

MITIGATION MONITORING PROGRAM

NORTH SHASTA VIEW DRIVE EXTENSION PROJECT

MITIGATION MONITORING PROGRAM CONTENTS

This document is the Mitigation Monitoring Program (MMP) for the North Shasta View Drive Extension Project. The MMP includes a brief discussion of the legal basis for and the purpose of the program, discussion, and direction regarding complaints about noncompliance, a key to understanding the monitoring matrix, and the monitoring matrix itself.

LEGAL BASIS OF AND PURPOSE FOR THE MITIGATION MONITORING PROGRAM

California Public Resources Code Section 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report (EIR) or a mitigated negative declaration. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The MMP contained herein is intended to satisfy the requirements of CEQA as they relate to the Initial Study/Mitigated Negative Declaration prepared for the North Shasta View Drive Extension Project. It is intended to be used by City of Redding (City) staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project.

Mitigation is defined by CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

The intent of the MMP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMP will provide for monitoring of construction activities as necessary, on-site identification and resolution of environmental problems, and proper reporting to City staff.

MITIGATION MONITORING PROGRAM

MITIGATION MONITORING TABLE

The Mitigation Monitoring Table identifies the mitigation measures proposed for the North Shasta View Drive Extension Project. These mitigation measures are reproduced from the Initial Study and conditions of approval for the project. The tables have the following columns:

Mitigation Measure: Lists the mitigation measures identified within the Initial Study for a specific impact, along with the number for each measure as enumerated in the Initial Study.

Timing: Identifies at what point in time, review process, or phase the mitigation measure will be completed.

Agency/Department Consultation: References the City department or any other public agency with which coordination is required to satisfy the identified mitigation measure.

Verification: Spaces to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

NONCOMPLIANCE COMPLAINTS

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the City in written form, providing specific information on the asserted violation. The City shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the City shall take appropriate action to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

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**MITIGATION MONITORING TABLE
FOR THE NORTH SHASTA VIEW DRIVE EXTENSION PROJECT**

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<i>Geology & Soils</i>			
<p>Type D erosion-control measures (i.e., hydroseeding) shall be implemented during construction of the proposed project in nonriparian upland areas. These measures shall conform to special provisions included in the contract for the project.</p> <ol style="list-style-type: none"> 1. Type D erosion-control measures (i.e., hydroseeding) shall be implemented during construction of the proposed project in nonriparian upland areas. These measures shall conform to special provisions included in the contract for the project. 2. Erosion-control work shall consist of application of erosion-control materials within nonriparian upland areas to embankment slopes, excavation slopes, and other areas designated by the project engineer. These materials may include seed, fertilizer, mulch, straw, straw waddles, silt fences, gravel, and rip-rap. 3. Activities that increase erosion potential shall be restricted to the relatively dry summer and early fall period to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to the adjacent surface-water features. If these activities must take place during the late fall, winter, or spring, then temporary erosion- and sediment-control BMPs will be placed and operational at the end of each construction day and maintained until permanent erosion-control features are in place. 4. Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by the City. 5. When construction has been completed, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a 	<p>During Construction Post-Construction</p>	<p>Contractor (implementation) City of Redding (monitoring)</p>	

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.</p> <p>6. BMPs, such as filter fences and catch basins, shall be placed below all construction activities near adjacent surface-water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.</p> <p>7. Spoil sites shall be located such that they do not drain directly into a surface-water feature. Temporary spoil sites shall be protected from the potential for erosion using BMPs, such as compaction, mulching, and containment.</p> <p>8. Sediment-control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been stabilized.</p>			
Hydrology & Water Quality			
9. Potential impacts to water quality will be mitigated by implementing the Erosion and Sediment Control measures provided in the Geology and Soils Section.	During Construction Post Construction	Contractor (implementation) City of Redding (monitoring)	
Air Quality			
<p>10. Water will be applied at least twice daily on all exposed or active construction areas.</p> <p>11. Implementation of speed control on all exposed or active construction areas.</p> <p>12. Suspension of all grading activities when winds, measured as instantaneous gusts, exceed 20 miles per hour (mph).</p> <p>13. Daily cleaning of each established carryout point.</p> <p>14. Either cover or maintain a freeboard height of at least 2 feet on all trucks hauling dirt, sand, soil, road-base materials, or other types of loose materials to and from the site.</p>	During Construction	Contractor (implementation) City of Redding (monitoring)	

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>15. Reestablishment of appropriate ground cover on finished construction areas as soon as project schedule allows.</p> <p>16. Exposed stockpiles of soil and other backfill material shall be enclosed or covered and watered twice daily, or have soil binders added.</p> <p>17. Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed 4 feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a nonpersistent erosion-control mixture.</p> <p>18. Spoil piles shall be marked and flagged separately from native topsoil stockpiles. These spoil piles shall also be planted with a nonpersistent erosion-control seed mix, unless they are to be immediately used. Maximum height for spoil stockpiles shall be 4 feet to allow development of microorganisms prior to placing back into the construction area.</p> <p>19. Equipment and manual watering will be conducted on all stockpiles and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.</p> <p>20. Minimize equipment idling and run-time via daily scheduling of equipment types and use rates.</p> <p>21. Use of CARB-certified low-sulfur diesel fuel.</p> <p>22. Ensure compliance with all applicable EPA and/or CARB-tiered emissions standards for off-road construction-equipment engines.</p>	<p>Post Construction (re-establish ground cover)</p> <p>During Construction</p>	<p>Contractor (implementation) City of Redding (monitoring)</p> <p>Contractor (implementation) City of Redding (monitoring)</p>	
Biological Resources			
<p>23. For areas within the ESL not previously surveyed (i.e., areas along the east side of the preferred alignment), a qualified botanist will conduct protocol-level preconstruction surveys to determine if special-status plant species occur within these portions of the project area. Surveys will be conducted during the respective blooming period for those species having the potential to occur within the project ESL. These species consist of slender Orcutt grass (<i>Orcuttia tenuis</i>), silky cryptantha (<i>Cryptantha crinita</i>), four-angled spikerush (<i>Eleocharis</i></p>	<p>Pre-Construction</p>	<p>City of Redding and/or Developer/Contractor</p>	

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p><i>quadrangulata</i>), Red Bluff dwarf rush (<i>Juncus leiospermis</i> var. <i>leiospermis</i>), legenere (<i>Legenere limosa</i>), and Ahart's paronychia (<i>Paronychia ahartii</i>). If no special-status plant species are observed, no further mitigation is necessary.</p> <p>24. If state or federally listed plant species are observed during the survey and they cannot be avoided during construction, mitigation credits will be purchased from an approved mitigation bank with extant populations of the affected special-status plant species at a minimum ratio of 1:1. The City will consult with state and federal agencies to obtain required permits and approvals. Special-status plant species populations that can be avoided shall be protected with exclusionary fencing to prohibit disturbance.</p> <p>25. Formal consultation with the USFWS shall be initiated under Section 7 or Section 10 of the ESA, as appropriate. No direct or indirect impacts to suitable habitat for these species shall occur until Incidental Take authorization has been obtained from the USFWS.</p> <p>26. Prior to construction, either (1) a qualified biologist will conduct protocol-level surveys for listed vernal pool branchiopods following the USFWS <i>Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for Listed Vernal Pool Branchiopods</i> (1996a) to determine presence/absence; or (2) assume presence. If the species are not detected during the protocol-level survey, no further measures or mitigation is required. If either species is detected during protocol-level surveys or the presence of these species is assumed in-lieu of conducting surveys, and proposed activities would result in direct or indirect impacts to potential habitat, the following measures shall be implemented:</p> <p>a. For every acre of habitat directly or indirectly affected, at least one vernal pool preservation credit shall be dedicated within a USFWS-approved ecosystem conservation preserve or bank (e.g., Stillwater Plains Mitigation Bank). Alternatively, with USFWS approval, appropriate payment into an</p>			

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>in-lieu fee fund or on-site preservation may be used to satisfy this measure.</p> <p>b. For every acre of habitat directly affected, at least one vernal pool creation credit will be dedicated within a USFWS-approved ecosystem conservation preserve or bank (e.g., Stillwater Plains Mitigation Bank). Alternatively, with USFWS approval, appropriate payment into an in-lieu fee fund or on-site preservation may be used to satisfy this measure.</p> <p>27. If construction and grading are scheduled to avoid the nesting season, no further mitigation is necessary. The nesting season for most raptors in Shasta County extends from February 15 through July 31. Thus, if construction can be scheduled to occur between August 1 and February 14, the nesting season will be avoided and no impacts to nesting raptors are expected. If it is not possible to schedule construction during this time, the following mitigation measures shall be implemented:</p> <p>a. Preconstruction surveys for nesting raptors shall be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. Surveys shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the biologist shall inspect all trees immediately adjacent to the impact areas for raptor nests. If an active raptor nest is found within 250 feet of the project's active construction area, the biologist, in consultation with the CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.</p> <p>b. If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g., trees) that will be removed by the project shall be removed before the onset of the nesting season, if feasible. This will help preclude nesting and eliminate any direct impacts to nesting birds.</p>			

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>28. No more than two weeks before construction, a survey for burrows and burrowing owls shall be conducted by a qualified biologist within the environmental study limits around the construction footprint. The survey shall include up to 4 surveys on different dates if there are suitable burrows present. If no burrows are observed during the first site visit, no additional mitigation is required.</p> <p>29. If occupied owl burrows are found within the survey area, a determination shall be made by a qualified biologist in consultation with CDFG whether or not project construction will impact the occupied burrows or disrupt reproductive behavior. As appropriate, a plan will be developed providing direction on how to proceed with construction.</p> <p>30. If it is determined that construction will not impact occupied burrows or disrupt breeding behavior, construction will proceed without any restriction or mitigation measures.</p> <p>31. If it is determined that construction will impact occupied burrows during August through February, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors. There shall be at least 2 unoccupied burrows suitable for burrowing owls within 300 feet of the occupied burrow before one-way doors are installed. The unoccupied burrows can be natural burrows or artificial burrows constructed according to California Fish and Game-approved designs. Artificial burrows shall be in place at least 1 week before one-way doors are installed on occupied burrows. One-way doors shall be in place for a minimum of 48 hours before burrows are excavated.</p> <p>32. If construction and grading are scheduled to avoid the nesting season, no further mitigation is necessary. The nesting season for loggerhead shrike and tri-colored blackbird in Shasta County extends from March 15 through August 1. If the breeding season cannot be completely avoided, the following mitigation measures shall be implemented:</p>			

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>a. Preconstruction surveys for the loggerhead shrike and tri-colored blackbird shall be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 14 days prior to the initiation of construction activities. The preconstruction survey shall be used to ensure that no nests of these species within or immediately adjacent to the project site will be disturbed during project implementation. If an active nest is found close enough to the construction area to be disturbed by these activities, the biologist, in consultation with the CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.</p> <p>b. If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed by the project shall be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts.</p>			
<p>33. Within the project study area, impacts to wetlands can be minimized by the installation of open-bottomed, arched culverts or bridges spanning drainages throughout the study area. If practicable, the design of the project will be altered to avoid filling of wetlands.</p>	During Construction	Contractor (implementation) City of Redding (monitoring)	
<p>34. Mitigation will be accomplished by purchasing credits at an approved mitigation bank or conservation preserve or payment of mitigation fees through an approved in-lieu fee program, as directed by the USACE.</p>	Pre-Construction (purchase mitigation credits)	City of Redding and/or Developer/Contractor (survey implementation, mitigation implementation)	
<p>35. Conduct all trenching and construction activities across wetland features during the dry season (typically June through October).</p>		City of Redding and/or Developer/Contractor (monitoring)	
<p>36. The trench shall not be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a French drain effect). Clay blocks, bentonite, or other suitable material shall be used to seal the trenches where necessary</p>	During Construction	Contractor (implementation) City of Redding (monitoring)	

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>to prevent them from draining waters of the United States.</p> <p>37. Place sediment curtains upstream and downstream of the construction zone to prevent sediment disturbed during ground-disturbing activities from being transported and deposited outside the construction zone.</p> <p>38. Temporary exclusion fencing shall be installed at the margins of the construction area to prevent equipment from entering protected areas.</p> <p>39. Locate spoil sites such that they do not drain directly into wetland features to the fullest extent possible. If a spoil site threatens to drain into a wetland feature, catch basins shall be constructed to intercept sediment before it reaches the wetland feature. Spoil sites will be flattened and mulched to reduce the potential for erosion.</p> <p>40. Store equipment and materials away from all wetland features. No contaminants or other debris will be deposited within 100 feet of the drainages and wetland areas.</p> <p>41. Following road construction, any impacted wetland area shall be returned to original grade. The upper 6 to 12 inches of topsoil shall be maintained and used as backfill following placement and compaction of subsoils. Any wetland area left bare following construction will be revegetated using plugs of rushes, sedges, or other native vegetation taken by hand from plants in adjacent wet-meadow habitat, or from CDFG-approved nursery sources, or as provided in a wetland restoration plan for the project.</p>			
<p>The following measures shall apply to the project for trees with 6-inch dbh or greater:</p>			
<p>42. The final design of the project shall provide for the identification and protection of trees adjacent to the initial right-of-way improvements and trees adjacent to, or within, the project staging area.</p>	Pre-Construction	City of Redding and/or Developer/Contractor (survey implementation, mitigation implementation)	
<p>43. The final design of the project shall consider alternatives for reducing the impact on trees.</p>		City of Redding and/or Developer/Contractor	
<p>44. Any trees identified for preservation shall be flagged and avoided during construction in accordance with the</p>	During Construction	(monitoring)	

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
<p>standards of Section 18.45.090 of the Redding Municipal Code.</p> <p>45. Conduct a preconstruction meeting with pertinent City staff or qualified biologist and project contractors to discuss which trees are proposed for removal and preservation, highlighting any potential problem areas.</p> <p>46. No vehicles, construction equipment, mobile offices, or materials shall be parked or located within the drip lines of trees that are to be preserved. Minimum growing areas as required by individual species shall be located, and drip lines of trees shall be fenced to exclude vehicle and foot traffic.</p> <p>47. If possible, no soil-surface removal greater than 1 foot in depth shall occur within the drip lines of trees to be preserved. No cuts shall occur within 5 feet of their trunks.</p> <p>48. If possible, no earthen fill greater than 1 foot deep shall be placed within the drip lines of trees to be preserved or within 5 feet of their trunks.</p> <p>49. Where approval of a proposed development or other site work will result in encroachment within the drip line of a protected tree, special measures shall be incorporated to allow the roots to obtain oxygen, water, and nutrients.</p> <p>50. No storage or dumping of oil, gasoline, chemicals, or other substance that may be harmful to trees shall occur within the drip line of any protected tree or on any other location from which such substances might enter the drip line of a protected tree.</p> <p>51. Compensatory mitigation for oak trees with a dbh of 6 inches or greater that must be removed as a result of the project shall be replaced at a minimum 1:1 ratio. Selected replacement trees shall be limited to oak species that currently exist on the project site. The City shall hire a native vegetation restoration specialist or qualified biologist to prepare a detailed Oak Tree Mitigation and Monitoring Program, which includes specific planting techniques, irrigation methods, locations of tree plantings, and success criteria for mitigation. Replaced trees shall be monitored by a qualified biologist semi-annually for a</p>	<p>Pre-Construction and Post-Construction</p>		

Mitigation Measure	Timing/Implementation	Enforcement/Monitoring	Verification (Date and Initials)
minimum of 5 years to ensure that the total number of surviving replacement trees meets a survival standard of a 1:1 replacement ratio at the completion of the monitoring period.			

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