

# INITIAL STUDY

**INITIAL STUDY CHECKLIST  
REFERENCES AND DOCUMENTATION  
FOR THE  
NORTH MARKET LIFT STATION UPGRADE AND FORCE MAIN  
REPLACEMENT PROJECT**

**Prepared by  
City of Redding – Development Services Department  
777 Cypress Avenue  
Redding, California 96001**

## ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** North Market Lift Station Upgrade and Force Main Replacement Project
2. **Lead Agency Name and Address:** City of Redding – Development Services Department, 777 Cypress Avenue, Redding, CA 96001
3. **Contact Persons and Phone Number:** Jonathan Oldham, Environmental Compliance Manager, (530) 225-4046
4. **Project Location:** The proposed project is located along the Sacramento River at River Mile 298, downstream of the Market Street Bridge. The project site and existing aerial sewer line extend from the north bank of the Sacramento River, from the existing North Market Lift Station near the Sacramento River Trail, across the river to the south bank behind the Redding Rodeo Grounds. The project is located in the City of Redding, Shasta County, California, and within Section 25, Township 32 North, Range 5 West, *Redding* USGS 7½ quadrangle topographic map.
5. **Project Sponsor's Name and Address:** City of Redding, 777 Cypress Avenue, Redding, CA 96001
6. **General Plan Designation:** “PF” Public Facilities; “GWY” Greenway
7. **Zoning:** “PF” Public Facilities; “OS” Open Space; “RM” Residential Multiple Family

**Description of Project:** The City of Redding is proposing to upgrade the North Market sewage lift station and replace the aerial force main sewer pipeline crossing over the Sacramento River. The 2003 City of Redding Wastewater Utility Master Plan identified the North Market Lift Station as undersized and requiring expansion or replacement and the force main as being in need of replacement. The lift station is located next to the Sacramento River trail on the north side of the river downstream of the Market Street Bridge in central Redding. The sewer line is a suspended aerial crossing over the river, beginning at the lift station and extending over the river to the south bank where it goes underground.

The North Market Lift Station delivers flows collected at the Lake Redding Interceptor on the north side of the Sacramento River across the river to a gravity sewer system for eventual treatment at the Clear Creek Wastewater Treatment Plant. The lift station is undersized for the current collection system, which could result in surcharging upstream of the lift station during 10-year storm events and some wet weather conditions. Surcharging of the lift station occurs because the lift station is not able to convey peak flows when necessary. In addition, flows are expected to increase over time, placing further demand on the facility. The force main sewer pipeline is approaching the end of its normal service life. Inspections of the force main pipeline indicate that there is some potential for failure. Replacing the pipeline will eliminate an overhead structure and any potential for sewage spills into the river. The lift station and associated force main pipeline were constructed about 50 years ago, and significant improvements were completed in the 1980s.

The North Market Lift Station Upgrade and Force Main Replacement Project can be categorized into two different types of activities: (1) lift station upgrade and (2) force main replacement.

The existing lift station building will either be demolished and a new building constructed or modified as necessary to accommodate the equipment upgrades. With either approach, construction will be contained within the existing lift station and storage/detention pond area. Various types of pumps, wet wells, valves, motors, piping, and other mechanical equipment will be replaced and/or upgraded as part of the project. The detention pond will be recontoured upon completion of the work. The existing paved maintenance road to the facility will be used for access. A staging and equipment-storage area may be needed within and adjacent to the parking lot next to the facility, but most of the construction area will be maintained with the fenced detention pond area. The Sacramento River Trail is located in the immediate area and will be kept open during most of the construction time period. It may be closed for 1 or 2 days during installation of the pipelines under the river. A temporary detour may be established depending on time of day and duration of the closure. If a trail detour is needed, the trail will be relocated to an area outside the vegetated riparian corridor along the river that does not support sensitive environmental resources and in such a manner that has the least amount of adverse effects on the environment.

Two new pipes will be installed to replace the existing 12-inch aerial sewer pipeline. The two new pipes, a 12- inch and a 14- inch pipeline will be placed 20 feet apart below the riverbed using directional drilling techniques. The drill entry site will be located in a paved lot at the rodeo grounds on the south side of the river. The receiving pit will be located within the lift station detention pond on the north side of the river. Two 30- to 36-inch steel conductor casings will be pile driven at an angle

into the ground on the south side of the river. A drill rig will drill a pilot hole through the steel casing to the other side of the river, daylighting in the receiving pit. Approximately 50 feet south of the receiving pit, two 6-inch vertical holes will be drilled to a depth just above the horizontally drilled hole. The holes will serve as pressure relief vents for the drilling fluids as the horizontal drill hole is brought to the surface through the shallow, unconsolidated alluvial soil layers. This will help reduce the chances of a frac-out occurring in this area. The drilling fluids will be contained and removed from the site in trucks. The new 1,100-foot-long sewer pipes will be assembled concurrently along Traveled Way and then pulled back through their respective drilled holes to the south side of the river. Alluvial soils are thought to be approximately 25 to 35 feet deep below the riverbed. Beneath the alluvium is Chico Formation material, consisting of a shallow clay layer on top of shale and claystone. The new sewer pipes will be placed approximately 65 to 95 feet below the riverbed.

The following conservation measures will be implemented as part of the project to address potential environmental concerns associated with project implementation.

*Conservation Measure # 1 – Special-Status Fish Species:*

The City shall implement the following conservation measures to protect sensitive fish species in the Sacramento River during construction:

- BMPs will be utilized to prevent erosion and sediment loss within the work area. BMPs such as silt fence, straw bales, and straw wattles will be placed where needed to prevent sediment loss to adjacent Jurisdictional Waters of the United States.
- Hazardous materials, including fuels, oils, cement, and solvents will be placed or contained in an area protected from direct runoff. Areas for fuel storage and servicing will be located away from the river where spills will not enter the water.
- Construction equipment will be inspected daily for leaks. Leaking fluids will be contained upon detection and equipment repairs made as soon as practicable or moved off-site.
- Secondary containment, such as a drain pan or drop-cloth, shall be used to catch spills or leaks when removing or changing fluids.
- Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.
- A Surface Spill and Frac-out Contingency Plan will be developed prior to construction and will be implemented immediately upon discovery of a frac-out. This plan will include, but not be limited to, the following measures: cessation of drilling operations upon discovery of a frac-out; implementation of measures to relieve pressure on the bore stem; close monitoring of drilling operations and containment of vertical pressure relief vents and cleanup of releases when and where feasible upon detection; and storage of containment materials and equipment on-site at all times.
- All conditions as required by permitting agencies and the National Marine Fisheries Service will be implemented.
- Disturbed soil areas outside the detention basin will be hydro-seeded/mulched to stabilize soils upon completion of construction. Seed mixes used will contain native species and other non-invasive species designed to stabilize soils as well as allow native species to establish as desired.

*Conservation Measure #2 – Prevention of Accidental Spills:*

Construction specifications shall include the following measures to reduce potential adverse effects associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) in vegetation and aquatic habitat resources within the project study area:

- A spill prevention plan shall be implemented for potentially hazardous materials. The plan shall include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills. If necessary, containment berms shall be constructed to prevent spilled materials from reaching surface water features.
- Equipment and materials shall be stored away from surface water features.
- Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials into a surface water feature. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Sacramento River.

**Construction Period:** Site preparation for horizontal drilling activities is scheduled to begin September 2006; drilling will occur during October and November, with completion in December 2006. The specific drilling operation only requires 3 days for the pilot bore, 6 days for reaming passes, 1 day for a swab run, and 1 day to install the pipe. This will be done twice, once for each pipe installed. Construction of the lift station is scheduled to begin in February 2007 and be completed in June 2007.

8. **Surrounding Land Uses and Settings:** “Open Space”/”Greenway” and “Residential Multiple Family.” Both the north and south sides of the Sacramento River are publicly owned, with the exception of a portion of the rodeo ground buildings and easement that contain the landing point for the southern portion of the existing sewer line. This land is owned by the Redding Memorial Park Cemetery. Both sides of the river are designated “PF” Public Facilities in the Land Use Element of the City of Redding General Plan. Adjacent land uses include the Redding Memorial Park Cemetery on the bluff above the southern bank, the Redding Rodeo Grounds, the Turtle Bay Arboretum and Museum, River Park Trail with associated restroom facility and parking lot, and the Riverside Mobile Park. The nearest residential uses are approximately 900 feet away along Traveled Way.

9. **Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement).**

- National Marine Fisheries Service (Sacramento Field Office) – Consultation for listed anadromous fish species under Section 7 of the Endangered Species Act
- U.S. Army Corps of Engineers (Redding Field Office) – Section 404 Clean Water Act Permit
- California Regional Water Quality Control Board (Central Valley Region) – Section 401 Clean Water Act, Water Quality Certification
- Department of Fish and Game (Region 1) – Section 1602 California Fish and Game Code, Streambed Alteration Agreement
- California State Lands Commission

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality                                     |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology/Soils                                   |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality            | <input type="checkbox"/> Land Use/Planning                               |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population/Housing                              |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/Traffic                          |
| <input type="checkbox"/> Utilities/Service Systems     | <input type="checkbox"/> Mandatory Findings of Significance | <input type="checkbox"/> None after Mitigation Measures are incorporated |

**DETERMINATION.** (To be completed by the Lead Agency)

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 although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because potentially significant effects: (1) have been analyzed adequately under prior program-level environmental analyses pursuant to applicable standards, (2) have been avoided or mitigated pursuant to earlier EIRs, and (3) revisions or mitigation measures are imposed upon the proposed project based on this project-level review. 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.

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Signature

Date

Jonathan Oldham  
(Name)

Environmental Compliance Manager  
(Title)

## EVALUATION OF ENVIRONMENTAL IMPACTS

This section is structured to help analyze the potential environmental impacts associated with the proposed project. The environmental topics typically evaluated in an Initial Study include:

- Land Use and Planning
- Population and Housing
- Geology and Soils
- Hydrology and Water Quality
- Air Quality
- Transportation/Circulation
- Biological Resources
- Mineral Resources
- Hazards and Hazardous Materials
- Noise
- Public Services
- Utilities & Service Systems
- Aesthetics
- Cultural Resources
- Recreation
- Agricultural Resources

The environmental analysis format in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines and is used by the City of Redding in its environmental review process. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. Where potential impacts are anticipated to be significant, mitigation measures will be required so that impacts may be avoided or reduced to insignificant levels. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** *The development will not have any measurable environmental impact.*
- **Less Than Significant Impact.** *The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.*
- **Potentially Significant Impact Unless Mitigation Incorporated.** *The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant. In the case of the subject project, this could mean that a significant impact is identified that requires mitigation which was not fully addressed at the program-level stage and that project-specific mitigation is available. Proposed refinements to existing mitigation measures would also fall under this category.*
- **Potentially Significant Impact.** *The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.*

## LIST OF ATTACHMENTS

Figure #1: Project Location

Figure #2: Environmental Study Limits

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. LAND USE AND PLANNING.</b> Would the proposal:				
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 type="checkbox"/>	<input checked="" 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"/>
d. Have social or economic impacts resulting in a physical deterioration of the environment (economic blight)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a. The proposed project involves upgrades to existing structures and would not divide an established community.
- b. The proposed project is specifically identified and supported in the 2003 City of Redding Wastewater Utility Master Plan. The Plan identifies the North Market Lift Station as undersized and requiring expansion or replacement and the force main being in need of replacing. Overall, the project is viewed as beneficial and necessary in accommodating both existing and planned peak flows, as well as reducing potential adverse environmental and health effects by eliminating the overhead sewer line segment. The project is compatible with the applicable policies and regulations of the General Plan and Zoning Ordinance.
- c. Currently, there are no habitat conservation or natural community conservation plans that are applicable to the project site.
- d. This project will not result in socioeconomic impacts that would lead to the physical deterioration of the environment.

**Documentation**

City of Redding General Plan Final Environmental Impact Report  
City of Redding Wastewater Utility Master Plan, 2003  
City of Redding Public Facilities & Services Element, 2000  
City of Redding Natural Resources Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>2. POPULATION AND HOUSING.</b> Would the proposal:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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**

a-c. The project would not induce substantial unforeseen population growth, displace housing or people or necessitate the construction of housing elsewhere. However, the project would accommodate future development planned and supported under the City's General Plan.

**Documentation**

City of Redding General Plan Housing Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. GEOLOGY AND SOILS.</b> Would the proposal:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(1) 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"/>
(2) Strong seismic ground-shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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**

**a1.** No active faults occur within the 30 miles of Redding according to a 1995 Woodward-Clyde seismic hazards study conducted for the City of Redding. In addition, the project site is not located within an Alquist-Priolo Earthquake Fault Zone.

**a2.** Alluvial soils consisting of sand, gravel, cobble, and boulders are thought to be approximately 25 to 35 feet deep below the riverbed. Beneath the alluvium is Chico Formation material consisting of a shallow clay layer on top of shale and claystone. The new main force pipeline would be located approximately 65 to 95 feet deep below the riverbed. The project would not expose people or structures to the risk of loss, injury, or death from strong ground-shaking.

**a3.** The project would not expose people or structures to the risk of loss, injury or death from seismic-related ground failure and liquefaction.

**a4.** The proposed project is not located within an area that would be subject to landslides. The project site is located within and adjacent to the Sacramento River floodplain on geological formations that generally are not susceptible to landslides.

**b.** Construction activities associated with the proposed project could result in disturbance to topsoil. Surface ground disturbances could result in erosion of disturbed topsoils near the Sacramento River. The project is subject to certain erosion-control requirements mandated by existing City and State regulations. These requirements include:

*City of Redding Grading Ordinance.* This ordinance requires the application of “Best Management Practices” (BMPs) in accordance with the City Erosion and Sediment Control Standards Design Manual (Redding Municipal Code Section 16.12.060, Subsections C, D, and E). In practice, specific erosion-control measures are determined upon review of the final grading plan and are tailored to project-specific grading impacts.

California Regional Water Quality Control Board “Clean Water Act Section 401 Water Quality Certification.” This permit will require that water quality is not degraded and that appropriate BMPs are used to prevent erosion and sedimentation.

California Department of Fish and Game (DFG) “1602 Streambed Alteration Agreement.” This notification is required for any work within a streambed.

The following conditions have been incorporated into the project to avoid/minimize soil erosion potential:

1. All applicable provisions of the City of Redding Grading Ordinance (RMC Chapter 16.12) shall be met.
  2. All necessary regulatory agency permits will be obtained prior to construction.
- c. The project would not contribute to on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.
- d. Alluvial soils are thought to be approximately 25 to 35 feet deep below the riverbed surface. Beneath the alluvium is Chico Formation material consisting of a shallow clay layer on top of shale and claystone. The new main force pipeline would be located approximately 65 to 95 feet deep below the riverbed. There are no substantial risks to life or property associated with the project.
- e. The proposed project would not require the installation of a septic tank or alternative wastewater disposal system.

**Documentation**

City of Redding Standard Specifications, Grading Practices  
 City of Redding General Plan Background Report, 1998

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>4. HYDROLOGY AND WATER QUALITY.</b> Would the proposal:				
a. Violate any water quality standards or waste-discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of 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 type="checkbox"/>	<input checked="" 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 which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

a. The project will not violate any water quality standards or waste-discharge requirements set forth in the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin.

b. Construction of the proposed project would not deplete local groundwater supplies. In addition, there would be no net change in local aquifers or the local groundwater table as a result of the project.

c. The proposed project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of the river in a manner which would result in substantial erosion or siltation on- or off-site.

d. The proposed project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of the river or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

e. The proposed project would not involve modifications to the natural terrain by grading. The project would not significantly exacerbate any documented flooding hazard off-site.

f. Construction activities associated with the proposed project would not occur within the active river channel. The drill entry site for the installation of the new force main pipeline would be located in the paved lot near the rodeo grounds south of the river, and the receiving pit will be within an existing detention basin more than 225 feet away from the riverbank. Construction activities associated with the proposed project will be subject to water quality limitations imposed by the California Regional Water Quality Control Board specific to turbidity. Turbidity levels would need to be closely monitored throughout drilling activities. The project does not otherwise involve discharge of waste material into ground or surface waters.

g-i. The proposed project would not increase the 100-year floodplain, nor result in a change to the 100-year floodplain, nor therefore place housing within a 100-year floodplain.

j. The threat of a tsunami wave is not applicable to inland, central valley communities such as Redding. Seiches could potentially be generated in either Shasta or Whiskeytown Lakes during an earthquake. However, neither lake has been identified in the Health and Safety Element of the General Plan as having any risk to the City under such circumstances. There is no documented threat of mudflows affecting the project site.

**Documentation**

City of Redding 2000–2020 General Plan

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>5. AIR QUALITY.</b> Would the proposal:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Result in a cumulatively considerable net increase of any criteria pollutant under applicable local, state or federal ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

a-c. Shasta County, including the far northern Sacramento Valley, is currently designated as nonattainment for the State’s ambient standards for ozone (smog) and particulates (fine, airborne particles). Consequently, these pollutants are the focus of local air quality policy. Even with application of measures to reduce emissions for individual projects, cumulative impacts are unavoidable when ozone and/or particulate emissions are involved. For example, the primary source of emissions contributing to ozone is from vehicles. Any project that generates vehicle trips, including construction-related vehicles, has the potential of contributing incrementally to the problem. This project is a relatively small, short-duration project, with a very minor amount of earth work and large equipment use. The construction emissions resulting from this project are considered insignificant.

d. There are no substantial pollutant concentrations expected as a result of implementation and operation of the proposed project. In addition, there are no sensitive receptors located near the project site.

e. The project would not generate objectionable odors that could affect a substantial number of people.

**Documentation**

Shasta County APCD Air Quality Maintenance Plan and Implementing Measures  
City of Redding General Plan Final Environmental Impact Report, 2000  
City of Redding General Plan Air Quality Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>6. TRANSPORTATION/CIRCULATION.</b> Would the proposal:				
a. Cause an increase in traffic which 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

a-e. The project will not result in an increase in traffic, modify the level of service in the area, affect air traffic patterns, or create traffic hazards or incompatible uses. Emergency access will not be affected.

f. Construction activities on the north side of the river could temporarily block a portion of the parking lot adjacent to the lift station that is used by Sacramento River Trail users. There is one service driveway and one graveled entrance to the Turtle Bay facility that may be blocked during the day the pipe is pulled under the river. Construction activity on the south side of the river would temporarily block access to a dirt lot that occurs between the Redding Rodeo Grounds and the ACID canal. This lot has been used as an overflow parking lot for Redding Rodeo Grounds public events, equipment storage, and an access roadway for ACID facilities. The Redding Rodeo Grounds contains numerous other parking lots that would provide adequate parking capacity for Redding Rodeo Ground users. To the extent feasible, the portion of the parking lot on the north side of the river that is not in use as a staging area for construction activities associated with the lift station will remain available for use by trail visitors. The river trail will also remain open except for one or two days when the pipe is pulled under the river. A detour may be provided depending on the timing and duration of the closure. On the south side of the river, the construction period will not conflict with the annual rodeo that occurs in May.

g. The proposed project will not conflict with alternative transportation plans.

**Documentation**

- City of Redding General Plan Transportation Element, 2000
- City of Redding Draft Parks, Trails, and Open Space Master Plan, 2002

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>7. BIOLOGICAL RESOURCES.</b> Would the proposal:				
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 type="checkbox"/>	<input checked="" 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, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

**Discussion**

a. The *North Market Lift Station and Force Main Replacement Project Biological Assessment Report* (City of Redding 2005) was prepared (pursuant to Section 7 of the federal Endangered Species Act [ESA]) to address impacts to listed fish species. The Biological Assessment determined that there are no known occurrences of special-status wildlife or plant species in the project site. Sensitive species that do have the potential to occur within the project site include:

<b>SPECIES</b>	<b>STATUS (federal/state)</b>
Central Valley Steelhead ( <i>Oncorhynchus mykiss</i> )	T/SC
Central Valley spring-run Chinook salmon ( <i>O. tshawytscha</i> )	T/T
Sacramento River winter-run Chinook salmon ( <i>O. tshawytscha</i> )	E/E
Central Valley fall/late fall-run chinook salmon ( <i>O. tshawytscha</i> )	C/SC
Green sturgeon ( <i>Acipenser medirostris</i> )	C/SC

Status Codes: E = Endangered; T = Threatened; SC = Species of Concern; C = Candidate species

It is unlikely that the proposed project would have adverse impacts on fish species, since the force main pipeline would be placed beneath the riverbed surface. The drill entry site and receiving pit are both located outside of the ordinary high-water mark of the river. However, there is a chance for a hydrofracture or “frac-out.” A frac-out occurs when drilling fluids leak from the bore under pressure and are forced into adjacent cracks and voids leading to the surface. Loss of drilling pressure and fluids indicate a frac-out, which would result in immediate cessation of drilling operations. Immediate cessation combined with the pre-drilled vertical vent holes near the receiving pit will substantially decrease the potential for drilling fluids to enter the river. If drilling fluids (including some coring sediments, bentonite, and water) surface in the Sacramento River, temporary impacts to fish species may result. There are no permanent effects known that would occur due to horizontal drilling. The amount of sediment deposited due to a frac-out would likely be very minimal. Conservation measure #1 (listed above in the project description) is included as part of the proposed project to address this potential concern.

**b.** The project site supports valley foothill riparian habitat; however, construction of the proposed project will not require the removal of riparian habitat.

**c.** The Sacramento River is the only jurisdictional feature within the project site and would be avoided via directional boring. The drill entry site and receiving pit are both located outside of the ordinary high-water mark of the river; however, the pipeline will be placed below the river. In the event of a frac-out, there is the potential for leaking of fluids from the bore under pressure which would be forced into adjacent cracks and voids leading to the surface. Vertical pressure relief vents will be drilled on the north side of the river near the receiving pit to reduce the chances of a frac-out. If drilling fluids (some sediments, bentonite, and water) surface in the Sacramento River, sedimentation of channel substrates and degradation of water quality conditions could result. Although this event is unlikely and is difficult to quantify, fill material would be placed into Waters of the United States, thereby requiring a permit. The amount of fill material placed in the river would be minimal, since early detection is common. Loss of drilling pressure and fluids indicate a frac-out which, would result in immediate cessation of drilling operations. The situation would be analyzed and a plan of action would be implemented prior to re-initiation of drilling. A Surface Spill and Frac-out Contingent Plan will be developed prior to construction and will be implemented immediately upon discovery of a frac-out.

**d.** The Sacramento River is an important migratory corridor for several anadromous fish species. In addition, the undeveloped portions of the adjacent riparian corridor functions as an important movement corridor for resident wildlife species. Any adverse effects to migration and movement corridors would be temporary and limited to the construction phase of the project. Migratory/movement corridors following completion of the project would not be different from existing conditions.

**e.** The City has adopted a Tree Preservation Ordinance (Chapter 18.65 of the Redding Municipal Code) that promotes the conservation of mature, healthy trees in the design of new development. No large trees are expected to be removed by the proposed project.

**f.** There are no habitat conservation or natural community conservation plans adopted in this area.

#### **Documentation**

U.S. Army Corps of Engineers Preconstruction Notification  
California Department of Fish and Game Streambed Alteration Agreement Application  
City of Redding General Plan Natural Resources Element, 2000  
City of Redding Tree Preservation Ordinance (Redding Municipal Code Chapter 18.65)  
Preliminary Environmental Evaluation (Pacific Municipal Consultants and North State Resources 2005)  
Biological Assessment (City of Redding 2005)

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>8. MINERAL RESOURCES.</b> Would the proposal:				
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**

a, b. The project site is not identified in the General Plan as having any known mineral resource value or as being located within any “Critical Mineral Resource Overlay” area.

**Documentation**

City of Redding General Plan Natural Resources Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>9. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the proposal:				
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 type="checkbox"/>	<input checked="" 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 Section 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project site?	<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 site?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

- a, c. A variety of hazardous materials may be used during the construction and operation of the lift station. These materials may include gasoline, lubricants, paints, and solvents. All hazardous materials will be used in a manner consistent with federal, state, and local requirements, thereby reducing public exposure to significant hazards. There are no schools within a quarter mile, nor are there any documented hazardous material sites located on or near the project.
- b. Construction of the proposed project would require the use of various fuels and lubricants for the operation and maintenance of construction equipment. Hazardous materials such as gasoline, lubricants, paints, and solvents may be used in the construction and maintenance of project facilities. All hazardous materials will be used in a manner consistent with federal, state, and local requirements, thereby reducing public exposure to significant hazards. However, there is the potential for an accidental spill to occur. Implementation of conservation measure #2 (listed above in the project description) will address the potential concern associated with accidental spills of pollutants.
- d. The project site is not included on a list of hazardous material sites.
- e. The project site is not located in an area associated with an airport land use plan, nor is it located within two miles of a public airport. As a result, the project would not result in a safety hazard to the public.
- f. The project site is not located within the vicinity of a private airstrip and would not result in a safety hazard to the public.
- g. The project does not involve a use or activity that would interfere with emergency-response or emergency-evacuation plans for the area.
- h. The project site is not located within a high fire hazard zone according to the City’s General Plan.

**Documentation**

- City of Redding General Plan Health and Safety Element, 2000
- City of Redding General Plan Final Environmental Impact Report, Chapter 8 (Health and Safety), 2000
- City of Redding General Plan Background Report, Chapter 10, Health and Safety, 2000

**Mitigation**

No project-specific mitigation is required under this subject.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>10. NOISE.</b> Would the proposal result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project site 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 site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

- a. Construction activities associated with the proposed project would not result in the generation of noise levels that exceed local noise standards.
- b. Directional boring may require percussive equipment to install steel casings at the bore pit. The casings are 36-inch steel pipes, which help guide the bore. The percussive work will be of short duration and low intensity, but could induce groundborne vibration or groundborne noise levels. The bore pit is located over 800 feet from the river so there will be no effects to fish in the river.
- c. The proposed project would not create a substantial permanent increase in ambient noise levels above existing levels within the project vicinity.
- d. There will be a temporary increase in noise levels in the project vicinity above existing ambient noise levels during construction. The most noticeable construction noise would likely be related to pilot bore activities during installation of the force main, vehicle back-up warning devices, jack-hammering, and general construction noise. There could be some limited periodic impact to the adjacent cemetery if services were held near the work area while pile driving is occurring. Pile driving could also have some effect on horses that are temporarily kept at the rodeo grounds near the drill site. Coordination of pile-driving activities with the rodeo association and the cemetery may be necessary to avoid any minor effects that may occur as a result of the work. The City’s noise ordinance limits construction-related noises to between the hours of 7 a.m. and 7 p.m., Monday through Saturday. No operations are permitted on Sunday. The small scope of the project, the local topography, and the somewhat isolated location will limit the anticipated noise impact to neighboring residential and commercial areas to a level considered less than significant.
- e. The proposed project is not located within two miles of a public airport nor is it in within an area subject to an airport land use plan. As a result, people would not be exposed to excessive noise levels specific to airplane traffic.
- f. The proposed project is not located within the vicinity of a private airstrip.

**Documentation**

City of Redding General Plan Noise Element, 2000  
 Redding Municipal Code, Title 16.12.120

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>11. PUBLIC SERVICES.</b>				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities, need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
(1) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion**

a. (1), (2), (3), and (4). The project would not result in any substantial adverse physical impact to government facilities or require new government facilities.

a. (5). The Sacramento River Trail is within close proximity to the lift station on the north side of the river. As proposed, the construction area will block a small portion of the river trail for one to two days, and could limit access to the restrooms adjacent to the lift station. If the trail is blocked for more than one to two days, a temporary path will be provided, marked, and maintained during construction to ensure that trail users can continue to use the trail and restroom facility throughout construction. If a trail detour is needed, the trail will be relocated to an area outside the vegetated riparian corridor along the river that does not support sensitive environmental resources and in such a manner that has the least amount of adverse effects on the environment.

**Documentation**

City of Redding General Plan Public Facilities and Recreation Elements, 2000

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. UTILITIES AND SERVICE SYSTEMS. Would the proposal:</b>				
a. Exceed wastewater treatment requirements of the 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d. Require or result in new demand for domestic water supplies that would exceed existing entitlements and resources, or exceed the capacity of existing supply systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in a demand for wastewater treatment that exceeds the capacity of the system serving the project?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

a-g. The proposed project would not affect water and wastewater treatment or drainage facilities, nor would it affect landfills or solid waste statutes or regulations. The purpose of this project is to upgrade the existing North Market lift station and sewer line.

**Documentation**

City of Redding General Plan Housing and Public Facilities Elements, 2000  
Water and Sewer Atlas, Cit of Redding Engineering Division

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>13. AESTHETICS.</b> Would the proposal:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

**a, c, d.** The project will not affect a scenic vista, change the existing visual character of the site, or create any new substantial light or glare. No established riparian vegetation or large mature trees will be removed by the proposed project. The lift station and main force pipeline are already a component of the visual character of the site. The lift station will be modified or replaced in its existing location, and the existing aerial force main will be replaced with an underground force main which would be considered a beneficial effect to the existing viewshed.

**b.** The project site is not located adjacent to a State-designated scenic highway.

**Documentation**

City of Redding General Plan Natural Resources Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>14. CULTURAL RESOURCES.</b> Would the proposal:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §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 CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

**a.** No historic resources have been recorded within or adjacent to the project site.

**b.** A records search of cultural resources with potential to occur within the project site was conducted April 2005 and is documented in the *North Market Lift Station Upgrade and Force Main Project Preliminary Environmental Evaluation Report* (Pacific Municipal Consultants and North State Resources 2005) prepared for the proposed project. The records search identified two archaeological resources within the project vicinity but outside the project boundaries. The project is not anticipated to have any effect on the sites. Considering that the project area is known to contain archaeological resources, however, there may be more cultural resources hidden within the project site limits that could be unearthed and discovered during the construction phase of the proposed project. If archaeological resources are discovered during construction

activities, those activities affecting the site will cease, and an archaeologist will assess the site and provide recommendations for compliance.

c. The project site is not known to support any unique paleontological resources or unique geological features.

d. There are no known burial sites located within the project site. If, during ground-disturbing activities, any human remains or other archaeological discoveries are encountered, all such activities shall halt within a 50-meter radius of the discovery and a qualified archaeologist shall be contacted to evaluate the find.

**Documentation**

City of Redding General Plan Natural Resources Element, 2000  
 City of Redding General Plan Final Environmental Impact Report, Chapter 7.5 Historic and Cultural Resources  
 North Market Lift Station Upgrade and Force Main Project Preliminary Environmental Evaluation Report Pacific (Municipal Consultants and North State Resources 2005)

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>15. RECREATION.</b>				
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction, relocation 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**

a. Construction and operation of the proposed project would not result in an increase in the use of existing parks or other recreational facilities.

b. Construction activities associated with the lift station on the north side of the river may require blocking a small portion of the Sacramento River Trail for one to two days. If the trail will be blocked for more than two days, a temporary path will be provided to ensure that trail users can continue to use the facility. If a trail detour is needed, the trail will be relocated to an area outside the vegetated riparian corridor along the river that does not support sensitive environmental resources and in such a manner that has the least amount of adverse effects on the environment.

**Documentation**

City of Redding General Plan Natural Resources, Recreation, and Public Facilities Elements, 2000

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>16. AGRICULTURAL RESOURCES.</b> Would the proposal:				
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"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**

- a. The project site does not contain lands that have been mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program.
- b. The project site lands are not currently devoted to agricultural resources. In addition, none of the parcels associated with the project site are currently under a Williamson Act contract.
- c. Since there are no existing farmland uses currently within the project site, construction and operation of the proposed project would not result in the conversion of farmlands to a non-agricultural use.

**Documentation**

City of Redding General Plan Natural Resources Element, 2000

**Mitigation**

No project-specific mitigation is required under this subject

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>17. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion**

- a. As discussed under Issue 7 – BIOLOGICAL RESOURCES, the project may indirectly affect special-status fish species. The project scope and magnitude of adverse effects are considered minimal but could contribute to the incremental effect of projects on the sensitive fish species in the Sacramento River.
- b. The project would include the upgrade and replacement of the existing North Market Lift Station and force main at the Sacramento River, which is consistent with the City’s 2003 Wastewater Utility Master Plan. As discussed in Item 5, construction-related activity would have the potential to generate particulate emissions which contribute cumulatively to the region’s air quality problem. However, standards applied routinely through the City’s Grading Ordinance and associated Standard Specifications for Grading Practices for Public Works Projects will adequately mitigate the project-specific impacts. As a result, cumulative impacts are considered to be less than significant.

Other projects occurring within one year of this project that may also contribute to incremental effects in the river include the Lake Redding Boat Ramp Rehabilitation project located 0.5 mile upstream of the proposed project, the Dana to Downtown Highway 44 Bridge Replacement Project located approximately 1.5 miles downstream of the proposed project and the Cypress Bridge Widening project located approximately 2.75 miles downstream of the proposed project. These projects will have considerable effects on sensitive salmonid species.

Several fishery restoration actions have been accomplished or are ongoing in the project reach, including: ACID dam fish passage improvements; spawning gravel restoration; instream flow and temperature management for improvement of fish habitat; installation of new fish screens at the City of Redding pump station, stream habitat restoration of several nearby streams such as in Middle Creek, Sulphur Creek, Clear Creek, and Canyon Creek and reduction of acid mine runoff from the Iron Mountain Mine into the Sacramento River. The combined effect of these restoration/remediation actions is thought to have greatly improved fish habitat conditions and fish production in the upper Sacramento River. The benefit of these actions likely outweighs the potential impacts this project may have on fishery resources in the Sacramento River reach.

c. As discussed herein, the project does not have characteristics which could cause substantial adverse effects on human beings, either directly or indirectly.

#### **Documentation**

*Biological Assessment for the North Market Lift Station Upgrade and Force Main Replacement Project Report (City of Redding 2005)*

*Preliminary Environmental Evaluation for the North Market Lift Station Upgrade and Force Main Replacement Project Report (Pacific Municipal Consultants and North State Resources 2005)*

City of Redding General Plan, 2000.

## **Attachments**

**Attachment 1:** Figure #1, Project Location

**Attachment 2:** Figure #2, Environmental Study Limits

# **Draft Initial Study Checklist**

## **North Market Lift Station Upgrade and Force Main Replacement Project**

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### **Attachment 1**

#### **Figure #1, Project Location**

# **Draft Initial Study Checklist**

**North Market Lift Station Upgrade and Force Main Replacement Project**

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## **Attachment 2**

**Figure #2, Environmental Study Limits**