

City of Fort Bragg Water Line Replacement Project

Mitigation Monitoring and Reporting Plan

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
<p><b>BIO-1. Amphibian Surveys</b></p>	<ul style="list-style-type: none"> <li>• A qualified biologist will conduct a preconstruction survey within 24 hours prior to the start of construction activities within the aquatic habitats in the project area. A qualified biologist will monitor any vegetation removal within the aquatic habitats of the project. The biologist will monitor installation of water diversion structures placed in Segment 2 and Segment 5 for any proposed culvert replacement and for all stream diversion activities.</li> <li>• The upstream and downstream limits of the project will be</li> </ul>	<p>Prior to Construction</p>	<p>Qualified biologist</p>	<p>City</p>	<p>24 hours prior to construction within aquatic habitats</p>	

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	<p>flagged and/or signed to prevent the encroachment of construction personnel and equipment into any sensitive areas during project work.</p> <ul style="list-style-type: none"> <li>• Prior to construction, environmental awareness training will be conducted for construction personnel to brief them on how to recognize each life stage of special-status amphibians. Construction personnel should also be informed that if a special-status amphibian is encountered in the work area, construction should stop and CDFW contacted for guidance. A training log sign-in sheet will be maintained.</li> <li>• If special-status frogs or salamanders are</li> </ul>					

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	<p>found at any time during project work, construction will stop, and the Project Biologist will be notified and will assess species confirmation. If necessary, CDFW will be contacted for further guidance.</p> <ul style="list-style-type: none"> <li>• Staging areas as well as fueling and maintenance activities shall be a minimum of 100 feet, if possible, from aquatic habitats. The City's construction contractor will prepare a spill prevention and clean-up plan and ensure all materials are onsite prior to construction.</li> <li>• If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with mesh wire not larger than five millimeters.</li> </ul>					

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	<ul style="list-style-type: none"> <li>Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate</li> </ul>					
<b>BIO-2. Nesting Osprey</b>	<ul style="list-style-type: none"> <li>Preconstruction surveys shall be conducted for nesting osprey within 500 feet of the project area no more than 14 days prior to construction if work is expected to take place during the Osprey nesting season (March 1 – September 15). If work is scheduled outside of the nesting season, surveys are not required.</li> <li>If an active nest is identified within 500 feet of the project area, an appropriate protective buffer shall be determined by a</li> </ul>	Prior to Construction	Qualified biologist	City	Survey conducted no more than 14 days prior to construction if during nesting season	

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	<p>qualified biologist, in coordination with CDFW. The size of the buffer shall depend on site-specific conditions and potential disturbance levels. Construction buffers for Osprey nests may vary from 5 to 18 acres based on FPA rules (14CCR919.3). No work shall occur within the buffer until a qualified wildlife biologist has determined that the nesting attempt is complete.</p> <ul style="list-style-type: none"> <li>• If potential nesting trees are to be removed during construction activities, removal will take place outside of the osprey nesting season. Trees maybe removed during the nesting season if it is determined the nest is inactive.</li> </ul>					

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	<ul style="list-style-type: none"> <li>Trees slated for removal during the nesting season may be removed after nest is checked by a qualified wildlife biologist to validate it is an inactive nest.</li> </ul>					
<b>BIO-3. Nesting Bird Surveys</b>	<ul style="list-style-type: none"> <li>Preconstruction surveys shall be conducted for nesting migratory birds and raptors within the project area no more than 14 days prior to construction for any work occurring during the bird nesting season (February 1 through August 31).</li> <li>If an active migratory bird nest is identified within the project area, an appropriate protective buffer shall be determined by a qualified biologist, and coordination with CDFW may be necessary. The size of</li> </ul>	Prior to construction	Qualified biologist	City	No more than 14 days prior to construction	

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	<p>the buffer shall depend on site-specific conditions and potential disturbance levels. Work shall not be allowed within the buffer until a qualified biologist has determined that the nesting attempt is complete.</p> <ul style="list-style-type: none"> <li>• If potential raptor nesting trees are to be removed during construction activities, removal will take place outside of the nesting season. Trees maybe removed during nesting season if nest is found to be inactive by qualified biologist.</li> </ul>					
<b>BIO-4. Sonoma Tree Voles (STV)</b>	<ul style="list-style-type: none"> <li>• If STV nests are identified by a qualified wildlife biologist prior to construction, the potential nesting tree shall be flagged and retained and adjacent trees (those with</li> </ul>	Prior to construction	Qualified biologist	City	Prior to construction	

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	<p>crowns touching the potential nesting tree) shall also be retained. STV surveys should follow the survey protocol in Record of Decision of Northwest Forest Plan Version 2.1, October 2002 or any subsequent revision.</p> <ul style="list-style-type: none"> <li>• Occupied trees shall be avoided to the fullest extent possible. If disturbance of occupied trees is unavoidable, consultation with CDFW will be conducted to determine appropriate mitigation measures.</li> <li>• Tree removal by tree falling into the potential nesting tree shall be avoided, if possible.</li> </ul>					
<b>BIO-5. Western Pond Turtles</b>	<ul style="list-style-type: none"> <li>• If dewatering is necessary on any project segment, the</li> </ul>	Prior to construction	Qualified biologist	City	No more than 2 weeks prior ground disturbing activities	



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	<p>construction area shall be dewatered prior to construction activities. Dewatering activities will be conducted in accordance with all applicable conditions in CDFW 1600 series Lake and Streambed Alteration Agreements.</p> <ul style="list-style-type: none"> <li>No more than 14 days prior to the commencement of ground-disturbing activities, the City shall retain a qualified biologist to perform surveys for Western Pond turtle within suitable aquatic and upland habitat within the project construction area. Surveys will include Western Pond turtle nests as well as individuals. The biologist (with the appropriate agency permits) will temporarily relocate any identified Western</li> </ul>					

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	<p>Pond turtles upstream of the construction area, and temporary barriers will be placed around the construction area to prevent ingress. Construction will not proceed until the work area is determined to be free of western pond turtles. The results of these surveys will be documented in a technical memorandum that will be submitted to CDFW (if turtles are documented).</p> <ul style="list-style-type: none"> <li>Standard water quality BMPs shall be implemented throughout construction, in order to avoid and minimize adverse effects from erosion to water quality within the project area.</li> </ul>					

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<p><b>BIO-6. Implement Marbled Murrelet (MAMU) Protection Measures and Comply with Seasonal Restrictions</b></p>	<p>The City has endeavored to avoid the potential MAMU habitat during the pipeline planning process.</p> <p>The City will request a pre-consultation meeting with CDFW Fort Bragg office to discuss project and obtain any survey requirements and buffer requirements for this project. A qualified biologist may conduct MAMU surveys within 30-60 days of the two tree stands identified prior to construction in Segment 2 and Segment 3 that maybe provide marginal nesting habitat and will comply with and implement the construction windows and required noise buffers if nesting MAMU are observed. If no nesting MAMU are observed the City may proceed with construction with no MAMU restrictions. If MAMU are observed nesting in either of the two tree areas, construction in these two areas shall be delayed until young MAMU have fledged the nest to avoid impacts. This mitigation</p>	<p>Prior to Construction for surveys, during construction for seasonal protection measures</p>	<p>Qualified biologist</p>	<p>City</p>	<p>30-60 days prior to construction for surveys, during construction for seasonal protection measures</p>	

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	<p>measure will be coordinated with Redwood Timberland Company as these same MAMU mitigation requirements would apply to any proposed timber harvest plans being proposed by Redwood Timberland Company in the forests of Segment 3.</p> <p>The USFWS and CDFW have established seasonal protection measures and noise buffer requirements for MAMU (primarily for dawn and dusk periods when nesting MAMU are active March 23-Sept 15) that are used in the region for various THPs, and other projects managed by CALFIRE (USFWS 2006, CDFW 2019). The following seasonal protection measures for activities within 165 feet from potential MAMU habitats that have existing low ambient noise levels (&lt;50dB) are required:</p> <ul style="list-style-type: none"> <li>• No use of small, hand-held power equipment,</li> </ul>					

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	<ul style="list-style-type: none"> <li>• No use of heavy-duty transportation equipment, and /or</li> <li>• Hauling logs,</li> <li>• No felling of large trees (&gt;30 in dbh),</li> <li>• No use of yarder whistle,</li> <li>• No use of Jake brakes,</li> <li>• No detonation of un-muffled explosives,</li> <li>• No use of chipper machine,</li> <li>• No use of chainsaws,</li> <li>• No rebuilding of roads with dump trucks, bulldozers, or road graders.</li> </ul> <p>Dawn is defined as a 4-hour period consisting of 2 hours before sunrise to 2 hours after sunrise. Dusk is defined as a 4-hour period 2 hours before sunset and 2 hours after sunset. Implementation of these protection measures are required from March 23-Sept 15. The City could construct</p>					

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	the sections of the pipelines near the two tree stands either before or after this seasonal window with no restrictions.					
<b>BIO-7. Rare Plants</b>	<ul style="list-style-type: none"> <li>• Seasonally appropriate (i.e., fall and spring) surveys for special-status plants shall be conducted and plant populations mapped by a qualified botanist within one year prior to construction commencing.</li> <li>• If found, special-status plant species, or mapped populations, shall be flagged 14 days prior to construction commencement and avoided to the greatest extent possible.</li> <li>• If impacts are unavoidable, and mitigation is warranted by the CDFW, a qualified botanist shall attempt to transplant the plant(s) into an area away from</li> </ul>	Prior to construction	Qualified botanist	City	One year prior to construction	

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	<p>potential construction impacts or collect seeds to replant after construction is complete.</p> <ul style="list-style-type: none"> <li>There shall be no net loss of habitat after the Proposed Project is complete. All areas impacted by clearing, grubbing, and tree removal, with exception of the main pipeline corridor, shall be revegetated with native species according to the revegetation plan.</li> </ul>					
<b>BIO-8. Tree and Rare Plant Populations</b>	<ul style="list-style-type: none"> <li>Prepare a Restoration Plan for all four species in consultation with CDFW. Prior to construction of Segment 2, a qualified biologist shall remove the mature Semaphore grass and Miterwort and their seed base for temporary relocation away from the</li> </ul>	Prior to and post construction	Qualified biologist	City	Prior to and post construction	

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	<p>construction site. Seeds can also be collected from the Nodding semaphore grass and re-sown at the edge of the right-of-way in Segment 2, where erosion control will be necessary to protect the adjacent stream, or</p> <ul style="list-style-type: none"> <li>• Once construction is complete, plants may be replanted to the same general area where they are observed, or transplanted nearby in similar conditions.</li> <li>• Mendocino cypress trees located primarily in project Segment 3 within the CZ with a DBH of 5 inches or greater shall be mitigated at a 3:1 ratio per CCC CZ policies.</li> </ul> <p><b>Table BIO-8.1</b> (provided at the end of this MMRP)_presents the preliminary tree</p>					



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	<p>mitigation numbers for both Mendocino cypress and Bishop pine for all project segments. These ratios are consistent with a previous Mendocino cypress mitigation plan implemented for the City's Summers Lane Reservoir project back in 2015.</p> <ul style="list-style-type: none"> <li>The City shall, in consultation with CDFW, prepare a Mendocino cypress and Bishop pine Mitigation Plan. The City proposes 3:1 mitigation for cypress trees greater than 5 inches DBH and a combination of transplanting and 1:1 mitigation for cypress saplings less than 5 inches DBH; 2:1 mitigation ratio for Bishop pine impacts within Segment 3 only as Segments 4 and 5 are not within the CCC</li> </ul>					

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	<p>CZ jurisdiction. Bishop pine are considered a commercial tree species within CALFIRE THP process and do not require mitigation outside of the CZ. The tree estimates presented herein for disclosure purposes are considered preliminary and subject to change.</p> <ul style="list-style-type: none"> <li>○ For Segment 2, there are no tree impacts as the pipeline follows an existing dirt road.</li> <li>○ For Segment 3, based on preliminary count of trees (108 small cypress trees) within the construction right-of-way, this will require transplanting and planting of</li> </ul>					

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	<p>116 cypress trees based on the proposed mitigation ratio. Also, within Segment 3, approximately 46 small Bishop pine trees will be impacted and will be mitigated at a 2:1 mitigation ratio for a total of 92 trees.</p> <ul style="list-style-type: none"> <li>○ For Segment 4, 1 cypress greater than 5 inches DBH will be impacted, thus, 3 cypress trees will be planted.</li> </ul> <p>A total of 149 Mendocino cypress and 92 Bishop pine would be planted with this mitigation proposal. The City will</p>					

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	<p>seek to avoid these two tree species if at all possible, during pipeline construction and a final count of Mendocino cypress and Bishop pine trees removed will be conducted by a RPF post construction to finalize mitigation requirements with the trustee agencies. The goal of the plan is to restore the populations within 5 years, or a term mutually agreed to by the parties. Details of the restoration plan should include background information, description of existing environmental conditions, detailed planting plan, monitoring program and performance standards. The City is proposing to transplant the young cypress seedlings and small</p>					

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	<p>Bishop pine trees from the construction area with approval from CDFW and CCC. This Mendocino cypress/Bishop pine mitigation plan and monitoring program will be coordinated with the landowner Redwood Timberland Company as the primary cypress population impacted by this project is located within their forests. If the mitigation will occur on their property, the City will work with Redwood Timberland Company on developing and implementing the plan and work out the funding of the long-term monitoring required in this program to ensure successful establishment of the new cypress</p>					

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	<p>population. If Redwood Timberland Company decides to perform a THP, the tree mitigation program may be implemented after Redwood Timberland Company has received approval of their THP so that the restoration plan could be prepared for both projects in a holistic manner to benefit the Newman Gulch watershed tree population. In the event the City water project precedes Redwood Timberland Company's THP, the City will mitigate for their project specific impacts as described above separately with CDFW.</p> <p>In February of 2022, during an outreach meeting, California Coastal Commission staff suggested that the City investigate the</p>					

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	<p>potential to assist with protection and possible restoration efforts at Sholar's Bog as a mitigation area that would be used for mitigating impacts to both Mendocino cypress and Bishop pine trees for this project. It could potentially be used for mitigating future projects by the City, as well as for projects proposed by Mendocino County and other local agencies. The Redwood Mendocino Cypress Association, as defined in CDFW 2019 study of the population, is a unique plant community in the region and would benefit from collaborative regional mitigation efforts. The City is actively seeking out potential partners in this concept, which</p>					

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	<p>include, but are not limited to the Mendocino Land Trust, CDFW, Redwood Timberland Company, and others, such as the California Native Plant Society.</p> <p>The 12.25 acre Sholar's Bog Pygmy Forest parcel is currently owned by College of the Redwoods Foundation and the purchase was funded by the California Coastal Conservancy. It is in need of improved maintenance and active protection, as well as restoration. The parcel is located about 1,500 feet south of the City's Summers Lane Reservoir and contains the most substantial known sphagnum bog in the area. It has been visited by scientists for decades, as it was first described in a 1933 edition of Science</p>					



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	<p>where it was referred to as the Summers Lane Bog. It is one of 3 known sites in California and is the furthest south. Pollen dating indicates that it is more than 10,000 years old. The City is following up with several agencies on the potential to bring this idea forward, but all discussions are still in progress. The City is open to a mutually agreed upon mitigation that will satisfy agency permitting requirements. The City of Fort Bragg recognizes this is an important issue for our community and wants to work collaboratively with others to develop a regional solution for these unique tree populations. The City is actively considering conservation opportunities for the</p>					

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	<p>Mendocino Cypress Woodlands, including providing funding for management or stewardship for lands already under conservation or to provide funding for preserving additional lands.</p>					
<p><b>BIO-9. Hare Creek and Covington Gulch</b></p>	<ul style="list-style-type: none"> <li>Implement <b>Mitigation Measure BIO-1 Conduct Preconstruction Surveys for Fish and Amphibians.</b> A qualified biologist will conduct pre-construction surveys for Pacific Giant salamanders and other amphibians and fish at least 14 days prior to construction.</li> <li>If any amphibians or fish are observed during surveys, a qualified biologist will relocate individuals upstream of the proposed construction</li> </ul>	<p>Prior to construction</p>	<p>Qualified biologist Construction Contractor</p>	<p>City</p>	<p>14 days prior to construction</p>	

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	<p>zone into larger pools or other suitable habitat. The construction zone will be surveyed on a daily basis by trained staff prior to construction to ensure amphibians have not migrated into or near the construction area.</p> <ul style="list-style-type: none"> <li>• Prior to the start of construction, all construction workers, including contractors, shall receive Worker Environmental Awareness Training by a qualified biologist in the identification of frogs, salamanders and fish that maybe found in the Hare Creek drainage and proper procedures to follow in the event they are discovered,</li> <li>• The construction contractor, in coordination with the City, will coordinate</li> </ul>					

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	<p>the details of this creek crossing with CALFIRE biologists and obtain any necessary permits and approvals from JDSF prior to construction,</p> <ul style="list-style-type: none"> <li>• If determined necessary, the City will obtain a CDFW 1602 Streambed Alteration Agreement and implement the terms and conditions in the permit to protect aquatic resources.</li> <li>• The City will monitor turbidity levels upstream and downstream to ensure levels in Hare Creek are within acceptable range during the short construction window (estimated 2-3 days to construct).</li> <li>• If determined necessary, the City will obtain a Clean Water Act Section 404 Permit and associated federal</li> </ul>					

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	<p>approvals from S.F. District of United States Army Corp of Engineers for this portion of the project to ensure federal special-status species, wetlands, water quality and cultural resources in the area are fully protected during construction.</p> <ul style="list-style-type: none"> <li>The City will develop and implement a Hare Creek restoration plan for project area that will include details on restoring the natural grade in the streambed and local area, implementation of erosion control measures and planting of native plants (e.g., willow) to enhance the restoration in the impacted zone.</li> </ul>					
<b>BIO-10. Clean Water Act Section 404 Permit, CDFW 1600 Permit and</b>	<p>The City will prepare permit applications for both CWA Section 404 and CDFW F&amp;GC 1602 permits prior to project</p>	<p>Prior to and during construction</p>	<p>City and Qualified biologist</p>	<p>City</p>	<p>Prior to and during construction</p>	

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<p><b>Implement Wetland Protection and Compensation Measures</b></p>	<p>construction and implement the terms and conditions in each permit. These measures will be included in the plans and specification for the City's bid package for the project. The following measures shall be implemented by the City to avoid impacts to wetlands and other aquatic habitats:</p> <p><u>SPECIFIC WETLAND MEASURES</u></p> <ul style="list-style-type: none"> <li>• Prior to the start of construction, all portions of the streams or wetlands to be avoided shall be temporarily staked in the field by a qualified biologist.</li> <li>• Prior to the start of construction, construction personnel shall be trained by a qualified biologist on all required avoidance and minimization measures as well as any Clean Water Act or CDFW permit requirements.</li> </ul>					

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	<ul style="list-style-type: none"> <li>• Trash generated by the project shall be promptly and properly removed from the site</li> <li>• No construction or maintenance vehicles shall be refueled within 200 feet of the streams unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.</li> <li>• Appropriate erosion-control measures (e.g., fiber rolls, filter fences) shall be used on site to reduce siltation and runoff of contaminants into the streams or wetlands. Filter fences and mesh shall be of material that will not entrap reptiles or amphibians. Erosion control blankets shall be used as a last resort because of their tendency to</li> </ul>					

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	<p>biodegrade slowly and to trap reptiles and amphibians.</p> <ul style="list-style-type: none"> <li>• Fiber rolls used for erosion control shall be certified as free of noxious weed seed and will not contain plastics of any kind.</li> <li>• Seed mixtures applied for erosion control shall not contain invasive nonnative species and will be composed of native species or sterile nonnative species.</li> <li>• Herbicide shall not be applied within 100 feet of wetlands, ponds, streams, or riparian woodland/scrub; however, where appropriate to control serious invasive plants, herbicides that have been approved for use by EPA in or adjacent to aquatic habitats may be used as long as label instructions are</li> </ul>					



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	<p>followed, and applications avoid or minimize impacts on covered species and their habitats. In seasonal or intermittent stream or wetland environments, appropriate herbicides may be applied during the dry season to control nonnative invasive species (e.g., yellow star-thistle). Herbicide drift shall be minimized by applying the herbicide as close to the target area as possible.</p> <p><u>GENERAL WETLAND PROTECTION MEASURES</u></p> <ul style="list-style-type: none"> <li>• Equipment storage, fueling, and staging areas shall be sited on disturbed areas or on rural or non-sensitive non-native grassland land cover types, when these sites are available, to minimize risk of direct discharge</li> </ul>					

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	<p>into riparian areas or other sensitive land cover types.</p> <ul style="list-style-type: none"> <li>• No erodible materials shall be deposited into watercourses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.</li> <li>• Silt fencing or other sediment trapping methods shall be installed down-gradient from construction activities to minimize transportation of sediment off site.</li> <li>• Barriers shall be constructed to keep wildlife out of construction sites, as appropriate.</li> <li>• Onsite monitoring shall be conducted throughout the construction period to ensure that</li> </ul>					

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	<p>disturbance limits and BMPs are being implemented properly.</p> <ul style="list-style-type: none"> <li>• Active construction areas shall be watered regularly to minimize the impact of dust on adjacent vegetation and wildlife habitats, if warranted.</li> <li>• Drainage structures (culverts and bridges) shall remain free of accumulations of vegetation and debris to provide maximum drainage capacity and potential use by wildlife as travel corridors.</li> </ul>					
<b>CUL-1 Stop Work if Resources Unearthed</b>	<p>If cultural resources are unearthed pursuant to §15064.5 during any phase of project activity, all work in the immediate vicinity of the find shall halt until the significance of the resource has been evaluated. Any mitigation measures that may be deemed necessary shall be implemented by a qualified</p>	During Construction	Qualified archeologist	City	During construction	

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	<p>archaeologist prior to resumption of construction activities to the satisfaction of NAHC. The City will provide the opportunity for Native American monitors to participate in the identification, evaluation, and mitigation of effects upon, any Native American human remains, or cultural resources inadvertently exposed during the proposed construction. Consultation with personnel designated by the NAHC would be acceptable. Should tribal representatives agree to consult on any such discoveries, the costs incurred are the responsibility of the City.</p>					
<p><b>CUL-2. Compliance with California State Health and Safety Code, Section 7050.5.</b></p>	<p>If human remains are exposed by project related activity, the Applicant shall comply with California State Health and Safety Code, Section 7050.5, which states that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and the disposition pursuant to California Public</p>	<p>During construction</p>	<p>County Coroner</p>	<p>City</p>	<p>During construction</p>	

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	Resources Code, Section 5097.98.					
<b>GEO-1. Immediately Halt Construction Activities if Any Paleontological Materials Are Discovered</b>	If paleontological resources are discovered during earth-moving activities, the construction crew shall immediately cease work in the vicinity of the find and shall notify the City's project manager. The City shall retain a qualified paleontologist to evaluate the resource and prepare a proposed mitigation plan in accordance with SVP guidelines (1995). The proposed mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations determined by the lead agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.	During construction	Qualified paleontologist	City	During construction	
<b>HAZ-1. Project Health and</b>	A HASP shall be developed for the Project by the City's	Prior to and during construction	Construction contractor	City	Prior to and during construction	

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<b>Safety Plan (HASP)</b>	construction contractor. The City shall review and approve the HASP. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled and disposed of in accordance with appropriate federal, state and local regulations					
<b>HAZ-2: Conduct Asbestos Containing Materials Survey</b>	A California-licensed abatement contractor will conduct a survey for asbestos containing materials prior to any required demolition (including concrete elements) and contractor will submit a National Emission Standard for Hazardous Air Pollutants (NESHAP) notification. Per Section 14-9.02 of the asbestos NESHAP regulation, all "demolition activity" requires written notification even if there is no asbestos present. This notification should be typewritten and postmarked or delivered no later than ten	Prior to construction	California-licensed abatement contractor and construction contractor	City	Prior to Construction	

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	days prior to the beginning of the asbestos demolition or removal activity.					
<b>Measure HYD-1: Develop Water Pollution Control Plan and Implement Water Quality Best Management Practices</b>	<p>Before any ground-disturbing activities, the City shall prepare and implement a Water Pollution Control Plan (WPCP) that includes erosion control measures and construction waste containment measures to ensure that local waterways are protected during and after construction. The WPCP shall follow guidance in the current version of the California Stormwater Quality Association (CASQA) BMP Handbook. The WPCP shall include site design to minimize offsite storm water runoff that might otherwise affect adjacent lake or stream habitat.</p> <p>The WPCP shall require that the construction contractor implement BMPs to protect water quality within the various watercourses of the project. CASQA has developed resources for preventing water pollution during construction activities.</p>	Prior and during construction	Construction contractor	City	Prior to and during construction	

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>Based on review of the project, the following or equivalent BMPs will be used by the construction contractor when developing the WPCP:</p> <ul style="list-style-type: none"> <li>• Silt fencing</li> <li>• Hydraulic mulch</li> <li>• Hydroseeding</li> <li>• Fiber rolls</li> <li>• Dewatering operations</li> <li>• Material and equipment use over water</li> <li>• Other spill control and prevention measures</li> </ul> <p>The WPCP will also require that the construction contractor cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch</p>					
<b>NOI-1: Minimize Noise Disturbances to Nearby Residents</b>	The following control measures shall be implemented in order to minimize construction noise disturbances at sensitive	During construction	Construction contractor	Contractor	During construction	



Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>receptors within the Project vicinity:</p> <ul style="list-style-type: none"> <li>• Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).</li> <li>• Utilize construction methods or equipment that provides the lowest level of noise</li> </ul>					

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>and ground vibration impact.</p> <ul style="list-style-type: none"> <li>• Turn off idling equipment.</li> </ul>					
<b>PUB-1: Prepare and Implement a Construction Period Emergency Access Plan</b>	<p>Prior to the start of construction, the City's construction contractor shall coordinate with the City of Fort Bragg Police and Fire departments and local public and private ambulance and paramedic providers in the area to prepare a Construction Period Emergency Access Plan. The Construction Period Emergency Access Plan shall identify phases of the Project and construction scheduling and shall identify appropriate alternative emergency access routes.</p>	<p>Prior to construction</p>	<p>Construction contractor</p>	<p>City</p>	<p>Prior to construction</p>	
<b>TRA-1: Prepare Standard Traffic Management Plan</b>	<p>The City will coordinate with Redwood Timberland Company for the temporary traffic and circulation impacts to the Haul Road during construction of Noyo River lining and Segment 3. The City would minimize disruptions to traffic along roadways within the Project</p>	<p>Prior to and during construction</p>	<p>Construction contractor</p>	<p>City</p>	<p>Prior to and during construction</p>	

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>area by implementing the following measures:</p> <ul style="list-style-type: none"> <li>• During construction, the contractor shall place temporary signage to inform traffic of suggested construction zone traffic procedures.</li> <li>• During construction, the contractor shall post reduced speed work zone signs at the proposed project site.</li> <li>• The Contractor shall be required to submit a traffic control plan that will be approved by the City prior to construction.</li> </ul>					
<p><b>TCR-1: Unanticipated Discovery of Tribal Cultural Resources</b></p>	<p>If a tribal cultural resource is encountered during project-related ground-disturbing activities, the construction contractor will cease all work within 100 feet of the find until it can be determined if the resource is significant. The contractor will notify the City, and the resource will be</p>	<p>During construction</p>	<p>Construction contractor and appropriate tribal representative</p>	<p>City</p>	<p>During construction</p>	

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>avoided, if possible. Preservation-in-place is the preferred manner of mitigating impacts; however, if avoidance is not feasible, a Treatment Plan that documents the research approach and methods for data recovery will be prepared and implemented in consultation with the City, and the appropriate tribal organization.</p>					
<p><b>FIRE-1: Prepare and Implement Fire Safety Plan</b></p>	<p>Prior to the start of construction, the contractor shall coordinate with the Mendocino County Fire Department, City of Fort Bragg Fire Department, and CALFIRE shall coordinate to prepare a Fire Safety Plan for use during construction and operation of the Proposed Project. The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:</p> <ol style="list-style-type: none"> <li>1. All internal combustion engines, stationary and mobile, shall be equipped with spark</li> </ol>	<p>Prior to and during construction</p>	<p>Construction contractor</p>	<p>City</p>	<p>Prior to and during construction</p>	

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>arresters. Spark arresters shall be in good working order.</p> <p>2. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition.</p> <p>3. Equipment parking areas (staging areas) shall be cleared of all extraneous flammable materials.</p> <p>4. Personnel shall be trained in the practices of the Fire Safety Plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing</p>					

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
	<p>into more serious threats.</p> <p>5. Smoking shall be prohibited in wildland areas and shall be limited to paved areas or areas cleared of all vegetation.</p>					

**Table BIO-8.1. Proposed Tree Mitigation**

Segment	Cypress Mitigation 1:1 Ratio < 5" dbh	Cypress Mitigation 3:1 Ratio >5" dbh	Total Cypress Mitigation (# trees)	Bishop Pine Mitigation 2:1 Ratio (# trees)
2	0	0	0	0
3	89	19x3=57	146	46x2=92
4	0	1x3=3	3	0
5	0	0	0	0
<b>Total</b>	<b>89</b>	<b>60</b>	<b>149</b>	<b>92</b>