The Sweetwater Complex is characterized by: large leaf shaped and small corner-notched projectile points; cobble and slab mortars and pestles; bone fish gorges; shell beads; and clam shell spoons (Kowta 1988; Olsen and Riddell 1963; Ritter 1968; Ritter 1970). Kowta (1988:152) believes that the Sweetwater Complex is associated with the arrival of Maidu peoples in the region.

The Oroville Complex represents a continuation of the Sweetwater Complex, particularly in terms of population growth, further intensification of acorn use, and the proliferation of certain artifacts such as beads. The Oroville Complex is characterized by: small side-notched, corner-notched, and triangular projectile points; manos and metates; mortars and pestles; bone fish gorges; bone awls; clamshell disk beads; and *haliotis* ornaments (Kowta 1988; Olsen and Riddell 1963; Ritter 1968; Ritter 1970). The Oroville Complex probably culminates in the culture of the ethnographic Konkow (Kowta 1988:154).

1.2 ETHNOGRAPHY

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Kroeber (1925, 1936) subdivided California into four subculture areas, Northwestern, Northeastern, Southern, and Central. The Oroville Riverfront Project is located in the Central area within the boundaries of Konkow territory.

Konkow or Northwestern Maidu occupied a territory both along the Sacramento River and east into the foothills of the Sierra Nevada in the vicinity of Willows, Chico, and Oroville (Riddell 1978). Konkow are members of the Maidu Language Family of Penutian Stock. Their population was divided into several “village communities” which were recognized as autonomous political units (Kroeber 1925). Subsistence activities included hunting, fishing, and the collecting of a variety of plant resources including acorns, which were a staple food source for the Konkow. Konkow made a variety of bone, wood, and stone tools and basketry, which was both an artistic and necessary activity.

Euroamerican contact with Native American groups living in the Central Valley of California began during the last half of the eighteenth century. At this time, the attention of Spanish missionaries shifted away from the coast, and its dwindling Native American population, to the conversion and missionization of interior populations. Luis Argüello led an early expedition into the area in 1821 (Beck and Haase 1974). The expedition left San Francisco and followed a northerly course to the Sacramento River, intersecting the river a short distance north of Grimes. The group then followed the river north to Cottonwood Creek, passing through Konkow territory. Regardless, the area remained relatively unoccupied by Euroamericans until the Gold Rush. The latter half of the nineteenth century witnessed an ongoing and growing immigration of Euroamericans into the area, which was also accompanied by regional cultural and economic changes. These changes are highlighted by the development of towns and businesses associated with either gold mining or agriculture, and a dramatic decline of Native American culture and people.

1.3 EUROAMERICAN CONTACT

The first European to enter current Butte County was probably Gabriel Moraga, a Spanish soldier, who led an expedition into Alta California, crossing the Feather River in 1808 near Oroville (Beck and Haase 1974). Following Moraga, Captain Luis Arguello explored Butte County in 1820, and named the Feather River (Rio de la Plumas) (Hoover et al. 1966). In 1825, Jedediah Strong Smith entered California from the south and, by 1827, had made his way to the Feather River (Brooks 1977). Hudson's Bay Company trappers also extensively explored the area in the 1820s and 1830s looking for furs (Hoover et al. 1966). Then in the 1830s and 1840s Joseph R. Walker and Joseph B. Chiles explored parts of Butte County, traveling along the Sacramento River and the South Fork of the Feather River, either looking for travel routes in the area or bringing settlers to the area (Beck and Haase 1974).

John Bidwell led one of the first immigrant parties from the eastern United States to California in 1841. Subsequently, he worked at Sutter's Fort until gold was discovered at Sutter's Mill in Coloma. John Bidwell became interested in gold mining and in June 1848 he discovered gold on the Feather River near Hamilton (Bidwell 1877; Hoover et al. 1966). Subsequently, Bidwell purchased Rancho del Arroyo Chico in 1849 from William Dickey and Edward A. Farwell, and settled in what would become Butte County (Hoover et al. 1966). Bidwell began planting wheat, barley, and fruit bearing trees (e.g., apple, pear, peach, walnut, almond, fig, cherry, and olive) on his property, and established a very successful agricultural business. Bidwell's success in the area facilitated the development of other agricultural enterprises, and by 1861 there were 34,500 acres in cultivation in Butte County. Indeed, by 1875 there were 190,200 acres under cultivation in the county, and in 1877 Bidwell built a facility for drying fruit (Hoover et al. 1966, Wells & Chambers 1882). Today, agriculture remains one of the primary industries in Butte County.

Oroville originally began in 1850 as a mining camp named Ophir City (Hoover et al. 1966). By 1856 Ophir City was renamed Oroville, and it became an important regional mining center, and was central in the development of dredge mining. Mining attracted a large Chinese population to the area, and in its early history Oroville is reported to have a Chinese population that was only second in size to San Francisco. As dredge mining began to decline, however, agricultural production increased in the area and agriculture continues to dominant the local economy.

2.0 REGULATORY FRAMEWORK

2.1 *Federal*

2.1.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) governs federal regulations for the identification and protection of cultural resources. Section 106 requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the State Historic Preservation Officer, and, if appropriate, the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing

regulations, “Protection of Historic Properties” can be found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Recent amendments to the Act (1986, 1992, and 2001), including revisions to the implementing regulations have strengthened the provisions for Native American consultation and participation in the Section 106 review process. Federal regulations apply to the Oroville Riverfront Project because it will require federal permits (e.g., US Army Corps of Engineers permits).

2.2 State

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources that meet significance criteria qualifying them as “unique,” “important,” listed on the California Register of Historical Resources (CRHR), or eligible for listing on the CRHR. If the agency determines that a project may have a significant effect on a significant resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If a cultural resource is found not to be significant under the qualifying criteria, it need not be considered further in the planning process. CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate these impacts.

2.3 Local

The City of Oroville General Plan provides guidance for the identification and protection of cultural resources. General Plan Objective 6.15a and Implementing Policies 6.15b, 6.15c, and 6.15d emphasize the identification and protection of cultural resources. The policies include guidance regarding the identification and protection of cultural resources both prior to and during implementation of a project.

2.4 STANDARDS OF SIGNIFICANCE

36 CFR Part 60.4 [a-d] presents criteria for determining the significance and eligibility of prehistoric and historic sites for inclusion in the NRHP. The significance and eligibility for inclusion in the NRHP of the structure dating to 1930 located within project boundaries will be considered following those criteria and in relation to appropriate historic themes. The criteria at 36 CFR Part 60.4 [a-d] include the following:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (A) that are associated with events that have made significant contributions to the broad patterns of our history; or
- (B) that are associated with the lives of persons significant in our past; or
- (C) that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) that have yielded, or may likely yield, information important in prehistory or history.

CEQA, at Public Resources Code 21083.2, requires planning agencies to determine if a project may have a significant effect on archaeological resources. Following CEQA guidelines in section 15064.5 an “historical resource” includes:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.
- 2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in an historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

Public Resources Code 5024.1 presents criteria for determining the eligibility of a cultural resource for inclusion in the California Register of Historical Resources (CRHR). These criteria include:

- 1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- 2) Is associated with the lives of persons important in our past;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic value; or
- 4) Has yielded, or may yield, information important in prehistory or history.

CEQA also requires planning agencies to consider the effects of a project on unique archaeological resources. If an archaeological artifact, object, or site meets the definition of a unique archaeological resource, then the artifact, object, or site must be treated in accordance with the special provisions for such resources as presented at Public Resources Code 21083.2(e). Public Resources Code 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site that:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- 2) Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- 3) Is associated with a scientifically recognized important prehistoric or historic person or event.

CEQA, at §15064.5, defines a significant effect as one that may cause a substantial adverse change in the significance of an historical resource. A “substantial adverse change” means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. The Lead Agency shall identify potentially feasible mitigation measures to mitigate significant adverse changes in the significance of an historical resource.

3.0 METHODOLOGY

Cultural resources investigations for the Oroville Riverfront Project included: a records search conducted by the Northeast Information Center at California State University, Chico for the project area and an area within a 0.5 mile radius of it; a sacred lands search conducted by the Native American Heritage Commission; and a “windshield survey” of the project area. The records search identified:

- Six previous surveys within the project area (cf., Manning 1978; Jensen 1980; Minor and Underwood 1987; Vaughn 1987; Nelson 1999; and Scott 1999);
- Eleven previous survey that were conducted within 0.5 miles of the project area;
- Site CA-BUT-584/H within project boundaries;
- Three historic sites, CA-BUT-1601-H, P-04-001454, and P-04-001460, within project boundaries;
- Three prehistoric sites within 0.5 miles of the project area;
- Eight historic sites within 0.5 miles of the project area;
- The Oroville Chinese Temple located at 1500 Broderick that is listed in the National Register of Historic Places, the California Register of Historical Resources, and is California Historical Landmark No. 770;
- The Oroville Commercial District that consists of Montgomery Street, Myers Street, Huntoon Street, and Miner Alley, and appears eligible for inclusion in the National Register of Historic Places;
- Three properties, Oroville Inn, Oroville State Theatre, and the Oroville Post Office, that are listed in the National Register of Historic Places and the California Register of Historical Resources are within 0.5 miles of the project area;

- The Table Mountain Boulevard Bridge that is eligible for the National Register of Historic Places is within 0.5 miles of the project area; and
- One hundred forty-four properties within the City of Oroville that may be eligible for either the National Register of Historic Places or the California Register of Historical Resources.

The sacred lands search did not identify any sensitive Native American cultural resources either within or adjacent to the project area. The “windshield survey” identified numerous buildings in and near the project area that may be eligible for inclusion in either the NRHP or the CRHR.

4.0 RESULTS OF RESEARCH

Cultural resources investigations for the Oroville Riverfront Project identified a number of prehistoric sites, historic sites, and historical buildings/structures in the project area. These sites and buildings/structures include:

- Site CA-BUT-584/H that consists of both prehistoric and historic features (see the confidential map attached to this report for the location of the site);
- Site CA-BUT-1601-H that consists of a rock retaining wall and refuse (see the confidential map attached to this report for the location of the site);
- Site P-04-001454 that is a building located at 2400 Montgomery Street (the building was determined ineligible for the NRHP);
- Site P-04-001460 that is a building located at 2426 Montgomery Street (the building was determined ineligible for the NRHP);
- The Oroville Chinese Temple located at 1500 Broderick that is listed in the NRHP, CRHR, and is California Historical Landmark No. 770;
- The Oroville Commercial District that includes Montgomery Street, Myers Street, Huntoon Street, and Miner Alley, and appears eligible for inclusion in the National Register of Historic Places;
- The buildings at 1675, 1850, 1858, 1864, 1877, 1911, 1919, 1925, 1933, 1941, 1955, 1963, and 1975 Montgomery Street that are listed in the NRHP as contributors to a district; and
- The Pioneer Memorial Museum at 2332 Montgomery Street that is built on the former site of Garrott’s Sawmill and is a Point of Historical Interest.

Cultural resources investigations for the Oroville Riverfront Project also identified a prehistoric sites and historical buildings/structures either adjacent to or near the project area. These sites and buildings/structures include:

- Site CA-BUT-841 that is reported to include human remains (see the confidential map attached to this report for the location of the site);
- The Oroville Inn at 2066 Bird Street, Oroville State Theatre at 1489 Myers Street, and the Oroville Post Office at 1735 Robison Street that are listed in the NRHP and the CRHR;
- The Table Mountain Boulevard Bridge located just beyond the northern project boundary, which is eligible for the NRHP; and

- Several buildings that appear to be eligible for inclusion in either the NRHP or the CRHR, such as the Lott Museum-Sank Park located at 1067 Montgomery Street.

The Oroville Riverfront Project is located in an area that is historically sensitive, and project activities are constrained by this circumstance. There are several buildings in the project area that are either listed in the NRHP and the CRHR or appear eligible for inclusion in the NRHP or CRHR. The project area also includes the Oroville Commercial District and the residences within the project area appear to meet the criteria for consideration as a district or for inclusion in an expanded Oroville Commercial District. Therefore, any project activities that may affect any buildings or structures within the project area would trigger not only historical investigations regarding specific buildings or structures but also the entire project area. Indeed, the State Office of Historic Preservation would likely require that the project area be treated as an historic district because of the types and numbers of buildings within it and its relationship to the history of Oroville.

Project activities that may affect buildings or structures include demolition and other activities that might alter the setting of the area, such as road improvements and modifications to existing street lighting. Therefore, it is recommended that project designs avoid building demolition and dramatic alterations to the historic setting of the area. There are mitigation measures, however, that may be implemented for project activities that would likely alter the historic setting of the area, such as using lighting fixtures and landscape features that are in keeping with the historic character of the area. Other project activities such as improvements to Arlin Rhine Drive, the construction of facilities on the levee, and construction of river access on the levee do not have any significant cultural resources constraints.

In summary, the Oroville Riverfront Project is located in an area that is historically sensitive. Project activities that may affect buildings and structures within project boundaries would likely require determining the eligibility of the building or structure for inclusion in the NRHP and the CRHR. Completion of this task would likely require determining if the project area constitutes an historic district, which would require conducting an inventory of all the buildings and structures within the project area and at least considering, if not determining, their eligibility for inclusion in either the NRHP or the CRHR. Indeed, these investigations could potentially extend beyond current project boundaries because potential boundaries of the historic district may extend beyond current project limits. Other types of project activities that may affect the setting of the project area may be mitigated. Potential project activities on the levee do not have any significant cultural resources constraints. It is recommended that: project designs avoid the demolition or significant alteration of any buildings in the project area; project designs incorporate features that would be consistent with the historic character of the area; and project designers consult with cultural resources specialists and/or architectural historians to avoid potential effects to any cultural resources (e.g., historic buildings). If project designs cannot avoid buildings/structures, mitigation for potential effects to buildings/structures would likely require the services of an architectural historian, the architectural inventory of the project area, determinations of eligibility for inclusion in the NRHP and CRHR of buildings/structures, and discussion or delineation of the project area as an historic district.

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Biological Resources



Photo shows Arlin Rhine Drive, a portion of the Oroville riverfront proposed for improvement (looking west).

This constraints analysis discusses potential impact to biological resources resulting from the proposed Oroville Riverfront Improvements Plan. The analysis presented in this report is based on a review of the most current project information as well as data collected from onsite survey, maps, and available literature.

1.0 ENVIRONMENTAL SETTING

The following section describes conditions at the proposed property location with emphasis on biological resources.

REGIONAL SETTING

The property considered in the Oroville Riverfront Improvements Plan is located within the City of Oroville, Butte County, California. The proposed plan involves improving an existing levee road and constructing public facilities to promote safe recreational activities along Arlin Rhine Drive (see photo above) on the south bank of the Feather River, between California State Route 70 and Washington Avenue. The area to be developed occurs on the Oroville U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle map (Township 19 North, Range 4 East) and is shown on Figure 1. As defined by the California Department of Fish and Game (DFG) Wildlife and Habitat Data Analysis Branch, wildlife habitat within Butte County consists of (but is not limited to) thirty-six different classifications, including blue oak woodland, eucalyptus, mixed chaparral, subalpine conifer, and urban (DFG 2004).

LOCAL SETTING

The project site consists of a levee road (Arlin Rhine Drive) and recreational facilities (i.e., nature overlooks and picnic areas) along the south bank of the Feather River opposite the Lake Oroville State Recreation Area and Feather River Fish Hatchery. Habitat within the

project area consists of approximately 12.3-acres of riverine, 69.3-acres of urban, and 18.2-acres of valley foothill riparian areas (see Figure 1). The immediate surrounding areas are predominantly urban as well as riverine.

BIOLOGICAL COMMUNITIES

A reconnaissance of the project area was conducted on August 24, 2005, to evaluate existing habitat at the project location. Habitat occurring on the project site is discussed below. Special status wildlife species, sensitive plants, and critical habitat expected or known to occur within the general project area are also addressed in this section.

RIVERINE

Riverine habitat refers to intermittent or continually running water, such as rivers or streams. In general, a stream originates as an outlet of a pond or lake, or stems from a spring or seepage, at elevation and flows down gradient at a rate relative to the slope and volume of discharge. Velocity tends to decline at lower altitudes and water volume increases until an enlarged stream (or river) becomes sluggish (DFG 2002). All streams and rivers fluctuate in velocity, temperature, turbidity, and dissolved oxygen depending on seasonal variations and physical setting (i.e., the type of vegetation surrounding and possibly shading the riverine habitat). A channel will erode at a rate based on the substrate, composition of water, climate, and the slope of the flow (Reid 1966). Without human interference, most natural riverine systems are stable over long periods of time (DFG 2002).

Riverine habitats often occur in association with riparian and/or fresh emergent wetland habitats. These areas provide cover, forage, and nest sites for many species of wildlife. Depending on the characteristics of an individual riverine habitat (i.e., velocity, temperature, etc.), the open water area can also support a variety of insects, mollusks, and crustaceans.

Riverine habitat at the project location consists of the Feather River. The North Fork of the Feather River originates in northern California in the Lassen Volcanic National Park, then flows through Lake Almanor south to Lake Oroville. The South and Middle Forks join the flow at Lake Oroville as the water proceeds (generally) south through the City of Oroville. The Feather River then joins with the Yuba River at the City of Marysville, where it continues south until ultimately flowing into the Sacramento River north of the City of Sacramento (Online Highways 2005).

Construction of the Oroville Dam by the Department of Water Resources (DWR) in the 1960s altered the historic flow of the river and affected fisheries resources by reducing salmon and steelhead spawning areas. To compensate for the loss of fish nursery grounds, the DWR opened the Feather River Salmon and Steelhead Hatchery in 1967. This hatchery, which is located across the river from the project site, is one of the most advanced and successful in California and is cooperatively managed between the DFG and

DWR with advice and assistance from the U.S. Fish and Wildlife Service (USFWS) and other agencies (DWR 2001). The proposed project has the potential to impact the section of river flowing through the City of Oroville adjacent to the Feather River Fish Hatchery. As a result, any project activity that involves the Feather River will likely receive scrutiny from regulatory agencies concerned about maintaining fisheries resources.

URBAN

Urban habitat is distinguished by the presence of both native and exotic species maintained in a relatively static composition within a downtown, residential, or suburban setting. Species richness in these areas depends greatly upon community design (i.e., open space considerations) and proximity to the natural environment (DFG 2002).

The California Wildlife Habitat Relationships (CWHR) system classifies urban habitat into five different vegetation types: tree grove, street strip, shade tree/lawn, lawn, and shrub cover (DFG 2002). Tree groves refer to conditions typically found in city parks, green belts, and cemeteries. These areas vary in tree height, spacing, crown shape, and understory conditions; however, they have a continuous canopy. Street strip vegetation, located roadside, varies with species type, but typically includes a ground cover of grass. Shade trees and lawns refer to characteristic residential landscape, which is reminiscent of natural savannas. Lawns are composed of a variety of grasses, maintained at a uniform height with continuous ground cover through irrigation and fertilization. Shrub cover refers to areas commonly landscaped and maintained with hedges, as typically found in commercial districts. All five types of urban habitat are generally found in combination creating considerable edge effect, which can be more valuable to wildlife than any one individual unit (DFG 2002).

The Oroville Riverfront Improvement Plan area includes all five urban vegetation types associated with residences, businesses, and roadways located within the City of Oroville adjacent to the Feather River.

VALLEY FOOTHILL RIPARIAN

Valley foothill riparian habitat is generally found in the valley and foothill regions of California along low-gradient streams. Typically, this habitat consists of an overstory tree layer, subcanopy tree layer, understory shrub layer, and herbaceous layer. Valley areas supply deep alluvial soils that are usually permanently moist and well aerated to provide for a variety of lush vegetation.

Species dominating the overstory of valley foothill riparian habitat include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*). Typical subcanopy trees are white alder (*Alnus rhombifolia*), box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Common understory shrubs include, wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), button bush (*Cephalanthus occidentalis*), and willows (*Salix sp.*). The herbaceous layer

consists of sedges (*Cyperus sp.*), rushes (*Juncus sp.*), miner's lettuce (*Claytonia perfoliata*), poison hemlock (*Conium maculatum*), hoary nettle (*Urtica dioica holosericea*), and various grasses. This habitat supports an abundance of wildlife, which uses the area for food, water, migration, cover, dispersal, and nesting (DFG 2002).

At the Oroville Riverfront Improvements Plan site, dense riparian areas occur in association with the southern bank of the Feather River. These areas have the potential to support several special-status species that use the dense foliage for cover and nesting as well as forage near the flows of water. Loss of riparian habitat is considered significant under the California Environmental Quality Act (CEQA). Therefore, the presence of riparian habitat may be considered a constraint to development. Mitigation regarding loss of this habitat type with implementation of the proposed project shall be designed to reduce impact to a less than significant level once project plans are finalized.

SPECIAL STATUS SPECIES

In general, special status species include plants and wildlife that are:

- Listed and protected under the Federal and/or California Endangered Species Acts;
- Listed and protected under other federal and/or state regulations;
- Sufficiently rare to qualify for listing or protection under federal and/or state regulations; or
- Considered unique or in decline by the scientific community.

Table 1 lists special status species identified by the USFWS that may be affected by projects in Butte County as well as species listed in the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range (USFWS 2005, DFG 2003, CNPS 2005). Quadrangles included in the data search were Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee. In addition, Table 1 also includes special status species identified in the City of Oroville General Plan as occurring within the project area (City of Oroville 1995).

Habitat able to support several special status species occurs within and near the project study area, as shown in Table 1. The potential of an individual species to be present onsite during project implementation will depend on the final project design, specific habitat requirements of each species, and available data regarding the known range and migratory patterns of each species. Figure 2 shows occurrences of special status species listed in the CNDDDB within a one-mile radius of the project area. The presence of a special-status species is a potential constraint on development, particularly if the species is listed under federal or state endangered species acts. Removal of a listed species from a project site is prohibited, unless a permit is obtained.

Table 1: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status* (Federal/State/CNPS)	General Habitat Description	Habitat Present/ Absent Locally
Plants				
Adobe-lily	<i>Fritillaria pluriflora</i>	FSC;--;1B	Chaparral, cismontane woodland, foothill grassland; usually on clay soils; sometimes serpentine.	Absent
Ahart's (dwarf) rush	<i>Juncus leiospermus</i> <i>var. ahartii</i>	FSC;--;1B	Vernal pools; restricted to the edges of vernal pools.	Absent
Ahart's whitlow-wort (=Ahart's paronychia)	<i>Paronychia ahartii</i>	FSC;--;1B	Valley and foothill grassland, vernal pools, cismontane woodland; stony, nearly barren clay of swales and higher ground around vernal pools.	Absent
Big-scale (=California) balsamroot	<i>Balsamorhiza macrolepis</i> <i>var. macrolepis</i>	FSLC;--;1B	Valley and foothill grassland, cismontane woodland; sometimes on serpentine.	Absent
Brandege's clarkia	<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	FSLC;--;1B	Chaparral, cismontane woodland; often in roadcuts.	Absent
Brittlescale	<i>Atriplex depressa</i>	FSC;--;1B	Chenopod scrub, meadows, playas, valley and foothill grassland, vernal pools; usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools.	Absent
Butte County calycadenia	<i>Calycadenia oppositifolia</i>	FSLC;--;1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; dry, often stoney plains and rock outcrops, on serpentine or volcanic soils (endemic to Butte County).	Absent
Butte County catchfly (=long-stiped campion)	<i>Silene occidentalis</i> <i>ssp. longistipitata</i>	FSC;--;1B	Chaparral, lower montane coniferous forest, upper montane coniferous forest.	Absent

Butte County fritillary	<i>Fritillaria eastwoodiae</i>	FSC;--;3	Chaparral, cismontane woodland, lower montane coniferous forest; usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy loam.	Absent
Butte County golden (=Jim's) clover	<i>Trifolium jokerstii</i>	FSLC;--;1B	Valley and foothill grassland, vernal pools; known only from 2 sites in Butte County in the vicinity of Table Mountain in grassland and swales near oak woodland (endemic to Butte County).	Absent
Butte County (=Shippee) meadowfoam	<i>Limnanthes floccosa ssp. californica</i>	FE;CE;1B	Vernal pools, valley and foothill grassland; wet or flowing drainages and depressions; often not in discrete vernal pools; soils are usually Redding Clay with rocks (endemic to Butte County).	Absent
Butte County morning-glory	<i>Calystegia atriplicifolia ssp. buttensis</i>	FSC;--;1B	Lower montane coniferous forest; dry, mostly open slopes.	Absent
Butte County sidalcea (=checkerbloom)	<i>Sidalcea robusta</i>	FSC;--;1B	Chaparral, cismontane woodland; small draws and rocky crevices (endemic to Butte County).	Present
California beaked-rush	<i>Rhynchospora californica</i>	FSC;--;1B	Bogs and fens, marshes and swamps, lower montane coniferous forest, meadows and seeps; freshwater seeps and open marshy areas.	Absent
Cantelow's lewisia	<i>Lewisia cantelowii</i>	FSC;--;1B	Broadleafed upland forest, lower montane coniferous forest, cismontane woodland, chaparral; mesic rock outcrops and wet cliffs, usually in moss or clubmoss; on granitics or sometimes on serpentine.	Present
Closed-lip (closed-throated) beardtongue	<i>Penstemon personatus</i>	FSC;--;1B	Lower montane coniferous forest, upper montane coniferous forest, chaparral; usually on north facing slopes in metavolcanic soils (known only from Butte and Plumas Counties).	Absent

Clustered lady's-slipper	<i>Cypripedium fasciculatum</i>	FSC;--;4	North coast coniferous forest, lower montane coniferous forest; in serpentine seeps and moist streambanks.	Absent
Cut-leaved ragwort	<i>Senecio (=Packera) eurycephalus</i> var. <i>lewisrosei</i>	FSLC;--;1B	Cismontane woodland, lower montane coniferous forest, chaparral; steep slopes and in canyons in serpentine soil, often along or near roads.	Present
Enterprise clarkia	<i>Clarkia mosquinii</i> ssp. <i>xerophila</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; usually on steep, rocky cutbanks and slopes (endemic to Butte County).	Present
Feather River stonecrop	<i>Sedum albomarginatum</i>	FSC;--;1B	Chaparral, lower montane coniferous forest; in crevices and on ledges of serpentine outcrops and slopes (endemic to Butte and Plumas Counties).	Present
Ferris's milk-vetch	<i>Astragalus tener</i> var. <i>ferrisiae</i>	FSC;--;1B	Meadows, valley and foothill grassland; subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil (only a few extant occurrences remain, formerly more widespread in the valley).	Absent
Four-angled spikerush	<i>Eleocharis quadrangulata</i>	--;--;2	Marshes and swamps; freshwater marshes, lake and pond margins.	Absent
Fox sedge	<i>Carex vulpinoidea</i>	--;--;2	Marshes and swamps, riparian woodland; wet places.	Present
Greene's tuctoria (=Orcutt grass)	<i>Tuctoria greenei</i>	FE;CR;1B	Vernal pools, valley and foothill grassland; dry bottoms of vernal pools in open grasslands.	Absent
Hairy Orcutt grass	<i>Orcuttia pilosa</i>	FE;CE;1B	Vernal pools; endemic to the Sacramento Valley.	Absent
Hall's rupertia (=Hall's California tea)	<i>Rupertia hallii</i>	FSLC;--;1B	Cismontane woodland, lower montane coniferous forest; on disturbed soils of roadsides and logged forests (known only from Butte and Tehama Counties).	Present

Heartscale	<i>Atriplex cordulata</i>	FSC;--;1B	Chenopod scrub, valley and foothill grassland, meadows; alkaline flats and scalds in the Central Valley; sandy soils.	Absent
Henderson's bent grass	<i>Agrostis hendersonii</i>	FSC;--;3	Valley and foothill grassland, vernal pools; moist places in grassland or vernal pool habitat (little information exists about this species).	Absent
Hoover's spurge	<i>Chamaesyce hooveri</i>	FT;--;1B	Vernal pools, valley and foothill grassland; vernal pools on volcanic mudflow or clay substrate.	Absent
Jepson's onion	<i>Allium jepsonii</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; on serpentine soils in Sierra foothills, volcanic soil on Table Mountain on slopes and flats; usually in an open area (known only from Butte and Tuolumne Counties).	Present
Lesser saltscale	<i>Atriplex minuscula</i>	FSC;--;1B	Chenopod scrub, playas, valley and foothill grassland; in alkali sink and grassland in sandy, alkaline soils.	Absent
Little mousetail	<i>Myosurus minimus</i> <i>ssp. apus</i>	FSC;--;3	Vernal pools; alkaline soils (subspecies has taxonomic problems and could be a hybrid; distinguishing between this and <i>Myosurus sessilis</i> is difficult).	Absent
Mildred's clarkia	<i>Clarkia mildrediae</i> <i>ssp. mildrediae</i>	--;--;1B	Cismontane woodland, lower montane coniferous forest; on decomposed granite, sometimes on roadsides.	Present
Mosquin's clarkia	<i>Clarkia mosquinii</i> <i>ssp. mosquinii</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; usually on steep, rocky cutbanks and slopes (endemic to Butte County).	Present

Pink creamsacs	<i>Castilleja rubicundula ssp. rubicundula</i>	FSLC;--;1B	Chaparral, meadows and seeps, valley and foothill grassland; openings in chaparral or grasslands; on serpentine.	Present
Recurved larkspur	<i>Delphinium recurvatum</i>	FSC;--;1B	Chenopod scrub, valley and foothill grassland, cismontane woodland; on alkaline soils; often in valley saltbush or valley chenopod scrub.	Absent
Red Bluff dwarf rush	<i>Juncus leiospermus var. leiospermus</i>	FSC;--;1B	Chaparral, valley and foothill grassland, cismontane woodlands, vernal pools; vernal mesic sites; sometimes on edges of vernal pools.	Absent
Rose-mallow	<i>Hibiscus lasiocarpus</i>	--;--;2	Freshwater marshes and swamps; moist, freshwater-soaked river banks and low peat islands in sloughs (in California, known from the Delta watershed).	Present
Round-leaved filaree	<i>Erodium macrophyllum</i>	--;--;2	Cismontane woodland, valley and foothill grassland; clay soils.	Present
Scalloped moonwort	<i>Botrychium crenulatum</i>	FSC;--;2	Bogs and fens, meadows, lower montane coniferous forest, freshwater marsh; moist meadows, near creeks.	Absent
Slender Orcutt grass	<i>Orcuttia tenuis</i>	FT;CE;1B	Vernal pools.	Absent
Subtle orache	<i>Atriplex subtilis</i>	FSLC;--;1B	Valley and foothill grassland; little information available.	Absent
Upswept moonwort	<i>Botrychium ascendens</i>	FSC;--;2	Lower montane coniferous forest; grassy fields, coniferous woods near springs and creeks.	Absent
Valley sagittaria (=Sanford's arrowhead)	<i>Sagittaria sanfordii</i>	FSC;--;1B	Marshes and swamps; in standing or slow-moving freshwater ponds, marshes, and ditches.	Absent

Veiny monardella	<i>Monardella douglasii ssp. venosa</i>	FSC;--;1B	Valley and foothill grassland, cismontane woodland; in heavy clay; mostly with grassland associates (rediscovered in 1992).	Absent
White-stemmed (=whitestem) clarkia	<i>Clarkia gracilis ssp. albicaulis</i>	FSLC;--;1B	Chaparral, cismontane woodland; dry, grassy openings in chaparral or foothill woodland; sometimes on serpentine (endemic to Butte County).	Present
Invertebrates				
California linderiella fairy shrimp	<i>Linderiella occidentalis</i>	FSC;--;--	Seasonal pools in unplowed grasslands with alluvial soils underlain by hardpan or in sandstone depressions; water in the pools has very low alkalinity, conductivity, and total dissolved solids.	Absent
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE;--;--	Found in large, turbid pools; inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June (endemic to the grasslands of the northern two-thirds of the Central Valley).	Absent
Sacramento anthicid beetle	<i>Anthicus sacramento</i>	FSC;--;--	Inhabit sand slipfaces among bamboo and willow (restricted to sand dune areas of the Sacramento-San Joaquin Delta).	Absent
Sacramento Valley tiger beetle	<i>Cicindela hirticollis abrupta</i>	FSC;--;--	Open sandy areas; on sandy beaches; on open paths or lanes; larvae construct vertical tunnels in the ground.	Absent

Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT;--;--	In association with blue elderberry (<i>Sambucus mexicana</i>) typically found in riparian areas; prefers to lay eggs in elderberries two to eight inches in diameter; some preference shown for "stressed" elderberries (occurs only in the Central Valley of California).	Present
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT;--;--	In astatic rain-filled pools; inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools (endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains).	Absent
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE;--;--	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water; pools commonly found in grass bottomed swales of unplowed grasslands; some pools are mud-bottomed and highly turbid.	Absent
Fish				
Central Valley fall/late fall-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FC;CSC;XC	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries.	Present
Central Valley steelhead	<i>Oncorhynchus mykiss irideus</i>	FT;--;XP	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Present
Delta smelt	<i>Hypomesus transpacificus</i>	FT;CT;--	Sacramento-San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay; seldom found at salinities greater than 10 parts per trillion; most often at salinities less than 2 parts per trillion.	Absent

Green sturgeon	<i>Acipenser medirostris</i>	FP;CSC;--	Spawn in the Sacramento River and the Klamath River; spawn at temperatures between 8 to 14 degrees Celsius; preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Absent
Longfin smelt	<i>Spirinchus thaleichthys</i>	FSC;CSC;--	Euryhaline, nektonic, and anadromous; found in open waters of estuaries, mostly in the middle or bottom of water column; prefers salinities of 15 to 30 parts per trillion, but can be found in completely freshwater to almost pure seawater.	Absent
River lamprey	<i>Lampetra ayresi</i>	FSC;CSC;--	Lower Sacramento River, San Joaquin river and Russian River; may occur in coastal streams north of San Francisco Bay; adults need clean, gravelly riffles, ammocoetes need sandy backwaters or stream edges, good water quality and temperatures less than 25 degrees Celsius.	Absent
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	FSC;CSC;--	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes; slow moving river sections, dead end sloughs; requires flooded vegetation for spawning and foraging for young.	Absent
Spring-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FT;CT;XP	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel; water temperatures greater than 27 degrees Celsius lethal to adults; federal listing refers to populations spawning in Sacramento River and tributaries.	Present

Winter-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FE;CE;X	Sacramento River below Keswick Dam; spawns in the Sacramento River but not in tributary streams; requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees Celsius for spawning.	Absent
Amphibians and Reptiles				
California red-legged frog	<i>Rana aurora draytonii</i>	FT;CSC;XP	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation; requires 11 to 20 weeks of permanent water for larval development; must have access to estivation habitat.	Present
California tiger salamander	<i>Ambystoma californiense</i>	FT;CSC;--	Species now listed as threatened statewide; populations in Santa Barbara and Sonoma Counties formerly listed as endangered; need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Absent
Cascades frog	<i>Rana cascadae</i>	FSC;CSC;--	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows; open coniferous forests; standing water required for reproduction; hibernates in mud on the bottom of lakes and ponds during the winter.	Absent
Coast (California) horned lizard	<i>Phrynosoma coronatum (frontale)</i>	FSC;CSC;--	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Absent

Foothill yellow-legged frog	<i>Rana boylei</i>	FSC;CSC;--	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats; needs at least some cobble-sized substrate for egg-laying; needs at least 15 weeks to attain metamorphosis.	Present
Giant garter snake	<i>Thamnophis gigas</i>	FT;CT;--	Prefers freshwater marsh and low gradient streams; has adapted to drainage canals and irrigation ditches; this is the most aquatic of the garter snakes in California.	Present
Mountain yellow-legged frog	<i>Rana muscosa</i>	FC;CSC;--	Federal listing refers to populations in the San Gabriel, San Jacinto, and San Bernardino Mountains only; always encountered within a few feet of water; tadpoles may require up to 2 years to complete their aquatic development.	Absent
Northwestern pond turtle	<i>Emys (=Clemmys) marmorata marmorata</i>	FSC;CSC;--	Associated with permanent or nearly permanent water in a wide variety of habitats; requires basking sites; nests sites may be found up to 0.5 kilometers from water.	Present
San Joaquin coachwhip (=whipsnake)	<i>Masticophis flagellum ruddocki</i>	FSC;CSC;--	Open, dry habitats with little or no tree cover; found in valley grassland and saltbush scrub in the San Joaquin Valley; needs mammal burrows for refuge and oviposition sites.	Absent
Western spadefoot toad	<i>Spea (=Scaphiopus) hammondi</i>	FSC;CSC;--	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands; vernal pools are essential for breeding and egg-laying.	Absent
Birds				

Aleutian Canada goose	<i>Branta canadensis leucopareia</i>	FD;--;--	(Wintering) Winters on lakes and inland prairies; forages on natural pasture or that cultivated to grain; loaf on lakes, reservoirs, ponds.	Absent
American bittern	<i>Botaurus lentiginosus</i>	FSC;--;--	Freshwater and slightly brackish marshes; also in coastal saltmarshes; dense reed beds.	Absent
American dipper	<i>Cinclus mexicanus</i>	FSLC;--;--	Rushing mountain streams and high-elevation lakes.	Present
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD;CE;--	(Nesting) Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures; nest consists of a scrape on a depression or ledge in an open site.	Present
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT;CE;--	(Nesting and Wintering) Ocean shore, lake margins, and rivers for both nesting and wintering; most nests within one mile of water; nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine; roosts communally in winter.	Present
Bank swallow	<i>Riparia riparia</i>	--;CT;--	(Nesting) Colonial nester; nests primarily in riparian and other lowland habitats west of the desert; requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Present
Barrow's goldeneye	<i>Bucephala islandica</i>	--;CSC;--	(Nesting) Breeds in high central and northern Sierra Nevada Mountains, near wooded mountain lakes or large streams; nest in tree cavities, such as a deserted nest-hole of a pileated woodpecker or flicker, also use nest boxes.	Present

Black swift	<i>Cypseloides niger</i>	FSC;CSC;--	(Nesting) Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely (coastal belt of Santa Cruz and Monterey Counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains).	Absent
California gull	<i>Larus californicus</i>	--;CSC;--	(Nesting Colony) Littoral waters, sandy beaches, waters and shorelines of bays, tidal mud-flats, marshes, lakes, etc.; colonial nester on islets in large interior lakes, either fresh or strongly alkaline.	Present
California spotted owl	<i>Strix occidentalis occidentalis</i>	FSC;CSC;--	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods; canopy closure greater than 40 percent; most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	Absent
California thrasher	<i>Toxostoma redivivum</i>	FSC;--;--	Chaparral.	Absent
Ferruginous hawk	<i>Buteo regalis</i>	FSC;CSC;--	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; mostly eats lagomorphs, ground squirrels, and mice; population trends may follow lagomorph population cycles.	Absent
Flammulated owl	<i>Otus flammeolus</i>	FSC;--;--	Coniferous woodlands and forest edges in the northwest; dry ponderosa pine woods in the southwest.	Absent

Great blue heron	<i>Ardea herodias</i>	--;--;--	(Rookery) Colonial nester in tall trees, cliffsides, and sequestered spots on marshes; rookery sites in close proximity to foraging areas; marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Present
Greater sandhill crane	<i>Grus canadensis tabida</i>	--;CT;--	(Nesting and wintering) Nests in wetland habitats in northeastern California; winters in the Central Valley; prefer grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loaf sites.	Absent
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	FSC;--;--	(Nesting) Nests in open oak or other arid woodland and chaparral, near water; nearby herbaceous habitats used for feeding; closely associated with oaks.	Present
Lewis' woodpecker	<i>Melanerpes lewis</i>	FSC;--;--	Dry open woods, orchards, farmlands, foothills.	Present
Little willow flycatcher	<i>Empidonax traillii brewsteri</i>	--;CE;--	(Nesting) Inhabits extensive thickets of low, dense willows on the edge of wet meadows, ponds, or backwaters; requires dense willow thickets for nesting/roosting; low, exposed branches are used for singing posts/hunting perches.	Present
Loggerhead shrike	<i>Lanius ludovicianus</i>	FSC;CSC;--	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes; prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Present

Long-billed curlew	<i>Numenius americanus</i>	FSC;CSC;--	(Nesting) Breeds in upland shortgrass prairies and wet meadows in northeastern California; habitats on gravelly soils and gently rolling terrain are favored over others.	Absent
Northern goshawk	<i>Accipiter gentilis</i>	FSC;CSC;--	(Nesting) Within and in vicinity of coniferous forest; uses old nests, and maintains alternate sites; usually nests on north slopes, near water; red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Absent
Northern harrier	<i>Circus cyaneus</i>	--;CSC;--	(Nesting) Coastal salt and fresh-water marsh; nest and forage in grasslands, from salt grass in desert sink to mountain cienagas; nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Absent
Nuttall's woodpecker	<i>Picoides nuttallii</i>	FSLC;--;--	Shrublands, streamsides, and oak woodlands.	Present
Oak (plain) titmouse	<i>Baeolophus (Parus) inornatus</i>	FSLC;--;--	Broadleafed woodlands; sparse pinyon-juniper and oak woodlands.	Present
Olive-sided flycatcher	<i>Contopus cooperi</i>	FSC;--;--	(Nesting) Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine; most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes, or other terrain.	Absent
Osprey	<i>Pandion haliaetus</i>	--;CSC;--	(Nesting) Ocean shore, bays, fresh-water lakes, and larger streams; large nests built in tree-tops within 15 miles of good fish-producing body of water.	Present

Red-breasted sapsucker	<i>Sphyrapicus ruber</i>	FSC;--;--	Moist woodlands.	Present
Rufous hummingbird	<i>Selasphorus rufus</i>	FSC;--;--	(Nesting) Breeds in transition life zone of northwest coastal area from Oregon border to southern Sonoma County; nests in berry tangles, shrubs, and conifers; favors habitats rich in nectar-producing flowers.	Absent
Swainson's hawk	<i>Buteo Swainsoni</i>	--;CT;--	(Nesting) Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah; requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	Present
Tricolored blackbird	<i>Agelaius tricolor</i>	FSC;CSC;--	(Nesting colony) Highly colonial species, most numerous in Central Valley and vicinity; largely endemic to California; requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Absent
Vaux's swift	<i>Chaetura vauxi</i>	FSC;CSC;--	(Nesting) Redwood, Douglas fir, and other coniferous forests; nests in large hollow trees and snags; often nests in flocks; forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Present
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	FSC;CSC;--	(Burrow sites) Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Absent

Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FC;CE;--	(Nesting) Riparian forest nester, along the broad, lower flood-bottoms of larger river systems; nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Present
White-faced ibis	<i>Plegadis chihi</i>	FSC;CSC;--	(Rookery Site) Shallow fresh-water marsh; dense tule thickets for nesting interspersed with areas of shallow water for foraging.	Absent
White-headed woodpecker	<i>Picoides albolarvatus</i>	FSC;--;--	Ponderosa pine belts of the mountains; also in subalpine belts of firs.	Absent
White-tailed (=black-shouldered) kite	<i>Elanus leucurus</i>	FSC;--;--	(Nesting) Rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland; open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Present
Yellow-breasted chat	<i>Icteria virens</i>	--;CSC;--	(Nesting) Summer resident, inhabits riparian thickets of willow and other brushy tangles near watercourses; nests in low, dense riparian, consisting of willow, blackberry, and wild grape; forage and nest within ten feet of the ground.	Present
Mammals				

Fisher	<i>Martes pennanti pacifica</i>	FC;CSC;--	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure; use cavities, snags, logs and rocky areas for cover and denning; need large areas of mature, dense forest.	Present
Fringed myotis bat	<i>Myotis thysanodes</i>	FSC;--;--	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer; uses caves, mines, buildings, or crevices for maternity colonies and roosts.	Present
Greater western mastiff-bat	<i>Eumops perotis californicus</i>	FSC;CSC;--	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Present
Long-eared myotis bat	<i>Myotis evotis</i>	FSC;--;--	Found in all brush, woodland, and forest habitats from sea level to about 9,000 feet; prefers coniferous woodlands and forests; nursery colonies in buildings, crevices, spaces under bark, and snags; caves used primarily as night roosts.	Present
Long-legged myotis bat	<i>Myotis volans</i>	FSC;--;--	Most common in woodland and forest habitats above 4,000 feet; trees are important day roosts, caves and mines are night roosts; nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	Present
Marysville Heermann's kangaroo rat	<i>Dipodomys californicus eximius</i>	FSC;CSC;--	Friable soil, grass-forb stages of chaparral (known only from the Sutter Buttes area).	Absent

Pacific (=Townsend's) western big-eared bat	<i>Corynorhinus</i> (= <i>Plecotus</i>) <i>townsendii</i> <i>townsendii</i>	FSC;CSC;--	Humid coastal regions of Northern and Central California; roost in limestone caves, lava tubes, mines, buildings, etc.; will only roost in the open, hanging from walls and ceilings; roosting sites limiting; extremely sensitive to disturbance.	Absent
Pale Townsend's big-eared bat	<i>Corynorhinus</i> (= <i>Plecotus</i>) <i>townsendii</i> <i>pallescens</i>	FSC;CSC;--	Lives in a wide variety of habitats but most common in mesic sites; need appropriate roosting, maternity, and hibernacula sites free from human disturbance.	Present
San Joaquin pocket mouse	<i>Perognathus</i> <i>inornatus inornatus</i>	FSC;--;--	Typically found in grasslands and blue oak savannas; need friable soils.	Absent
Sierra Nevada snowshoe hare	<i>Lepus americanus</i> <i>tahoensis</i>	FSC;CSC;--	Boreal riparian areas in the Sierra Nevada; thickets of deciduous trees in riparian areas and thickets of young conifers.	Present
Silver-haired bat	<i>Lasionycteris</i> <i>noctivagans</i>	--;CSC;--	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas; roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks; needs drinking water.	Present
Small-footed myotis bat	<i>Myotis ciliolabrum</i>	FSC;--;--	Rock outcrops, open grasslands, canyons, woodlands; roosts in cracks, crevices in cliffs, beneath tree bark, in mines or caves, and the occasional human dwelling.	Present
Spotted bat	<i>Euderma maculatum</i>	FSC;CSC;--	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests; feeds over water and along washes; needs rock crevices in cliffs or caves for roosting.	Present

Yuma myotis bat	<i>Myotis yumanensis</i>	FSC;--;--	Optimal habitats are open forests and woodlands with sources of water over which to feed; distribution is closely tied to bodies of water; maternity colonies in caves, mines, buildings, or crevices.	Present
Critical Habitat				
Great Valley Cottonwood Riparian Forest	NA	X	Great valley cottonwood riparian forest.	Present
Great Valley Willow Scrub	NA	X	Great valley willow scrub.	Present
Northern Basalt Flow Vernal Pool	NA	X	Northern basalt flow vernal pool.	Absent
Northern Hardpan Vernal Pool	NA	X	Northern hardpan vernal pool.	Absent
Northern Volcanic Mud Flow Vernal Pool	NA	X	Northern volcanic mud flow vernal pool.	Absent

**Notes*

--	No status to date
1B	CNPS listed rare, threatened, or endangered plants in California or elsewhere
2	CNPS listed rare, threatened, or endangered plants in California, but more common elsewhere
3	CNPS listed plants that need more information
4	CNPS listed plants with limited distribution
CE	California endangered
CNPS	California Native Plant Society
CR	California rare
CSC	California species of concern
CT	California threatened
FC	Federal candidate
FD	Federal delisted; species will be monitored for five years
FE	Federal endangered
FP	Federal proposed; officially proposed (in the Federal Register) for listing as endangered or threatened
FSC	Federal species of concern
FSLC	Species of local concern identified by the USFWS
FT	Federal threatened
NA	Not applicable
USFWS	United States Fish and Wildlife Service
X	Critical habitat (including specific species designations)
XC	Candidate critical habitat
XP	Proposed critical habitat

SENSITIVE HABITATS

Sensitive habitats include a) features of special concern to resource agencies, b) features protected under CEQA, c) features designated as sensitive natural communities by DFG, d) features outlined in Section 1600 of the California Fish and Game Code, and e) features protected under local regulations and policies. At the project site, riparian habitat and the Feather River are considered sensitive habitats under CEQA. For reasons other than their identification as sensitive habitats, they are potential constraints on development.

JURISDICTIONAL WATERS

Jurisdictional waters, as defined in Section 404 of the federal Clean Water Act (see 2.0, Regulatory Framework), include lakes, rivers, streams, wetlands, and natural ponds. The Feather River is a jurisdictional water that may be impacted with implementation of the proposed project, depending on the final design plans. Since a Section 404 permit is required before any fill or dredge activities can take place within a jurisdictional water, its presence is a potential constraint on development.

WILDLIFE CORRIDORS

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to a) sustain species with specific foraging requirements, b) preserve a species' distribution potential, and c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource. Anadromous fish use the Feather River, which occurs within the project boundaries, for seasonal spawning. Impacts to the Feather River through implementation of the Oroville Riverfront Improvements Plan would significantly adversely affect anadromous fish runs.

2.0 REGULATORY FRAMEWORK

This section lists specific environmental review and consultation requirements and identifies permits and approvals that must be obtained from local, state, and federal agencies before construction of the proposed project.

FEDERAL

Endangered Species Act

Provisions of the Federal Endangered Species Act (FESA), as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take. "Take" under FESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The

USFWS regulations define harm to include some types of “significant habitat modification or degradation.” The U.S. Supreme Court ruled on June 29, 1995, that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” For projects with a federal nexus, Section 7 of the FESA requires that federal agencies, in consultation with USFWS or NOAA Fisheries, use their authorities to further the purpose of FESA and to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Section 10(a)(1)(B) allows non-federal entities to obtain permits for incidental taking of threatened or endangered species through consultation with USFWS or NOAA Fisheries.

Clean Water Act, Section 404

The objective of the Clean Water Act (CWA 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters. Discharge of fill material into “waters of the U.S.” including wetlands, is regulated by the U.S. Army Corps of Engineers (ACOE) under Section 404 of the federal Clean Water Act (33 USC 1251-1376). ACOE regulations implementing Section 404 define “waters of the U.S.” to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3; 40 CFR 230.3). The placement of structures in “navigable waters of the U.S.” is also regulated by the ACOE under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are permitted under either individual or general (e.g., nationwide) permits. Specific applicability of permit type is determined by the ACOE on a case-by-case basis.

In 1987 the ACOE published a manual that standardized the manner in which wetlands were to be delineated nationwide. To determine whether areas that appear to be wetlands are subject to ACOE jurisdiction (i.e., are “jurisdictional” wetlands), a wetlands delineation must be performed. Under normal circumstances, positive indicators from three parameters, (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to classify a feature as a jurisdictional wetland. In addition to verifying wetlands for potential jurisdiction, the ACOE is responsible for the issuance of permits for projects that propose filling of wetlands. Any permanent loss of a jurisdictional wetland as a result of project construction activities is considered a significant impact.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The vast majority of

birds found in the study area are protected under the MBTA. Thus, project construction has the potential to directly take nests, eggs, young or individuals of these protected species. Further, construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to the abandonment of nests, a violation of the MBTA.

Bald Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

STATE

California Endangered Species Act

Under CESA, DFG has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code 2070). DFG maintains a list of "candidate species" which are species that DFG formally notices as being under review for addition to the list of endangered or threatened species. DFG also maintains lists of "species of special concern" which serve as species "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, DFG encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 206.591. Authorization from DFG would be in the form of an Incidental Take Permit.

California Regional Water Quality Control Board

Clean Water Act, Section 401 Water Quality Certification

Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent

limitations and water quality standards. The appropriate Regional Water Quality Control Board (in California) regulates section 401 requirements.

California Department of Fish and Game

STREAMBED ALTERATION AGREEMENT (SECTIONS 1600-1607 OF THE CALIFORNIA FISH AND GAME CODE)

State and local public agencies are subject to Section 1602 of the California Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the DFG. Under Section 1602, a discretionary Stream Alteration Agreement permit from the DFG (Region 2 for the proposed project) must be issued by the DFG to the project developer prior to the initiation of construction activities within lands under DFG jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

NATIVE PLANT PROTECTION ACT

The Native Plant Protection Act (*California Fish and Game Code Section. 1900-1913*) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by DFG). An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify DFG and give that state agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed (*Fish and Game Code, § 1913* exempts from take prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way”). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

BIRDS OF PREY

Under *Section 3503.5 of the California Fish and Game Code* it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

“FULLY PROTECTED” SPECIES

California statutes also accord “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. Section 3505 of the California Fish and Game Code makes it unlawful to take “any egret or egret, osprey, bird of paradise, gaura, numidi, or any part

of such a bird.” Section 3511 protects from take the following “fully protected birds”: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle; (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

California Fish and Game Code Section 4700 identifies the following “fully protected mammals” that cannot be taken: (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (d) Guadalupe fur seal (*Arctocephalus townsendi*); (e) ring-tailed cat (genus *Bassariscus*); (f) Pacific right whale (*Eubalaena sieboldi*); (g) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (h) southern sea otter (*Enhydra lutris nereis*); and (i) wolverine (*Gulo gulo*).

Fish and Game Code Section 5050 protects from take the following “fully protected reptiles and amphibians”: (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

Fish and Game Code Section 5515 also identifies certain “fully protected fish” that cannot lawfully be taken even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinodon radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperimus*).

LOCAL

City of Oroville General Plan

The City of Oroville General Plan identifies specific objectives, policies, and programs regarding natural resources. Biotic resources objectives outlined in the General Plan are as follows:

- 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.

- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as “species of special concern” that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11e Through creative design recognize and enhance the links between biotic resources throughout the Oroville Planning Area and the desired life styles the Oroville community offers.
- 6.11f Search for and acquire State, Federal and foundation funding to preserve, protect, and enhance riparian and wildlife corridors connecting Blue Oak and other oak woodland habitat areas, vernal pools, the Feather River and other significant drainages, the Oroville Wildlife Area, South Table Mountain, Migratory and Resident Deer movement corridors, Areas of Special Biological Importance, Key Wildlife Areas, Unique Natural Areas mapped by the DFG and Butte County, wilderness areas such as the Plumas Forest to the east, and other open space areas that function as habitat.
- 6.11g Search for and acquire State, Federal and foundation funding to preserve, promote, restore, protect and enhance riparian corridors throughout the Planning Area.
- 6.11h Support a multi-use concept for riparian corridors that incorporates open space, aesthetic, habitat, and wildlife corridor values, while addressing the social, cultural, flood control and recreational needs of the Greater Oroville Community.
- 6.11i Where feasible, landscape public open space areas using native vegetation, to provide habitat for local species.
- 6.11j Encourage the Department of Water Resources to maintain water levels in State Water Project facilities, including Lake Oroville, to optimize protection of fisheries and other biotic resources, preserve open water as open space, and maximize recreational opportunities per the Department of Water Resources Bulletin 117-6, in addition to ensuring power generation, flood control, and water supply.

- 6.11k Encourage the DFG to manage and maintain the Oroville Wildlife Refuge for multiple uses, while protecting property values on land adjacent to the refuge.

Biotic resources implementing policies outlined in the General Plan are as follows:

- 6.11l Work toward the preparation of a Master Biotic Data Base for the Planning Area. Such a Data Base may include the following:

- An inventory of listed and common species;
- Locations of habitat and natural communities, including mapping of native woodlands throughout the Planning Area; and
- Confirmation of alignments and significance of riparian and wildlife corridors;
- Species management plans, where relevant.
- Agricultural fields and groves which may be of significant economic or habitat value to the community.

The above referenced Data Base may be prepared at a time certain through a city-wide effort, or through an incremental compilation of project/site specific studies and surveys.

- 6.11m Strive to minimize loss of wetland value or acreage consistent with the needs of wildlife and humans. Utilize mitigation banking (if available) to offset impacts to wetlands.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11p If sensitive plants are found to be located within a development site the developer shall be informed that he must mitigate project impacts in accordance with State Law.

Examples of mitigation may include:

- Establishing setbacks from the outer edge of the plant population area;

- Prohibiting livestock grazing or drainage into the setback and plant population areas;
 - Construction of barriers to prevent compaction damage by foot or vehicular traffic.
- 6.11q Work with the Oroville Mosquito Abatement District and the Butte County Mosquito Abatement District to ensure that preservation, pre-planning and design of water features is coordinated with acceptable disease vector control measures.
- 6.11r Plan for freeway and arterial street undercrossings where necessary to effectively preserve wildlife corridors.
- 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
- 6.11t Work with Butte County to coordinate the maintenance of open space, habitat preservation, and mineral extraction at or near South Table Mountain.
- 6.11u Coordinate mineral resource extraction with habitat preservation and protection of plant and animal species where appropriate.
- 6.11v Work with Butte County and the DFG to ensure the continued presence and appropriate numbers of Migratory and Resident Deer in the Planning Area, by preserving habitat and movement corridors.
- 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
- 6.11x Encourage the coordinated design of large projects to preserve onsite open space, cluster development (where feasible), and conserve significant habitats that have been identified in the project area.
- 6.11y Make information available to interested parties concerning the presence and condition of species of special status.
- 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.
- 6.11z.1 Continue to build the “urban forest” by implementing the Master Street Tree Plan (with amendments), revising the City’s Official Street Tree List as needed to incorporate additional appropriate cultivars, and implementing

the City's Tree Ordinance (Number 1174) and Street Tree Planting Standards.

- 6.11z.2 Develop a plan to enhance individual oaks, oak woodlands and other tree groups throughout the Planning Area. The Plan will provide options for the management of oaks and other tree resources.
- 6.11z.3 Development proposals on sites that contain significant oak woodlands and related habitat will require the preparation of a site specific tree management and preservation report by a certified arborist or landscape architect. This report shall include recommendations for the retention of healthy mature trees where feasible and promote the concept of oak regeneration corridors within the project design.

The final project design should incorporate City of Oroville General Plan policies and standards.

3.0 IMPACTS AND CONSTRAINTS

A brief discussion of potential impacts and constraints associated with biological resources related to the Oroville Riverfront Improvements Plan is included in the following sections. Once project design plans are finalized, a comprehensive assessment of impact as well as related mitigation should be completed.

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on the CEQA Guidelines (Appendix G) and previous standards used by the City. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, endangered, threatened, or other special status in local or regional plans, policies and regulations, or by the DFG or USFWS;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations, or by the DFG or USFWS;
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, coastal, riverine, stream, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local polices or ordinances protecting biological resources, such as a tree preservation policy;
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
7. Substantially reduce the habitat of a fish, wildlife, or plant species or cause a species to drop below self-sustaining levels; or
8. Directly affect species protected under provisions of the Migratory Bird Treaty Act.

An evaluation of the significance of potential impact on biological resources must consider both direct effects to the resource as well as indirect effect in a local or regional context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially effect the resource on a population-wide or region-wide basis.

METHODOLOGY

Available information pertaining to biological resources in the general project area was reviewed during this analysis, including (but not limited to):

- Aerial photography of the project location;
- City of Oroville General Plan (1995);
- CNPS, Inventory of Rare and Endangered Plants for the topographic quadrangles Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee (2005);
- DFG, California Natural Diversity Database records for the Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee topographic quadrangles (2003);
- DFG, California Wildlife Habitat Relationships database (2002);
- The Jepson Manual: Higher Plants of California (Hickman 1993);

- USFWS, list of Federal Endangered and Threatened Species that occur in or may be affected by projects in Butte County (August 2005);
- USGS, 7.5 minute Oroville topographic quadrangle.

SITE RECONNAISSANCE

Biologists working for Pacific Municipal Consultants performed a site reconnaissance of the project area on August 24, 2005. Field investigations included a general inspection of the project site to adequately characterize existing habitat with emphasis on areas potentially important for special status species. Data gathered during the site visit and subsequent research focused on identifying possible project limitations with respect to biological resources (within a regulatory framework) to be incorporated into the ultimate project design.

PROJECT IMPACTS AND CONSTRAINTS

Implementation of the Oroville Riverfront Improvements Plan has the potential to directly or indirectly affect biological resources as well as contribute to cumulative impacts. Potential impacts to biological resources can be temporary, long-term, or permanent depending on the affect of project activities on an individual resource.

Establishing constraints can likely reduce impact to sensitive biological resources from project activities that may otherwise require mitigation and/or permits to complete. Project constraints to reduce significant impact to individual special status species (flora and fauna) include, but are not limited to:

- *Eliminate the possibility of fill material entering the Feather River.* The project, if possible, should not involve fill material entering the Feather River. Fill material is defined as the introduction of any material that replaces any portion of an aquatic area or changes the bottom elevation of any portion of a water of the U.S., such as the Feather River. Proposed activities that involve the introduction of such materials, for example the addition of a fishing bridge or recontouring of the rivers' edge for improved fishing access, would require approval from the ACOE by obtaining the appropriate permit under the CWA. As part of the permitting process, consultation with the USFWS and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries Service) would be necessary regarding federally listed species in the project area. Implementation of the project and ultimate operation of new river facilities would likely be restricted based on the seasonal spawning of sensitive anadromous fish.
- *Manipulation of existing features on and north of the levee shall require consultation with various regulatory agencies depending on the proposed activity, for example:*

- A project design that includes activities within or below the ordinary high water mark of the Feather River, in addition to ACOE permitting (see above), would require approval by the DFG and Regional Water Quality Control Board (RWQCB). A DFG Section 1602 Streambed Alteration Agreement and RWQCB Section 401 certification under the CWA would be necessary for implementation of a project design that impacts the Feather River. Furthermore, the DWR would likely review and comment upon any action that has the potential to affect sensitive fisheries resources and Feather River Fish Hatchery operations.
- Under the California Fish and Game Code, the DFG has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake. At the project location, the top of the levee would be considered the top of the bank above the Feather River. Therefore, a Section 1602 Streambed Alteration Agreement would need to be obtained from the DFG for any project activity proposed to occur on top of the levee and northward to the study area boundary. To obtain an Agreement, the project applicant shall submit a formal application, processing fee, and appropriate California Environmental Quality Act (CEQA) document analyzing environmental impacts to the DFG.
- The USFWS has a responsibility for regulating activities within habitats of species listed as threatened or endangered under FESA. Both the riverine habitat of the Feather River and the adjacent riparian habitat are known to support or have the potential to support federally listed species (see Table 1). CEQA requires that impact, either directly or through habitat modification, to species identified as sensitive be analyzed within an environmental document and mitigated to less than significant where possible. Depending upon the scope of proposed activities at the project location, the applicant would be required to (at a minimum) perform presence/absence surveys for listed species prior to habitat disturbance or (at most) prepare a Habitat Conservation Plan in coordination with the USFWS for incidental “take.” In general, a greater loss of habitat or a more invasive project design typically equates to a proportionate increase in the level of effort required for reducing impact to special status species.
- Construction and/or removal or revegetation activities within the project area would need to occur in a manner that did not compromise the integrity of the levee. Early consultation/coordination with agencies such as the ACOE, who may permit the project (under the Clean Water Act), would likely be necessary for project implementation due to the sensitivity of the project location (on top of a levee).

- *Designing the project to preserve riparian habitat along the Feather River.* Riparian habitat not only supports several special status species, but also is considered a sensitive natural community under CEQA. As such, any proposed impact to riparian habitat through project activities would need to be analyzed in an environmental document. Appropriate mitigation for loss of habitat would likely include the creation of an equal amount or greater of replacement habitat along the Feather River. The mitigation area would likely need monitoring (provided by the applicant) over time (typically five years) to ensure habitat success as well as need to be protected in perpetuity through a conservation easement.
- *Limit the number of trees that shall be removed from project implementation.* A tree survey performed by a certified arborist of any areas where the project proposes to remove vegetation would likely be necessary to determine the location and quality of tree resources identified as having special biological importance by the City of Oroville. An arborist report would include a catalog of trees within the area, their health, and classification (i.e., invasive or native species) as well as appropriate mitigation recommended for the trees proposed for removal. Replacement of trees and long-term monitoring (to ensure success of revegetation) would likely be necessary should the project design result in loss of important trees, such as oak (*Quercus* sp.).
- *Incorporate biologically-conscious alternatives into the final project design, such as:*
 - Use of 'Best Management Practices' to prevent run-off of potential fill material.
 - Determine (through consultation with the DFG and USFWS) the time of year when construction activities in and near riparian areas and the Feather River will have the least impact to migrating biological resources (i.e., anadromous fish and migratory birds). Plan to implement project activities during that timeframe.
 - Consider alternative lighting that will have the least impact to nocturnal species in the area, such as silver-haired bats.
 - Coordinate with the DFG, USFWS, and City of Oroville departments to determine an operating schedule for new recreational areas on the levee and the Feather River, if applicable. Design a long-term plan for policing the recreation areas and possibly prohibiting public access to the levee after sundown and/or to the river during sensitive times of year for spawning fish.
- *Maintain consistency with City of Oroville General Plan by implementing required policies regarding biological resources, such as:*
 - 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.

- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as “species of special concern” that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
- 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
- 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.

4.0 CONCLUSION

In conclusion, the Oroville Riverfront Improvements Plan has the potential to significantly impact biological resources. The presence of these biological resources may pose potential constraints, as many of these resources are protected under various federal, state and local laws, policies and regulations. Potential constraints include the following:
No other significant constraints related to biological resources were identified. Through early coordination with regulatory agencies, creative project design, and implementation of appropriate mitigation measures, impacts to biological resources will likely be reduced to a less than significant level.

REFERENCES/DOCUMENTATION

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URBEMIS 2002 For Windows 8.7.0

File Name: U:\Projects\Oroville Riverfront\Air Quality\Riverfront.urb
 Project Name: Riverfront
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	8.93	57.19	75.39	0.00	2.22	2.21	0.01

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	5.69	38.69	43.54	0.00	1.52	1.52	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.12	0.00	0.78	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	3.78	6.70	47.72	0.05	4.47

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	3.91	6.70	48.50	0.05	4.47

URBEMIS 2002 For Windows 8.7.0

File Name: U:\Projects\Oroville Riverfront\Air Quality\Riverfront.urb
 Project Name: Riverfront
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: February, 2007
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	8.81	56.90	72.59	-	2.20	2.20	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.12	0.29	2.80	0.00	0.02	0.01	0.01
Maximum lbs/day	8.93	57.19	75.39	0.00	2.22	2.21	0.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.15	31.68	30.72	-	1.41	1.41	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	4.15	31.68	30.72	0.00	1.41	1.41	0.00
Max lbs/day all phases	8.93	57.19	75.39	0.00	2.22	2.21	0.01
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.15	30.14	31.84	-	1.29	1.29	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.14	-	-	-	-	-	-
Asphalt Off-Road Diesel	1.34	7.78	11.40	-	0.21	0.21	0.00
Asphalt On-Road Diesel	0.04	0.76	0.15	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.01	0.01	0.15	0.00	0.00	0.00	0.00
Maximum lbs/day	5.69	38.69	43.54	0.00	1.52	1.52	0.00
Max lbs/day all phases	5.69	38.69	43.54	0.00	1.52	1.52	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Feb '07

Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Crawler Tractors	143	0.575	8.0
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07

Phase 3 Duration: 10.7 months

Start Month/Year for SubPhase Building: Mar '07

SubPhase Building Duration: 10.7 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '07

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: Jan '08

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth - No summer emissions					
Landscaping	0.12	0.00	0.78	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.12	0.00	0.78	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	3.78	6.70	47.72	0.05	4.47
TOTAL EMISSIONS (lbs/day)	3.78	6.70	47.72	0.05	4.47

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		20.00 trips/acres	21.00	420.00
			Sum of Total Trips	420.00
			Total Vehicle Miles Traveled	2,942.10

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00
Motor Home	1.40	14.30	78.60	7.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

OROVILLE RIVERFRONT PARK
FINAL IMPROVEMENTS PLAN
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION



PREPARED FOR

CITY OF OROVILLE
1735 MONTGOMERY STREET
OROVILLE, CA 95965

PREPARED BY



140 INDEPENDENCE CIRCLE, SUITE C
CHICO, CA 95973

OCTOBER 2006

**INITIAL STUDY
MITIGATED NEGATIVE DECLARATION
OROVILLE RIVERFRONT IMPROVEMENTS FINAL PLAN PROJECT**

1. Project Title:	Oroville Riverfront Park Project – Final Improvements Plan
2. Applicant Name and Address:	City of Oroville 1535 Montgomery Street Oroville, CA 95965
3. Owner Name and Address:	Various
4. Type of Project:	Public access, roadway and recreational improvements and design plan
5. General Plan Designation:	Various
6. Zoning:	Various
7. Project Location:	The proposed project area is located in downtown Oroville, north of Montgomery Street and south of the Feather River. Specifically, the project boundaries are west of the intersection of Feather River Boulevard and Stafford Street, then easterly along the top of the levee of the Feather River to the Veteran's Memorial Building, west of the intersection of Montgomery and Table Mountain Boulevard.

This document is an Initial Study (IS), which provides justification for a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA) for the development of the Oroville Riverfront Improvements Final Plan.

The Initial Study/Mitigated Negative Declaration is a public document to be used by the City of Oroville (City) to determine whether the project may have a significant effect on the environment pursuant to CEQA. If the City finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment that cannot be mitigated, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an environmental impact report (EIR) to analyze the project at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment with mitigation, a Negative Declaration shall be prepared with a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and therefore, why it does not require the preparation of an EIR (State CEQA Guidelines Section 15371). This IS/MND has been prepared in accordance with CEQA, Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines 14 California Code of Regulations (CCR) Section 15000 *et seq.*

I. BACKGROUND

8. Other Interested Public Agencies and Public Agencies Whose Consultation or Approval Is Required:

Butte County Air Quality Management District (BCAQMD): Compliance with Indirect Source Review Guidelines.

California Department of Fish and Game (CDFG): CDFG is a Trustee Agency and will review the environmental document for matters pertaining to fish and wildlife resources. Per Section 1601 of the State Fish and Game code, a Streambed Alteration Agreement, would need to be obtained for construction of this project.

California Department of Water Resources (DWR): Per California Code 66455.1, the City of Oroville Planning Department notified DWR of the proposed Oroville Riverfront Improvement Plan as it is located within one mile of State Water Project facilities. The project will require review from the Department of Water Resources in order to ensure that the Thermalito Diversion Pool, a State Water Project facility, is adequately protected during construction.

California Water Service Company: Consent to provide water service to the project.

Feather River Fish Hatchery: Notify Hatchery of construction plans, the outcome of consultation between the various regulatory agencies, and the City of Oroville's commitment to avoiding the Feather River and no adverse effect to any anadromous fish or other sensitive riverine species.

Feather River Recreation and Parks District: Consent to maintain project area.

Regional Water Quality Control Board (RWQCB): Compliance with Waste Discharge Permit, National Pollutant Discharge Elimination System (NPDES) Permit, Storm Water Pollution Prevention Program (SWPPP), and Water Quality Certification or Waiver, under Sections 401 and 402 of the Clean Water Act (CWA).

Sewerage Commission- Oroville Region (SC-OR): SC-OR is governed by a three party Joint Powers Agreement (JPA) to which the City of Oroville, Thermalito Irrigation District, and the Lake Oroville Area Public Utility District are the sole parties. The three sewer service providers collect wastewater and convey it to the wastewater treatment facility, owned and operated by the Sewerage Commission-Oroville Region.

State of California Reclamation Board: Construction within the river area and/or adjacent to the levee may require a permit from the State Reclamation Board, which oversees designated floodways and Central Valley Streams listed in Table 8.1 in Title 23 of the California Code of Regulations. The Feather River is a regulated stream.

United States Fish and Wildlife Service (USFWS): USFWS has jurisdiction over federally threatened and state species of concern that could be present in the riparian area near the proposed project. USFWS will review the environmental document for matters pertaining to fish and wildlife resources.

United States Army Corps of Engineers (USACE): USACE has jurisdiction over navigable waters of the US. The USACE would have jurisdiction over project activities governed by Section 10 of the Rivers and Harbors Act of 1899 and/or any project activities that are to occur below the ordinary high water mark (OHWM). USACE will review the environmental document for matters pertaining to construction on a levee and the potential for the discharge of fill material into waters of the US.

II. PROJECT DESCRIPTION

PROJECT LOCATION

The proposed Oroville Riverfront Park – Final Improvement Plan (referred to as “the Project”) is located in the City of Oroville in Butte County. See **Figure 1** for a Regional Map of the project location. The proposed project area is located in downtown Oroville, north of Montgomery Street and south of the Feather River. Specifically, the project boundaries are west of the intersection of Feather River Boulevard and Stafford Street, then easterly approximately 5,500 feet along the top of the levee of the Feather River to just past the Veteran’s Memorial Building, located just west of the intersection of Montgomery and Table Mountain Boulevard. On USGS topographical mapping, the location in Township and Range System is the south half of sections 7 & 8 of T. 19 N. R. 4 E.

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES

Project Site

The project site includes the southern bank of the Feather River levee. The top of the levee is currently improved with a public road, Arlin Rhine Drive, which connects the south bank of the levee to adjoining roadways in downtown Oroville. See **Figure 2** for an aerial depiction of the project site and adjacent area.

Generally, the foot print for the project would be located along an approximate one mile-long segment of the Feather River levee and would extend south from the levee 1) to an acre and a half parcel between Oak and Lincoln Streets to Arlin Rhine Drive and 2) from the eastern end of this levee segment into a half acre area at the Veterans Memorial Building, west of the intersection of Montgomery Street and Table Mountain Boulevard. The segment of the levee and associated property within the project site is owned and maintained by the City.

Project Site Circulation

Arlin Rhine Drive extends east from approximately 5th Street to approximately 250 feet past Oliver Street. Arlin Rhine Drive varies in width from approximately 14 to 120 feet and consists of a mix of gravel and paved surfaces. The street serves parking needs at the levee; however, west of Lincoln Street the road right-of-way does not provide vehicular access.

Main roadways adjacent to and within the project area include Montgomery, Oliver, Myers, Huntoon, Lincoln, Oak, and Pine Streets, and 1st, 2nd, and 5th Avenues. Feather River Boulevard currently ends at the parking lot for Bedrock Park. While the City’s road system provides a variety of travel routes for area residents between the levee and downtown, due to elevation changes and the river’s curvature, only six streets that make up the Oroville Riverfront Improvement Plan area provide access to the Feather River Levee. These streets are Feather River Boulevard, 5th Avenue, 1st Avenue, Lincoln Street, Huntoon Street, and Oliver Street.

Project Area and Surrounding Uses

The river edge is located approximately 100 to 200 feet from Arlin Rhine Drive. Portions of the north side of the levee from Arlin Rhine Drive are heavily vegetated from Bedrock Park west; the north side of the levee is more sporadically vegetated. The vegetation in these areas is a mixture of native and non-native trees, shrubs, and grasses.

Immediately north of the project site, between the southern edge of the river and the levee, lies the Oroville Bicycle Trail, a 2.5-mile Class I multi-use trail. The Oroville Bicycle Trail, which extends through Bedrock and River Bend Parks, offers scenic views of the Feather River and is part of the larger 41-mile Freeman Bicycle Trail, which loops around the Oroville Dam and Thermalito Afterbay.

Areas north of the project beyond the Feather River, include a large vacant and currently undeveloped parcel; elevated above the vacant parcel is an existing developed residential area. The Feather River Fish Hatchery is upriver and adjacent to this vacant parcel. The Hatchery is owned by the California Department of Fish and Game and was built to collect migrating salmon and steelhead for artificial spawning, as the Oroville Dam impedes the upstream migration of these fish.

The adjacent area to and south of the levee includes parts of downtown Oroville and contains various land uses. The area along Montgomery and Safford Streets south of the levee contains a mixture of commercial development, public parks, vacant lands and medium and high density residential uses.

To the west of the project area lies Bedrock and River Bend Parks, intermixed with blocks of vacant land and low density residential uses. Between Bedrock and River Bend Parks, State Highway 70 travels in a north-south direction and crosses over the Feather River.

To the east of the project area is Feather River Boulevard, which also travels in a north-south direction and crosses the Feather River. State Highway 70 and Feather River Boulevard provide vehicular access to Montgomery Street, which provides east-to-west access to the downtown Oroville area.

PROJECT PLANNING

Master Plan of Riverfront Improvements

The City of Oroville initiated a planning and design project for infrastructure improvements along the riverfront section in the downtown portion of the City. This effort resulted in a Master Plan for Riverfront Improvements that envisions improvements extending from Bedrock Park on the south to the Veterans Memorial Building on the north. The plan outlines a design concept for future improvements to the waterfront area. The concept is to create increased access and connection from downtown Oroville to the top of the levee and allow for viewshed of the Feather River. This Master Plan helps to provide guidance for community strategies for promoting the area's recreational use, improving vehicular access and parking, and will provide a connected pathway along the top of the levee.

The Master Plan envisions several elements to improve downtown Oroville and augment public access of the riverfront area. Ultimately, Bedrock Park would be connected to the proposed Centennial Plaza and Veterans Memorial Park via Arlin Rhine Drive and new pedestrian access features would open up the riverfront to enhanced downtown public spaces. A focal point of the Master Plan is an expanded plaza south from the levee into the downtown area between Lincoln and Oak Streets and north of Safford Street. This would include a water feature on the side of the levee toward the downtown area and a stage and amphitheater that would back up onto Stafford Street. The proposed improvements would further extend into a new town square between Safford and Montgomery Streets. Various civic and commercial projects are also considered in the Master Plan including; commercial infill and redevelopment, street improvements, and enhancement of the historic features of Downtown Oroville.

Oroville Riverfront Improvements Final Plan

The project, for the purposes of this Initial Study, is the Oroville Riverfront Park – Final Improvements Plan which was derived from the Master Plan. This proposed project was approved in concept for environmental analysis by the City Council on June 6, 2006. Conceptually, Oroville Riverfront Park – Final Improvements Plan can be viewed as a component of the overall Master Plan, and achieves some of the Master Plan goals for public access and recreational facilities. However, the Oroville Riverfront Park is proposed here as a stand-alone project; it is not dependent on future phases or construction of elements identified in the approved Master Plan. Other concepts in the Master Plan are being examined but were not sufficiently developed or not yet considered feasible for the implementation process and inclusion in project definition at this time. Additional development elements proposed in the Master Plan would be considered separately for environmental review if and when they are proposed for development.

PROJECT DESCRIPTION

The Oroville Riverfront Park calls for a number of improvements on top of the Feather River levee and at its inland base along the south bank of the Feather River adjunct to Oroville's downtown area. The elements included in the Oroville Riverfront Park provide for improved circulation and riverfront access, as well as a public plaza area atop the levee. These elements include: 1) improvements to and re-construction of portions of Arlin Rhine Drive and other connector streets downtown, 2) a continuous waterfront promenade with overlooks at the northern ends of key streets intersecting the levee, 3) access stairways at the end of those streets to the top of the levee, 4) Centennial Plaza in the center of the project, 5) parking and landscape improvements along the top of the levee, and 6) construction of Veteran's Memorial Park surrounding the Veterans Building at the eastern end of the project area. **Figure 3** illustrates the elements of the Oroville Riverfront Park.

Circulation Improvements

It is not yet determined to what extent these circulation improvements will occur in the first year of construction; however, future circulation improvements are expected to include all of these components described below:

- *Arlin Rhine Drive-realignment*
Arlin Rhine Drive currently east from approximately 5th Avenue in Bedrock Park to approximately 250 feet past Oliver Street and varies in width from approximately 14 to 120 feet. The street does not provide for through access along its length. West of Lincoln Street, the road does not provide vehicular access. The roadway consists of a mix of gravel and pavement surfaces. Improvements to Arlin Rhine Drive would include construction of a one-way eastbound 16 foot wide paved public street that would traverse the top of the levee from 5th Street to Oliver Street where it would then become a 24 foot wide two-way public street between Oliver Street to the proposed Veteran's Memorial Park. At the Park, the road would bend south and connect to Montgomery Street.
- *Oliver Street roundabout*
An 80 foot roundabout would be provided at the northern end of Oliver Street to define the transition of Arlin Rhine Drive as a one-way street between Huntoon and eastbound connector to a two-way section of Arlin Rhine Drive east of Oliver Street.

- *Downtown Transition connectors*

There would be two new 16 foot wide road segments that would transition from the top of the levee into the downtown. One segment would connect the top of the levee to the north end of Oak Street at Broderick Street via a one-way southbound connector to Oak Street. This half block segment (approximately 150 to 200 feet long) would be constructed on vacant public property. The other segment would be a one-way northbound connector on Lincoln Street, extending it from Stafford to the levee. This half block segment would be constructed on existing street right-of-way which is currently undeveloped. These connectors, along with Arlin Rhine Drive improvements, would improve vehicular access to the levee, proposed Plaza and Park discussed below.

- *Safford Street*

The Oroville Riverfront Park calls for Safford Street to eventually be closed to automobile traffic in three locations. It would become a linear plaza or pedestrian street between Pine and Oak Streets and Lincoln and Huntoon Streets. Huntoon Street, between Safford and Montgomery Street, would also be closed to traffic and be converted to a pedestrian street. These streets contain some on-street parallel parking spaces, which would be removed for development of the pedestrian right-of-way. Safford Street between Oak and Lincoln Street would be converted into a one-way east bound carrier that would be 16 feet wide.

Oroville Riverfront Promenade

- *Riverfront Promenade*

On the top of the levee north of Arlin Rhine Drive along the edge which overlooks the Feather River, a 16-foot wide continuous waterfront promenade would be constructed. The promenade would consist of a concrete walkway from Bedrock Park to the west to Veteran's Memorial Park to the east, a distance of 4,600 feet. The pedestrian promenade would be improved with street trees and benches along both the river and inland sides. The walkway would define the northern edge of Arlin Rhine Drive and would be separated by street trees and bollards from the roadway.

- *Scenic Overlooks*

A total of ten scenic overlook structures would be constructed on top of the levee, each a historic themed overlook structure. The overlook structures would contain interpretive exhibits and panels commemorating Oroville's history and culture. It is the intent that these structures would be open-air gazebos with an approximately 800 square foot platform that would be supported by columns extending into the northern side of the levee. Plans call for the columns to be placed either at or above the ordinary high water mark (OHWM) of 160' elevation on the levee. Further discussion of regulatory requirements for column placement on the levee can be found in the Initial Study under Section 4. Biological Resources.

- *Gateway, Stairways and Structures*

Stairways with gateway elements would provide connections to the top of the levee and connect to the overlook structures via ornamental pavement across Arlin Rhine Drive. The design and material of the gateway elements would be consistent with the design character of the overlook structures. Stairways would be constructed at the eastern end of Bedrock Park, and at the end of Second Avenue, 1st Avenue and Pine Street. There will also be stairways to the overlook structures in the stretch of Broderick Street between

Pine Street and 1st Avenue. At-grade paving would extend over Arlin Rhine Drive to provide connections between the stairways and the riverfront promenade.

Parking Improvements:

There are a number of improvements proposed to reconfigure parking in the Oroville Riverfront Improvements Final Plan. In general, additional street parking would be provided via removal of parallel parking from streets listed below and replacing it with perpendicular or diagonal parking on one side of the street. Improvements include:

- Provision for 85 diagonal parking spaces along the stretch of Arlin Rhine Drive between 5th Avenue and Oak Street.
- A total of 30 perpendicular parking spaces facing the levee and Rotary Park on Broderick Street between 2nd Avenue and 1st Avenue.
- A total of 59 perpendicular parking spaces provided on the north side of Broderick Street between 1st Avenue and Pine Street.
- A total of 37 diagonal parking spaces provided along the north side of Arlin Rhine Drive between Lincoln Street and Oliver Street.
- A total of 36 diagonal parking spaces provided in the reconfigured parking area just east of the Municipal Auditorium and east of where Myers Street access this parking area.
- A total of 56 perpendicular parking spaces between the end of Oliver Street and the Veteran's Memorial Park.

The parking areas will be landscaped to separate parking spaces and provide shade.

Veteran's Memorial Park

Veteran's Memorial Park is proposed as a new half acre park situated at the levee east of Washington Street, extending from the levee to Montgomery Street (see **Figure 4** for a graphic representation).

Within the open space, the park will contain a north/south spine of walkways and plaza areas as well as monuments honoring Oroville's veterans. Shade trees will be provided throughout the park along with decorative plantings and large turf areas. The park would be divided into three separate themed plazas; one at the entry, another in the center, and the third as an overlook with granite slab memorials. The overlook would be an 800-square foot plaza, situated at the north end of the park levee's edge overlooking the river, similar to the overlooks described above.

The park site is currently vacant. The new Park's west property line will have an 8'-10' concrete masonry unit (cmu) block wall to screen adjacent property and serve as an ongoing donor wall. An east property line next to a residential structure will also have a cmu wall partially along the property boundary to exclude it from the park. A low fence will separate the adjacent restaurant at Montgomery Street from the park.

The park would be connected to the riverfront promenade by an 8 foot wide concrete path. An auto entrance and drop-off area from Montgomery Street would be provided, in addition to

roadway access from Arlin Rhine Drive. Parking for the facility will occur along the levee and will provide whole access from the point.

Centennial Plaza

The Centennial Plaza, which is part of the Oroville Riverfront Park, is located north of Arlin Rhine Drive and centered on top of the levee roughly between the present terminuses of Oak Street and Lincoln Street. Property designated for Plaza improvements is currently vacant.

The intent of the Centennial Plaza is to create a large gathering area to provide the public with an opportunity to walk from downtown to the top of the levee to view the Feather River. This Plaza will also provide an open space at a central location near downtown. It also provides for future opportunities to expand access to the public and provide future recreational opportunities close to the Feather River. (See **Figure 5** for a graphical representation of the proposed Centennial Plaza).

The proposed Centennial Plaza is approximately one and a half acres in size, with Arlin Rhine Drive forming the south boundary of the plaza and the north edge of the levee forming the north boundary. The alignment of Arlin Rhine Drive will be shifted south of its present location to create space for the plaza on top of the levee which is approximately 120 feet wide at this location. Also at the point where Arlin Rhine Drive passes by Centennial Plaza, there would be 20 foot- wide of paving to allow two-way auto access around the plaza.

This expansion of the inland edge of the levee would be required to accommodate the road alignment and approximately 15,000 cubic yards of fill material will be needed to accommodate the proposed improvements. The fill would allow for a gradual gradient from the levee toward Safford Street. The realignment of Arlin Rhine Drive would also necessitate the removal of six cedar trees along the southern flank of the levee, as well as a radio tower that is no longer in operation, located east of the corner of Lincoln Street and the levee.

An overlook gazebo will be perched on the north edge of the levee, supported by pylons that will not encroach below the ordinary high-water flood mark (OHWM) of 160' elevation. The overlook structure within the plaza would be identical to the other overlook structures along the riverfront promenade. Additionally, there will be construction of a stairway to connect the top of the levee and Broderick Street and the end of 1st Avenue. Two handicapped parking spaces will be located on the landward side of the Arlin Rhine Drive alignment.

The design of Centennial Plaza includes a circular 7,850 square foot open space plaza area with a water feature and pavement for pathways with elevated planters. A decomposed granite path of approximately 580 feet in length will connect the Riverfront Promenade at-grade to the circular plaza. As an adjunct to the path, there would be semi-circular seating areas with benches and large flat granite boulders for seating surrounded by a cluster of trees to provide shade. Landscaping will be located at either end of the Centennial Plaza and between the waterfront promenade and the decomposed granite path. The stretch of the waterfront promenade at Centennial Plaza would be made of concrete and would contain street trees alternating between the edge of curb and the walkway. Large areas of turf would on be located on either side of the circular hardscape plaza between the riverfront promenade and the decomposed granite paths. The area at the top of the levee toward the river would include decomposed granite paths which will be planted with native plantings.

Figure 1 Regional Location Map

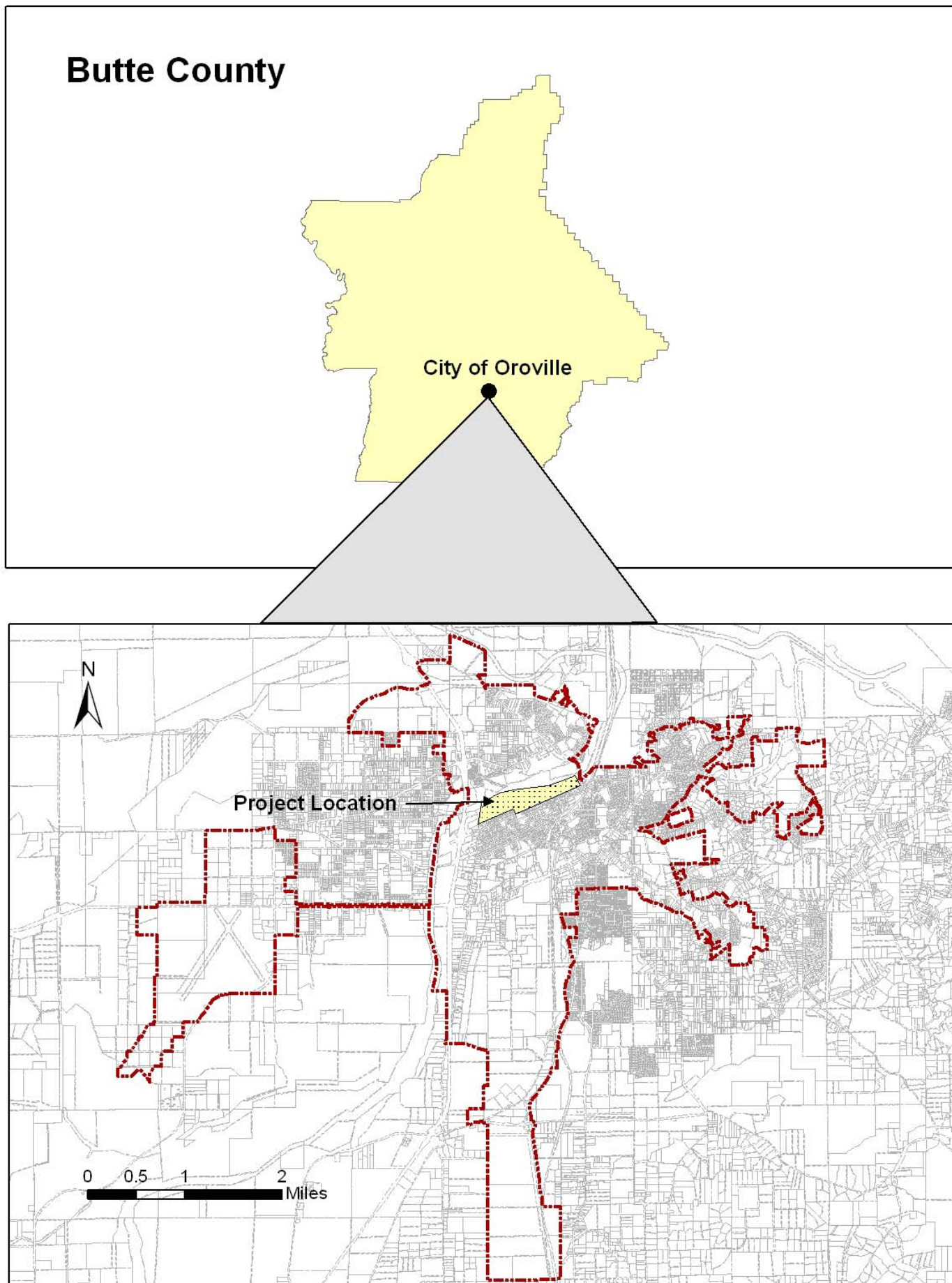


Figure 2 Aerial Photograph of Project Site



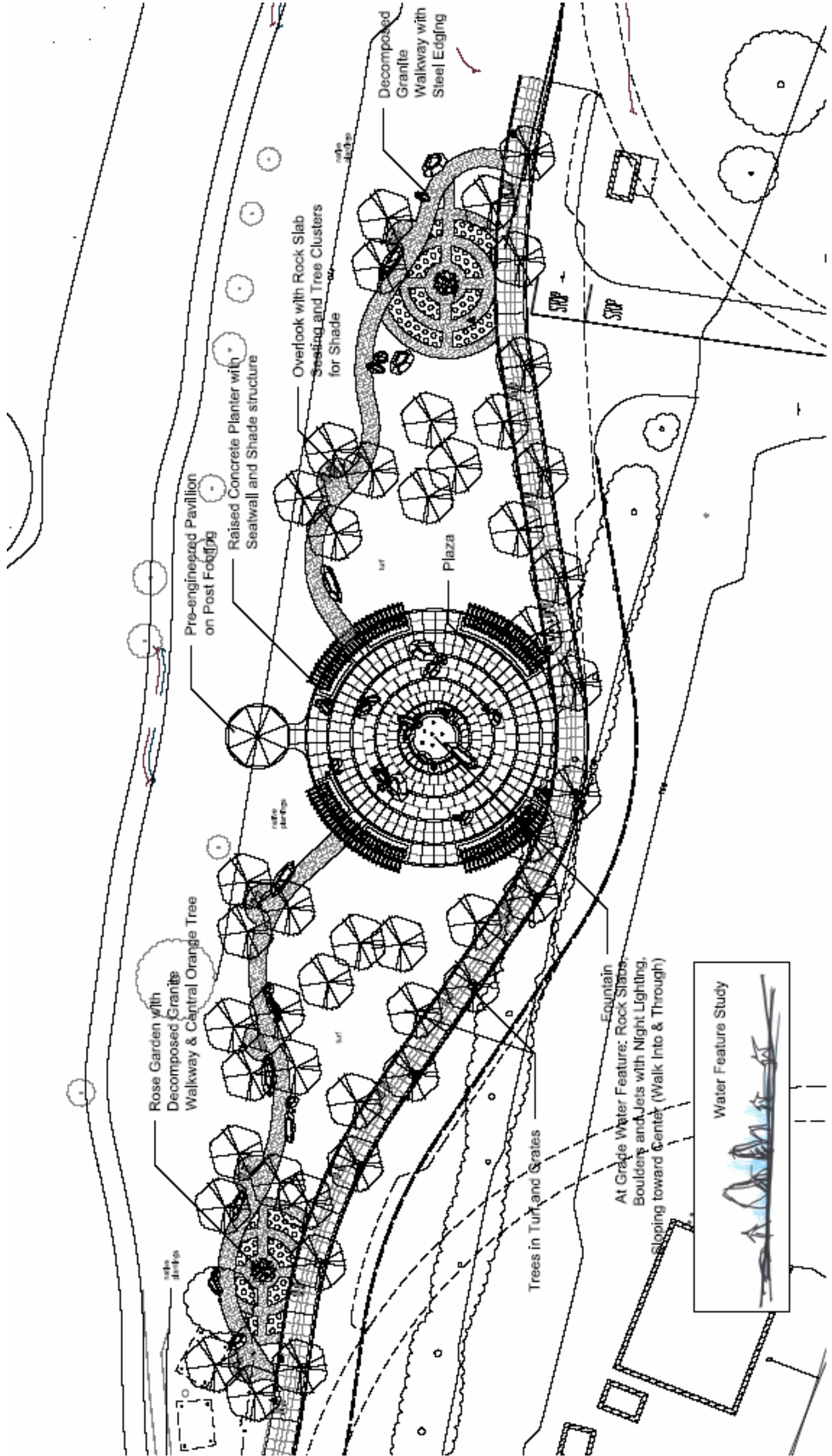
Figure 3 – Oroville Riverfront Park



Figure 4 - Veteran's Memorial Park



Figure 5 - Centennial Plaza



III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This document incorporates both an Initial Study (IS) and a proposed Mitigated Negative Declaration (MND). This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the Oroville Riverfront Improvements Final Plan (hereafter referred to as the "project"), as proposed, may have a significant effect upon the environment.

The environmental factors checked below could be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant With Mitigation Incorporated" as indicated by the environmental checklist in the Initial Study.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Land Use/Planning | <input checked="" type="checkbox"/> Transportation/Circulation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing | |

IV. DETERMINATION

After due consideration, the City of Oroville has found that with the implementation of mitigation measures identified in this Initial Study/Mitigated Negative Declaration, the proposed Project will not have a significant effect on the environment. Therefore, the Project will not require the preparation of an Environmental Impact Report, and the requirements of the California Environmental Quality Act (CEQA) will be met by the preparation of this Mitigated Negative Declaration. This decision is supported by the analysis in the Initial Study.

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. No further action is required.

Reviewed by:

Signature

Date

V. EVALUATION OF ENVIRONMENTAL IMPACT

All answers to Initial Study questions must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. A brief explanation is required for answers except "No Impact" answers that are adequately supported by the information sources cited in the response following each question.

- 1) A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific screening analysis.
- 2) If it is determined that a particular physical impact may occur, then the checklist responses must indicate whether the impact is "Potentially Significant", "Less Than Significant With Mitigation Incorporated", or "Less Than Significant". "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.
- 3) If all of the potentially significant impacts have been rendered less than significant with mitigation, a Negative Declaration may be prepared. The mitigation measures shall be described in the response, and it shall be explained how the mitigation measure reduces the potential effect to a less than significant level. Mitigation measures may be cross-referenced to other sections when one mitigation measure reduces the effect of another potential impact.
- 4) The response for each issue should identify the threshold or criteria, if any, used to determine significance and any mitigation measure, if any, to reduce a potential impact.
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Earlier analyses, if any, are cited at the end of the checklist). If an earlier analysis is used, the response should identify the following:
 - a) Earlier analysis used – Identify and state where the document is available.
 - b) Impacts adequately addressed – The responses will identify which impacts were within the scope of and were adequately analyzed in an earlier document pursuant to legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures – For effects that are "Less Than Significant With Mitigation Incorporated", the response will describe the mitigation measures which were incorporated or refined from the earlier analysis, and to the extent they address site-specific conditions for the project.
- 6) The checklist responses will incorporate references to inform sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where

the statement is substantiated. A source list should be attached and other sources used or individuals contacted should be cited in the discussion. References are noted in the Initial Study by bold numbers in parentheses (e.g., (10)) (See Section VI. References).

- 7) Individuals contacted and other outside supporting sources of information will be cited in Section VI. References.

VI. ENVIRONMENTAL IMPACTS

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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1. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* Existing scenic views within the vicinity of the project site include the Feather River and the canyon through which it flows. The purpose of the project is to provide access to existing views of the River. This will enhance access and the visual character of the view point itself. Views from the developed area of downtown Oroville to the river are obstructed by the levee and by existing development. The levee has been constructed for flood protection purposes, and is unlikely to be removed. The plaza, promenade and overlooks will be visible from residential areas north of the river. The proposed design features would include earth tone colors, incorporate wood and other natural materials, and no reflective surfaces are anticipated. From a distance, view would include a decorative promenade instead of an unimproved road; therefore the project would not adversely affect views from this elevated residential area.
- b) *Less Than Significant With Mitigation Incorporated.* There are currently no state designated scenic highways within the Oroville area. However, some resources that may be considered scenic exist on the project site including large trees, native vegetation, and the Feather River. These resources could be directly or indirectly affected by activities associated with implementation of the project, which may include removal of existing vegetation in order to construct the scenic overlook component of the Centennial Plaza, Veteran’s Memorial Park, and additional extension on the promenade and outlook areas along the levee. (Impacts related to the removal of native vegetation associated with the implementation of the project are further discussed in Section 4. Biological Resources.)

Vegetation is being partially removed for pilings within extending approximately 15' towards the river from the top of the levee feet under the scenic overlook structures that are spaced approximately 300' apart. Construction may require removal of additional vegetation

beyond the footprint of these pilings. Removal of vegetation, including potential loss of trees in the project vicinity, could be considered a loss to natural scenic resources and is considered a potentially significant impact and the following Mitigation Measure is suggested to reduce this impact.

Mitigation Measure:

MM 1.1 The scenic resources, including trees and native vegetation, should be noted and incorporated in the design of the trail ways and park areas along the sides of the levee. Large trees and native vegetation should be retained wherever possible.

Timing/Implementation: Prior to the onset of construction activities or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to scenic resources to a **less than significant** level.

c) *Less Than Significant Impact.* The visual character of the project site from the south includes views to the river, vacant unvegetated parcels, a continuous paved levee, and a paved and graveled roadway (Arlin Rhine Drive). The levee cuts off the downtown commercial and residentially developed portion of the City of Oroville from the Feather River. The river side of the levee and riverbed has a generally natural appearance that would be considered visually appealing. The project is designed to incorporate the existing visual character of the river in its design, and does not propose development that would substantially alter the character of the surrounding downtown development. Design of the promenade, plaza and overlooks would be seen from residential areas north of the river that are situated at a higher elevation than the project. The project, including materials and colors, would be designed to blend with the natural scenery and would not create a visual obtrusion along the river.

d) *Less Than Significant With Mitigation Incorporated.* It is not anticipated that there will be an increase in light and glare in the project area from illuminated signs, vehicle headlamps and some reflective or polished surfaces other highly reflective street lighting materials. Local roadways in the project vicinity, including Arlin Rhine Drive, Oak Street, Lincoln Street, and Oliver Street, allow these existing light sources into the area.

Adjacent to and north of the levee, the river area currently has very little lighting as the levee is at a higher elevation than the downtown area and there is no lighting on the bike path. Only diffused lighting from downtown is seen from the project area. There are potential impacts from new sources of direct light and glare towards the river including the introduction of outdoor lighting from the proposed promenade, plaza area and river overlooks. This lighting would be more direct into natural river area but with mitigation measures are not anticipated to affect aesthetics or sensitive receptors. The lighting in the Plaza area would include path lighting and decorative street lighting along promenade for safety and security reasons, as well as providing for night activity. This would introduce light into an area that has very few light sources, which is considered a potentially significant impact and the following Mitigation Measure is suggested to reduce this impact.

Mitigation Measure:

MM 1.2 Outdoor light fixtures shall be low-intensity wherever possible. Where higher intensity lighting is required for security reasons, lighting will be shielded and/or directed away from any adjacent residential areas and the night sky. All light fixtures shall be designed, installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. Lighting plans shall be provided as part of facility improvement plans to the City to ensure that they meet the City's City Master Lighting design guidelines.

Timing/Implementation: *These measures shall be implemented during the subsequent design and construction of the Plaza and future phases of the project.*

Enforcement/Monitoring: *City of Oroville Planning Department.*

Implementation of the above mitigation measure would reduce impacts to project lighting to a **less than significant** level.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The California Resources Agency has not prepared an Important Farmland Map for Butte County, which grades soils on their suitability for farming. Instead, it has prepared an Interim Farmland Map that identifies lands with existing farming and grazing uses. According to the Interim Farmland Map, the project area is classified as being in "Urban and Built-Up Land" or "Other Land." No farming or grazing land was identified in the project area and no agricultural activities currently exist in the project area. Given existing urban development and the very limited amount of land along the Feather River, agricultural activity in the project area is not considered economically feasible.
- b) *No Impact.* The project would not infringe upon any lands with Williamson Act contracts, as there are no lands within the City limits subject to Williamson Act contracts.
- c) *No Impact.* As noted in a) above, there are no agricultural activities within the project area, and the land is currently classified as open space or other use.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* In 2003, an updated Air Quality Attainment Plan was prepared for the Northern Sacramento Valley Air Basin District (NSVAB) which includes all of Butte County. Butte County is currently designated as a non-attainment transitional zone for ozone standards. Ozone, the primary ingredient of smog, is a gas created when nitrogen oxides and volatile organic compounds react with the sun. The entire NSVAB is also classified as a non-attainment area for particulate matter less than 10 micrometers (PM₁₀). The main source of PM₁₀ is dust generated during clearing, grubbing, grading and other construction activities. Impacts to air quality attributable to such construction activities would be temporary and therefore cease once construction is completed.

The project applicant is responsible for adherence to the District's Standard Construction Mitigation Measures (SCMM), as referenced in the Indirect Source Review Guidelines. Compliance with the Standard Construction Mitigation Measures and Standard Mitigation Measures would assist the District in implementing the Air Quality Attainment Plan and reduce the impacts and conflicts with the Air Quality Attainment Plan to a level that is considered less than significant.

b) & c) *Less Than Significant Impact with Mitigation.* The main source of potential air quality impacts associated with the project would be PM₁₀ found in dust and diesel exhaust generated during construction activities. Butte County is currently in non-attainment status for state PM₁₀ standards. Impacts to air quality attributable to construction activities are

temporary (approximately 6 to 12 months) and would cease once construction is completed. Nevertheless the project could contribute to and have short term impacts on PM₁₀ emissions levels. According to the Environmental Review Guidelines for the City of Oroville, adopted in May 1999 (Resolution #5434), based on the result of URBEMIS (Emissions modeling software), pollutants generated by construction of this project would not exceed a Level B Threshold. Level B threshold is any project that generates more than 25 pounds but not more than 137 pounds of ROG and NO_x per day, and more than 25 pounds but not more than 136 pounds of PM₁₀ per day. During the construction phase, this project is expected to generate approximately 8.93 pounds of ROG per day, 57.19 pounds of NO_x per day and 2.22 pounds of PM₁₀ per day. Once construction ceases, emissions on a daily basis in the project vicinity would emit low levels of pollutants that would not substantially contribute to cumulative air quality levels and would not exceed a Level A threshold. A Level A threshold is a project which does not exceed 25 pounds of ROG and NO_x per day and 80 pounds of PM₁₀ per day. The proposed project will not exceed this Level A threshold and is expected to generate approximately 3.91 pounds of ROG, 6.70 pounds of NO_x, and 4.47 pounds of PM₁₀ per day (Please see attached URBEMIS report for further information).

Because the project is in a non-attainment area, the project applicant is responsible for incorporating all feasible and applicable Standard Mitigation Measures (SMM) listed in the Indirect Source Review Guidelines and for adherence to the District's Standard Construction Mitigation Measures.

Mitigation Measure 3.0:

MM 3.0 The project applicant shall incorporate all Standard Construction Mitigation Measures into the project and recommends that the applicant incorporate as many Best Available Mitigation Measures, or Supplemental Mitigation Measures, as feasible into the project as listed in the BCAQMD Indirect Source Review Guidelines 1997.

Timing/Implementation: To be implemented prior to commencement of grading and construction activities.

Enforcement/Monitoring: City of Oroville and Butte County Air Quality Management District.

Compliance with the Standard Construction Mitigation Measures and Supplemental Mitigation Measures would assist the BCAQMD in implementing the Air Quality Attainment Plan and reduce the impacts and conflicts with the Air Quality Attainment Plan to a level that is considered **less than significant**.

- d) *Less Than Significant Impact.* The project area contains single-family and multi-family residences approximately 30-40 feet from the project location. Residents could be exposed to dust generated by construction associated with the project. Implementation of the BCAQMD SMMs, and BAMMs if necessary as determined by and enforced by the city, for construction activities would reduce dust emissions to a level that would not significantly affect adjacent residences.
- e) *Less Than Significant Impact.* The project does not include uses that generate objectionable odors. During construction, various diesel-powered equipment may be used on the site and their use would create odors. These sources are mobile and transient in

nature, providing for dilution of odor-producing constituents. These odors would be temporary and unlikely to be noticeable beyond the project boundaries.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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4. BIOLOGICAL RESOURCES. Would the project:
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a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A Biological Resources Constraints Analysis (PMC, 2006) was prepared for the project area. The project area studied is discussed in the Project Description and illustrated in **Figure 2**. Approximately 18 acres of land characterized as valley riparian foothill is situated in the project area from the river edge to the levee. The Constraints Analysis examined several biological databases, records and policies related to plant and animal habitat. The analysis included a general inspection of the project site, with emphasis on the potential to support special-status species habitat.

DISCUSSION OF IMPACTS

- a) *Less Than Significant with Mitigation Incorporated.* PMC biologists conducted a pedestrian survey on August 24, 2005, to identify the potential for plant or animal habitat, including potentially sensitive natural communities, within the project area. The project area included 18.2 acres of land characterized as valley riparian foothill from the river edge to the levee. Although it contains non-native species and is somewhat disturbed by the bike path, this area has the potential to support several special-status species that use the dense foliage for cover and nesting as well as forage near the flows of water. Within the project site, the north slope of the levee includes vegetation to the top at Arlin Rhine Road. Construction impacts will generally be limited to the narrow strip of land between the bike path and the top of the levee.

The Constraints Analysis listed special status species identified by the USFWS that may be affected by projects in Butte County as well as species listed in the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range. In addition, the Constraints Analysis also sited special status species identified in the City of Oroville General Plan as occurring within the project area (City of Oroville 1995).

Plants

In the course of this investigation, fourteen separate plant species of special status plants were identified as potentially occurring within the biological study area (Biological Constraints Analysis, 2005). One of these plants, pink creamsacs (*Castilleja rubicundula* ssp. *rubicundula*), is listed on the CNDDDB as potentially occurring at the project site. Therefore, the proposed project could impact special status plants both directly (through removal or loss of habitat) and indirectly (through increased human activity). Special status plant species are considered to be a sensitive resource by federal and state resource agencies, so that 1) substantial reduction of the plants habitat or 2) loss of individuals to the extent that the species is not self-sustaining within the project vicinity are considered potentially significant impacts.

Mitigation Measure:

- MM 4.1** The City of Oroville shall retain a qualified biologist to conduct a pre-construction botanical survey, within the months of April or May, to determine if there are any California Native Plant Society's (CNPS) List 1B plants, including the pink creamsacs, occurring onsite. If any special-status plant species occurrences are found onsite, the applicant shall 1) comply with the California Native Plant Protection Act, Sections 2062 and 2067, and confer with the California Department of Fish and Game (CDFG). Furthermore, construction activities shall be restricted based on CDFG guidance. Restrictions may include establishment of avoidance buffer zones, installation of silt fences, or alteration of the construction schedule to allow time for rescuing and replanting the sensitive species, if appropriate.

Timing/Implementation: Prior to the onset of construction activities or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to special status plant species to a **less than significant** level.

Wildlife

Information from 1) agencies regarding species known to occur in the project locale (as documented in the City of Oroville General Plan), 2) site characteristics noted during the reconnaissance visit, and 3) species habitat suitability data were reviewed to determine the potential for presence of special status wildlife in the project area. This analysis determined that several special status species might possibly forage, find cover, or reproduce within the project area and therefore may have the potential to be significantly impacted by the development.

Within the vicinity of the project location, the Feather River is known to support Central Valley/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley steelhead (*Oncorhynchus mykiss irideus*), and spring-run Chinook salmon (*Oncorhynchus tshawytscha*). Foothill yellow-legged frog (*Rana boylei*) is a California species of concern. Northwestern pond turtle (*Emys marmorata marmorata*) is a California protected, California species of special concern, and U.S. Forest Service (USFS) sensitive species that occurs in northern California counties. Habitat at the project site provides suitable nesting and foraging opportunities for many avian species, including some raptors and migratory birds. Raptors and raptor nests are considered to be a special resource by federal and state agencies. Additionally, nine separate species of bat were identified as potentially occurring within the biological study area.

The proposed project could impact special status plants both directly (through removal or loss of habitat) and indirectly (through increased human activity). The Oroville Riverfront Park design calls for 10 overlook structures that could extend an approximate 15 feet over the north edge of the levee. The platform for each overlook structure would be supported by pylons footed in the north slope of the levee. Construction staging and placement of pylons for overlook structures could remove habitat. Vegetation shaded by overlooks, as well as the encroachment of development and increased activity adjacent to the riparian area could indirectly affect the habitat vegetation. Incidental take (loss) of any individual species discussed above from implementation of the proposed project is considered a potentially significant impact unless mitigated.

Mitigation Measures:

MM 4.2 The City of Oroville shall retain a qualified biologist to conduct surveys for:

- Foothill yellow-legged frog and northwestern pond turtle, which may live within and near riparian areas impacted by project implementation. The survey shall be conducted no more than 24 hours prior to the onset of major construction activities. If either species is identified within or near the construction area during the survey, activity onsite shall be restricted to allow the animal to move out of harms way (without human interference). If the individual species does not move (after an appropriate amount of time to be determined by the biologist) CDFG shall be notified regarding appropriate avoidance or relocation

measures. Furthermore, construction activities shall be restricted based on CDFG guidance.

- Local avian species, if future proposed construction activities are planned to occur during the nesting seasons (typically March 1st through August 31st). The surveys will be focused on active nests of raptors and migratory birds within and in the vicinity of (no less than 100-feet outside project boundaries, where possible) construction areas no more than 72 hours prior to ground disturbance. If an active nest is located during preconstruction surveys, USFWS and/or CDFG (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or resource agencies deem the potential for abandonment or loss of individuals to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100-feet around the nest) or alteration of the construction schedule. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through February 28th).
- Special-status bat species at the project site. The survey shall be conducted no more than 30 days prior to the onset of ground disturbance or major construction activities. If sensitive bat species or roosts are identified within the project area during pre-construction surveys, USFWS and/or CDFG shall be notified regarding appropriate avoidance or disturbance minimization measures. Furthermore, construction activities shall be restricted based on the regulatory agencies guidance. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) around the roost site, implementation of species-specific disturbance minimization measures, alteration of the construction schedule, and/or placement of one-way bat doors to prohibit re-entry of bats into the roosting location. If bat species are not identified onsite during the survey, no further action is necessary.

Timing/Implementation: Prior to the issuance of permits, onset of construction activities, or any site disturbance.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would reduce impacts to special status wildlife species to a **less than significant** level.

- b) *Less Than Significant with Mitigation Incorporated.* The majority of the heavily vegetated area between the river and the levee consists of riparian area with sections of willow scrub associated with the Feather River watershed. Riparian habitat is considered to be a sensitive natural community under CEQA and is also discussed in the City of Oroville General Plan. Therefore, disturbance and potential loss of riparian habitat from implementation of the proposed project is considered a potentially significant impact unless mitigated.

Also, under the California Fish and Game Code, the CDFG has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake. At the project location, the top of the levee would be considered the top of the bank above the

Feather River. Therefore, a Section 1602 Streambed Alteration Agreement would need to be obtained from the CDFG for any project activity proposed to occur at the top of the levee and northward to the river edge.

Mitigation Measure:

MM 4.3 Associated with MM 4.1 and MM 4.2, the City of Oroville shall retain a qualified biologist to conduct surveys to assess temporary and permanent project impacts anticipated by project final design and proposed construction plans. Appropriate mitigation will be developed in consultation with and with the approval of CDFG. The applicant is responsible for any costs associated with mitigation.

The project applicant shall obtain a Streambed Alteration Agreement from CDFG, as required by state law. The City shall comply with all permit conditions (established by the CDFG and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.

Timing/Implementation: Prior to project plan approval.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to sensitive natural communities to a **less than significant** level.

- c) *Less Than Significant with Mitigation Incorporated.* The Feather River watershed is considered a jurisdictional wetland feature, as defined by Section 404 of the Clean Water Act. The USACE also regulates navigable waterways under Section 10 of the River and Harbors Act. Feather River is considered a navigable waterway under Section 10 from the mouth of the river to the railroad bridge at Marysville. Therefore, the section within the project area in Oroville is not considered navigable and is outside the jurisdiction of the USACE under Section 10. Section 404 of the Clean Water Act and the Feather River watershed is considered an ACOE jurisdictional wetland feature. This waterway also supports riparian vegetation (see discussion under 4b), which occurs throughout on northern side of most of the project area.

Because the project occurs on top of and along the river side slope of a levee adjacent to jurisdictional waters, project activities could potentially be regulated by the USACE under Section 404 of the Clean Water Act. Any action that could possibly A) compromise the integrity of the levee or B) result in 'fill material' entering the Feather River temporarily during construction or operation C) as permanent structure is considered potentially significant unless mitigated.

Project plans call for overlooks perched over the edge of the levee to be supported by columns positioned on the north slope of the levee, either at or above the ordinary high water mark (OHWM) elevation of 160 feet, above mean sea level (A.M.S.L.). All riverfront improvements and project activities are anticipated to be designed to occur above the OHWM (using water level data obtained from the California Department of Water Resources), thereby avoiding the need to obtain an Army Corps of Engineers Section 404 permit for construction in jurisdictional waters. However, to maintain design flexibility, the supports for the overlook structures could be placed below the ordinary high water mark with approval and proper permits from the Army Corps of Engineers. The levee is owned by

the City of Oroville, therefore alteration of the levee structure in general would not be considered under the jurisdiction of the USACE.

Mitigation Measure

MM 4.4 The City shall coordinate with the USACE to develop a plan that ensures no construction materials and/or permanent fill will be placed in the Feather River or below the ordinary high water mark. It is anticipated that all phases of the project shall avoid any impacts to jurisdictional waters of the U.S. and the USACE will be consulted regarding construction above the OHWM. The City of Oroville shall include the OHWM on engineering plans for the project to clearly identify the limits of project activity. The engineering plans shall then be submitted to the USACE for final review and written confirmation that the proposed activities are outside USACE jurisdiction. If impacts to jurisdictional waters cannot be avoided, a no net loss of wetlands policy shall be employed and the appropriate permits (i.e., Section 404 permit) shall be obtained prior to issuance of grading approval.

In addition, the project applicant shall obtain a Section 401 certification from the RWQCB, as necessary. The City shall comply with all permit conditions and employ best management practices and measures (established by the ACOE and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.

Also, mitigation details (regarding agency restrictions) shall be noted on the design plans and information relevant to permits (such as the OHWM) shall be included in engineering drawings for the proposed project.

Timing/Implementation: Prior to project plan approval.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measure would reduce impacts to the river as a jurisdictional water of the U.S. to a **less than significant** level.

- d) *Less Than Significant Impact.* The proposed project does not currently impact the Feather River directly. However, construction activities are planned adjacent to the river and there is a possibility that runoff, dust, or other project-related consequences could result in indirect impacts to a known fish run for spring-run Chinook salmon. Therefore, with the appropriate regulatory agency consultation (see 4c above) and subsequent permit acquisition, which would outline best management practices and policies to be enforced onsite to prevent indirect impact to the Feather River, project implementation would have a less than significant impact to migratory wildlife.
- e) *Less Than Significant with Mitigation Incorporated.* The Biological Constraints Analysis revealed potential conflict with policies established by the regulatory agencies under the Federal Endangered Species Act, the California Endangered Species Act FESA, CESA, and local General Plan. In addition to the potential impacts discussed and mitigated above (such as impacts to jurisdictional wetlands, loss of riparian habitat, and take of any individual special status species) the project has the potential to conflict with policy regarding project activity within a riparian corridor. Therefore, conflict with local policies through implementation of the proposed project is considered a potentially significant

impact unless mitigated. Implementation of **MM 4.3** will reduce these impacts to **less than significant**.

- f) *No Impact*. This investigation revealed no adopted Habitat Conservation Plans (HCP) for the City of Oroville or conservation plans related to the project location; therefore, the project would not conflict with such plans and no project-related impact would occur with project development.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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5. CULTURAL RESOURCES. Would the project:
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a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

A Cultural Resources Constraints Analysis (PMC, 2005) was conducted for the project area. The analysis included records searches and a “windshield survey” of the project area (as generally outlined in **Figure 2**) and an area within a 0.5 mile radius of it. The Area of Potential Effect (APE) for the Riverfront Improvements Final Plan is defined as the project site in the Project Description.

Archaeological and historical investigations for the Oroville Riverfront Project included: a records search at the Northeast Information Center at California State University, Chico; search of the University of California Museum of Paleontology (UCMP) collections database; a sacred lands search conducted by the Native American Heritage Commission (NAHC); consultation with the Native American community; and pedestrian surface survey of the project APE (cf., Nadolski 2006).

Cultural resources investigations identified a number of prehistoric sites, historic sites, and historical buildings/structures in the broader project area. The area of downtown Oroville, in particular, is considered a historically sensitive area. There are several buildings in the project area that are either listed in the National Register of Historic Places (NRHP) and the CRHR or appear eligible for inclusion in the NRHP or CRHR.

DISCUSSION OF IMPACTS

- a) *No Impact.* Archaeological and historical investigations for the project did not identify any historical resources within the project site. The Constraints Analysis indicated that project activities such as improvements to Arlin Rhine Drive, the construction of facilities on the levee, and construction of river access on the levee do not have any significant cultural resources constraints. (Nadolski 2006).
- b) *Less Than Significant With Mitigation Incorporated.* Archaeological and historical investigations for the project did not identify any prehistoric sites, historic sites, historic buildings, or unique archaeological resources within the project site. In addition, there is only a minimal possibility of unanticipated and accidental archaeological discoveries during ground-disturbing project-related activities because project activity would occur on

an existing levee that consists of redeposited soils. However, there is the possibility that undiscovered resources may be found in the course of project development work, for instance during trenching for a new drainage system or other ground disturbances. If cultural resources are uncovered during the course of project development and construction, the following mitigation measure shall be implemented.

Mitigation Measure

MM 5.1 Pursuant to CEQA Guidelines Section 15064.5(e), in the event of the accidental discovery or recognition of prehistoric or historic resources in an area subject to development activity, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie similar resources and a professional archaeologist shall be consulted. Further, if human remains are discovered, the Coroner of Butte County must be contacted to determine that no investigation of the cause of death is required. If the County Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission within 24 hours.

Upon completion of the site examination, the archeologist shall submit a report to the County describing the significance of the finds and make recommendations as to its disposition. If human remains are unearthed during construction, the provisions of California Health and Safety Code Section 7050.5 shall apply. Under this section, no further disturbance of the remains shall occur until the County Coroner has made the necessary findings as to origin and disposition, pursuant to California Public Resources Code Section 5097.98. Mitigation measures, as recommended by the archaeologist and approved by the County in accordance with Section 15064.5 of the CEQA Guidelines, shall be implemented prior to recommencement of construction activity within the 50-foot perimeter.

Timing/Implementation: During project construction.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would ensure that potential impacts to cultural resources would be reduced to a less than significant level.

- c) *Less Than Significant With Mitigation Incorporated.* A search of the database at the University of California Museum of Paleontology did not identify any formally documented paleontological sites within the project area. In addition, there is only a minimal possibility of unanticipated and accidental paleontological discoveries during ground-disturbing project-related activities because project activity would occur on an existing levee that consists of redeposited soils. As mentioned above, any unanticipated and accidental paleontological discoveries during project implementation are considered a less than significant impact with mitigation by **MM 5.1**. These policies include stopping all work in the vicinity of any paleontological resources and requiring that a professional paleontologist complete a determination of their significance prior to resuming any work in the area of the discovery.
- d) *Less Than Significant Impact.* Archaeological and historical investigations for the project did not identify any human remains or evidence to suggest that human remains may be present within project boundaries. In addition, there is a minimal possibility of the unanticipated and accidental discovery of human remains during ground-disturbing

project-related activities because project activity would occur on an existing levee that consists of redeposited soils. These policies include stopping work in the vicinity of any human remains and a determination of their significance by a qualified archaeologist and/or the County Coroner.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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6. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION OF IMPACTS

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:*
- i) *No Impact.* A review of known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, showed no known earthquake faults traversing the project site.

ii) *Less Than Significant Impact.* The area could be subject to occasional severe ground shaking due to regional faulting. An earthquake at the Cleveland Hills Fault southeast of Oroville generated an earthquake that shook Oroville and much of the Sacramento Valley in 1975. Damage in Oroville was minor to moderate.

According to the EIR for the Oroville General Plan, the intensity of the 1975 earthquake was VII on the Modified Mercalli Scale, which rates the intensity of earthquakes on a scale of I (least intense) to XII (most intense). According to the Butte County Seismic Safety Element, the Cleveland Hills Fault is capable of producing an earthquake with a maximum Modified Mercalli Scale intensity of VIII. Therefore, ground shaking generated by this fault is not expected to be significantly greater than that experienced in Oroville during the 1975 earthquake. Moreover, all new structures in Oroville must comply with the provisions of the Uniform Building Code, particularly the seismic design standards for buildings within Seismic Zone 3. Buildings constructed to these standards are expected to survive the predicted levels of ground shaking, as determined by the probabilistic ground shaking maps prepared by the U.S. Geological Survey, without suffering catastrophic collapse.

iii) *Less Than Significant.* The project area is located on the top of a levee, which protects Oroville from flooding from the Feather River. The existing levee consists of consolidated soils. No faults are known to exist in this area. Liquefaction tends to occur in areas of sandy or silty soils with a high water table which is induced by a seismic event. It is not anticipated that there will be any such impacts associated with liquefaction as a result of this project, because it is of the construction of the existing levee of consolidated soils and the levee is not typically in a saturated condition

iv) *Less Than Significant.* Landslides are most likely to occur in areas with steep slopes, and the majority of the project site contains generally flat terrain. However, the southern bank of the Feather River contains steep slopes. According to the Oroville General Plan, slopes with greater than 30 percent grade are areas considered to be prone to landslides. The river bank was not identified as having slopes greater than 30 percent, therefore the impacts to the potential of landslides within the area is considered less than significant.

b) *Less Than Significant with Mitigation Incorporated.* Certain soils are more susceptible to erosion. The characteristics of the soils within the project area are not known. In order to determine the type and stability of soils on site, **MM 6.3** requires a geotechnical study to be completed prior to project construction. The project has the potential to result in erosion, especially on the top of levee where excavation will occur for paving. To ensure that significant erosions will not occur as a result of the project, the following mitigation measure shall be implemented:

Mitigation Measures

MM 6.1 The following measures will be implemented during and after construction to ensure protection of the project area; hydro seeding and planting of native grasses will take place on any bare areas after final landscaping is installed, temporary erosion control measures will include silt fences, straw wattles, and installation of biofilters at downstream storm drain facilities.

MM 6.2 If this project disturbs more than one acre, a National Pollutants Discharge Elimination System (NPDES) General Construction Permit would be required from the Regional Water Quality Control Board (RWQCB). This permit requires preparation of a plan to reduce discharges of pollutants, including sediments.

Timing/Implementation: Prior to project construction.

Enforcement/Monitoring: City of Oroville Planning Department, Regional Water Quality Control Board.

Implementation of the above mitigation measures would ensure that potential impacts to erosion to be reduced to a **less than significant level**.

- c) *Less Than Significant with Mitigation Incorporated.* As noted in 6a)iii above, the project area is unlikely to be subject to a liquefaction hazard. Because of the construction of the existing levee and embankments, it is assumed that they are extremely stable given the significant role they play in protecting downtown Oroville from flooding (Green Valley, 2006). However, to ensure that significant instability will not occur as a result of the project, the following mitigation measures shall be implemented:

Mitigation Measures

MM 6.3 A geotechnical report will be prepared for the project site to determine the soil attributes in this area. The construction of this project site shall follow the recommendations of this geotechnical report to ensure the stability of the project site.

MM 6.4 Any penetration of levee or embankment with project features, such as footings or piles, will be performed as recommended by a licensed civil or geotechnical engineer to ensure the integrity of the project area is not affected. Any borings, etc. will be backfilled with concrete to enhance the stability of the underlying soil structure.

Timing/Implementation: During project construction.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would ensure that potential impacts to the stability to the existing levee and embankments will be reduced to a less than significant level.

- d) *Less Than Significant Impact.* Expansive soils generally have high clay content and characteristics of soils within the project area are not known at this time. However, **MM 6.3** requires that a geotechnical study to be performed. It is not anticipated nor is there any evidence of expansive soils onsite. However, as the soil characteristics are not known, the following mitigation measure is required to ensure the stability of any expansive soils onsite.

Mitigation Measure

MM 6.5 Expansive type soils shall be investigated by a licensed civil or geotechnical engineer during the geotechnical report. If expansive soils are identified, recommended measures will be performed to ensure that the proposed improvements are constructed in accordance with standard engineering practices for expansive soil.

Timing/Implementation: Prior to and during project construction.

Enforcement/Monitoring: City of Oroville Planning Department.

Implementation of the above mitigation measures would ensure that potential impacts from expansive soils will be reduced to a less than significant level.

- e) *No Impact.* The project area is currently connected to SC-OR (Sewerage Commission - Oroville Region) sewer services. Future development within the project area would not use septic systems.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) and b) *Less Than Significant Impact*. The project would ultimately result in development of public use areas, including parks and improved walkways and access roads; land uses that are not associated with transport or use of hazardous materials.
- c) *No Impact*. The closest schools (Bird Street Elementary School and St. Thomas the Apostle School) are located over one quarter of a mile from the proposed project site. There are no schools proposed for development within one-quarter mile of the project site. The proposed land use (recreational) is not associated with handling of or generation of emissions of hazardous substances.
- d) *No Impact*. The California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site, or Cortese List, is a planning document used by State and local agencies in providing information about the location of hazardous materials release sites. A review of the publicly available California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site, or Cortese List, indicates that there are two hazardous substance sites located within the City of Oroville: Sierra Pacific and Koppers Industries. However, both the Sierra Pacific wood treatment plant and the Koppers Industries site, a 200-acre former wood treating facility, are located over 1 mile from the proposed project area.

There are no hazardous material sites located within the proposed project area, according to the latest Cortese List, thus there are no environmental conditions on or near the proposed project site that would create a significant hazard to the public or the environment.

- e) *No Impact*. The nearest public use airport is Oroville Municipal Airport. The project area is not within two miles of the airport, nor is it included in a safety zone designated by the Comprehensive Land Use Plan (CLUP) for the airport.
- f) *No Impact*. There are no private airstrips within the vicinity of the project site.
- g) *No Impact*. According to the Oroville General Plan Figure 8.60-A, *Evacuation Routes*, the closest evacuation route to the project site is Montgomery Street, which is within the project area boundaries. The project would not block or restrict the designated evacuation route and additional automobile traffic generated by the project would be accommodated by the both the existing roadway system, as well as the circulation improvements. These improvements would include Arlin Rhine Drive, Oliver Street, Lincoln, and Oak Street (as described in the Project Description above).
- h) *Less Than Significant Impact*. The project area is sited between the natural riparian habitat along the Feather River, which represents high fire potential and the heavily urbanized downtown Oroville, which is highly vulnerable to fire. The improvements associated with this project will include approximately 4,600 feet of area of impermeable paving for the Riverfront Promenade, approximately 7,850 square feet of hardscape for the Centennial Plaza, and approximately 580 feet of a decomposed granite path that will connect the Promenade to the Centennial Plaza. These are not highly combustible materials and would not further spread a fire started in the riparian area to the urban downtown area. The project will also include some grouped planting of trees to help provide for shade in the park areas, however, some of these plantings are planned to be native vegetation that would be similar to the type of vegetation that currently exists in the vicinity.

In partnership with surrounding fire and public safety agencies, the City of Oroville has established policies, programs, and practices which help to minimize wildland fire risk. The development and maintenance of Oroville's fire fighting infrastructure has resulted in an Insurance Services Office (ISO) fire risk rating of 3, indicating a relatively fire safe community. In addition, the City's ability to respond to wildland fires has been enhanced by the Wildland Fire Protection Agreement (WFPA), per Public Resources Code 4142. This cooperative agreement between the California Department of Forestry and Fire Protection (CDF) and the City of Oroville provides for a seamless response to wildland fires and eliminates any unnecessary delays in responding to an incident. In the event of wildland fire within the City Limits, the CDF would automatically respond with the same resources it uses to protect State Responsibility Areas. In addition, the City of Oroville, Butte County Fire/CDF, and the El Medio Fire District participate in Automatic Aid Agreement, a common dispatch agreement in which emergency calls are received and dispatched by Butte County. The closest available unit, regardless of jurisdiction, is dispatched to the call. Both the Wildland Fire Protection Agreement and the Automatic Aid Agreement essentially authorize the City of Oroville access to county and state-owned fire and emergency service resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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8. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact with Mitigation Incorporated.* The downtown Oroville area is currently connected to SC-OR's (Sewer Commission Oroville Region) sewer system in order to dispose of wastes. No restroom facilities are proposed as a part of this project. However; as discussed below in c) and e), drainage patterns will not be changed as a result of the project. Impacts on water quality standards or waste discharge requirements from surface drainage changes are addressed in 6b) Geology and Soils above and **MM 6.1, 6.2, and 6.3** will reduce this impact to less than significant.
- b) *Less Than Significant Impact.* The developed portion of the project area is currently connected to the California Water Service Company's (Cal Water) water system, which has served the City of Oroville since 1927. Most of the water that is provided to Oroville is surface water from the west branch of the Feather River, which is processed at the company's water treatment plant. The surface water is supplemented by local groundwater produced by four wells (Cal Water, 2005). No additional wells would have to be drilled to provide water to the project.

The Centennial Plaza and Veteran's Park portion of the project has proposed features that will require additional water and irrigation including; planted areas, a fountain, as well as a re-circulating water feature. This will require additional water usage than the current existing condition, but will not be significant impact which would deplete groundwater supplies or interfere with groundwater recharge which would not support existing land uses. Additionally, the area along the Feather River remains mostly open space. Therefore, existing groundwater recharge occurring in the project area would not be diminished significantly.

- c) *Less Than Significant Impact.* The project area is located adjacent to the Feather River. While the proposed project includes development of a public gathering areas adjacent to the river and roadway improvements, this development would not alter the river in any significant manner. It should be noted that construction and grading within the river area and/or adjacent to the levee may require a permit from the State Reclamation Board, which oversees designated floodways and Central Valley Streams listed in Table 8.1 in Title 23 of the California Code of Regulations, including the Feather River. Other conditions associated with the river area represent greater potential constraints (see Biological Resources section).

The current drainage pattern of the project site currently sheet flows across the existing levee towards the south and down the embankment, collecting into existing drop inlets near the toe of the slope. These drain inlets are then collected via an existing 18" city owned storm drain which outlets towards the north into the Feather River. The site is currently partially paved with the remaining area covered by gravel and minimal amounts of grasses and weeds. The proposed improvements associated with the Centennial Park will include concrete and decomposed granite pathways, an asphalt concrete roadway, and landscape plantings of various types. Proposed drainage flows will continue to sheet flow away from directly entering the Feather River and be collected into drain inlets throughout the site. These drain inlets will then be collected through an underground drainage system which will connect to the existing 18" city owned storm drain. Current drainage patterns will not be altered (Green Valley, 2006).

As described in **MM 6.3**, any construction project that disturbs more than one acre would be required to obtain a National Pollutant Discharge Elimination System (NPDES) General

Construction Permit from the Regional Water Quality Control Board (RWQCB). One of the conditions of this permit is the preparation of a Storm Water Pollution Prevention Plan, which includes proposed Best Management Practices that would be employed to reduce sedimentation.

- d) *Less Than Significant Impact.* As noted in c) above, the project would not alter the Feather River in any significant manner. Most of the project area is currently developed, and most drainage is collected in the City's drainage system. Project development is not expected to alter these basic drainage patterns and therefore this impact is considered to be less than significant.
- e) *Less Than Significant Impact.* As mentioned above, the City of Oroville's drainage system currently serves the project area. The existing storm drain system will continue be used for the project area (Green Valley, 2006). The existing levee will be paved with walkways, in public gathering areas, and improvements to existing roadways will require re-paving, which will result in more run-off as it will be an impermeable material. In addition, there will be irrigation systems installed for the new landscaping that will be an expansion of any existing system. The overall project will result in a decrease of permeable areas and an increase in impermeable areas by 13,500 square feet (Green Valley, 2006). The increase in runoff will be detained in existing underground storm drain facilities so that any discharge in receiving waters will not alter or change the existing peak hydrograph (Green Valley, 2006).
- f) *No Impact.* The project would have no other effects on water quality outside of those previously described.
- g) *No Impact.* As indicated in the City's General Plan, the project area is not within a 100-year floodplain as mapped by the Federal Emergency Management Agency (FEMA). Additionally, no housing is proposed as part of this project.
- h) *Less Than Significant Impact.* The project area is currently developed as an existing levee and associated roadways; redevelopment of this area would not significantly alter flood flows. Overlook pavillion structures are proposed by the project, however, these overlooks are to be constructed at or above 160' elevation, which is above the ordinary high water mark. If construction of the overlook structures associated with the riverfront improvements are designed to occur above the ordinary high water mark (using water level data obtained from the California Department of Water Resources) the project will not be placed within the USACE jurisdiction. No flood flows within the levee area are expected to be altered or obstructed. As noted in g) above, the project area is not located within a 100-year floodplain, and therefore is not at great risk for flooding.
- i) *Less Than Significant Impact.* As noted above, the project area is not located within a 100-year floodplain. The presence of Oroville Dam and the large storage capacity of its reservoir have greatly reduced the likelihood of a major flood occurring in the area. The levee within the project area further reduces the flood risk for existing structures.

The project site is located within the dam inundation area for Oroville Dam. After the 1975 earthquake, the Department of Water Resources did extensive engineering studies to determine the potential for failure of Oroville Dam. The results of the study indicated that the Oroville Dam could withstand an earthquake of an estimated magnitude of 6.5 without significant damage. The study also determined that a 6.5 magnitude earthquake exceeds the maximum credible event for the region.

- j) *No Impact.* Seiches and tsunamis are generally earthquake-induced events that pose risks to areas located near large bodies of water. The nearest large body of water to the project area is Lake Oroville, approximately five miles to the northeast. A seiche event could occur on Lake Oroville, but it would not likely affect the project area. A mudflow is the movement of water-saturated earth material possessing a high degree of fluidity. A less-saturated flowing mass is often called a debris flow. A mudflow originating on the flank of a volcano is referred to as a lahar. The proposed project is not located near any active volcanoes, so the potential for volcanic mudflow is low.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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9. LAND USE AND PLANNING. Would the project:

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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The project area is located along the southern bank of the Feather River in the City of Oroville. The surrounding area contains some established residential areas, which are extensions of the large residential area located south of the project area between Feather River Boulevard and Oak Street. The project is a redevelopment of an existing public access area, and it is not anticipated that this will affect existing residences in the surrounding area.
- b) *Less Than Significant Impact.* The project is proposing infrastructure and design improvements for a section of the riverfront portion of the City of Oroville. These activities are consistent with the existing General Plan and zoning designations for the project area. The General Plan designations for the Master Plan area include Parks, Environmental Conservation/Safety, Retail and Business Services, as well as Low, Medium and High Density Residential. Zoning designations include Open Space, Agricultural Residential, Medium and High Density Residential, Restricted and Heavy Commercial, Commercial Light Manufacturing and Neighborhood Commercial. The Oroville Riverfront Final Plan improvements are to be implemented as part of the Master Plan for Riverfront Improvements; however, this Oroville Riverfront Final Plan is to be implemented as a stand-alone project and is not dependent on future phases or construction of elements of the approved Master Plan. State law requires consistency between land use plans and the General Plan, and consistency between the General Plan and zoning. Although there are a variety of land use designations in this area, the project's proposed uses are consistent with the existing designations and uses.
- c) *No Impact.* No habitat conservation plans or natural community conservation plans are applicable to the project area.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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10. MINERAL RESOURCES. Would the project:
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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *No Impact.* The California Geological Survey prepares mineral resource zone maps that identify potentially significant mineral deposits. No mineral resource zone maps have been prepared for the City of Oroville; therefore, no mineral resources considered significant to the state have been identified. The project area is located within a primarily developed portion of the City of Oroville. There are no mineral resource extraction activities within the project area or the vicinity.
- b) *No Impact.* The City's General Plan does not identify any mineral resource recovery sites in the Oroville planning area. No other local plans have identified such sites.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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11. NOISE. Would the project result in:
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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The project may allow for activities that would increase noise levels within the project area. The most significant potential noise source would be increased vehicle traffic, which is estimated to be 420 daily vehicle trips, from people visiting the park areas, including Centennial Park and Veteran's Memorial Park. There will be future traffic improvements proposed with this project, however, traffic levels are not expected to increase significantly. With public gathering areas, noise levels are anticipated to increase from communications ranging from conversational levels to yelling or shouting levels. These noises may be heard from some residences near the park or levee area. These noise levels are a concern to the City, which has adopted a Noise Ordinance to regulate the maximum amount of noise that can reach sensitive land uses such as residences. This Ordinance states that "no person shall produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on residential property, a noise level more than five dB above the local ambient at any point outside of the property plane". This

project area would be subject to these regulations in order to protect surrounding residential properties from excessive noise levels.

The project area contains some commercial activity and residential uses, but no major noise sources. Based on the City's General Plan, the nearest significant noise sources to the project area are State Route 70, Montgomery Street, Table Mountain Boulevard and the Union Pacific Railroad tracks. The Noise Element of the General Plan contains tables establishing future (2015) noise contours for 60-decibel (dB) noise levels. Based on these tables, the project area is located outside noise contours for State Route 70, Montgomery Street, Table Mountain Boulevard, and the Union Pacific Railroad tracks.

- b) *Less Than Significant Impact.* Groundborne vibrations are usually associated with heavy vehicle traffic (including railroad traffic) and with heavy equipment operations. To the southeast, the Union Pacific Railroad is located approximately 1,800 feet from the project area. At that distance, groundborne vibrations generated by rail traffic would be minimal once they reach the project area. Vehicle traffic on City streets is predominantly passenger cars and pickup trucks, particularly within the project area. Although development and roadway improvements associated with the project may cause increased traffic on nearby streets from people driving to the parks and public access areas, the general characteristics of this traffic are not expected to be different from existing conditions. Some heavy vehicle traffic occurs along Montgomery Street, however, since the roads to the north are dead-end streets, it is unlikely that these trucks drive directly to the levee or project site. Therefore, in terms of passenger to heavy truck ratios, the majority of the traffic is, and is expected to remain, passenger vehicle traffic. For this reason, vibration from truck traffic are not expected to increase as a result of this project.
- c) *Less Than Significant Impact.* There are basically two ambient noise level conditions within the project area. One is on the north side of the levee nearest the Feather River, which is relatively undeveloped and has few noise-generating activities. The area located to the south side of the levee contains urban development and has several activities that generate noise. Increases in vehicular and pedestrian traffic on top of levee would not lead to a significant noise increase to the north side of levee and surrounding project vicinity.
- d) *Less Than Significant Impact.* A temporary increase in noise levels due to construction associated with the project will occur. This increase would cease once construction is completed. Noise impacts would tend to be confined to the vicinity of the construction site. However, construction near residences 50 to 100 feet away could have adverse, albeit temporary, impacts. The City's Noise Ordinance regulates temporary and periodic noise associated with construction, which would reduce impacts. The Noise Ordinance restricts construction to the hours of seven a.m. and nine p.m. daily except Saturdays, Sundays and holidays, when the hours between ten a.m. and six p.m. shall be allowed. Additionally, the Noise Ordinance requires construction equipment to meet guidelines to further reduce noise impacts.
- e) *No Impact.* As discussed in the Hazards and Hazardous Materials section, the project is not within two miles of a public airport, nor is it included in a zone designated by the Comprehensive Land Use Plan (CLUP) for such an airport.
- f) *No Impact.* As discussed in the Hazards and Hazardous Materials section, there are no private airstrips within the vicinity of the project.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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12. POPULATION AND HOUSING. Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* This project would not induce substantial population growth in the area. The project area already contains infrastructure, induced population growth is not likely to occur.
- b) *No Impact.* A stated goal of the City of Oroville General Plan Housing Element is to “preserve existing affordable housing opportunities for lower income residents.” A project that displaces or removes 5 or more affordable housing units is considered to have a significant impact. However, the proposed project does not contain any existing housing that would substantially displace people to necessitate the need for housing elsewhere.
- c) *No Impact.* As previously mentioned in b), no residences exist within the project area. Therefore, no persons would be displaced as a result of the project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- | | | | | |
|-----------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The Oroville Fire Department already serves the project area. The Oroville City Council has adopted the Fire Department Standards of Coverage Guidelines in order to guide future growth. The goal statements include:

- Fire Department travel times should place a first-due unit at scene within five minutes travel time, for 90% of fire and medical incidents.
- Fire Department units shall be located and staffed such that an effective response force of four units with eight personnel minimum shall be available to all areas of the City within a maximum of ten minutes travel time, for 90% of all structure fires.

While the project may place additional demands on the Fire Department, such as calls regarding injuries or fires, these demands could be accommodated without the construction of new facilities or the expansion of existing facilities. As the project is re-development of existing public use areas, there are already people utilizing this area for parking and to gain access to the bike trail. The Fire Department facility on Lincoln Street is close enough to respond to emergency calls from the project area within five minutes, which meets the above standard for response time set by the City.

b) *Less Than Significant Impact.* The project area is currently served by the Oroville Police Department. While the project may place additional demands on the Police Department, such as calls for public assistance, these demands could be accommodated without the construction of new facilities or the expansion of existing facilities. The Police Department facility on Lincoln Street (co-located with the Fire Department facility) averages an estimated response time within the City of two to three minutes, which is considered adequate to serve present needs.

c) *No Impact.* No new residential housing is proposed with this project that would result in an increase in the student population in the area. This project is recreational access and not expected to place additional demands on the existing schools in the area, which are within

the jurisdictional boundaries of the Oroville Union Elementary School District and the Oroville Union High School District.

- d) *Less Than Significant Impact.* This project proposes improvements in infrastructure and park facilities in an area that currently allows for public access. The physical impacts that would result from development of the parks, walkways, and roadway improvements are addressed throughout this document. Development of the project site is intended to facilitate public access to the Feather River and this increased access may also result in increased use of adjacent parks, including Bedrock and Riverbend Park along this stretch of river. Increased use of the area parks could increase the City's maintenance costs, however, these factors have been anticipated for in the City's operating budget for parks.
- e) *Less Than Significant Impact.* Other public services that could be affected by the project include street maintenance. These services are currently provided to the project area, and additional demand could be accommodated without the need to construct new facilities or to expand existing facilities.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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14. RECREATION.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.* As noted above in the Public Services section, the intent of this project is to facilitate public access to the Feather River and this increased access may also result in increased use of adjacent parks, including Bedrock and River Bend Parks. Increased use of the area parks could increase the City's maintenance costs, however, these factors have been anticipated for in the city's operating budget for parks. Additionally, there are a number of recreational facilities at Lake Oroville and within the surrounding area of the City of Oroville.
- b) *Less Than Significant Impact.* As noted in the Public Services section, the project is proposing a park and recreational facility in an area that is currently has public access, adjacent to the Feather River. The physical impacts that would result from development of the project are addressed throughout this document, and have been mitigated to a less than significant level.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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15. TRANSPORTATION/TRAFFIC. Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The proposed project is anticipated to attract traffic from the greater residential areas in the region and from downtown Oroville. Vehicular access to the project site is available primarily from Feather River Boulevard, Montgomery Street north to Lincoln Street, to the levee and along Arlin Rhine Drive. Arlin Rhine Drive is also accessible from 1st and 5th Avenue, Huntoon Street, and Oliver Street. See **Figure 6** for the Traffic Study Area. There is existing access to the project location currently, and there is a proposal to improve the existing roadways in the project area, including Arlin Rhine Drive, Lincoln Street, Oak Street, and Oliver Street.

In September 2006, a Traffic Study was completed which included an analysis of traffic conditions for the Oroville Riverfront Improvement Plan area. The study area consists of the Montgomery Street corridor and Feather River Boulevard-Arlin Rhine Drive along the Feather

River Levee from State Route 70 (SR 70) on the west to Washington Avenue on the east and includes the following intersections; Montgomery Street/Lincoln Street, Montgomery St./Feather River Blvd., Montgomery Street/SR 70 NB Off-ramp, and Montgomery Street/SR 70 SB Off-ramp. This analysis concluded that the future traffic conditions, utilizing the 2002 Butte County Association of Governments (BCAG) travel forecast model, determined that for the Year 2025, the Oroville Riverfront Park area is expected to experience an increase in traffic volumes of approximately 72 percent, or approximately 2.4 percent per year. The highest anticipated volumes are projected to occur along the western segments of Montgomery Street. Assuming an increase of 72 percent along the Montgomery Street corridor, the study intersections would be expected to operate at LOS C or better, indicating acceptable traffic conditions according to the applied standards. The stop-controlled southbound approach of Lincoln Street to Montgomery Street is expected to operate at a LOS F; however, traffic volumes on this approach would be very low, so this would have a minor influence on the level of delay to the intersection as a whole. The City of Oroville General Plan Policy 5.10e states "Strive to maintain LOS C for all arterial and collector streets ..." Therefore, this project will not exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways.

As demonstrated by the traffic study, the anticipated traffic increase as a result of the Oroville Riverfront Park area is expected to generate an average of 420 daily vehicle trips, which includes 17 a.m. peak hour trips and 34 p.m. peak hour trips. These projected trips represent the increase in traffic that the project would generate over existing trip levels, please see **Table 1** below. (The 21 acres studied in the Traffic Study includes the entire project site, including the approximately 5200 foot long levee area where most of the park will be located.) Under the existing traffic conditions plus the project conditions, all of the study intersections are expected to continue operating acceptably at LOS C or better, both overall and on all approaches, with very minimal increase in delays.

Table 1
Trip Generation Summary

Land Use	Units	Daily		A.M. Peak Hour				P.M. Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
City Park	21 acres	20	420	0.8	17	9	8	1.6	34	17	17

- b) *Less Than Significant Impact.* According to the Oroville General Plan, the Level of Service (LOS) classification system is a qualitative measure of traffic movement based upon a rating system from "A" to "F", with "A" being the best. Development approvals require demonstration that traffic improvements necessary to serve the development will not violate the level of service standards and will be in place in order to accommodate trips generated by the project.

As noted in a) above, according to the traffic study analysis, the proposed project is not expected to contribute to a significant increase in traffic volumes. This report conducted an analysis on the affect on the level of service (LOS) and additional trips on streets within and in the vicinity of the project area. This report was conducted for the Oroville Riverfront Park and anticipated increases in vehicular, pedestrian and bike traffic in the area as a result of the project. The City of Oroville has determined that a project that generates no more than 500 average daily trips is considered to be less than significant in its effect on an existing roadway level of service (LOS), unless the project contributes 100 or more peak hour trips to an existing roadway or intersection that is operating at an unacceptable LOS. The

traffic analysis determined that the additional traffic generated by the project would result in approximately 420 daily trips.

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. A unit of measure that indicates a level of delay generally accompanies the LOS designation. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions.

Existing Traffic Conditions

Intersections along the Montgomery Street corridor were evaluated to determine existing operating conditions. The analysis focused on the intersections with Lincoln Street, Feather River Boulevard and the SR 70 ramps. These intersections would be expected to experience increased traffic with enhanced activity along the Riverfront area. Although other intersections along Montgomery Street provide access to the levee road, Lincoln Street was selected as a sample access location to assess impacts.

Traffic counts were collected at the study intersections in September 2005. Based on these traffic counts, all stop-controlled movements at the study intersections are operating at LOS B, with overall intersection operation of LOS A or B, indicating acceptable conditions. The signalized intersection of Montgomery Street/Feather River Boulevard is operating at LOS C, which is also considered acceptable. Intersection level of service calculations are summarized in **Table 2** below.

Table 2
Summary of Intersection Levels of Service

Intersection <i>Approach</i>	Existing Conditions		Existing plus Riverfront Master Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street <i>Southbound Lincoln Street</i>	1.2 <i>13.9</i>	A <i>B</i>	1.6 <i>13.6</i>	A <i>B</i>
2. Montgomery St./Feather River Blvd.	21.5	C	21.6	C
3. Montgomery Street/SR 70 NB Ramps <i>Northbound Off-ramp</i>	0.9 <i>10.3</i>	A <i>B</i>	0.9 <i>10.3</i>	A <i>B</i>
4. Montgomery Street/SR 70 SB Ramps <i>Southbound Off-ramp</i>	10.6 <i>11.8</i>	B <i>B</i>	10.7 <i>11.9</i>	B <i>B</i>

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

Future Traffic Conditions

The 2002 Butte County Association of Governments (BCAG) travel forecast model was used to assess potential growth in traffic volumes along the Montgomery Street corridor. BCAG's traffic model identifies total traffic volumes by road segment. Utilizing the BCAG's travel forecast model for the Year 2025, the Riverfront Planning Area is expected to experience an increase in traffic volumes of approximately 72 percent, or approximately 2.5 percent per

year. The highest anticipated volumes are projected to occur along the western segments of Montgomery Street.

Assuming an increase of 72 percent along the Montgomery Street corridor, the study intersections were evaluated under the assumed Future 2025 base traffic volumes. Overall, the study intersections would be expected to operate at LOS C or better, indicating acceptable traffic conditions according to the applied standards. The stop-controlled southbound approach of Lincoln Street to Montgomery Street is expected to operate at a LOS F; however, traffic volumes on this approach would be very low, so have a minor influence on the level of delay to the intersection as a whole. The signalized intersection of Montgomery Street/Feather River Boulevard would be expected to continue operating at LOS C. Intersection level of service calculations are summarized in **Table 3** (W-Trans, 2006).

Table 3
Summary of Future PM Peak Hour Intersection Levels of Service

Intersection <i>Approach</i>	Future (2025) Conditions		Future (2025) plus Riverfront Improvement Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street <i>Southbound Lincoln Street</i>	2.3 <i>58.4</i>	A <i>F</i>	3.1 <i>66.6</i>	A <i>F</i>
2. Montgomery St./Feather River Blvd.	24.3	C	24.5	C
3. Montgomery Street/SR 70 NB Ramps <i>Northbound Off-ramp</i>	1.1 <i>12.9</i>	A <i>B</i>	1.1 <i>13.0</i>	A <i>B</i>
4. Montgomery Street/SR 70 SB Ramps <i>Southbound Off-ramp</i>	19.2 <i>22.5</i>	C <i>C</i>	20.0 <i>23.6</i>	C <i>C</i>

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

The City of Oroville General Plan Policy 5.10e states "Strive to maintain LOS C for all arterial and collector streets ..." Therefore, the Oroville Riverfront Improvement Plan will not exceed, either individually or cumulatively, a level of service standard established by the City General Plan or the Butte County Association of Governments for designated roads or highways.

- c) *No Impact.* The project is located several miles away from the overflight zone of Oroville Municipal Airport, and would have no effect on air traffic patterns. The project would not induce changes in air traffic levels, as there are no local airports that provide regularly scheduled passenger service. The nearest such airports are in Chico and Sacramento.
- d) *Less Than Significant Impact with Mitigation Incorporated.* The Oroville Riverfront Improvement Plan area is laid out in a traditional grid pattern, oriented in a north-south direction. Wide residential streets on small, 300-foot blocks separate the Feather River Levee and its recreational amenities from Montgomery Street and the downtown core. The project proposes improvements to some of the roadways within the project area, including Arlin Rhine Drive which will include realignment and connection to Oak and Lincoln Streets. A roundabout will be provided at the northern end of Oliver Street. Additionally, a total of 303 parking spaces will be created within the Plan area.

The plan proposes a one-way exit at Oak Street where Oak Street is two-way, south of Montgomery and a one-way entry at Lincoln Street where it is one-way southbound, south of Montgomery Street. (Huntoon Street is one-way northbound which forms the couplet with Lincoln Street.) The traffic report intersection analysis treated Lincoln Street as a two-way access to the riverfront in order to assess worst case access conditions. The intersection would be expected to operate acceptably overall. There are existing turn lanes in each direction on Montgomery Street to serve left-turns to the park as well as destined to southbound Lincoln Street. By converting Oak Street, north of Montgomery Street, to a one-way exit, the eastbound left-turn lane on Montgomery Street would no longer be needed. It is suggested that the eastbound be restriped. The center turn lane area could be reconfigured as a median. All other existing traffic control and lane geometrics would be considered acceptable (W-Trans, 2006).

Should the City choose to convert the Lincoln Street-Huntoon Street couplets to two-way streets, the following mitigation measure shall be implemented:

Mitigation Measure:

MM 15.1a As the majority of northbound traffic would most likely shift to Lincoln Street, at the intersection of Lincoln Street/Montgomery Street; a traffic signal will be installed.

MM 15.1b The addition of a westbound left-turn lane on Montgomery Street at Huntoon Street will be installed to serve new left-turn movements destined to the south.

Timing/Implementation: Prior to project completion.

Enforcement/Monitoring: City of Oroville Public Works Department.

Traffic within the project area is primarily cars and small trucks. The project would change some existing road and intersection characteristics, as described above, in order to improve existing vehicular traffic patterns in the area however. In addition to the car and truck traffic, the project is expected to attract pedestrians from the surrounding downtown area and adjacent neighborhoods. These pedestrian trips to the park would require crossings of Montgomery Street. There are existing uncontrolled marked crosswalks of Montgomery Street at key locations; however, these crossings lack enhanced crossing features which address pedestrian safety. Therefore, potential safety issues may arise (W-Trans, 2006). To ensure the safety of pedestrians and the following mitigation measure shall be implemented:

Mitigation Measure:

MM 15.2 Crosswalk enhancements, including high visibility treatments and bulbouts, should be provided across Montgomery Street at 1st Street, 5th Street, and Oliver Street to accommodate increased pedestrian traffic.

Timing/Implementation: During project construction.

Enforcement/Monitoring: City of Oroville Public Works Department.

e) *No Impact.* Emergency access to the developed portion of the project area is readily available from existing City streets however; Arlin Rhine Drive provides access for

emergency vehicles called to assist individuals needing service in the river area. The existing bicycle path can also provide emergency access.

- f) *Less Than Significant Impact.* Development associated with the project may generate an increased demand for parking spaces. Therefore, as described in the Project Description, room for up to approximately 300 parking spaces has been planned for within the Oroville Riverfront Improvement Plan area. The number of parking spaces included in the project plan are more than adequate to accommodate estimated trips generated by the project. Parking demand varies by use. Parking demand in the downtown area is high; however, parking demand throughout the residential portions of the project area is generally low. Parking is widely available for visitors at Bedrock Park and along Arlin Rhine Drive (W-Trans, 2006).

- f) *Less Than Significant Impact.* There is an existing bicycle path north of the levee, adjacent to the Feather River. The project contains provisions that support pedestrian use and alternate forms of transportation. Local and regional fixed route transit in Oroville is provided by Butte Regional Transit's B-Line. Routes 20 and 31, which provide regional service to the communities of Chico and Paradise respectively, pass through the northeast core of the Riverfront Park area on Montgomery Street. All weather bus shelters are provided at select transit stops in the Plan area. Greyhound Bus Lines, which has a stop on Oroville Dam Road, provides daily interregional and interstate service (W-Trans, 2006).

Figure 6 – Traffic Study Area



Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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16. UTILITIES AND SERVICE SYSTEMS. Would the project:
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a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

- a) *No Impact.* As discussed in the Hydrology and Water Quality section, the project site is adjacent to an area that is already connected to the SC-OR's sewer system. However, no restroom facilities or new drainage systems are proposed with the project, and as a result this project will not result in additional wastewater demand or exceed requirements set by RWQCB.

- b) *Less Than Significant Impact.* As noted in a) above, wastewater generated from the project area can be accommodated without expansion of treatment facilities. Cal Water, a private company, operates and maintains the water system in the City south of the Feather

River. Water lines that exist in the project area will be required for irrigation and fountains, and it is anticipated that water demand would increase by an estimated 4,087 gallons per day (Green Valley, 2006), however, not significantly.

- c) *Less Than Significant Impact.* The current drainage pattern of the project site currently sheet flows across the existing levee towards the south and down the embankment, collecting into existing drop inlets near the toe of the slope. These drain inlets are then collected via an existing 18" city owned storm drain which outlets towards the north into the Feather River. The site is currently partially paved with the remaining area covered by gravel and minimal amounts of grasses and weeds. The proposed improvements associated with the Centennial Park will include concrete and decomposed granite pathways, an asphalt concrete roadway, and landscape plantings of various types. Proposed drainage flows will continue to sheet flow away from directly entering the Feather River and be collected into drain inlets throughout the site. These drain inlets will then be collected through an underground drainage system which will connect to the existing 18" city owned storm drain. Current drainage patterns will not be altered (Green Valley, 2006).
- d) *Less Than Significant Impact.* As described in b) above, the project would not have a significant impact on water supplies.
- e) *No Impact.* As described in a) above, the project would not have no impact on wastewater capacity.
- f) *Less Than Significant Impact.* The County landfill has adequate capacity to accommodate solid waste to the year 2018, and is currently seeking a permit to expand the landfill so that it can accommodate solid waste to the year 2034. The project is not expected to generate an amount of solid waste that would exceed available landfill capacity once the project is complete.
- g) *Less Than Significant Impact.* Solid waste collection and disposal within California is subject to the provisions of the California Integrated Waste Management Act. This legislation mandates a 50 percent reduction in the solid waste stream going to landfills by 2000. Development associated with the project would not affect the City's actions to achieve compliance with the California Integrated Waste Management Act.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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17. 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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact With Mitigation Incorporated.* The Biological Constraints Analysis revealed that federally endangered, state species of concern, and state special status species are found or could potentially be found onsite. These species include both plant and wildlife species, including Pink creamsacs, Valley elderberry longhorn beetle, Chinook salmon, Central Valley steelhead, and spring-run Chinook salmon, Foothill yellow-legged frog, Northwestern pond turtle, habitat suitable for nesting and foraging opportunities for many avian species, including some raptors and migratory birds, and nine species of bats - fringed myotis bat, greater western mastiff-bat, long-eared myotis bat, long-legged myotis bat, pale Townsend's big-eared bat, silver-haired bat, small-footed myotis bat, spotted bat, and Yuma myotis bat. Additionally, the project may have impacts to riparian or other sensitive natural communities, wetlands, and migratory wildlife. Therefore, **Mitigation Measures 4.1** through **4.4** shall be implemented to reduce these potential impacts to a less than significant level. There is the possibility that undiscovered cultural resources may be found in the course of project development work. Therefore, if cultural resources are uncovered during the course of project development and construction, **Mitigation Measure 5.1** shall be implemented.

- b) *Less Than Significant Impact*. The project will not contribute impacts that are cumulatively considerable. According to the base traffic conditions analysis, the cultural resources constraints analysis, the biological resources constraints analysis, and communications with Green Valley Engineering, Inc. (who will carry out the construction of this project), the implementation of this project is not likely to have cumulative impacts.

- c) *Less Than Significant Impact with Mitigation Incorporated*. There is no indication that implementation of the project would cause adverse affects on human beings, either directly or indirectly. However, as discussed in Geology and Soils, **Mitigation Measure 6.1** requires a geotechnical study (which currently has not yet been performed) be completed prior to project construction. It is not anticipated that there will be any impacts to the existing stability of the levee as a result of this project with the implementation of the recommendations contained within the geotechnical report. The existing levee and embankments are stable, constructed of a concrete core, overlain with boulders, dirt and native vegetation. Additionally, they have been extremely effective in protecting downtown Oroville from flooding.

VII. REFERENCES

1. Biological Resources Constraints Analysis, Pacific Municipal Consultants, September 2005.
2. Cal Water website, www.calwater.com, accessed July 2006.
3. City of Oroville General Plan.
4. City of Oroville Zoning Code.
5. Cultural Resources Constraints Analysis, Pacific Municipal Consultants, September 2005.
6. Green Valley Engineering, written response to questions regarding geology and soils, hydrology and water quality and utilities and service systems, and personal communications with Liz Ellis and Scott Graefen 2006.
7. Hazardous Waste and Substances Sites List, prepared by the California Department of Toxic Substances Control, 2000.
8. Indirect Source Review Guidelines, Butte County Air Quality Management District.
9. Nadolski, Jessica. Biological Resources Review for the Initial Study of the Oroville Riverfront Project, June 2006.
10. Nadolski, John A. Cultural Resources Review for the Initial Study of the Oroville Riverfront Project, June 2006.
11. RRM Design Group, figures, correspondence, and personal communication and "Refined Concept Plan, Themes and Features", 2005-2006.
12. W-Trans, "Base Traffic Conditions" and personal communications with Steve Weinberger, 2005-2006.

VIII. DOCUMENT PREPARERS

This Draft Initial Study/Proposed Mitigated Negative Declaration (IS/MND) was prepared for the City of Oroville by Pacific Municipal Consultants (PMC), subconsultant to RRM Design Group.

PMC Staff members who contributed to the preparation of the Draft IS/MND are:

- Lana Adler, Project Manager
- Terry Farmer, Environmental Planner
- Karita Zimmerman, Senior Environmental Planner
- Jessica Nadolski, Biological Resources Constraints Analysis
- John Nadolski, Cultural Constraints Analysis

The following consultants prepared technical studies and project information for the IS/MND:

- T. Keith Gurnee, RRM Design Group, Oroville Riverfront Improvements Final Plan Design
- Donald Sibbett, RRM Design Group, Oroville Riverfront Improvements Final Project Design
- Casey Starks, RRM Design Group, Graphic Support
- Steve Weinberger, W-Trans, Traffic Consultant
- Josh Abrams, W-Trans, Traffic Consultant
- Liz Ellis, Green Valley Consulting Engineers, Project Engineering and Design
- Scott Graefen, Green Valley Consulting Engineers, Project Engineering and Design

ATTACHMENTS TO THE OROVILLE RIVERFRONT PARK INITIAL STUDY

Attachment A - City of Oroville General Plan Policies for Natural Resources

Attachment B - Oroville Riverfront Project - Cultural Resources Constraints Analysis

Attachment C - Oroville Riverfront Project - Biological Resources Constraints Analysis

Attachment D - URBEMIS Run for the Oroville Riverfront Project

Attachment E - Traffic Study for the Oroville Riverfront Improvement Project

ATTACHMENT A

City of Oroville General Plan Policies for Natural Resources

The City of Oroville General Plan identifies specific objectives, policies, and programs regarding natural resources. Biotic resources objectives outlined in the General Plan are as follows:

- 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.
- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as "species of special concern" that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11e Through creative design recognize and enhance the links between biotic resources throughout the Oroville Planning Area and the desired life styles the Oroville community offers.
- 6.11f Search for and acquire State, Federal and foundation funding to preserve, protect, and enhance riparian and wildlife corridors connecting Blue Oak and other oak woodland habitat areas, vernal pools, the Feather River and other significant drainages, the Oroville Wildlife Area, South Table Mountain, Migratory and Resident Deer movement corridors, Areas of Special Biological Importance, Key Wildlife Areas, Unique Natural Areas mapped by the DFG and Butte County, wilderness areas such as the Plumas Forest to the east, and other open space areas that function as habitat.
- 6.11g Search for and acquire State, Federal and foundation funding to preserve, promote, restore, protect and enhance riparian corridors throughout the Planning Area.
- 6.11h Support a multi-use concept for riparian corridors that incorporates open space, aesthetic, habitat, and wildlife corridor values, while addressing the social, cultural, flood control and recreational needs of the Greater Oroville Community.
- 6.11i Where feasible, landscape public open space areas using native vegetation, to provide habitat for local species.
- 6.11j Encourage the Department of Water Resources to maintain water levels in State Water Project facilities, including Lake Oroville, to optimize protection of fisheries and other biotic resources, preserve open water as open space, and maximize recreational opportunities per the Department of Water Resources

- Bulletin 117-6, in addition to ensuring power generation, flood control, and water supply.
- 6.11k Encourage the DFG to manage and maintain the Oroville Wildlife Refuge for multiple uses, while protecting property values on land adjacent to the refuge.

Biotic resources implementing policies outlined in the General Plan are as follows:

- 6.11l Work toward the preparation of a Master Biotic Data Base for the Planning Area. Such a Data Base may include the following:
- An inventory of listed and common species;
 - Locations of habitat and natural communities, including mapping of native woodlands throughout the Planning Area; and
 - Confirmation of alignments and significance of riparian and wildlife corridors;
 - Species management plans, where relevant.
 - Agricultural fields and groves which may be of significant economic or habitat value to the community.

The above referenced Data Base may be prepared at a time certain through a city-wide effort, or through an incremental compilation of project/site specific studies and surveys.

- 6.11m Strive to minimize loss of wetland value or acreage consistent with the needs of wildlife and humans. Utilize mitigation banking (if available) to offset impacts to wetlands.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11p If sensitive plants are found to be located within a development site the developer shall be informed that he must mitigate project impacts in accordance with State Law.

Examples of mitigation may include:

- Establishing setbacks from the outer edge of the plant population area;
 - Prohibiting livestock grazing or drainage into the setback and plant population areas;
 - Construction of barriers to prevent compaction damage by foot or vehicular traffic.
- 6.11q Work with the Oroville Mosquito Abatement District and the Butte County Mosquito Abatement District to ensure that preservation, pre-planning and

- design of water features is coordinated with acceptable disease vector control measures.
- 6.11r Plan for freeway and arterial street undercrossings where necessary to effectively preserve wildlife corridors.
 - 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
 - 6.11t Work with Butte County to coordinate the maintenance of open space, habitat preservation, and mineral extraction at or near South Table Mountain.
 - 6.11u Coordinate mineral resource extraction with habitat preservation and protection of plant and animal species where appropriate.
 - 6.11v Work with Butte County and the DFG to ensure the continued presence and appropriate numbers of Migratory and Resident Deer in the Planning Area, by preserving habitat and movement corridors.
 - 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
 - 6.11x Encourage the coordinated design of large projects to preserve onsite open space, cluster development (where feasible), and conserve significant habitats that have been identified in the project area.
 - 6.11y Make information available to interested parties concerning the presence and condition of species of special status.
 - 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.
 - 6.11z.1 Continue to build the “urban forest” by implementing the Master Street Tree Plan (with amendments), revising the City’s Official Street Tree List as needed to incorporate additional appropriate cultivars, and implementing the City’s Tree Ordinance (Number 1174) and Street Tree Planting Standards.
 - 6.11z.2 Develop a plan to enhance individual oaks, oak woodlands and other tree groups throughout the Planning Area. The Plan will provide options for the management of oaks and other tree resources.
 - 6.11z.3 Development proposals on sites that contain significant oak woodlands and related habitat will require the preparation of a site specific tree management and preservation report by a certified arborist or landscape architect. This report shall include recommendations for the retention of healthy mature trees where feasible and promote the concept of oak regeneration corridors within the project design.

ATTACHMENT B

OROVILLE RIVERFRONT PROJECT CULTURAL RESOURCES CONSTRAINTS ANALYSIS

1.0 EXISTING SETTING

1.1 PREHISTORY

The archaeology of the project area is primarily associated with the Mesilla, Bidwell, Sweetwater, and Oroville Complexes. Extensive archaeological investigations are relatively scant in the project area, but large-scale archaeological investigations were undertaken in the neighboring Lake Oroville area during the 1960s through the 1970s for the construction of Oroville Dam and Lake Oroville. Indeed, archaeological research in the Lake Oroville area may be used to characterize the prehistory of the project area. Ritter (1970) summarized the archaeological investigations in the area, which identified four prehistoric cultural complexes. These four cultural complexes are the: Mesilla, 1,000 B.C.-A.D. 1; Bidwell, A.D. 1-A.D. 800; Sweetwater A.D. 800-A.D. 1500; and Oroville A.D. 1500-A.D. 1850 (Ritter 1970).

The Mesilla Complex represents hunter-gatherer occupation of the foothills of the Sierra Nevada and is characterized by: large and heavy (usually weighing over 3.5 grams) leaf shaped, stemmed, or side notched projectile points made of local "non-glassy" material; boatstones; milling stones and manos; *haliotis* and *olivella* shell beads and ornaments; and flexed burials (Olsen and Riddell 1963; Ritter 1968, 1970). The Mesilla Complex projectile points show considerable similarity with points from Martis Complex sites, such as CA-Nev-15 which is only 35 miles from the Oroville area (Elsasser 1978). Shell beads, shell ornaments, and flexed burials, however, also suggest a relationship of the Mesilla Complex to the Middle Horizon of the Central Valley. Olsen and Riddell (1963:52) recognized the similarity of the Mesilla Complex to both the Martis Complex and the Middle Horizon of the Central Valley, but they believed that the Mesilla Complex had unique elements and its "intermediate" geographic position in the foothills between the other two cultures warranted its designation as a distinct complex. Kowta (1988) also discusses the similarities of the Mesilla Complex to the Martis Complex, the Middle Horizon of Central California, and other cultural complexes further to the north of Butte County in Tehama and Shasta counties. He identifies similarities across the entire area, particularly regarding point types, shell beads, the presence of manos and milling stones, and type of burial. Kowta (1988:101) assumes that the relationship between the Martis and Mesilla Complexes is due to their association with the earlier Northern Milling Stone Horizon.

The Bidwell Complex represents a continuation and elaboration of the Mesilla Complex, with an increase in the number of traits adopted from the Central Valley, and an intensification and diversification of subsistence activities (Ritter 1970; Kowta 1988). The Bidwell Complex is characterized by: large corner and side-notched, wide stemmed, leaf shaped, small corner-notched, and stemmed projectile points primarily made of basalt; large basalt drills; net weights; steatite vessels; wooden mortar and pestles; and bone awls (Olsen and Riddell 1963; Ritter 1968; Ritter 1970).

The Sweetwater Complex represents a period of population growth and intensification of acorn use during the Late Period (Kowta 1988:152). The Sweetwater Complex is characterized by: large leaf shaped and small corner-notched projectile points; cobble and slab mortars and pestles; bone fish gorges; shell beads; and clam shell spoons (Kowta 1988; Olsen and Riddell 1963; Ritter 1968; Ritter 1970). Kowta (1988:152) believes that the Sweetwater Complex is associated with the arrival of Maidu peoples in the region.

The Oroville Complex represents a continuation of the Sweetwater Complex, particularly in terms of population growth, further intensification of acorn use, and the proliferation of certain artifacts such as beads. The Oroville Complex is characterized by: small side-notched, corner-notched, and triangular projectile points; manos and metates; mortars and pestles; bone fish gorges; bone awls; clamshell disk beads; and *haliotis* ornaments (Kowta 1988; Olsen and Riddell 1963; Ritter 1968; Ritter 1970). The Oroville Complex probably culminates in the culture of the ethnographic Konkow (Kowta 1988:154).

1.2 ETHNOGRAPHY

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Kroeber (1925, 1936) subdivided California into four subculture areas, Northwestern, Northeastern, Southern, and Central. The Oroville Riverfront Project is located in the Central area within the boundaries of Konkow territory.

Konkow or Northwestern Maidu occupied a territory both along the Sacramento River and east into the foothills of the Sierra Nevada in the vicinity of Willows, Chico, and Oroville (Riddell 1978). Konkow are members of the Maidu Language Family of Penutian Stock. Their population was divided into several “village communities” which were recognized as autonomous political units (Kroeber 1925). Subsistence activities included hunting, fishing, and the collecting of a variety of plant resources including acorns, which were a staple food source for the Konkow. Konkow made a variety of bone, wood, and stone tools and basketry, which was both an artistic and necessary activity.

Euroamerican contact with Native American groups living in the Central Valley of California began during the last half of the eighteenth century. At this time, the attention of Spanish missionaries shifted away from the coast, and its dwindling Native American population, to the conversion and missionization of interior populations. Luis Argüello led an early expedition into the area in 1821 (Beck and Haase 1974). The expedition left San Francisco and followed a northerly course to the Sacramento River, intersecting the river a short distance north of Grimes. The group then followed the river north to Cottonwood Creek, passing through Konkow territory. Regardless, the area remained relatively unoccupied by Euroamericans until the Gold Rush. The latter half of the nineteenth century witnessed an ongoing and growing immigration of Euroamericans into the area, which was also accompanied by regional cultural and economic changes. These changes are highlighted by the development of towns and businesses associated with either gold mining or agriculture, and a dramatic decline of Native American culture and people.

1.3 EUROAMERICAN CONTACT

The first European to enter current Butte County was probably Gabriel Moraga, a Spanish soldier, who led an expedition into Alta California, crossing the Feather River in 1808 near Oroville (Beck and Haase 1974). Following Moraga, Captain Luis Arguello explored Butte County in 1820, and named the Feather River (Rio de la Plumas) (Hoover et al. 1966). In 1825, Jedediah Strong Smith entered California from the south and, by 1827, had made his way to the Feather River (Brooks 1977). Hudson's Bay Company trappers also extensively explored the area in the 1820s and 1830s looking for furs (Hoover et al. 1966). Then in the 1830s and 1840s Joseph R. Walker and Joseph B. Chiles explored parts of Butte County, traveling along the Sacramento River and the South Fork of the Feather River, either looking for travel routes in the area or bringing settlers to the area (Beck and Haase 1974).

John Bidwell led one of the first immigrant parties from the eastern United States to California in 1841. Subsequently, he worked at Sutter's Fort until gold was discovered at Sutter's Mill in Coloma. John Bidwell became interested in gold mining and in June 1848 he discovered gold on the Feather River near Hamilton (Bidwell 1877; Hoover et al. 1966). Subsequently, Bidwell purchased Rancho del Arroyo Chico in 1849 from William Dickey and Edward A. Farwell, and settled in what would become Butte County (Hoover et al. 1966). Bidwell began planting wheat, barley, and fruit bearing trees (e.g., apple, pear, peach, walnut, almond, fig, cherry, and olive) on his property, and established a very successful agricultural business. Bidwell's success in the area facilitated the development of other agricultural enterprises, and by 1861 there were 34,500 acres in cultivation in Butte County. Indeed, by 1875 there were 190,200 acres under cultivation in the county, and in 1877 Bidwell built a facility for drying fruit (Hoover et al. 1966, Wells & Chambers 1882). Today, agriculture remains one of the primary industries in Butte County.

Oroville originally began in 1850 as a mining camp named Ophir City (Hoover et al. 1966). By 1856 Ophir City was renamed Oroville, and it became an important regional mining center, and was central in the development of dredge mining. Mining attracted a large Chinese population to the area, and in its early history Oroville is reported to have a Chinese population that was only second in size to San Francisco. As dredge mining began to decline, however, agricultural production increased in the area and agriculture continues to dominant the local economy.

2.0 REGULATORY FRAMEWORK

2.1 Federal

2.1.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) governs federal regulations for the identification and protection of cultural resources. Section 106 requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the State Historic Preservation Officer, and, if appropriate, the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing

regulations, “Protection of Historic Properties” can be found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Recent amendments to the Act (1986, 1992, and 2001), including revisions to the implementing regulations have strengthened the provisions for Native American consultation and participation in the Section 106 review process. Federal regulations apply to the Oroville Riverfront Project because it will require federal permits (e.g., US Army Corps of Engineers permits).

2.2 State

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources that meet significance criteria qualifying them as “unique,” “important,” listed on the California Register of Historical Resources (CRHR), or eligible for listing on the CRHR. If the agency determines that a project may have a significant effect on a significant resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If a cultural resource is found not to be significant under the qualifying criteria, it need not be considered further in the planning process. CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate these impacts.

2.3 Local

The City of Oroville General Plan provides guidance for the identification and protection of cultural resources. General Plan Objective 6.15a and Implementing Policies 6.15b, 6.15c, and 6.15d emphasize the identification and protection of cultural resources. The policies include guidance regarding the identification and protection of cultural resources both prior to and during implementation of a project.

2.4 STANDARDS OF SIGNIFICANCE

36 CFR Part 60.4 [a-d] presents criteria for determining the significance and eligibility of prehistoric and historic sites for inclusion in the NRHP. The significance and eligibility for inclusion in the NRHP of the structure dating to 1930 located within project boundaries will be considered following those criteria and in relation to appropriate historic themes. The criteria at 36 CFR Part 60.4 [a-d] include the following:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (A) that are associated with events that have made significant contributions to the broad patterns of our history; or
- (B) that are associated with the lives of persons significant in our past; or
- (C) that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) that have yielded, or may likely yield, information important in prehistory or history.

CEQA, at Public Resources Code 21083.2, requires planning agencies to determine if a project may have a significant effect on archaeological resources. Following CEQA guidelines in section 15064.5 an “historical resource” includes:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.
- 2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in an historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

Public Resources Code 5024.1 presents criteria for determining the eligibility of a cultural resource for inclusion in the California Register of Historical Resources (CRHR). These criteria include:

- 1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- 2) Is associated with the lives of persons important in our past;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic value; or
- 4) Has yielded, or may yield, information important in prehistory or history.

CEQA also requires planning agencies to consider the effects of a project on unique archaeological resources. If an archaeological artifact, object, or site meets the definition of a unique archaeological resource, then the artifact, object, or site must be treated in accordance with the special provisions for such resources as presented at Public Resources Code 21083.2(e). Public Resources Code 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site that:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- 2) Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- 3) Is associated with a scientifically recognized important prehistoric or historic person or event.

CEQA, at §15064.5, defines a significant effect as one that may cause a substantial adverse change in the significance of an historical resource. A “substantial adverse change” means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. The Lead Agency shall identify potentially feasible mitigation measures to mitigate significant adverse changes in the significance of an historical resource.

3.0 METHODOLOGY

Cultural resources investigations for the Oroville Riverfront Project included: a records search conducted by the Northeast Information Center at California State University, Chico for the project area and an area within a 0.5 mile radius of it; a sacred lands search conducted by the Native American Heritage Commission; and a “windshield survey” of the project area. The records search identified:

- Six previous surveys within the project area (cf., Manning 1978; Jensen 1980; Minor and Underwood 1987; Vaughn 1987; Nelson 1999; and Scott 1999);
- Eleven previous survey that were conducted within 0.5 miles of the project area;
- Site CA-BUT-584/H within project boundaries;
- Three historic sites, CA-BUT-1601-H, P-04-001454, and P-04-001460, within project boundaries;
- Three prehistoric sites within 0.5 miles of the project area;
- Eight historic sites within 0.5 miles of the project area;
- The Oroville Chinese Temple located at 1500 Broderick that is listed in the National Register of Historic Places, the California Register of Historical Resources, and is California Historical Landmark No. 770;
- The Oroville Commercial District that consists of Montgomery Street, Myers Street, Huntoon Street, and Miner Alley, and appears eligible for inclusion in the National Register of Historic Places;
- Three properties, Oroville Inn, Oroville State Theatre, and the Oroville Post Office, that are listed in the National Register of Historic Places and the California Register of Historical Resources are within 0.5 miles of the project area;

- The Table Mountain Boulevard Bridge that is eligible for the National Register of Historic Places is within 0.5 miles of the project area; and
- One hundred forty-four properties within the City of Oroville that may be eligible for either the National Register of Historic Places or the California Register of Historical Resources.

The sacred lands search did not identify any sensitive Native American cultural resources either within or adjacent to the project area. The “windshield survey” identified numerous buildings in and near the project area that may be eligible for inclusion in either the NRHP or the CRHR.

4.0 RESULTS OF RESEARCH

Cultural resources investigations for the Oroville Riverfront Project identified a number of prehistoric sites, historic sites, and historical buildings/structures in the project area. These sites and buildings/structures include:

- Site CA-BUT-584/H that consists of both prehistoric and historic features (see the confidential map attached to this report for the location of the site);
- Site CA-BUT-1601-H that consists of a rock retaining wall and refuse (see the confidential map attached to this report for the location of the site);
- Site P-04-001454 that is a building located at 2400 Montgomery Street (the building was determined ineligible for the NRHP);
- Site P-04-001460 that is a building located at 2426 Montgomery Street (the building was determined ineligible for the NRHP);
- The Oroville Chinese Temple located at 1500 Broderick that is listed in the NRHP, CRHR, and is California Historical Landmark No. 770;
- The Oroville Commercial District that includes Montgomery Street, Myers Street, Huntoon Street, and Miner Alley, and appears eligible for inclusion in the National Register of Historic Places;
- The buildings at 1675, 1850, 1858, 1864, 1877, 1911, 1919, 1925, 1933, 1941, 1955, 1963, and 1975 Montgomery Street that are listed in the NRHP as contributors to a district; and
- The Pioneer Memorial Museum at 2332 Montgomery Street that is built on the former site of Garrott’s Sawmill and is a Point of Historical Interest.

Cultural resources investigations for the Oroville Riverfront Project also identified a prehistoric sites and historical buildings/structures either adjacent to or near the project area. These sites and buildings/structures include:

- Site CA-BUT-841 that is reported to include human remains (see the confidential map attached to this report for the location of the site);
- The Oroville Inn at 2066 Bird Street, Oroville State Theatre at 1489 Myers Street, and the Oroville Post Office at 1735 Robison Street that are listed in the NRHP and the CRHR;
- The Table Mountain Boulevard Bridge located just beyond the northern project boundary, which is eligible for the NRHP; and

- Several buildings that appear to be eligible for inclusion in either the NRHP or the CRHR, such as the Lott Museum-Sank Park located at 1067 Montgomery Street.

The Oroville Riverfront Project is located in an area that is historically sensitive, and project activities are constrained by this circumstance. There are several buildings in the project area that are either listed in the NRHP and the CRHR or appear eligible for inclusion in the NRHP or CRHR. The project area also includes the Oroville Commercial District and the residences within the project area appear to meet the criteria for consideration as a district or for inclusion in an expanded Oroville Commercial District. Therefore, any project activities that may affect any buildings or structures within the project area would trigger not only historical investigations regarding specific buildings or structures but also the entire project area. Indeed, the State Office of Historic Preservation would likely require that the project area be treated as an historic district because of the types and numbers of buildings within it and its relationship to the history of Oroville.

Project activities that may affect buildings or structures include demolition and other activities that might alter the setting of the area, such as road improvements and modifications to existing street lighting. Therefore, it is recommended that project designs avoid building demolition and dramatic alterations to the historic setting of the area. There are mitigation measures, however, that may be implemented for project activities that would likely alter the historic setting of the area, such as using lighting fixtures and landscape features that are in keeping with the historic character of the area. Other project activities such as improvements to Arlin Rhine Drive, the construction of facilities on the levee, and construction of river access on the levee do not have any significant cultural resources constraints.

In summary, the Oroville Riverfront Project is located in an area that is historically sensitive. Project activities that may affect buildings and structures within project boundaries would likely require determining the eligibility of the building or structure for inclusion in the NRHP and the CRHR. Completion of this task would likely require determining if the project area constitutes an historic district, which would require conducting an inventory of all the buildings and structures within the project area and at least considering, if not determining, their eligibility for inclusion in either the NRHP or the CRHR. Indeed, these investigations could potentially extend beyond current project boundaries because potential boundaries of the historic district may extend beyond current project limits. Other types of project activities that may affect the setting of the project area may be mitigated. Potential project activities on the levee do not have any significant cultural resources constraints. It is recommended that: project designs avoid the demolition or significant alteration of any buildings in the project area; project designs incorporate features that would be consistent with the historic character of the area; and project designers consult with cultural resources specialists and/or architectural historians to avoid potential effects to any cultural resources (e.g., historic buildings). If project designs cannot avoid buildings/structures, mitigation for potential effects to buildings/structures would likely require the services of an architectural historian, the architectural inventory of the project area, determinations of eligibility for inclusion in the NRHP and CRHR of buildings/structures, and discussion or delineation of the project area as an historic district.

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ATTACHMENT C

Biological Resources



Photo shows Arlin Rhine Drive, a portion of the Oroville riverfront proposed for improvement (looking west).

This constraints analysis discusses potential impact to biological resources resulting from the proposed Oroville Riverfront Improvements Plan. The analysis presented in this report is based on a review of the most current project information as well as data collected from onsite survey, maps, and available literature.

1.0 ENVIRONMENTAL SETTING

The following section describes conditions at the proposed property location with emphasis on biological resources.

REGIONAL SETTING

The property considered in the Oroville Riverfront Improvements Plan is located within the City of Oroville, Butte County, California. The proposed plan involves improving an existing levee road and constructing public facilities to promote safe recreational activities along Arlin Rhine Drive (see photo above) on the south bank of the Feather River, between California State Route 70 and Washington Avenue. The area to be developed occurs on the Oroville U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle map (Township 19 North, Range 4 East) and is shown on Figure 1. As defined by the California Department of Fish and Game (DFG) Wildlife and Habitat Data Analysis Branch, wildlife habitat within Butte County consists of (but is not limited to) thirty-six different classifications, including blue oak woodland, eucalyptus, mixed chaparral, subalpine conifer, and urban (DFG 2004).

LOCAL SETTING

The project site consists of a levee road (Arlin Rhine Drive) and recreational facilities (i.e., nature overlooks and picnic areas) along the south bank of the Feather River opposite the

Lake Oroville State Recreation Area and Feather River Fish Hatchery. Habitat within the project area consists of approximately 12.3-acres of riverine, 69.3-acres of urban, and 18.2-acres of valley foothill riparian areas (see Figure 1). The immediate surrounding areas are predominantly urban as well as riverine.

BIOLOGICAL COMMUNITIES

A reconnaissance of the project area was conducted on August 24, 2005, to evaluate existing habitat at the project location. Habitat occurring on the project site is discussed below. Special status wildlife species, sensitive plants, and critical habitat expected or known to occur within the general project area are also addressed in this section.

RIVERINE

Riverine habitat refers to intermittent or continually running water, such as rivers or streams. In general, a stream originates as an outlet of a pond or lake, or stems from a spring or seepage, at elevation and flows down gradient at a rate relative to the slope and volume of discharge. Velocity tends to decline at lower altitudes and water volume increases until an enlarged stream (or river) becomes sluggish (DFG 2002). All streams and rivers fluctuate in velocity, temperature, turbidity, and dissolved oxygen depending on seasonal variations and physical setting (i.e., the type of vegetation surrounding and possibly shading the riverine habitat). A channel will erode at a rate based on the substrate, composition of water, climate, and the slope of the flow (Reid 1966). Without human interference, most natural riverine systems are stable over long periods of time (DFG 2002).

Riverine habitats often occur in association with riparian and/or fresh emergent wetland habitats. These areas provide cover, forage, and nest sites for many species of wildlife. Depending on the characteristics of an individual riverine habitat (i.e., velocity, temperature, etc.), the open water area can also support a variety of insects, mollusks, and crustaceans.

Riverine habitat at the project location consists of the Feather River. The North Fork of the Feather River originates in northern California in the Lassen Volcanic National Park, then flows through Lake Almanor south to Lake Oroville. The South and Middle Forks join the flow at Lake Oroville as the water proceeds (generally) south through the City of Oroville. The Feather River then joins with the Yuba River at the City of Marysville, where it continues south until ultimately flowing into the Sacramento River north of the City of Sacramento (Online Highways 2005).

Construction of the Oroville Dam by the Department of Water Resources (DWR) in the 1960s altered the historic flow of the river and affected fisheries resources by reducing salmon and steelhead spawning areas. To compensate for the loss of fish nursery grounds, the DWR opened the Feather River Salmon and Steelhead Hatchery in 1967. This hatchery, which is located across the river from the project site, is one of the most

advanced and successful in California and is cooperatively managed between the DFG and DWR with advice and assistance from the U.S. Fish and Wildlife Service (USFWS) and other agencies (DWR 2001). The proposed project has the potential to impact the section of river flowing through the City of Oroville adjacent to the Feather River Fish Hatchery. As a result, any project activity that involves the Feather River will likely receive scrutiny from regulatory agencies concerned about maintaining fisheries resources.

URBAN

Urban habitat is distinguished by the presence of both native and exotic species maintained in a relatively static composition within a downtown, residential, or suburban setting. Species richness in these areas depends greatly upon community design (i.e., open space considerations) and proximity to the natural environment (DFG 2002).

The California Wildlife Habitat Relationships (CWHR) system classifies urban habitat into five different vegetation types: tree grove, street strip, shade tree/lawn, lawn, and shrub cover (DFG 2002). Tree groves refer to conditions typically found in city parks, green belts, and cemeteries. These areas vary in tree height, spacing, crown shape, and understory conditions; however, they have a continuous canopy. Street strip vegetation, located roadside, varies with species type, but typically includes a ground cover of grass. Shade trees and lawns refer to characteristic residential landscape, which is reminiscent of natural savannas. Lawns are composed of a variety of grasses, maintained at a uniform height with continuous ground cover through irrigation and fertilization. Shrub cover refers to areas commonly landscaped and maintained with hedges, as typically found in commercial districts. All five types of urban habitat are generally found in combination creating considerable edge effect, which can be more valuable to wildlife than any one individual unit (DFG 2002).

The Oroville Riverfront Improvement Plan area includes all five urban vegetation types associated with residences, businesses, and roadways located within the City of Oroville adjacent to the Feather River.

VALLEY FOOTHILL RIPARIAN

Valley foothill riparian habitat is generally found in the valley and foothill regions of California along low-gradient streams. Typically, this habitat consists of an overstory tree layer, subcanopy tree layer, understory shrub layer, and herbaceous layer. Valley areas supply deep alluvial soils that are usually permanently moist and well aerated to provide for a variety of lush vegetation.

Species dominating the overstory of valley foothill riparian habitat include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*). Typical subcanopy trees are white alder (*Alnus rhombifolia*), box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Common understory shrubs include, wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*),

button bush (*Cephalanthus occidentalis*), and willows (*Salix sp.*). The herbaceous layer consists of sedges (*Cyperus sp.*), rushes (*Juncus sp.*), miner's lettuce (*Claytonia perfoliata*), poison hemlock (*Conium maculatum*), hoary nettle (*Urtica dioica holosericea*), and various grasses. This habitat supports an abundance of wildlife, which uses the area for food, water, migration, cover, dispersal, and nesting (DFG 2002).

At the Oroville Riverfront Improvements Plan site, dense riparian areas occur in association with the southern bank of the Feather River. These areas have the potential to support several special-status species that use the dense foliage for cover and nesting as well as forage near the flows of water. Loss of riparian habitat is considered significant under the California Environmental Quality Act (CEQA). Therefore, the presence of riparian habitat may be considered a constraint to development. Mitigation regarding loss of this habitat type with implementation of the proposed project shall be designed to reduce impact to a less than significant level once project plans are finalized.

SPECIAL STATUS SPECIES

In general, special status species include plants and wildlife that are:

- Listed and protected under the Federal and/or California Endangered Species Acts;
- Listed and protected under other federal and/or state regulations;
- Sufficiently rare to qualify for listing or protection under federal and/or state regulations; or
- Considered unique or in decline by the scientific community.

Table 1 lists special status species identified by the USFWS that may be affected by projects in Butte County as well as species listed in the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range (USFWS 2005, DFG 2003, CNPS 2005). Quadrangles included in the data search were Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee. In addition, Table 1 also includes special status species identified in the City of Oroville General Plan as occurring within the project area (City of Oroville 1995).

Habitat able to support several special status species occurs within and near the project study area, as shown in Table 1. The potential of an individual species to be present onsite during project implementation will depend on the final project design, specific habitat requirements of each species, and available data regarding the known range and migratory patterns of each species. Figure 2 shows occurrences of special status species listed in the CNDDDB within a one-mile radius of the project area. The presence of a special-status species is a potential constraint on development, particularly if the species is listed under

federal or state endangered species acts. Removal of a listed species from a project site is prohibited, unless a permit is obtained.

Table 1: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status* (Federal/State/CNPS)	General Habitat Description	Habitat Present/ Absent Locally
Plants				
Adobe-lily	<i>Fritillaria pluriflora</i>	FSC;--;1B	Chaparral, cismontane woodland, foothill grassland; usually on clay soils; sometimes serpentine.	Absent
Ahart's (dwarf) rush	<i>Juncus leiospermus</i> <i>var. ahartii</i>	FSC;--;1B	Vernal pools; restricted to the edges of vernal pools.	Absent
Ahart's whitlow-wort (=Ahart's paronychia)	<i>Paronychia ahartii</i>	FSC;--;1B	Valley and foothill grassland, vernal pools, cismontane woodland; stony, nearly barren clay of swales and higher ground around vernal pools.	Absent
Big-scale (=California) balsamroot	<i>Balsamorhiza</i> <i>macrolepis</i> <i>var.</i> <i>macrolepis</i>	FSLC;--;1B	Valley and foothill grassland, cismontane woodland; sometimes on serpentine.	Absent
Brandegee's clarkia	<i>Clarkia biloba</i> <i>ssp.</i> <i>brandegeae</i>	FSLC;--;1B	Chaparral, cismontane woodland; often in roadcuts.	Absent
Brittlescale	<i>Atriplex depressa</i>	FSC;--;1B	Chenopod scrub, meadows, playas, valley and foothill grassland, vernal pools; usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools.	Absent
Butte County calycadenia	<i>Calycadenia</i> <i>oppositifolia</i>	FSLC;--;1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; dry, often stoney plains and rock outcrops, on serpentine or volcanic soils (endemic to Butte County).	Absent

Butte County catchfly (=long-stiped campion)	<i>Silene occidentalis ssp. longistipitata</i>	FSC;--;1B	Chaparral, lower montane coniferous forest, upper montane coniferous forest.	Absent
Butte County fritillary	<i>Fritillaria eastwoodiae</i>	FSC;--;3	Chaparral, cismontane woodland, lower montane coniferous forest; usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy loam.	Absent
Butte County golden (=Jim's) clover	<i>Trifolium jokerstii</i>	FSLC;--;1B	Valley and foothill grassland, vernal pools; known only from 2 sites in Butte County in the vicinity of Table Mountain in grassland and swales near oak woodland (endemic to Butte County).	Absent
Butte County (=Shippee) meadowfoam	<i>Limnanthes floccosa ssp. californica</i>	FE;CE;1B	Vernal pools, valley and foothill grassland; wet or flowing drainages and depressions; often not in discrete vernal pools; soils are usually Redding Clay with rocks (endemic to Butte County).	Absent
Butte County morning-glory	<i>Calystegia atriplicifolia ssp. buttensis</i>	FSC;--;1B	Lower montane coniferous forest; dry, mostly open slopes.	Absent
Butte County sidalcea (=checkerbloom)	<i>Sidalcea robusta</i>	FSC;--;1B	Chaparral, cismontane woodland; small draws and rocky crevices (endemic to Butte County).	Present
California beaked-rush	<i>Rhynchospora californica</i>	FSC;--;1B	Bogs and fens, marshes and swamps, lower montane coniferous forest, meadows and seeps; freshwater seeps and open marshy areas.	Absent
Cantelow's lewisia	<i>Lewisia cantelowii</i>	FSC;--;1B	Broadleafed upland forest, lower montane coniferous forest, cismontane woodland, chaparral; mesic rock outcrops and wet cliffs, usually in moss or clubmoss; on granitics or sometimes on serpentine.	Present

Closed-lip (closed-throated) beardtongue	<i>Penstemon personatus</i>	FSC;--;1B	Lower montane coniferous forest, upper montane coniferous forest, chaparral; usually on north facing slopes in metavolcanic soils (known only from Butte and Plumas Counties).	Absent
Clustered lady's-slipper	<i>Cypripedium fasciculatum</i>	FSC;--;4	North coast coniferous forest, lower montane coniferous forest; in serpentine seeps and moist streambanks.	Absent
Cut-leaved ragwort	<i>Senecio (=Packera) eurycephalus var. lewisrosei</i>	FSLC;--;1B	Cismontane woodland, lower montane coniferous forest, chaparral; steep slopes and in canyons in serpentine soil, often along or near roads.	Present
Enterprise clarkia	<i>Clarkia mosquinii ssp. xerophila</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; usually on steep, rocky cutbanks and slopes (endemic to Butte County).	Present
Feather River stonecrop	<i>Sedum albomarginatum</i>	FSC;--;1B	Chaparral, lower montane coniferous forest; in crevices and on ledges of serpentine outcrops and slopes (endemic to Butte and Plumas Counties).	Present
Ferris's milk-vetch	<i>Astragalus tener var. ferrisiae</i>	FSC;--;1B	Meadows, valley and foothill grassland; subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil (only a few extant occurrences remain, formerly more widespread in the valley).	Absent
Four-angled spikerush	<i>Eleocharis quadrangulata</i>	--;--;2	Marshes and swamps; freshwater marshes, lake and pond margins.	Absent
Fox sedge	<i>Carex vulpinoidea</i>	--;--;2	Marshes and swamps, riparian woodland; wet places.	Present
Greene's tuctoria (=Orcutt grass)	<i>Tuctoria greenei</i>	FE;CR;1B	Vernal pools, valley and foothill grassland; dry bottoms of vernal pools in open grasslands.	Absent
Hairy Orcutt grass	<i>Orcuttia pilosa</i>	FE;CE;1B	Vernal pools; endemic to the Sacramento Valley.	Absent

Hall's rupertia (=Hall's California tea)	<i>Rupertia hallii</i>	FSLC;--;1B	Cismontane woodland, lower montane coniferous forest; on disturbed soils of roadsides and logged forests (known only from Butte and Tehama Counties).	Present
Heartscale	<i>Atriplex cordulata</i>	FSC;--;1B	Chenopod scrub, valley and foothill grassland, meadows; alkaline flats and scalds in the Central Valley; sandy soils.	Absent
Henderson's bent grass	<i>Agrostis hendersonii</i>	FSC;--;3	Valley and foothill grassland, vernal pools; moist places in grassland or vernal pool habitat (little information exists about this species).	Absent
Hoover's spurge	<i>Chamaesyce hooveri</i>	FT;--;1B	Vernal pools, valley and foothill grassland; vernal pools on volcanic mudflow or clay substrate.	Absent
Jepson's onion	<i>Allium jepsonii</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; on serpentine soils in Sierra foothills, volcanic soil on Table Mountain on slopes and flats; usually in an open area (known only from Butte and Tuolumne Counties).	Present
Lesser saltscale	<i>Atriplex minuscula</i>	FSC;--;1B	Chenopod scrub, playas, valley and foothill grassland; in alkali sink and grassland in sandy, alkaline soils.	Absent
Little mousetail	<i>Myosurus minimus</i> <i>ssp. apus</i>	FSC;--;3	Vernal pools; alkaline soils (subspecies has taxonomic problems and could be a hybrid; distinguishing between this and <i>Myosurus sessilis</i> is difficult).	Absent
Mildred's clarkia	<i>Clarkia mildrediae</i> <i>ssp. mildrediae</i>	--;--;1B	Cismontane woodland, lower montane coniferous forest; on decomposed granite, sometimes on roadsides.	Present

Mosquin's clarkia	<i>Clarkia mosquinii</i> <i>ssp. mosquinii</i>	FSC;--;1B	Cismontane woodland, lower montane coniferous forest; usually on steep, rocky cutbanks and slopes (endemic to Butte County).	Present
Pink creamsacs	<i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>	FSLC;--;1B	Chaparral, meadows and seeps, valley and foothill grassland; openings in chaparral or grasslands; on serpentine.	Present
Recurved larkspur	<i>Delphinium recurvatum</i>	FSC;--;1B	Chenopod scrub, valley and foothill grassland, cismontane woodland; on alkaline soils; often in valley saltbush or valley chenopod scrub.	Absent
Red Bluff dwarf rush	<i>Juncus leiospermus</i> <i>var. leiospermus</i>	FSC;--;1B	Chaparral, valley and foothill grassland, cismontane woodlands, vernal pools; vernal mesic sites; sometimes on edges of vernal pools.	Absent
Rose-mallow	<i>Hibiscus lasiocarpus</i>	--;--;2	Freshwater marshes and swamps; moist, freshwater-soaked river banks and low peat islands in sloughs (in California, known from the Delta watershed).	Present
Round-leaved filaree	<i>Erodium macrophyllum</i>	--;--;2	Cismontane woodland, valley and foothill grassland; clay soils.	Present
Scalloped moonwort	<i>Botrychium crenulatum</i>	FSC;--;2	Bogs and fens, meadows, lower montane coniferous forest, freshwater marsh; moist meadows, near creeks.	Absent
Slender Orcutt grass	<i>Orcuttia tenuis</i>	FT;CE;1B	Vernal pools.	Absent
Subtle orache	<i>Atriplex subtilis</i>	FSLC;--;1B	Valley and foothill grassland; little information available.	Absent
Upswept moonwort	<i>Botrychium ascendens</i>	FSC;--;2	Lower montane coniferous forest; grassy fields, coniferous woods near springs and creeks.	Absent

Valley sagittaria (=Sanford's arrowhead)	<i>Sagittaria sanfordii</i>	FSC;--;1B	Marshes and swamps; in standing or slow-moving freshwater ponds, marshes, and ditches.	Absent
Veiny monardella	<i>Monardella douglasii ssp. venosa</i>	FSC;--;1B	Valley and foothill grassland, cismontane woodland; in heavy clay; mostly with grassland associates (rediscovered in 1992).	Absent
White-stemmed (=whitestem) clarkia	<i>Clarkia gracilis ssp. albicaulis</i>	FSLC;--;1B	Chaparral, cismontane woodland; dry, grassy openings in chaparral or foothill woodland; sometimes on serpentine (endemic to Butte County).	Present
Invertebrates				
California linderiella fairy shrimp	<i>Linderiella occidentalis</i>	FSC;--;--	Seasonal pools in unplowed grasslands with alluvial soils underlain by hardpan or in sandstone depressions; water in the pools has very low alkalinity, conductivity, and total dissolved solids.	Absent
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE;--;--	Found in large, turbid pools; inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June (endemic to the grasslands of the northern two-thirds of the Central Valley).	Absent
Sacramento anthicid beetle	<i>Anthicus sacramento</i>	FSC;--;--	Inhabit sand slipfaces among bamboo and willow (restricted to sand dune areas of the Sacramento-San Joaquin Delta).	Absent
Sacramento Valley tiger beetle	<i>Cicindela hirticollis abrupta</i>	FSC;--;--	Open sandy areas; on sandy beaches; on open paths or lanes; larvae construct vertical tunnels in the ground.	Absent

Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT;--;--	In association with blue elderberry (<i>Sambucus mexicana</i>) typically found in riparian areas; prefers to lay eggs in elderberries two to eight inches in diameter; some preference shown for "stressed" elderberries (occurs only in the Central Valley of California).	Present
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT;--;--	In astatic rain-filled pools; inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools (endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains).	Absent
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE;--;--	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water; pools commonly found in grass bottomed swales of unplowed grasslands; some pools are mud-bottomed and highly turbid.	Absent
Fish				
Central Valley fall/late fall-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FC;CSC;XC	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries.	Present
Central Valley steelhead	<i>Oncorhynchus mykiss irideus</i>	FT;--;XP	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Present
Delta smelt	<i>Hypomesus transpacificus</i>	FT;CT;--	Sacramento-San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay; seldom found at salinities greater than 10 parts per trillion; most often at salinities less than 2 parts per trillion.	Absent

Green sturgeon	<i>Acipenser medirostris</i>	FP;CSC;--	Spawn in the Sacramento River and the Klamath River; spawn at temperatures between 8 to 14 degrees Celsius; preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Absent
Longfin smelt	<i>Spirinchus thaleichthys</i>	FSC;CSC;--	Euryhaline, nektonic, and anadromous; found in open waters of estuaries, mostly in the middle or bottom of water column; prefers salinities of 15 to 30 parts per trillion, but can be found in completely freshwater to almost pure seawater.	Absent
River lamprey	<i>Lampetra ayresi</i>	FSC;CSC;--	Lower Sacramento River, San Joaquin river and Russian River; may occur in coastal streams north of San Francisco Bay; adults need clean, gravelly riffles, ammocoetes need sandy backwaters or stream edges, good water quality and temperatures less than 25 degrees Celsius.	Absent
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	FSC;CSC;--	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes; slow moving river sections, dead end sloughs; requires flooded vegetation for spawning and foraging for young.	Absent
Spring-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FT;CT;XP	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel; water temperatures greater than 27 degrees Celsius lethal to adults; federal listing refers to populations spawning in Sacramento River and tributaries.	Present

Winter-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	FE;CE;X	Sacramento River below Keswick Dam; spawns in the Sacramento River but not in tributary streams; requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees Celsius for spawning.	Absent
Amphibians and Reptiles				
California red-legged frog	<i>Rana aurora draytonii</i>	FT;CSC;XP	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation; requires 11 to 20 weeks of permanent water for larval development; must have access to estivation habitat.	Present
California tiger salamander	<i>Ambystoma californiense</i>	FT;CSC;--	Species now listed as threatened statewide; populations in Santa Barbara and Sonoma Counties formerly listed as endangered; need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Absent
Cascades frog	<i>Rana cascadae</i>	FSC;CSC;--	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows; open coniferous forests; standing water required for reproduction; hibernates in mud on the bottom of lakes and ponds during the winter.	Absent
Coast (California) horned lizard	<i>Phrynosoma coronatum (frontale)</i>	FSC;CSC;--	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Absent

Foothill yellow-legged frog	<i>Rana boylei</i>	FSC;CSC;--	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats; needs at least some cobble-sized substrate for egg-laying; needs at least 15 weeks to attain metamorphosis.	Present
Giant garter snake	<i>Thamnophis gigas</i>	FT;CT;--	Prefers freshwater marsh and low gradient streams; has adapted to drainage canals and irrigation ditches; this is the most aquatic of the garter snakes in California.	Present
Mountain yellow-legged frog	<i>Rana muscosa</i>	FC;CSC;--	Federal listing refers to populations in the San Gabriel, San Jacinto, and San Bernardino Mountains only; always encountered within a few feet of water; tadpoles may require up to 2 years to complete their aquatic development.	Absent
Northwestern pond turtle	<i>Emys (=Clemmys) marmorata marmorata</i>	FSC;CSC;--	Associated with permanent or nearly permanent water in a wide variety of habitats; requires basking sites; nests sites may be found up to 0.5 kilometers from water.	Present
San Joaquin coachwhip (=whipsnake)	<i>Masticophis flagellum ruddocki</i>	FSC;CSC;--	Open, dry habitats with little or no tree cover; found in valley grassland and saltbush scrub in the San Joaquin Valley; needs mammal burrows for refuge and oviposition sites.	Absent
Western spadefoot toad	<i>Spea (=Scaphiopus) hammondi</i>	FSC;CSC;--	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands; vernal pools are essential for breeding and egg-laying.	Absent
Birds				

Aleutian Canada goose	<i>Branta canadensis leucopareia</i>	FD;--;--	(Wintering) Winters on lakes and inland prairies; forages on natural pasture or that cultivated to grain; loafs on lakes, reservoirs, ponds.	Absent
American bittern	<i>Botaurus lentiginosus</i>	FSC;--;--	Freshwater and slightly brackish marshes; also in coastal saltmarshes; dense reed beds.	Absent
American dipper	<i>Cinclus mexicanus</i>	FSLC;--;--	Rushing mountain streams and high-elevation lakes.	Present
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD;CE;--	(Nesting) Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures; nest consists of a scrape on a depression or ledge in an open site.	Present
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT;CE;--	(Nesting and Wintering) Ocean shore, lake margins, and rivers for both nesting and wintering; most nests within one mile of water; nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine; roosts communally in winter.	Present
Bank swallow	<i>Riparia riparia</i>	--;CT;--	(Nesting) Colonial nester; nests primarily in riparian and other lowland habitats west of the desert; requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Present
Barrow's goldeneye	<i>Bucephala islandica</i>	--;CSC;--	(Nesting) Breeds in high central and northern Sierra Nevada Mountains, near wooded mountain lakes or large streams; nest in tree cavities, such as a deserted nest-hole of a pileated woodpecker or flicker, also use nest boxes.	Present

Black swift	<i>Cypseloides niger</i>	FSC;CSC;--	(Nesting) Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely (coastal belt of Santa Cruz and Monterey Counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains).	Absent
California gull	<i>Larus californicus</i>	--;CSC;--	(Nesting Colony) Littoral waters, sandy beaches, waters and shorelines of bays, tidal mud-flats, marshes, lakes, etc.; colonial nester on islets in large interior lakes, either fresh or strongly alkaline.	Present
California spotted owl	<i>Strix occidentalis occidentalis</i>	FSC;CSC;--	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods; canopy closure greater than 40 percent; most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	Absent
California thrasher	<i>Toxostoma redivivum</i>	FSC;--;--	Chaparral.	Absent
Ferruginous hawk	<i>Buteo regalis</i>	FSC;CSC;--	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; mostly eats lagomorphs, ground squirrels, and mice; population trends may follow lagomorph population cycles.	Absent
Flammulated owl	<i>Otus flammeolus</i>	FSC;--;--	Coniferous woodlands and forest edges in the northwest; dry ponderosa pine woods in the southwest.	Absent

Great blue heron	<i>Ardea herodias</i>	--;--;--	(Rookery) Colonial nester in tall trees, cliffsides, and sequestered spots on marshes; rookery sites in close proximity to foraging areas; marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Present
Greater sandhill crane	<i>Grus canadensis tabida</i>	--;CT;--	(Nesting and wintering) Nests in wetland habitats in northeastern California; winters in the Central Valley; prefer grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loaf sites.	Absent
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	FSC;--;--	(Nesting) Nests in open oak or other arid woodland and chaparral, near water; nearby herbaceous habitats used for feeding; closely associated with oaks.	Present
Lewis' woodpecker	<i>Melanerpes lewis</i>	FSC;--;--	Dry open woods, orchards, farmlands, foothills.	Present
Little willow flycatcher	<i>Empidonax traillii brewsteri</i>	--;CE;--	(Nesting) Inhabits extensive thickets of low, dense willows on the edge of wet meadows, ponds, or backwaters; requires dense willow thickets for nesting/roosting; low, exposed branches are used for singing posts/hunting perches.	Present
Loggerhead shrike	<i>Lanius ludovicianus</i>	FSC;CSC;--	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes; prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Present

Long-billed curlew	<i>Numenius americanus</i>	FSC;CSC;--	(Nesting) Breeds in upland shortgrass prairies and wet meadows in northeastern California; habitats on gravelly soils and gently rolling terrain are favored over others.	Absent
Northern goshawk	<i>Accipiter gentilis</i>	FSC;CSC;--	(Nesting) Within and in vicinity of coniferous forest; uses old nests, and maintains alternate sites; usually nests on north slopes, near water; red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Absent
Northern harrier	<i>Circus cyaneus</i>	--;CSC;--	(Nesting) Coastal salt and fresh-water marsh; nest and forage in grasslands, from salt grass in desert sink to mountain cienagas; nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Absent
Nuttall's woodpecker	<i>Picoides nuttallii</i>	FSLC;--;--	Shrublands, streamsides, and oak woodlands.	Present
Oak (plain) titmouse	<i>Baeolophus (Parus) inornatus</i>	FSLC;--;--	Broadleafed woodlands; sparse pinyon-juniper and oak woodlands.	Present
Olive-sided flycatcher	<i>Contopus cooperi</i>	FSC;--;--	(Nesting) Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine; most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes, or other terrain.	Absent
Osprey	<i>Pandion haliaetus</i>	--;CSC;--	(Nesting) Ocean shore, bays, fresh-water lakes, and larger streams; large nests built in tree-tops within 15 miles of good fish-producing body of water.	Present

Red-breasted sapsucker	<i>Sphyrapicus ruber</i>	FSC;--;--	Moist woodlands.	Present
Rufous hummingbird	<i>Selasphorus rufus</i>	FSC;--;--	(Nesting) Breeds in transition life zone of northwest coastal area from Oregon border to southern Sonoma County; nests in berry tangles, shrubs, and conifers; favors habitats rich in nectar-producing flowers.	Absent
Swainson's hawk	<i>Buteo Swainsoni</i>	--;CT;--	(Nesting) Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah; requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	Present
Tricolored blackbird	<i>Agelaius tricolor</i>	FSC;CSC;--	(Nesting colony) Highly colonial species, most numerous in Central Valley and vicinity; largely endemic to California; requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Absent
Vaux's swift	<i>Chaetura vauxi</i>	FSC;CSC;--	(Nesting) Redwood, Douglas fir, and other coniferous forests; nests in large hollow trees and snags; often nests in flocks; forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Present
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	FSC;CSC;--	(Burrow sites) Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Absent

Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FC;CE;--	(Nesting) Riparian forest nester, along the broad, lower flood-bottoms of larger river systems; nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Present
White-faced ibis	<i>Plegadis chihi</i>	FSC;CSC;--	(Rookery Site) Shallow fresh-water marsh; dense tule thickets for nesting interspersed with areas of shallow water for foraging.	Absent
White-headed woodpecker	<i>Picoides albolarvatus</i>	FSC;--;--	Ponderosa pine belts of the mountains; also in subalpine belts of firs.	Absent
White-tailed (=black-shouldered) kite	<i>Elanus leucurus</i>	FSC;--;--	(Nesting) Rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland; open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Present
Yellow-breasted chat	<i>Icteria virens</i>	--;CSC;--	(Nesting) Summer resident, inhabits riparian thickets of willow and other brushy tangles near watercourses; nests in low, dense riparian, consisting of willow, blackberry, and wild grape; forage and nest within ten feet of the ground.	Present
Mammals				

Fisher	<i>Martes pennanti pacifica</i>	FC;CSC;--	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure; use cavities, snags, logs and rocky areas for cover and denning; need large areas of mature, dense forest.	Present
Fringed myotis bat	<i>Myotis thysanodes</i>	FSC;--;--	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer; uses caves, mines, buildings, or crevices for maternity colonies and roosts.	Present
Greater western mastiff-bat	<i>Eumops perotis californicus</i>	FSC;CSC;--	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Present
Long-eared myotis bat	<i>Myotis evotis</i>	FSC;--;--	Found in all brush, woodland, and forest habitats from sea level to about 9,000 feet; prefers coniferous woodlands and forests; nursery colonies in buildings, crevices, spaces under bark, and snags; caves used primarily as night roosts.	Present
Long-legged myotis bat	<i>Myotis volans</i>	FSC;--;--	Most common in woodland and forest habitats above 4,000 feet; trees are important day roosts, caves and mines are night roosts; nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	Present
Marysville Heermann's kangaroo rat	<i>Dipodomys californicus eximius</i>	FSC;CSC;--	Friable soil, grass-forb stages of chaparral (known only from the Sutter Buttes area).	Absent

Pacific (=Townsend's) western big-eared bat	<i>Corynorhinus (=Plecotus) townsendii townsendii</i>	FSC;CSC;--	Humid coastal regions of Northern and Central California; roost in limestone caves, lava tubes, mines, buildings, etc.; will only roost in the open, hanging from walls and ceilings; roosting sites limiting; extremely sensitive to disturbance.	Absent
Pale Townsend's big-eared bat	<i>Corynorhinus (=Plecotus) townsendii pallescens</i>	FSC;CSC;--	Lives in a wide variety of habitats but most common in mesic sites; need appropriate roosting, maternity, and hibernacula sites free from human disturbance.	Present
San Joaquin pocket mouse	<i>Perognathus inornatus inornatus</i>	FSC;--;--	Typically found in grasslands and blue oak savannas; need friable soils.	Absent
Sierra Nevada snowshoe hare	<i>Lepus americanus tahoensis</i>	FSC;CSC;--	Boreal riparian areas in the Sierra Nevada; thickets of deciduous trees in riparian areas and thickets of young conifers.	Present
Silver-haired bat	<i>Lasiorycteris noctivagans</i>	--;CSC;--	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas; roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks; needs drinking water.	Present
Small-footed myotis bat	<i>Myotis ciliolabrum</i>	FSC;--;--	Rock outcrops, open grasslands, canyons, woodlands; roosts in cracks, crevices in cliffs, beneath tree bark, in mines or caves, and the occasional human dwelling.	Present
Spotted bat	<i>Euderma maculatum</i>	FSC;CSC;--	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests; feeds over water and along washes; needs rock crevices in cliffs or caves for roosting.	Present

Yuma myotis bat	<i>Myotis yumanensis</i>	FSC;--;--	Optimal habitats are open forests and woodlands with sources of water over which to feed; distribution is closely tied to bodies of water; maternity colonies in caves, mines, buildings, or crevices.	Present
Critical Habitat				
Great Valley Cottonwood Riparian Forest	NA	X	Great valley cottonwood riparian forest.	Present
Great Valley Willow Scrub	NA	X	Great valley willow scrub.	Present
Northern Basalt Flow Vernal Pool	NA	X	Northern basalt flow vernal pool.	Absent
Northern Hardpan Vernal Pool	NA	X	Northern hardpan vernal pool.	Absent
Northern Volcanic Mud Flow Vernal Pool	NA	X	Northern volcanic mud flow vernal pool.	Absent

**Notes*

- No status to date
- 1B CNPS listed rare, threatened, or endangered plants in California or elsewhere
- 2 CNPS listed rare, threatened, or endangered plants in California, but more common elsewhere
- 3 CNPS listed plants that need more information
- 4 CNPS listed plants with limited distribution
- CE California endangered
- CNPS California Native Plant Society
- CR California rare
- CSC California species of concern
- CT California threatened
- FC Federal candidate
- FD Federal delisted; species will be monitored for five years
- FE Federal endangered
- FP Federal proposed; officially proposed (in the Federal Register) for listing as endangered or threatened
- FSC Federal species of concern
- FSLC Species of local concern identified by the USFWS
- FT Federal threatened
- NA Not applicable
- USFWS United States Fish and Wildlife Service
- X Critical habitat (including specific species designations)
- XC Candidate critical habitat
- XP Proposed critical habitat

SENSITIVE HABITATS

Sensitive habitats include a) features of special concern to resource agencies, b) features protected under CEQA, c) features designated as sensitive natural communities by DFG, d) features outlined in Section 1600 of the California Fish and Game Code, and e) features protected under local regulations and policies. At the project site, riparian habitat and the Feather River are considered sensitive habitats under CEQA. For reasons other than their identification as sensitive habitats, they are potential constraints on development.

JURISDICTIONAL WATERS

Jurisdictional waters, as defined in Section 404 of the federal Clean Water Act (see 2.0, Regulatory Framework), include lakes, rivers, streams, wetlands, and natural ponds. The Feather River is a jurisdictional water that may be impacted with implementation of the proposed project, depending on the final design plans. Since a Section 404 permit is required before any fill or dredge activities can take place within a jurisdictional water, its presence is a potential constraint on development.

WILDLIFE CORRIDORS

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to a) sustain species with specific foraging requirements, b) preserve a species' distribution potential, and c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource. Anadromous fish use the Feather River, which occurs within the project boundaries, for seasonal spawning. Impacts to the Feather River through implementation of the Oroville Riverfront Improvements Plan would significantly adversely affect anadromous fish runs.

2.0 REGULATORY FRAMEWORK

This section lists specific environmental review and consultation requirements and identifies permits and approvals that must be obtained from local, state, and federal agencies before construction of the proposed project.

FEDERAL

Endangered Species Act

Provisions of the Federal Endangered Species Act (FESA), as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take. "Take" under FESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The

USFWS regulations define harm to include some types of “significant habitat modification or degradation.” The U.S. Supreme Court ruled on June 29, 1995, that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” For projects with a federal nexus, Section 7 of the FESA requires that federal agencies, in consultation with USFWS or NOAA Fisheries, use their authorities to further the purpose of FESA and to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Section 10(a)(1)(B) allows non-federal entities to obtain permits for incidental taking of threatened or endangered species through consultation with USFWS or NOAA Fisheries.

Clean Water Act, Section 404

The objective of the Clean Water Act (CWA 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters. Discharge of fill material into “waters of the U.S.” including wetlands, is regulated by the U.S. Army Corps of Engineers (ACOE) under Section 404 of the federal Clean Water Act (33 USC 1251-1376). ACOE regulations implementing Section 404 define “waters of the U.S.” to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3; 40 CFR 230.3). The placement of structures in “navigable waters of the U.S.” is also regulated by the ACOE under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are permitted under either individual or general (e.g., nationwide) permits. Specific applicability of permit type is determined by the ACOE on a case-by-case basis.

In 1987 the ACOE published a manual that standardized the manner in which wetlands were to be delineated nationwide. To determine whether areas that appear to be wetlands are subject to ACOE jurisdiction (i.e., are “jurisdictional” wetlands), a wetlands delineation must be performed. Under normal circumstances, positive indicators from three parameters, (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to classify a feature as a jurisdictional wetland. In addition to verifying wetlands for potential jurisdiction, the ACOE is responsible for the issuance of permits for projects that propose filling of wetlands. Any permanent loss of a jurisdictional wetland as a result of project construction activities is considered a significant impact.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The vast majority of

birds found in the study area are protected under the MBTA. Thus, project construction has the potential to directly take nests, eggs, young or individuals of these protected species. Further, construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to the abandonment of nests, a violation of the MBTA.

Bald Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

STATE

California Endangered Species Act

Under CESA, DFG has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code 2070). DFG maintains a list of "candidate species" which are species that DFG formally notices as being under review for addition to the list of endangered or threatened species. DFG also maintains lists of "species of special concern" which serve as species "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, DFG encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 206.591. Authorization from DFG would be in the form of an Incidental Take Permit.

California Regional Water Quality Control Board

Clean Water Act, Section 401 Water Quality Certification

Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent

limitations and water quality standards. The appropriate Regional Water Quality Control Board (in California) regulates section 401 requirements.

California Department of Fish and Game

STREAMBED ALTERATION AGREEMENT (SECTIONS 1600-1607 OF THE CALIFORNIA FISH AND GAME CODE)

State and local public agencies are subject to Section 1602 of the California Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the DFG. Under Section 1602, a discretionary Stream Alteration Agreement permit from the DFG (Region 2 for the proposed project) must be issued by the DFG to the project developer prior to the initiation of construction activities within lands under DFG jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

NATIVE PLANT PROTECTION ACT

The Native Plant Protection Act (*California Fish and Game Code Section. 1900-1913*) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by DFG). An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify DFG and give that state agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed (*Fish and Game Code, § 1913* exempts from take prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way”). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

BIRDS OF PREY

Under *Section 3503.5 of the California Fish and Game Code* it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

“FULLY PROTECTED” SPECIES

California statutes also accord “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. Section 3505 of the California Fish and Game Code makes it unlawful to take “any egret or egret, osprey, bird of paradise, gaura, numidi, or any part

of such a bird.” Section 3511 protects from take the following “fully protected birds”: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle; (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

California Fish and Game Code Section 4700 identifies the following “fully protected mammals” that cannot be taken: (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (d) Guadalupe fur seal (*Arctocephalus townsendi*); (e) ring-tailed cat (genus *Bassariscus*); (f) Pacific right whale (*Eubalaena sieboldi*); (g) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (h) southern sea otter (*Enhydra lutris nereis*); and (i) wolverine (*Gulo gulo*).

Fish and Game Code Section 5050 protects from take the following “fully protected reptiles and amphibians”: (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

Fish and Game Code Section 5515 also identifies certain “fully protected fish” that cannot lawfully be taken even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinodon radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperimus*).

LOCAL

City of Oroville General Plan

The City of Oroville General Plan identifies specific objectives, policies, and programs regarding natural resources. Biotic resources objectives outlined in the General Plan are as follows:

- 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.

- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as “species of special concern” that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11e Through creative design recognize and enhance the links between biotic resources throughout the Oroville Planning Area and the desired life styles the Oroville community offers.
- 6.11f Search for and acquire State, Federal and foundation funding to preserve, protect, and enhance riparian and wildlife corridors connecting Blue Oak and other oak woodland habitat areas, vernal pools, the Feather River and other significant drainages, the Oroville Wildlife Area, South Table Mountain, Migratory and Resident Deer movement corridors, Areas of Special Biological Importance, Key Wildlife Areas, Unique Natural Areas mapped by the DFG and Butte County, wilderness areas such as the Plumas Forest to the east, and other open space areas that function as habitat.
- 6.11g Search for and acquire State, Federal and foundation funding to preserve, promote, restore, protect and enhance riparian corridors throughout the Planning Area.
- 6.11h Support a multi-use concept for riparian corridors that incorporates open space, aesthetic, habitat, and wildlife corridor values, while addressing the social, cultural, flood control and recreational needs of the Greater Oroville Community.
- 6.11i Where feasible, landscape public open space areas using native vegetation, to provide habitat for local species.
- 6.11j Encourage the Department of Water Resources to maintain water levels in State Water Project facilities, including Lake Oroville, to optimize protection of fisheries and other biotic resources, preserve open water as open space, and maximize recreational opportunities per the Department of Water Resources Bulletin 117-6, in addition to ensuring power generation, flood control, and water supply.

- 6.11k Encourage the DFG to manage and maintain the Oroville Wildlife Refuge for multiple uses, while protecting property values on land adjacent to the refuge.

Biotic resources implementing policies outlined in the General Plan are as follows:

- 6.11l Work toward the preparation of a Master Biotic Data Base for the Planning Area. Such a Data Base may include the following:

- An inventory of listed and common species;
- Locations of habitat and natural communities, including mapping of native woodlands throughout the Planning Area; and
- Confirmation of alignments and significance of riparian and wildlife corridors;
- Species management plans, where relevant.
- Agricultural fields and groves which may be of significant economic or habitat value to the community.

The above referenced Data Base may be prepared at a time certain through a city-wide effort, or through an incremental compilation of project/site specific studies and surveys.

- 6.11m Strive to minimize loss of wetland value or acreage consistent with the needs of wildlife and humans. Utilize mitigation banking (if available) to offset impacts to wetlands.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11p If sensitive plants are found to be located within a development site the developer shall be informed that he must mitigate project impacts in accordance with State Law.

Examples of mitigation may include:

- Establishing setbacks from the outer edge of the plant population area;

- Prohibiting livestock grazing or drainage into the setback and plant population areas;
 - Construction of barriers to prevent compaction damage by foot or vehicular traffic.
- 6.11q Work with the Oroville Mosquito Abatement District and the Butte County Mosquito Abatement District to ensure that preservation, pre-planning and design of water features is coordinated with acceptable disease vector control measures.
- 6.11r Plan for freeway and arterial street undercrossings where necessary to effectively preserve wildlife corridors.
- 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
- 6.11t Work with Butte County to coordinate the maintenance of open space, habitat preservation, and mineral extraction at or near South Table Mountain.
- 6.11u Coordinate mineral resource extraction with habitat preservation and protection of plant and animal species where appropriate.
- 6.11v Work with Butte County and the DFG to ensure the continued presence and appropriate numbers of Migratory and Resident Deer in the Planning Area, by preserving habitat and movement corridors.
- 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
- 6.11x Encourage the coordinated design of large projects to preserve onsite open space, cluster development (where feasible), and conserve significant habitats that have been identified in the project area.
- 6.11y Make information available to interested parties concerning the presence and condition of species of special status.
- 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.
- 6.11z.1 Continue to build the “urban forest” by implementing the Master Street Tree Plan (with amendments), revising the City’s Official Street Tree List as needed to incorporate additional appropriate cultivars, and implementing

the City's Tree Ordinance (Number 1174) and Street Tree Planting Standards.

6.11z.2 Develop a plan to enhance individual oaks, oak woodlands and other tree groups throughout the Planning Area. The Plan will provide options for the management of oaks and other tree resources.

6.11z.3 Development proposals on sites that contain significant oak woodlands and related habitat will require the preparation of a site specific tree management and preservation report by a certified arborist or landscape architect. This report shall include recommendations for the retention of healthy mature trees where feasible and promote the concept of oak regeneration corridors within the project design.

The final project design should incorporate City of Oroville General Plan policies and standards.

3.0 IMPACTS AND CONSTRAINTS

A brief discussion of potential impacts and constraints associated with biological resources related to the Oroville Riverfront Improvements Plan is included in the following sections. Once project design plans are finalized, a comprehensive assessment of impact as well as related mitigation should be completed.

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on the CEQA Guidelines (Appendix G) and previous standards used by the City. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, endangered, threatened, or other special status in local or regional plans, policies and regulations, or by the DFG or USFWS;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations, or by the DFG or USFWS;
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, coastal, riverine, stream, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local polices or ordinances protecting biological resources, such as a tree preservation policy;
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
7. Substantially reduce the habitat of a fish, wildlife, or plant species or cause a species to drop below self-sustaining levels; or
8. Directly affect species protected under provisions of the Migratory Bird Treaty Act.

An evaluation of the significance of potential impact on biological resources must consider both direct effects to the resource as well as indirect effect in a local or regional context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially effect the resource on a population-wide or region-wide basis.

METHODOLOGY

Available information pertaining to biological resources in the general project area was reviewed during this analysis, including (but not limited to):

- Aerial photography of the project location;
- City of Oroville General Plan (1995);
- CNPS, Inventory of Rare and Endangered Plants for the topographic quadrangles Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee (2005);
- DFG, California Natural Diversity Database records for the Bangor, Berry Creek, Biggs, Cherokee, Hamlin Canyon, Oroville, Oroville Dam, Palermo, and Shippee topographic quadrangles (2003);
- DFG, California Wildlife Habitat Relationships database (2002);
- The Jepson Manual: Higher Plants of California (Hickman 1993);

- USFWS, list of Federal Endangered and Threatened Species that occur in or may be affected by projects in Butte County (August 2005);
- USGS, 7.5 minute Oroville topographic quadrangle.

SITE RECONNAISSANCE

Biologists working for Pacific Municipal Consultants performed a site reconnaissance of the project area on August 24, 2005. Field investigations included a general inspection of the project site to adequately characterize existing habitat with emphasis on areas potentially important for special status species. Data gathered during the site visit and subsequent research focused on identifying possible project limitations with respect to biological resources (within a regulatory framework) to be incorporated into the ultimate project design.

PROJECT IMPACTS AND CONSTRAINTS

Implementation of the Oroville Riverfront Improvements Plan has the potential to directly or indirectly affect biological resources as well as contribute to cumulative impacts. Potential impacts to biological resources can be temporary, long-term, or permanent depending on the affect of project activities on an individual resource.

Establishing constraints can likely reduce impact to sensitive biological resources from project activities that may otherwise require mitigation and/or permits to complete. Project constraints to reduce significant impact to individual special status species (flora and fauna) include, but are not limited to:

- *Eliminate the possibility of fill material entering the Feather River.* The project, if possible, should not involve fill material entering the Feather River. Fill material is defined as the introduction of any material that replaces any portion of an aquatic area or changes the bottom elevation of any portion of a water of the U.S., such as the Feather River. Proposed activities that involve the introduction of such materials, for example the addition of a fishing bridge or recontouring of the rivers' edge for improved fishing access, would require approval from the ACOE by obtaining the appropriate permit under the CWA. As part of the permitting process, consultation with the USFWS and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries Service) would be necessary regarding federally listed species in the project area. Implementation of the project and ultimate operation of new river facilities would likely be restricted based on the seasonal spawning of sensitive anadromous fish.
- *Manipulation of existing features on and north of the levee shall require consultation with various regulatory agencies depending on the proposed activity, for example:*

- A project design that includes activities within or below the ordinary high water mark of the Feather River, in addition to ACOE permitting (see above), would require approval by the DFG and Regional Water Quality Control Board (RWQCB). A DFG Section 1602 Streambed Alteration Agreement and RWQCB Section 401 certification under the CWA would be necessary for implementation of a project design that impacts the Feather River. Furthermore, the DWR would likely review and comment upon any action that has the potential to affect sensitive fisheries resources and Feather River Fish Hatchery operations.
- Under the California Fish and Game Code, the DFG has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake. At the project location, the top of the levee would be considered the top of the bank above the Feather River. Therefore, a Section 1602 Streambed Alteration Agreement would need to be obtained from the DFG for any project activity proposed to occur on top of the levee and northward to the study area boundary. To obtain an Agreement, the project applicant shall submit a formal application, processing fee, and appropriate California Environmental Quality Act (CEQA) document analyzing environmental impacts to the DFG.
- The USFWS has a responsibility for regulating activities within habitats of species listed as threatened or endangered under FESA. Both the riverine habitat of the Feather River and the adjacent riparian habitat are known to support or have the potential to support federally listed species (see Table 1). CEQA requires that impact, either directly or through habitat modification, to species identified as sensitive be analyzed within an environmental document and mitigated to less than significant where possible. Depending upon the scope of proposed activities at the project location, the applicant would be required to (at a minimum) perform presence/absence surveys for listed species prior to habitat disturbance or (at most) prepare a Habitat Conservation Plan in coordination with the USFWS for incidental "take." In general, a greater loss of habitat or a more invasive project design typically equates to a proportionate increase in the level of effort required for reducing impact to special status species.
- Construction and/or removal or revegetation activities within the project area would need to occur in a manner that did not compromise the integrity of the levee. Early consultation/coordination with agencies such as the ACOE, who may permit the project (under the Clean Water Act), would likely be necessary for project implementation due to the sensitivity of the project location (on top of a levee).

- *Designing the project to preserve riparian habitat along the Feather River.* Riparian habitat not only supports several special status species, but also is considered a sensitive natural community under CEQA. As such, any proposed impact to riparian habitat through project activities would need to be analyzed in an environmental document. Appropriate mitigation for loss of habitat would likely include the creation of an equal amount or greater of replacement habitat along the Feather River. The mitigation area would likely need monitoring (provided by the applicant) over time (typically five years) to ensure habitat success as well as need to be protected in perpetuity through a conservation easement.
- *Limit the number of trees that shall be removed from project implementation.* A tree survey performed by a certified arborist of any areas where the project proposes to remove vegetation would likely be necessary to determine the location and quality of tree resources identified as having special biological importance by the City of Oroville. An arborist report would include a catalog of trees within the area, their health, and classification (i.e., invasive or native species) as well as appropriate mitigation recommended for the trees proposed for removal. Replacement of trees and long-term monitoring (to ensure success of revegetation) would likely be necessary should the project design result in loss of important trees, such as oak (*Quercus* sp.).
- *Incorporate biologically-conscious alternatives into the final project design, such as:*
 - Use of 'Best Management Practices' to prevent run-off of potential fill material.
 - Determine (through consultation with the DFG and USFWS) the time of year when construction activities in and near riparian areas and the Feather River will have the least impact to migrating biological resources (i.e., anadromous fish and migratory birds). Plan to implement project activities during that timeframe.
 - Consider alternative lighting that will have the least impact to nocturnal species in the area, such as silver-haired bats.
 - Coordinate with the DFG, USFWS, and City of Oroville departments to determine an operating schedule for new recreational areas on the levee and the Feather River, if applicable. Design a long-term plan for policing the recreation areas and possibly prohibiting public access to the levee after sundown and/or to the river during sensitive times of year for spawning fish.
- *Maintain consistency with City of Oroville General Plan by implementing required policies regarding biological resources, such as:*
 - 6.11a Through imaginative design, minimize the disruption of wildlife and valued habitat throughout the Planning Area.

- 6.11b Encourage the preservation and protection of all listed State and Federal Rare, Threatened and Endangered Species (as is most practical for the City of Oroville), that are verified onsite or within the project area.
- 6.11c To the extent reasonable, provide protection through imaginative design and/or mitigation for those species identified by the DFG as “species of special concern” that are found to occur within specific development project limits or are affected by specific development proposals.
- 6.11d To the extent reasonable, preserve, protect, and enhance natural communities of special status.
- 6.11n Require a biological assessment of any proposed project site where species or the habitat of species defined as Rare, Threatened, or Endangered are believed to be present.
- 6.11o Require an appropriately sized buffer on each side of a riparian corridor, stream, wetland, pond, or lake, and a site specific analysis (as appropriate).
- 6.11s Coordinate with the DFG to ensure the ongoing operation of the Feather River Fish Hatchery.
- 6.11w Work with the DFG to ensure the preservation and enhancement of species of resident and anadromous fish along the Feather River, in Lake Oroville, and throughout the Planning Area.
- 6.11z Coordinate trails with preservation of habitat and protection of species sensitive to human intrusion.

4.0 CONCLUSION

In conclusion, the Oroville Riverfront Improvements Plan has the potential to significantly impact biological resources. The presence of these biological resources may pose potential constraints, as many of these resources are protected under various federal, state and local laws, policies and regulations. Potential constraints include the following: No other significant constraints related to biological resources were identified. Through early coordination with regulatory agencies, creative project design, and implementation of appropriate mitigation measures, impacts to biological resources will likely be reduced to a less than significant level.

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ATTACHMENT D

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URBEMIS 2002 For Windows 8.7.0

File Name: U:\Projects\Oroville Riverfront\Air Quality\Riverfront.urb
 Project Name: Riverfront
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	8.93	57.19	75.39	0.00	2.22	2.21	0.01

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	5.69	38.69	43.54	0.00	1.52	1.52	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.12	0.00	0.78	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	3.78	6.70	47.72	0.05	4.47

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	3.91	6.70	48.50	0.05	4.47

URBEMIS 2002 For Windows 8.7.0

File Name: U:\Projects\Oroville Riverfront\Air Quality\Riverfront.urb
 Project Name: Riverfront
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: February, 2007
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	8.81	56.90	72.59	-	2.20	2.20	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.12	0.29	2.80	0.00	0.02	0.01	0.01
Maximum lbs/day	8.93	57.19	75.39	0.00	2.22	2.21	0.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.15	31.68	30.72	-	1.41	1.41	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	4.15	31.68	30.72	0.00	1.41	1.41	0.00
Max lbs/day all phases	8.93	57.19	75.39	0.00	2.22	2.21	0.01
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.15	30.14	31.84	-	1.29	1.29	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.14	-	-	-	-	-	-
Asphalt Off-Road Diesel	1.34	7.78	11.40	-	0.21	0.21	0.00
Asphalt On-Road Diesel	0.04	0.76	0.15	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.01	0.01	0.15	0.00	0.00	0.00	0.00
Maximum lbs/day	5.69	38.69	43.54	0.00	1.52	1.52	0.00
Max lbs/day all phases	5.69	38.69	43.54	0.00	1.52	1.52	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: Feb '07
 Phase 2 Duration: 1.3 months
 On-Road Truck Travel (VMT): 0
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Crawler Tractors	143	0.575	8.0
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
 Start Month/Year for Phase 3: Mar '07
 Phase 3 Duration: 10.7 months
 Start Month/Year for SubPhase Building: Mar '07
 SubPhase Building Duration: 10.7 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '07
 SubPhase Architectural Coatings Duration: 1.1 months
 Start Month/Year for SubPhase Asphalt: Jan '08
 SubPhase Asphalt Duration: 0.5 months
 Acres to be Paved: 0.6
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth - No summer emissions					
Landscaping	0.12	0.00	0.78	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.12	0.00	0.78	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	3.78	6.70	47.72	0.05	4.47
TOTAL EMISSIONS (lbs/day)	3.78	6.70	47.72	0.05	4.47

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		20.00 trips/acres	21.00	420.00
			Sum of Total Trips	420.00
			Total Vehicle Miles Traveled	2,942.10

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00
Motor Home	1.40	14.30	78.60	7.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

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Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

ATTACHMENT E

INTRODUCTION AND STUDY PARAMETERS

INTRODUCTION

This report presents an analysis of the potential traffic impacts that would be associated with the development of the Oroville Centennial Plaza and the larger Oroville Riverfront Improvement Project along Arlin Rhine Drive on the south bank of the Feather River where it passes through Oroville. The traffic study was completed in accordance with standard criteria, and is consistent with standard traffic engineering techniques. Operating conditions were evaluated during the weekday evening peak period and weekend midday peak period under Existing Conditions and Future Conditions.

The purpose of the traffic section is to provide City staff and policy makers such as Planning Commissioners and Council Members with data that they can use to make an informed decision regarding the potential traffic impacts of the proposed Centennial Plaza and Riverfront Improvement Project and any associated improvements that would be required in order to mitigate these impacts to a level of less-than-significant as defined by the City's *General Plan* or other policies. Traffic impacts are typically evaluated by determining the number of trips the new use would be expected to generate, distributing the new trips to the surrounding street system based on existing travel patterns or anticipated travel patterns specific to the proposed project, and then by analyzing the impact the new traffic would be expected to have on critical intersections included in the study.

STUDY AREA

The study area consists of the Montgomery Street corridor and Feather River Boulevard-Arlin Rhine Drive along the Feather River Levee from State Route 70 (SR 70) on the west to Washington Avenue on the east and includes the following intersections:

1. Montgomery Street/Lincoln Street
2. Montgomery St./Feather River Blvd.
3. Montgomery Street/SR 70 NB Off-ramp
4. Montgomery Street/SR 70 SB Off-ramp

This Riverfront Planning Area is laid out in a traditional grid pattern, oriented in a north-south direction. Wide residential streets on small, 300-foot blocks separate the Feather River Levee and its recreational amenities from Montgomery Street and the downtown core. While the City's grid system provides a variety of travel routes for area residents between the levee and downtown, due to elevation changes and the river's curvature, only six streets (Feather River Boulevard, 5th Avenue, 1st Avenue, Lincoln Street, Huntoon Street, and Oliver Street) out of the thirteen blocks that make up the Riverfront Planning Area provide access to the Feather River Levee.

The Study Area is shown in Figure I.

Figure I



Figure I

Study Area

ORO001.a1 9/06

Oroville Riverfront Improvements Project

City of Oroville

EXISTING TRAFFIC CONDITIONS

EXISTING TRANSPORTATION NETWORK

Major Arterials

State Route 70 (SR 70) is the main north south highway in the vicinity of Oroville. SR 70, which bypasses Oroville on its west side, is a four-lane freeway that carries local, regional, and through traffic.

Montgomery Street (SR 70 Business Loop) is classified as a major east west arterial; it serves as Oroville's main thoroughfare through the Riverfront Planning Area, as well as a primary street in Oroville's downtown district. An interchange with SR 70 is provided at Montgomery Street. The arterial is generally two lanes with left-turn pockets available at the intersections of Feather River Boulevard, Oak Street, Lincoln Street, Huntoon Street, and Washington Avenue. Traffic signals provide traffic control at its intersections with Feather River Boulevard, Myers Street, and Washington Street.

Washington Avenue is a major north south arterial that marks the eastern edge of commercial activity in Oroville's downtown core. Washington Avenue connects from the old Feather River Bridge at Montgomery Street on the east side of the study area to Oroville Dam Boulevard south of the Riverfront Planning Area. There is currently a design process underway to install a roundabout at the intersection of Washington Avenue/Montgomery Street to replace the existing traffic signal.

Feather River Boulevard is a north south arterial that parallels SR 70 on its east side. Feather River Boulevard connects between Montgomery Street to Oroville Dam Boulevard and then to Bedrock Park on the western end of town.

Arlin Rhine Drive is a local street located on top of the Feather River Levee. It extends east from approximately 5th Street in Bedrock Park to approximately 250 feet past Oliver Street and varies in width from approximately 14 to 120 feet. The right-of-way consists of a mix of gravel and deteriorating pavement surfaces. The street serves parking needs at the levee; however, west of Lincoln Street the road right-of-way does not serve vehicular access.

Collector Streets and Connectors to Arlin Rhine Drive

1st Avenue is a north-south residential street that connects Montgomery Street to Arlin Rhine Drive.

5th Avenue is a north-south collector street that connects Montgomery Street to Feather River Boulevard at Bedrock Park.

Lincoln Street is a primary north-south arterial in the center of Downtown Oroville that provides a direct connection between Montgomery Street and Arlin Rhine Drive on the levee. Lincoln Street is a one-way couplet with Huntoon Street, which is located south of Montgomery Street; Lincoln Street carries southbound traffic while Huntoon Street serves northbound traffic.

Huntoon Street is a primary north-south arterial in the center of Downtown Oroville that provides a direct connection between Montgomery Street and Arlin Rhine Drive on the levee. Huntoon Street is the northbound portion of a one-way couplet south of Montgomery Street, with Lincoln Street being the southbound half of the couplet.

Oliver Street is a north-south local street that connects Montgomery Street to the eastern end of Arlin Rhine Drive.

Levee Connections. While Oroville's Riverfront Planning Area is laid out in a traditional grid pattern, those streets closest to the levee, including Broderick Street and Arlin Rhine Drive, deviate from the grid pattern due to curves in the Feather River and the change in elevation between the levee and the community below. Furthermore, portions of these streets do not include curb, gutter, and sidewalks, as do the remaining streets in the Riverfront Planning Area.

There are a number of local streets located between Montgomery Street and Arlin Rhine Drive that contribute to the Riverfront Planning Area's grid pattern. These local streets are generally 40 to 42 feet wide, with curb, gutter, and sidewalks. Streets located west of Pine Street, including Leah Court, Elma Street, Fig Al Street, 1st Avenue, 2nd Avenue, 3rd Avenue, 4th Avenue, 5th Avenue, Safford Street, Broderick Street, and Hemstock Court, are predominantly residential. The streets east of Pine Street, including Oak Street, Lincoln Street, Huntoon Street, Myers Street, Oliver Street, and portions of Safford and Broderick Street, contain a mix of civic, commercial, and industrial activities.

PEDESTRIAN FACILITIES

Curb, Gutter and Sidewalks

Curb, gutter and sidewalk facilities are present along Montgomery Street through the project study area. Sidewalk widths vary through the corridor, but generally range from approximately 5 feet outside of downtown to as much as 15 feet within the downtown core where sidewalks are paved with a mix of decorative pavers and colored concrete. Throughout the corridor, sidewalks are lighted by streetlights and/or pedestrian scale lighting, and are separated from the roadway by street trees and planter strips.

Aside from Montgomery Street, curbs, gutters and sidewalks are found along most streets in the Riverfront Planning Area, with the exception being those streets on and at the base of the levee, including Feather River Boulevard, Arlin Rhine, and Broderick Street.

CROSSWALKS

Crosswalks are primarily located on arterials in the study area. Along Montgomery Street in the downtown district, crosswalks are paved with decorative treatments and crossing distances are shortened with bulb outs at Oak, Lincoln, Huntoon, and Myers Streets. West of the downtown district, striped crosswalks are provided at Pine Street, 1st, 2nd, 3rd, 4th, and 5th Avenues, as well as Feather River Boulevard. East of the downtown District, striped crosswalks are provided at the intersection of Montgomery Street/Washington Avenue.

Curb and Pedestrian Ramps

Driveway aprons are present at each of the driveways on Montgomery Street in the study area, and pedestrian ramps are present at the corners of most intersections. In addition to Montgomery Street, ramped curbs and pedestrian ramps are found in most locations, with the exception of the streets that are located on the levee, including Broderick Street, Arlin Rhine Drive, and portions of 1st Avenue, 5th Avenue, Lincoln Street, Huntoon Street, and Oliver Street.

Bicycle Facilities

While bicycles are used for transportation and recreation throughout Oroville, no existing on-street bicycle facilities were identified in the project area. The Oroville Bicycle Trail, a 2.5-mile Class I multi-use trail, is located along the southern bank of the Feather River. The Oroville Bicycle Trail, which extends through Riverbend and Bedrock Parks, offers scenic views the Feather River and is part of the larger 41-mile Freeman Bicycle Trail, which loops around the Oroville Dam and Thermalito Afterbay.

Transit Facilities

Local and regional fixed route transit in Oroville is provided by Butte Regional Transit's B-Line. The Butte Regional Transit (B-Line) system, which began service in July 2005, was consolidated from several local transit providers. Routes 20 and 31, which provide regional service to the communities of Chico and Paradise respectively, pass through the northeast corner of the Riverfront Planning Area on Montgomery Street. All-weather bus shelters are provided at select transit stops in the study area.

Greyhound Bus Lines, which has a stop on Oroville Dam Road, provides daily interregional and interstate service.

On-Street Parking Activity

On-street parallel parking is permitted along most of the roadways throughout the study area. Parking demand varies by use. Parking demand in the downtown is high. Parking demand throughout the residential portions of the study area is generally low. Parking is widely available for visitors at Bedrock Park and along Arlin Rhine Drive.

Intersection Level of Service Methodologies

The current Circulation Element in the Oroville General Plan references Level of Service Standards based on a volume-to-capacity (V/C) methodology. In the traffic engineering community, the V/C criteria has been replaced by a methodology based on delay which is provided in the *Highway Capacity Manual* by the Transportation Research Board.

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

For the purposes of this project, methodologies from the *Highway Capacity Manual* (HCM) 2000, Transportation Research Board, 2000, were used. The HCM contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. The ranges of delay associated with the various levels of service are indicated in Table I. These methodologies were used so that the general public would be able to assess the benefits of various alternatives more easily based on their understanding of the amount of delay that would be incurred.

Table 1

Intersection Level of Service Criteria

LOS	Unsignalized Intersections	Signalized Intersections
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase; so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway Capacity Manual*, Transportation Research Board, 2000.

The Levels of Service for the intersections with side street stop controls, or those that are unsignalized, were analyzed using the unsignalized intersection capacity method from the HCM. This method determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle as well as the intersection level of service overall.

The signalized methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay in seconds per vehicle is used as the basis for evaluation in this LOS methodology.

Traffic Operation Standards

The Butte County Association of Governments' (BCAG) Congestion Management Program (CMP) establishes LOS standards for street segments. While the CMP has adopted LOS D as its standard, BCAG recognizes that individual jurisdictions may choose a higher level.

For the purposes of this analysis, the Caltrans' significance criteria was used to evaluate the study intersections. In the *Guide for the Preparation of Traffic Impact Studies*, Caltrans indicates that they endeavor to maintain operation at the transition from LOS C to LOS D, however, where operation is already below LOS C, the existing measure of effectiveness should be maintained. For intersections, this means that the existing control delay should be maintained. Under this criteria, any increase in delay would therefore result in a significant impact. Since this approach results in impacts that are deemed significant for even a small change in operating conditions, staff at Caltrans was consulted. The issue of

applying this standard was discussed with Mr. Marc Birnbaum, the Statewide Advisor for Local Development and Traffic Impact Studies. Mr. Birnbaum indicated that for intersections, the standard is to be applied to the overall average intersection delay, *not* that associated with any single movement or approach.

Existing Intersection Operation

Intersections along the Montgomery Street corridor were evaluated to determine existing operating conditions. The analysis focused on the intersections with Lincoln Street, Feather River Boulevard and the SR 70 ramps. These intersections would be expected to experience increased traffic with enhanced activity along the Riverfront area. Although other intersections along Montgomery Street provide access to the levee road, Lincoln Street was selected as a sample access location to assess impacts.

Traffic counts were collected at the study intersections in September 2005. Based on these traffic counts, all stop-controlled movements at the study intersections are operating at LOS B, with overall intersection operation of LOS A or B, indicating acceptable conditions. The signalized intersection of Montgomery Street/Feather River Boulevard is operating at LOS C, which is also considered acceptable. Intersection level of service calculations are summarized in Table 2 and are attached.

Table 2
Summary of Intersection Levels of Service

Intersection <i>Approach</i>	Existing Conditions		Existing plus Riverfront Master Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street	1.2	A	1.6	A
<i>Southbound Lincoln Street</i>	<i>13.9</i>	<i>B</i>	<i>13.6</i>	<i>B</i>
2. Montgomery St./Feather River Blvd.	21.5	C	21.6	C
3. Montgomery Street/SR 70 NB Ramps	0.9	A	0.9	A
<i>Northbound Off-ramp</i>	<i>10.3</i>	<i>B</i>	<i>10.3</i>	<i>B</i>
4. Montgomery Street/SR 70 SB Ramps	10.6	B	10.7	B
<i>Southbound Off-ramp</i>	<i>11.8</i>	<i>B</i>	<i>11.9</i>	<i>B</i>

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

FUTURE BASE TRAFFIC CONDITIONS

The 2002 Butte County Association of Governments (BCAG) travel forecast model was used to assess potential growth in traffic volumes along the Montgomery Street corridor. BCAG's traffic model identifies total traffic volumes by road segment. Utilizing the BCAG's travel forecast model for the Year 2025, the Riverfront Planning Area is expected to experience an increase in traffic volumes of approximately 72 percent, or approximately 2.5 percent per year. The highest anticipated volumes are projected to occur along the western segments of Montgomery Street.

Assuming an increase of 72 percent along the Montgomery Street corridor, the study intersections were evaluated under the assumed Future 2025 base traffic volumes. Overall, the study intersections would be expected to operate at LOS C or better, indicating acceptable traffic conditions according to the applied standards. The stop-controlled southbound approach of Lincoln Street to Montgomery Street is expected to operate at a LOS F; however, traffic volumes on this approach would be very low, so have a minor influence on the level of delay to the intersection as a whole. The signalized intersection of Montgomery Street/Feather River Boulevard would be expected to continue operating at LOS C. Intersection level of service calculations are summarized in Table 3.

Table 3
Summary of Future PM Peak Hour Intersection Levels of Service

Intersection Approach	Future (2025) Conditions		Future (2025) plus Riverfront Master Plan	
	Delay	LOS	Delay	LOS
1. Montgomery Street/Lincoln Street	2.3	A	3.1	A
<i>Southbound Lincoln Street</i>	58.4	F	66.6	F
2. Montgomery St./Feather River Blvd.	24.3	C	24.5	C
3. Montgomery Street/SR 70 NB Ramps	1.1	A	1.1	A
<i>Northbound Off-ramp</i>	12.9	B	13.0	B
4. Montgomery Street/SR 70 SB Ramps	19.2	C	20.0	C
<i>Southbound Off-ramp</i>	22.5	C	23.6	C

Notes: Delay is in average number of seconds per vehicle; LOS = Level of Service

PROJECT TRAFFIC CONDITIONS

Master Plan

The Oroville Riverfront Final Concept Plan was approved for purposes of environmental analysis by the Oroville City Council on June 6, 2006. This Concept Plan includes a number of improvements on top of the Feather River levee and at its inland base along the south bank of the River as it passes by Oroville's downtown area. While the Master Plan also recommends a number of improvements along Montgomery Street, including a number of redevelopment projects and a new town square, this project description is limited to those improvements along the top of and at the base of the levee. These improvements include construction of Arline Rhine Drive, a continuous waterfront promenade with overlooks at the northern ends of key streets intersecting the levee, access stairways at the end of those streets to the top of the levee, Centennial Plaza in the center of the project, parking and landscape improvements along the top of the levee, and Veteran's Memorial Park at the eastern end of the planning area.

Phase I Improvements – Centennial Plaza

Centennial Plaza, which is to be constructed as a first phase of implementation of the Oroville Riverfront Improvements Project, is centered on top of the levee between the present terminuses of Oak Street and Lincoln Street. The approximately 2-acre Centennial Plaza area will be framed by Arlin Rhine Drive, which would dip closer to town on the inland edge of the levee to create the room for plaza improvements.

Among the improvements to the plaza are the following:

1. A circular 7,850 square foot hardscape plaza with a central interactive water feature including large boulders studded with bronze salmon. The plaza would have ornamental pavement and be framed by circular elevated planters, with curved pergola elements incorporated into the planters.
2. An undulating decomposed granite path approximately 580 feet long that would connect the Riverfront Promenade to the circular hardscape plaza.
3. An overlook structure perched on the edge of the levee, supported by pylons that would not encroach below the ordinary high-water flood mark of 160 feet in elevation. The overlook structure would be identical to the other overlook structures sited along the riverfront promenade.
4. As an adjunct to the path there would be semi-circular seating areas with curved planters, pergola shade structures, and large flat granite boulders for seating surrounded by clusters of trees to provide shade.
5. Two small rose gardens with orange trees in their centers at either end of Centennial Plaza sandwiched between the waterfront promenade and the decomposed granite path.
6. The stretch of the waterfront promenade at Centennial Plaza would be made of concrete with a decorative scoring pattern and would contain street trees alternating between the edge of curb and the back of walk.
7. Large areas of turf would flank either side of the circular hardscape plaza between the riverfront promenade and the decomposed granite paths.
8. The area at the top of the levee toward the river from the decomposed granite paths will be planted with native landscaping.
9. Two handicapped parking spaces on the landward side of Arlin Rhine Drive.

Circulation Improvements

1. *Arlin Rhine Drive.* Arlin Rhine Drive would be constructed as a one-way eastbound 16-foot wide paved access road that would traverse the top of the levee to Oliver Street where it would then become a 24-foot wide two-way carrier to Veteran's Memorial Park where it bends south to Montgomery Street.
2. *Downtown Transition connectors.* There would be two roads that would transition to the top of the levee from the end of Lincoln Street and Oak Street, a one-way southbound connector to Oak Street and a one-way northbound connector on Lincoln Street. These streets would also be 16 feet wide.
3. *Oliver Street Roundabout.* A roundabout would be provided at the northern end of Oliver Street to define the transition of Arlin Rhine Drive as a one-way eastbound connector to a two-way section of Arlin Rhine Drive east of Oliver Street.
4. *Safford Street.* Safford Street would eventually be closed to automobile traffic and become a linear plaza or pedestrian street between Pine and Oak Streets and Lincoln and Huntoon Streets. Huntoon Street between Safford and Montgomery Streets would also be closed to traffic and serve as a pedestrian facility. Safford Street between Oak and Lincoln Streets would be converted into a 16-foot wide one-way eastbound carrier.

Parking Improvements

A number of parking improvements are proposed with the Oroville Riverfront Master Plan, as follows

1. 85 diagonal parking spaces along the stretch of Arlin Rhine Drive between 5th Avenue and Oak Street.
2. 30 perpendicular parking spaces facing the levee and Rotary Park on Broderick Street between 2nd Avenue and 1st Avenue.
3. 59 perpendicular parking spaces on the north side of Broderick Street between 1st Avenue and Pine Street.
4. 37 diagonal parking spaces along the north side of Arlin Rhine Drive between Lincoln Street and Oliver Street.
5. 36 diagonal parking spaces in the reconfigured parking area just east of the Municipal Auditorium.
6. 56 perpendicular parking spaces between the end of Oliver Street and the Veteran's Memorial Park.

The parking areas would have ample landscaping to separate parking spaces.

OROVILLE RIVERFRONT PLAN TRIP GENERATION

Trip generation rates have long been an established tool used by traffic engineers and transportation planners to estimate the likely traffic activity of a future project. The resulting trip projections are used to evaluate the potential impacts of a single project or, when incorporated into large regional transportation models, to plan major transportation facilities such as freeways, bus, and rail transportation.

For purposes of estimating the number of trips that the proposed future uses would be expected to generate, Trip Generation, 7th Edition, 2003 by the Institute of Transportation Engineers (ITE) was used along with supplemental information from *Brief Guide of Vehicular Traffic Generation Rates Regional Parks*, San Diego Associations of Governments. These publications are standard references used by jurisdictions throughout the country, and are based on actual trip generation studies performed at numerous locations in areas of various populations.

Trip generation rates used for the Centennial Plaza and Riverfront Improvements were based on the “City Park” and “Regional Park” land uses. As shown in Table 4, the proposed project is expected to generate an average of 420 daily vehicle trips, which includes 17 a.m. peak hour trips and 34 p.m. peak hour trips. These projected trips represent the increase in traffic that the project would generate over existing trip levels.

**Table 4
Trip Generation Summary**

Land Use	Units	Daily		A.M. Peak Hour				P.M. Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
City Park	21 acres	20	420	0.8	17	9	8	1.6	34	17	17

Project Trip Distribution

The proposed project is anticipated to attract traffic from the greater residential areas in the region and from downtown Oroville. Based on existing traffic volumes and locations of residential areas, it was assumed that vehicle traffic to/from the project area would distribute as follows:

- SR-70 North – 20%
- SR-70 South – 20 %
- Montgomery Street West – 5 %
- Feather River Boulevard South – 10 %
- Lincoln Street-Huntoon Street – 25%
- Montgomery Street East – 20 %

For traffic inbound to the project from the west, there would be two routes to access the park: either via Arlin Rhine Drive or via Montgomery Street to Lincoln Street. These two routes were assumed to be utilized equally. All outbound traffic was assumed to use Lincoln Street, since Arlin Rhine Drive would be one-way eastbound.

Existing plus Project Intersection Conditions

The Existing plus Project Scenario presents an evaluation of the probable traffic impacts associated with adding project-generated traffic to existing volumes. Under these conditions, all of the study intersections are expected to continue operating acceptably at LOS C or better, both overall and on all approaches, with very minimal increase in delays. The Level of Service calculations are summarized in Table 2, and copies are provided in Appendix A.

FUTURE PLUS PROJECT INTERSECTION CONDITIONS

Future plus Project Conditions were evaluated by adding the project traffic to the projected future traffic volumes. Under these conditions, all of the study intersections are expected to continue operating acceptably at LOS C or better overall, with very minimal increases in average delay compared with the base future traffic conditions. The Level of Service calculations are summarized in Table 3, and copies are provided in Appendix A.

Vehicular Access

The completion of the Riverfront Park will attract users who are unfamiliar with the City of Oroville street system. This may create situations where out of town traffic is unnecessarily circulating the streets of Oroville. Although this would not be considered a significant environmental impact, this condition should be addressed through the installation of destination signing to facilitate access to key destinations along the Riverfront and in the downtown area including parking, Centennial Plaza, Veterans Memorial Building and Park, among others.

The proposed access to the riverfront improvements was reviewed to determine adequacy in terms of traffic control and geometrics along Montgomery Street. The plan proposes a one-way exit at Oak Street where Oak Street is two-way, south of Montgomery and a one-way entry at Lincoln Street where it is one-way southbound, south of Montgomery Street. (Huntoon Street is one-way northbound which forms the couplet with Lincoln Street.) The intersection analysis treated Lincoln Street as a two-way access to the riverfront in order to assess worst case access conditions. The intersection would be expected to operate acceptably overall. There are existing turn lanes in each direction on Montgomery Street to serve left-turns to the park as well as destined to southbound Lincoln Street. By converting Oak Street, north of Montgomery Street, to a one-way exit, the eastbound left-turn lane on Montgomery Street would no longer be needed. It is suggested that the eastbound be restriped. The center turn lane area could be reconfigured as a median. All other existing traffic control and lane geometrics would be considered acceptable.

Should the City choose to convert the Lincoln Street-Huntoon Street couplets to two-way streets, the following issues would need to be addressed:

- The majority of northbound traffic would most likely shift to Lincoln Street. At the intersection of Lincoln Street/Montgomery Street, a traffic signal may need to be considered.
- The addition of a westbound left-turn lane on Montgomery Street at Huntoon Street may be required to serve new left-turn movements destined to the south.

Multi-Modal Access

Pedestrian Access

The project would be expected to attract pedestrians from the surrounding downtown area and adjacent neighborhoods. These pedestrian trips to the park would require crossings of Montgomery

Street. There are existing uncontrolled marked crosswalks of Montgomery Street at key locations; however, these crossings lack enhanced crossing features which address pedestrian safety. Crosswalk enhancements, including high visibility treatments and bulbouts, should be provided across Montgomery Street at 1st Street, 5th Street, and Oliver Street to accommodate the increased pedestrian usage of these intersections that is anticipated as a result of the riverfront improvements.

Bicycle Access

The project would be expected to attract bicyclists from surrounding areas. These bicyclists would access the park via north-south connector streets, similar to pedestrians, or via Montgomery Street. The north-south connector streets are residential in nature and comfortable for bicycle travel. Montgomery Street, the primary east-west street serving traffic in the area, does not have any enhanced bicycle facilities. In order to serve this increased bicycle traffic, it is recommended that Class II bike lanes be installed on Montgomery Street to facilitate bicycle access to and from the Riverfront area. Since Montgomery Street is approximately 46 feet wide, the recommended cross section would consist of two 11-foot travel lanes, two 5-foot bike lanes and two 7-foot parking lanes. However, the need for bus routes may preclude the ability to implement this measure, especially in the downtown core.

IMPACTS AND MITIGATION MEASURES

Impact 1 – The project is expected to attract pedestrians from the surrounding downtown area and adjacent neighborhoods. These pedestrian trips to the park would require crossings of Montgomery Street. There are existing uncontrolled marked crosswalks of Montgomery Street at key locations; however, these crossings lack enhanced crossing features which address pedestrian safety. Therefore, potential safety issues may arise.

Mitigation Measure 1 – Crosswalk enhancements, including high visibility treatments and bulbouts, should be provided across Montgomery Street at 1st Street, 5th Street, and Oliver Street to accommodate increased pedestrian traffic.

Impact 2 – The project is expected to attract bicyclists from surrounding areas. Montgomery Street, the primary east-west street serving the area, does not have any enhanced bicycle facilities. Therefore, potential safety issues may arise.

Mitigation Measure 2 – Install Class II bike lanes on Montgomery Street to facilitate bicycle access to and from the Riverfront area. Since Montgomery Street is approximately 46 feet wide, the recommended cross section would consist of two 11-foot travel lanes, two 5-foot bike lanes and two 7-foot parking lanes, provided that this configuration would allow adequate bus maneuverability. If so, the bike lanes may transition to a bike route through the downtown core.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) FOR THE Oroville Riverfront Park Final Improvements Plan INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to State of California Public Resources Code Section 21081.6, which requires adoption of a MMRP for projects in which the Lead Agency has required changes or adopted mitigation to avoid significant environmental effects. The County is the lead agency for the proposed Project and, therefore, responsible for administering and implementing the MMRP. The decision-makers must define specific reporting and/or monitoring requirements to be enforced during project implementation prior to final approval of the proposed project. The primary purpose of the MMRP is to ensure that the mitigation measures identified in the **Oroville Riverfront Park Final Improvements Plan** Initial Study/Mitigated Negative Declaration are implemented to reduce or avoid identified environmental effects.

The purpose of discussing the MMRP in the Final IS/MND is to appropriately assign the mitigation responsibilities for implementing the Oroville Veteran's Memorial Park Project. The mitigation measures listed in the MMRP are required by law or regulation and have been adopted by the City of Oroville Council as a condition of the primary project approval. Certain elements of the project may be adopted or approved by other responsible agencies, including the LIST AS APPROPRIATE:, County (zone change, grading and building permits), Central Valley Regional Water Quality Control Board (CVRWQCB) (Waste Discharge Permit, National Pollutant Discharge Elimination System Permit, Storm Water Pollution Prevention Program, and Water Quality Certification or Waiver under Sections 401 and 402 of the Clean Water Act), California Department of Fish and Game (CDFG) (Fish and Game Code Permits under Section 1602 and 2081), California State Reclamation Board (Permit under Title 23 of the California Code of Regulations), U.S. Army Corps of Engineers (USACE) (USACE Permits under Section 401 and 404 of the Clean Water Act), and U.S. Fish and Wildlife Service (USFWS) (Biological Opinion under Section 7 of the Endangered Species Act).

Basis for the Mitigation Monitoring and Reporting Program

Section 21081.6 of the California Public Resources Code requires that the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance with mitigation measures during project implementation. The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment.

Mitigation Monitoring and Reporting Program Procedures

The MMRP for the proposed project will be in place through all phases of the project, including design, prior to construction, construction, and operations. The County of Butte, General Services shall have primary responsibility for administering the MMRP activities of staff, consultants, or contractors.

This MMRP gives The County of Butte the primary responsibility for documenting the monitoring of mitigation measures. The County of Butte's designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems. Specific responsibilities of The County of Butte include:

- Coordination of all mitigation monitoring activities.
- Management of the preparation, approval, and filing of monitoring or permit compliance reports.
- Maintenance of records concerning the status of all approved mitigation measures.
- Quality control assurance of field monitoring personnel.
- Coordination with other agencies regarding compliance with mitigation or permit requirements.
- Reviewing and recommending acceptance and certification of implementation documentation.
- Acting as a contact for interested parties or surrounding property owners who wish to register complaints, observations of unsafe conditions, or environmental violations; verifying any such circumstances and developing any necessary corrective actions.

Mitigation Monitoring and Reporting Program

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
1. Aesthetics						
1.1	The scenic resources, including trees and native vegetation, should be noted and incorporated in the design of the trail ways and park areas along the sides of the levee. Large trees and native vegetation should be retained wherever possible.	Prior to the onset of construction activities or any disturbance.	County of Butte, General Services			
1.2	Outdoor light fixtures shall be low-intensity wherever possible. Where higher intensity lighting is required for security reasons, lighting will be shielded and/or directed away from any adjacent residential areas and the night sky. All light fixtures shall be designed, installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. Lighting plans shall be provided as part of facility improvement plans to the city to ensure that they meet the City's City Master Lighting design guidelines.	These measures shall be implemented during the subsequent design and construction of the Plaza future phases of the project.	County of Butte, General Services			
3. Air Quality						
3.0	The project applicant shall incorporate all Standard Construction Mitigation Measures into the project and recommends that the applicant incorporate as many Best Available Mitigation Measures, or Supplemental Mitigation Measures, as feasible into the project as listed in the BCAQMD Indirect Source Review Guidelines 1997.	To be implemented prior to commencement of grading and construction activities.	County of Butte, General Services, Butte County Air Quality Management District.			
4. Biological Resources						
4.1	The City of Oroville shall retain a qualified biologist to conduct a pre-construction botanical survey, within the months of April or May, to determine if there are any California Native Plant Society's (CNPS) List 1B plants, including the pink creamsacs, occurring onsite. If any special-status plant species occurrences are found onsite, the applicant shall 1) comply with the California Native Plant Protection Act,	Prior to the onset of construction activities or any site disturbance.	County of Butte, General Services			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	Sections 2062 and 2067, and confer with the California Department of Fish and Game (CDFG). Furthermore, construction activities shall be restricted based on CDFG guidance. Restrictions may include establishment of avoidance buffer zones, installation of silt fences, or alteration of the construction schedule to allow time for rescuing and replanting the sensitive species, if appropriate.					
4. Biological Resources						
4.2	<p>The City of Oroville shall retain a qualified biologist to conduct surveys for:</p> <p>Elderberry, host plant of the valley elderberry longhorn beetle, within and directly adjacent to the project area. Should elderberry shrubs occur, the biologist will initiate informal consultation with the USFWS. Avoidance and protection measures shall be established onsite using the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). If encroachment within 100-feet (the avoidance radius established by USFWS for the beetle) of elderberry bushes at the project location cannot be avoided, then further mitigation may be required including but not limited to, formal consultation, an incidental take permit, transplantation of the elderberry by a qualified firm, and/or biological monitoring of construction activities.</p> <p>Foothill yellow-legged frog and northwestern pond turtle, which may live within and near riparian areas impacted by project implementation. The survey shall be conducted no more than 24 hours prior to the onset of major construction activities. If either species is identified within or near the construction area during the survey, activity onsite shall be restricted to allow the animal to move out of harms way (without human interference). If the</p>	Prior to the issuance of permits, onset of construction activities, or any site disturbance.	County of Butte, General Services			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	<p>individual species does not move (after an appropriate amount of time to be determined by the biologist) CDFG shall be notified regarding appropriate avoidance or relocation measures. Furthermore, construction activities shall be restricted based on CDFG guidance.</p> <p>Local avian species, if future proposed construction activities are planned to occur during the nesting seasons (typically March 1st through August 31st). The surveys will be focused on active nests of raptors and migratory birds within and in the vicinity of (no less than 100-feet outside project boundaries, where possible) construction areas no more than 72 hours prior to ground disturbance. If an active nest is located during preconstruction surveys, USFWS and/or CDFG (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or resource agencies deem the potential for abandonment or loss of individuals to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100-feet around the nest) or alteration of the construction schedule. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through February 28th).</p> <p>Special-status bat species at the project site. The survey shall be conducted no more than 30 days prior to the onset of ground disturbance or major construction activities. If sensitive bat species or roosts are identified within the project area during pre-construction surveys, USFWS and/or CDFG shall be notified regarding appropriate avoidance or disturbance minimization measures. Furthermore, construction activities shall be restricted based on</p>					

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	the regulatory agencies guidance. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) around the roost site, implementation of species-specific disturbance minimization measures, alteration of the construction schedule, and/or placement of one-way bat doors to prohibit re-entry of bats into the roosting location. If bat species are not identified onsite during the survey, no further action is necessary.					
4.3	<p>Associated with MM 4.1 and MM 4.2, the County of Butte shall retain a qualified biologist to conduct surveys to assess temporary and permanent project impacts anticipated by project final design and proposed construction plans. Appropriate mitigation will be developed in consultation with and with the approval of CDFG. The applicant is responsible for any costs associated with mitigation.</p> <p>The project applicant shall obtain a Streambed Alteration Agreement from CDFG, as required by state law. The City shall comply with all permit conditions (established by the CDFG and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.</p>	Prior to project plan approval.	County of Butte, General Services			
4.4	The City shall coordinate with the USACE to develop a plan that ensures no construction materials and/or permanent fill will be placed in the Feather River or below the ordinary high water mark. It is anticipated that all phases of the project shall avoid any impacts to jurisdictional waters of the U.S. and the USACE will be consulted regarding construction above the OHWM. The County shall include the OHWM on engineering plans for the project to	Prior to plan approval.	County of Butte, General Services			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	<p>clearly identify the limits of project activity. The engineering plans shall then be submitted to the USACE for final review and written confirmation that the proposed activities are outside USACE jurisdiction. If impacts to jurisdictional waters cannot be avoided, a no net loss of wetlands policy shall be employed and the appropriate permits (i.e., Section 404 permit) shall be obtained prior to issuance of grading approval.</p> <p>In addition, the project applicant shall obtain a Section 401 certification from the RWQCB, as necessary. The City shall comply with all permit conditions and employ best management practices and measures (established by the USACE and other regulatory agencies) to minimize and compensate for potential impacts to any jurisdictional waters or habitat areas.</p> <p>Also, mitigation details (regarding agency restrictions) shall be noted on the design plans and information relevant to permits (such as the OHWM) shall be included in engineering drawings for the proposed project.</p>					
4.5	<p>For riparian areas: Mitigation for potential impact to riparian areas is identified in Mitigation Measures 4.1 through 4.3, which includes consultation with USFWS and/or CDFG for mitigation of potential impacts to habitat and special status species. In addition, the final project design should incorporate applicable County General Plan policy provisions for Natural Resources.</p> <p>For locally significant trees: Individual oak trees on the project site that are unavoidably lost due to development shall be replaced with native genetic stock oak seedlings at the following replacement rates:</p>	Prior to Project Completion	County of Butte, General Services, County of Butte Parks and Recreation			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	<ul style="list-style-type: none"> • Inventoried oak trees six inches or greater dbh shall be replaced at a ratio of 5:1. • Oak trees 3-6 inches dbh shall be replaced at a ratio of 3:1. • Oak trees less than three inches dbh shall be replaced at a ratio of 1:1. <p>Any proposed planting of oak seedlings as mitigation shall be included in a landscaping plan to be approved by the Butte County Parks and Recreation Department. The oak plantings shall have an approved irrigation system, will be monitored for five years, and will be required to meet a success rate of 75% survival after five years. Remedial planting, if necessary, shall be monitored to ensure the 75% success rate.</p>					
5. Cultural Resources						
5.1	<p>Pursuant to CEQA Guidelines Section 15064.5(e), in the event of the accidental discovery or recognition of prehistoric or historic resources in an area subject to development activity, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie similar resources and a professional archaeologist shall be consulted. Further, if human remains are discovered, the Coroner of Butte County must be contacted to determine that no investigation of the cause of death is required. If the County Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission within 24 hours.</p> <p>Upon completion of the site examination, the archeologist shall submit a report to the County describing the significance of the finds and make recommendations as to its disposition. If human remains are unearthed during construction, the provisions of California Health and Safety Code Section 7050.5 shall apply. Under this section, no</p>	During project construction.	County of Butte, General Services			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	further disturbance of the remains shall occur until the County Coroner has made the necessary findings as to origin and disposition, pursuant to California Public Resources Code Section 5097.98. Mitigation measures, as recommended by the archaeologist and approved by the County in accordance with Section 15064.5 of the CEQA Guidelines, shall be implemented prior to recommencement of construction activity within the 50-foot perimeter.					
6. Geology and Soils						
6.1	A geotechnical report will be prepared for the project site to determine the soil attributes in this area. The construction of this project site shall follow the recommendations of this geotechnical report to ensure the stability of the project site.	Prior to project construction	County of Butte, General Services, Regional Water Quality Control Board.			
6.2	The following measures will be implemented during and after construction to ensure protection of the project area; hydro seeding and planting of native grasses will take place on any bare areas after final landscaping is installed, temporary erosion control measures will include silt fences, straw wattles, and installation of biofilters at downstream storm drain facilities.	Prior to project construction.	County of Butte, General Services, Regional Water Quality Control Board.			
6.3	If this project disturbs more than one acre, a National Pollutants Discharge Elimination System (NPDES) General Construction Permit would be required from the Regional Water Quality Control Board (RWQCB). This permit requires preparation of a plan to reduce discharges of pollutants, including sediments.	Prior to project construction.	County of Butte, General Services, Regional Water Quality Control Board.			
6.4	Any penetration of levee or embankment with project features, such as footings or piles, will be	During project construction.	County of Butte,			

MM No.	Mitigation Measure	Timeframe for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Agency & Initials	Date	Notes
	performed as recommended by a licensed civil or geotechnical engineer to ensure the integrity of the project area is not affected. Any borings, etc. will be backfilled with concrete to enhance the stability of the underlying soil structure.		General Services			
6.5	Expansive type soils shall be investigated by a licensed civil or geotechnical engineer during the geotechnical report. If expansive soils are identified, recommended measures will be performed to ensure that the proposed improvements are constructed in accordance with standard engineering practices for expansive soil.	Prior to and during project construction.	County of Butte, General Services			
15. Transportation/Traffic						
15.1 a	As the majority of northbound traffic would most likely shift to Lincoln Street, at the intersection of Lincoln Street/Montgomery Street; a traffic signal will be installed.	Prior to project completion.	County of Butte Public Works Department.			
15.1 b	The addition of a westbound left-turn lane on Montgomery Street at Huntoon Street will be installed to serve new left-turn movements destined to the south.	Prior to project completion.	County of Butte Public Works Department.			
15.2	Crosswalk enhancements, including high visibility treatments and bulbouts, should be provided across Montgomery Street at ^{1st} Street, 5th Street, and Oliver Street to accommodate increased pedestrian traffic.	During project construction.	County of Butte Public Works Department.			

**OROVILLE CITY COUNCIL/OROVILLE REDEVELOPMENT AGENCY
ADJOURNED JOINT MEETING MINUTES
DECEMBER 28, 2006 – 5:00 P.M.**

The agenda for the December 28, 2006 adjourned joint meeting of the Oroville City Council and the Oroville Redevelopment Agency was posted on the bulletin board at the front of City Hall on Friday, December 12, 2006 at 9:35 a.m.

The December 28, 2006 adjourned joint meeting of the Oroville City Council was called to order by Mayor Gordon Andoe at 5:00 p.m.

ROLL CALL

Present: Council Members/Commissioners Berry, Prouty, Council Member/Vice Chairperson Simpson, Council Member/Chairperson Corkin, Vice Mayor/Commissioner Jemigan, Mayor/Commissioner Andoe
Absent: Council Member/Commissioner Johansson (Excused)

RECOGNITION OF INDIVIDUALS WHO WISH TO SPEAK ON AGENDA ITEMS - None

REGULAR BUSINESS

CITY COUNCIL

1. PENSION OBLIGATION BONDS - staff report.

The Council considered authorizing staff to move forward with the Pension Obligation Bonds. (Diane MacMillan, Director of Finance, Sharon Atteberry, City Administrator)

Brent Lowder, Stanley-Morgan Company, explained that the City of Oroville had an unfunded liability of \$7.2 million dollars at an interest rate of 7.75 % and the Pension Obligation Bonds would allow the City to refinance the liability at a lower interest rate of 5.74%.

Following further discussion, a motion was made by Council Member Prouty, seconded by Council Member Corkin, to:

Adopt Resolution No. 6841 - A RESOLUTION OF THE OROVILLE CITY COUNCIL AUTHORIZING THE ISSUANCE OF ONE OR MORE SERIES OF PENSION OBLIGATION BONDS, APPROVING THE FORM OF AND AUTHORIZING THE EXECUTION AND DELIVERY OF A TRUST AGREEMENT AND A PURCHASE AGREEMENT, AND AUTHORIZING A VALIDATION ACTION AND OTHER MATTERS RELATING THERETO.

The motion passed by the following vote:

Ayes: Council Members Corkin, Prouty, Simpson, Vice Mayor Jemigan, Mayor Andoe
Noes: Council Member Berry

Abstain: None
Absent: Council Member Johansson

2. OROVILLE RIVERFRONT PARK FINAL IMPROVEMENT PLAN, INITIAL STUDY, AND MITIGATED NEGATIVE DECLARATION – staff report.

The Council considered approving the Oroville Riverfront Final Improvement Plan, Initial Study with findings, and the Mitigated Negative Declaration. **(Eric Teitelman, Director of Community Development and Public Works)**

Eric Teitelman, Director of Community Development and Public Works, gave a PowerPoint presentation on the Riverfront Master Plan.

Craig Sanders, Contract Planner, explained the Mitigated Negative Declaration to the Council.

Jim Carpenter, 3604 Argonaut Avenue, Oroville, wanted to have it written into the record that the cedar trees that will be removed for the Centennial Plaza will be replanted and rededicated within the Riverfront project.

A motion was made by Council Member Corkin, seconded by Council Member Prouty, to:

Adopt Resolution No. 6842 - A RESOLUTION OF THE OROVILLE CITY COUNCIL ADOPTING THE OROVILLE RIVERFRONT PARK FINAL IMPROVEMENT PLAN, INITIAL STUDY, AND MITIGATED NEGATIVE DECLARATION.

The motion passed by the following vote:

Ayes: Council Members Berry, Corkin, Prouty, Simpson, Vice Mayor Jemigan, Mayor Andoe
Noes: None
Abstain: None
Absent: Council Member Johansson

3. MODIFICATION TO PLANNING MANAGER JOB DESCRIPTION - staff report.

The Council considered modifying the planning manager job description to allow for the Director of Community Development and Public Works to substitute the Bachelor Degree requirements for a substantial work history at a mid or senior level planning or management level position. **(Eric Teitelman, Director of Community Development and Public Works)**

Art Hatley, 1176 20th Street, Oroville, questioned how much outsourcing would the City need to pay for if a person without a degree is hired.

Eric Teitelman, Director of Community Development and Public Works, explained that there have been many applications for the Planning Manager position from persons that do not have a Bachelor Degree but have a lot of experience working in Planning and that is why he is requesting that the requirement be modified to at least 10 years of planning work experience.

A motion was made by Council Member Simpson, seconded by Council Member Corkin, to:

Adopt the modified Planning Manager Job description.

The motion passed by the following vote:

Ayes: Council Members Corkin, Prouty, Simpson, Vice Mayor Jernigan, Mayor Andoe
Noes: Council Member Berry
Abstain: None
Absent: Council Member Johansson

4. AMENDMENT TO THE EMPLOYMENT AGREEMENT WITH DAVID PITTMAN, FIRE CHIEF - staff report.

The Council considered an amended employment agreement with David Pittman, Fire Chief. (Liz Ehrenstrom, Human Resource Analyst II)

A motion was made by Council Member Corkin, seconded by Council Member Prouty, to:

Adopt Resolution No. 6843 - A RESOLUTION OF THE OROVILLE CITY COUNCIL AUTHORIZING THE MAYOR TO EXECUTE THE AMENDED EMPLOYMENT AGREEMENT WITH DAVID PITTMAN, FIRE CHIEF.

The motion passed by the following vote:

Ayes: Council Members Corkin, Prouty, Simpson, Vice Mayor Jernigan, Mayor Andoe
Noes: Council Member Berry
Abstain: None
Absent: Council Member Johansson

REDEVELOPMENT AGENCY

1. ANNUAL REPORT TO THE STATE CONTROLLER FOR THE OROVILLE REDEVELOPMENT AGENCY PROJECT AREA NO. 1 - staff report.

The Commission received the annual report to the State Controller for the Oroville Redevelopment Agency Project Area No. 1. (Pat Griffin, Director of Business Assistance and Housing Development)

A motion was made by Vice Chairperson Simpson, seconded by Commissioner Jernigan, to:

Accept the annual RDA report and authorize staff to file with the appropriate agency.

The motion was passed by the following vote:

Ayes: Commissioners Andoe, Berry, Jernigan, Prouty, Vice Chairperson Simpson, Chairperson Corkin
Noes: None

Abstain: None
Absent: Commissioner Johansson

HEARING OF INDIVIDUALS ON NON-AGENDA ITEMS - None

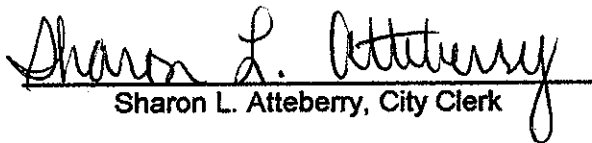
CLOSED SESSION


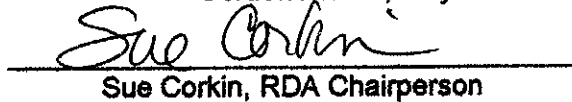
1. The Commission adjourned to Closed Session at 6:20 p.m. pursuant to Government Code section 54956.8, and met with real property negotiators, Sharon L. Atteberry, Executive Director, and Agency Counsel, Dwight L. Moore to discuss the a 12.2 acre property bounded by Highway 70, the Feather River, Montgomery Street and Feather River Boulevard, Oroville, California.

The Commission reconvened at 6:38 p.m. and Chairperson Corkin announced that no action was taken in Closed Session and direction was given to staff.

ADJOURNMENT

The meeting was adjourned at 6:40 p.m. to a regular meeting of the Oroville City Council to be held at 8:00 p.m. on Tuesday, January 2, 2007.


Sharon L. Atteberry, City Clerk

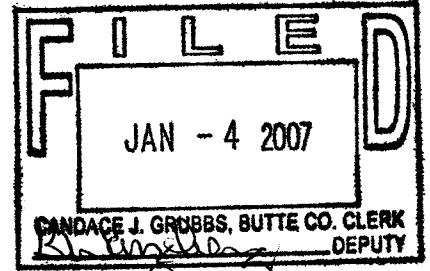

Gordon Andoe, Mayor

Sue Corkin, RDA Chairperson

DECLARATION OF FEES DUE
(California Fish and Game Code Section 711.4)

FOR CLERK USE ONLY

NAME AND ADDRESS OF LEAD AGENCY/APPLICANT

City of Oroville
1735 Montgomery Street
Oroville, CA 95965
(530)538-2430



Project: Oroville Riverfront Park Project – Final Improvement Plans

City of Oroville
1735 Montgomery Street
Oroville, CA 95965
(530)538-2430

POSTED 1/4/07 THROUGH 3/1/07

FILING NO.

CLASSIFICATION OF ENVIRONMENTAL DOCUMENT:

1. NOTICE OF EXEMPTION / STATEMENT OF EXEMPTION
 - A. Statutorily or Categorically Exempt
\$36.00 (Thirty-Six Dollars) Butte County Clerk's Filing Fee

2. NOTICE OF DETERMINATION - FEE REQUIRED
 - A. Negative Declaration
\$1,800.00 (Eighteen Hundred Dollars) State Filing Fee
\$36.00 (Thirty-Six Dollars) Butte County Clerk's Filing Fee
 - B. Environmental Impact Report
\$2,500.00 (Twenty-Five Hundred Fifty Dollars) State Filing Fee
\$36.00 (Thirty-Six Dollars) Butte County Clerk's Filing Fee

3. OTHER (Specify) General Rule Exemption
\$36.00 (Thirty-Six Dollars) Butte County Clerk's Filing Fee

TWO COPIES OF THIS FORM MUST BE COMPLETED AND SUBMITTED WITH ALL ENVIRONMENTAL DOCUMENTS FILED WITH THE BUTTE COUNTY CLERK'S OFFICE.

ALL APPLICABLE FEES MUST BE PAID AT THE TIME OF FILING ANY ENVIRONMENTAL DOCUMENTS WITH THE BUTTE COUNTY CLERK'S OFFICE.

THREE COPIES OF ALL NECESSARY DOCUMENTS ARE REQUIRED FOR FILING PURPOSES.

THE \$36.00 HANDLING FEE IS REQUIRED PER FILING IN ADDITION TO THE FILING FEE SPECIFIED IN FISH AND GAME CODE SECTION 711.4(d)

MAKE CHECKS PAYABLE TO COUNTY OF BUTTE.
(1/15/91)

NOTICE OF DETERMINATION

TO: Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

From: City of Oroville, Planning Division
1735 Montgomery Street
Oroville, CA 95965
(530) 538-2430

County Clerk
County of Butte
25 County Center Drive
Oroville, CA 95965

DATE RECEIVED FOR FILING

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

Project Title: **Oroville Riverfront Park Project – Final Improvement Plan**

State Clearinghouse Number (If submitted to State Clearinghouse): 200611240

Contact Person: Craig Sanders, Planning Consultant, City of Oroville (530) 538-2430

Project Location: The proposed Oroville Riverfront Park – Final Improvement Plan (referred to as “the Project”) is located in the City of Oroville in Butte County. The proposed project area is located in downtown Oroville, north of Montgomery Street and south of the Feather River. Specifically, the project boundaries are west of the intersection of Feather River Boulevard and Stafford Street, then easterly approximately 5,500 feet along the top of the levee of the Feather River to just past the Veteran’s Memorial Building, located just west of the intersection of Montgomery and Table Mountain Boulevard. On USGS topographical mapping, the location in Township and Range System is the south half of sections 7 & 8 of T. 19 N. R. 4 E.

Project Description: The Oroville Riverfront Park calls for a number of improvements on top of the Feather River adjunct to Oroville’s downtown area. The elements included in the Oroville Riverfront Park provide for improved circulation and riverfront access, as well as a public plaza area atop the levee. These elements include:

- 1) Improvements to and re-construction of portions of Arlin Rhine Drive and other connector streets downtown,
- 2) A continuous waterfront promenade with overlooks at the northern ends of key streets intersecting the levee,
- 3) Access stairways at the end of those streets to the top of the levee
- 4) Centennial Plaza in the center of the project,
- 5) Parking and landscape improvements along the top of the levee, and
- 6) Construction of Veteran’s Memorial Park surrounding the Veterans Building at the eastern end of the project area.

The first construction phase will be Centennial Plaza which is approximately one and a half acres in size, with Arlin Rhine Drive forming the south boundary of the plaza and the north edge of the levee forming the north boundary. The alignment of Arlin Rhine Drive will be shifted south of its present location to create space for the plaza on top of the levee which is approximately 120 feet wide at this location. Also at the point where Arlin Rhine Drive passes by Centennial Plaza, there would be 20 foot- wide of paving to allow two-way auto access around the plaza.

This expansion of the inland edge of the levee would be required to accommodate the road alignment and

approximately 15,000 cubic yards of fill material will be needed to accommodate the proposed improvements. The fill would allow for a gradual gradient from the levee toward Safford Street. The realignment of Arlin Rhine Drive would also necessitate the removal of six cedar trees along the southern flank of the levee, as well as a radio tower that is no longer in operation, located east of the corner of Lincoln Street and the levee.

An overlook gazebo will be perched on the north edge of the levee, supported by pylons that will not encroach below the ordinary high-water flood mark (OHWM) of 160' elevation. The overlook structure within the plaza would be identical to the other overlook structures along the riverfront promenade. Additionally, there will be construction of a stairway to connect the top of the levee and Broderick Street and the end of 1st Avenue. Two handicapped parking spaces will be located on the landward side of the Arlin Rhine Drive alignment.

This is to advise that on December 28, 2006, the City Council of the City of Oroville made the following determinations regarding the project:

1. The project will not have a significant effect on the environment.
2. A Negative Declaration was prepared for this project and adopted pursuant to the provisions of CEQA.
3. Mitigation measures were, were not, made a condition of approval of the project.
4. A statement of Overriding Considerations was, was not, adopted for this project.

This is to certify that the Negative Declaration, Final EIR with comments and responses, and record of project approval is available to the General Public at the Planning Department, 1735 Montgomery Street, Oroville, California.



Craig Sanders, Planning Consultant

01/03/07

Date