

**CITY OF CALISTOGA  
PLANNING COMMISSION  
RESOLUTION NO. 2019-XX**

**ADOPTING A MITIGATED NEGATIVE DECLARATION BASED UPON AN INITIAL STUDY PREPARED FOR THE CALISTOGA WASTEWATER TREATMENT PLANT RIVERSIDE PONDS IMPROVEMENT PROJECT AT 1100 DUNAWAEL LANE (APNS 020-180-035, 020-150-010)**

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1           **WHEREAS**, the City of Calistoga has proposed the Riverside Wastewater  
2 Storage Ponds Relocation Project on City-owned property located at 1100 Dunaweal  
3 Lane (APNs 020-180-035 and 020-150-010); and

4           **WHEREAS**, in accordance with the California Environmental Quality Act (CEQA),  
5 an Initial Study/CEQA Checklist was prepared by ESA under contract with the City,  
6 which identified potentially-significant environmental impacts; and

7           **WHEREAS**, mitigation measures agreed to by the City, as contained in the Final  
8 IS/MND Mitigation Monitoring and Reporting Program, would avoid potentially-  
9 significant effects or mitigate the effects to a point where clearly no significant effect  
10 would occur; and

11           **WHEREAS**, the Planning Commission reviewed the Final IS/Mitigated Negative  
12 Declaration (MND) prepared for the project during a public hearing on December 11,  
13 2019. During its review, the Planning Commission considered the public record,  
14 including the staff report, findings, and written materials and testimony presented by the  
15 applicant and the public during the hearing; and

16           **WHEREAS**, the Planning Commission has determined that there is no  
17 substantial evidence, in light of the whole record before the agency, that the project may  
18 have a significant effect on the environment. Therefore, as the lead agency, the City of  
19 Calistoga has determined that a Mitigated Negative Declaration (MND) is the  
20 appropriate level of environmental review.

21           **NOW, THEREFORE, BE IT RESOLVED** that based on the above findings, the  
22 City of Calistoga Planning Commission hereby adopts the Calistoga Riverside  
23 Wastewater Storage Ponds Relocation Project Final IS/MND, subject to the Monitoring  
24 and Reporting Program contained in Appendix F of the documents and attached hereto  
25 as Exhibit A.

**APPROVED AND ADOPTED** by the Planning Commission of the City of  
Calistoga at a regular meeting held this **11th day of December 2019**, by the following  
vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

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Paul Coates, Chairman

ATTEST:

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Lynn Goldberg, Secretary

**EXHIBIT A**

**Calistoga Riverside Wastewater Storage Ponds Relocation Project Final MND**

**Appendix F - Mitigation Monitoring and Reporting Program**

**APPENDIX F  
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Aesthetics</b>			
<p><b>Mitigation Measure AES-1: Revegetation and Site Restoration.</b> At the conclusion of construction, all Project debris shall be removed from the site, the City shall conduct a visual inspection to ensure that all disturbed areas shall be restored to level consistent with or better than baseline (existing) conditions. Impacted pathways shall be repaved, impacted trees shall be replaced in appropriate mitigation quantities on site, and disturbed soils shall be revegetated with a native seed mix typical of the surrounding area. Plantings shall be monitored by City parks staff and irrigated, as appropriate, to ensure revegetation success.</p>	Monitoring planting	City of Calistoga (City)/Contractor	Post-construction
<b>Air Quality</b>			
<p><b>Mitigation Measure AQ-1: Implement BAAQMD Basic Mitigation Measures.</b> The City of Calistoga and/or its construction contractors shall implement the following BAAQMD basic control measures:</p> <ul style="list-style-type: none"> <li>• All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a day.</li> <li>• All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>• All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California of Regulations). Clear signage shall be provided for construction workers at all access points.</li> <li>• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</li> <li>• A publicly-visible sign with the telephone number and person to contact at the City of Calistoga regarding dust complaints shall be posted at the Project site. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>	N/A	City/Construction Contractors	During Construction
<b>Biological Resources</b>			
<p><b>Mitigation Measure BIO-1: Protection of Rare Plants.</b></p> <ul style="list-style-type: none"> <li>• A qualified biologist shall conduct a pre-construction survey for the five special-status plant species with the potential to occur within the area of disturbance (see Table 5 above). The survey shall follow the procedures outlined in the CDFW (2018) rare plant survey protocol.</li> <li>• If special-status plants are found, the City shall coordinate with USFWS and CDFW, as appropriate, to provide preservation and avoidance measures commensurate with the standards provided in applicable USFWS and CDFW protocols for the affected species. The preservation and avoidance measures shall include, at a minimum, appropriate buffer areas clearly marked during project activities (e.g., greater than 20 feet), monitoring by a qualified plant biologist, and development and implementation of a replanting plan, if necessary.</li> </ul>	Pre-construction survey; Coordinate with USFWS and CDFW	Biologist/City	Prior to construction

**APPENDIX F (CONTINUED)  
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<p><b>Biological Resources (cont.)</b></p> <p><b>Mitigation Measure BIO-2: Protection of Special-status Wildlife.</b></p> <p><i>In-water construction work with the potential to result in short-term impacts to sensitive aquatic species, including California freshwater shrimp and steelhead, such as project activities that are expected to create turbidity or disturb the streambed, shall be conducted only from June 15 through October 15.</i></p> <ul style="list-style-type: none"> <li><i>All construction personnel shall attend an environmental education program delivered by a qualified biologist. The training shall include an explanation as to how to best avoid the accidental take of California freshwater shrimp, Chinook salmon, steelhead, Pacific lamprey, California red-legged frog, foothill yellow-legged frog, California giant salamander, western pond turtle, nesting birds and bats. The training session shall be mandatory for contractors and all construction personnel. The field meeting shall include topics on species identification, descriptions, habitat requirements and required minimization and avoidance measures.</i></li> <li><i>The contractor shall provide closed garbage containers for the disposal of all trash items. Work sites shall be cleaned of litter daily. No pets, excluding service animals, shall be allowed in construction areas. Nighttime lighting, if used, shall be minimized and directed downward, and construction hours shall be limited to 6 am to 6 pm Monday through Friday.</i></li> <li><i>Prior to commencing work, a qualified biologist shall survey the entire construction footprint for special-status amphibians and reptiles. At the beginning of each workday that includes initial ground disturbance within 150 feet of aquatic habitat, including grading, excavation, and vegetation-removal activities, a qualified biologist shall conduct onsite monitoring for the presence of special-status species in the area where ground disturbance or vegetation removal shall occur.</i></li> <li><i>Before ground-disturbing activity occurs in habitat areas, the contractor shall install temporary exclusion/silt barrier fencing around the perimeter of the construction site. Fencing shall be installed to the extent necessary to exclude special-status amphibians and reptiles from the construction area, and to minimize impacts to natural habitat. Fencing material shall provide for wildlife exclusion as well as maintenance of water quality. Construction personnel and construction activity shall avoid areas outside the fencing. The need for and exact location of the fencing shall be determined by a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. The fencing shall be checked weekly and maintained until construction is complete at individual work sites. The fence shall contain exit tunnels to allow any wildlife within the construction area to leave without human intervention while preventing entry into the construction zone. Exit funnels shall be placed at ground level no more than 100 feet apart along the fence, or as modified by a qualified biologist or as directed by resource agencies with primary jurisdiction over special-status wildlife species.</i></li> <li><i>All excavated or deep-walled holes or trenches greater than one-foot deep shall be covered at the end of each workday using plywood, steel plates, or similar materials, or escape ramps shall be constructed to allow animals to exit. Before such holes are filled, they shall be thoroughly inspected for trapped animals.</i></li> <li><i>If a special-status species is present and identified within the work area during construction, the biologist shall be notified, work shall cease in the vicinity of the animal, and the animal shall be allowed to relocate of its own volition.</i></li> </ul>	<p>N/A</p>	<p>Contractor</p>	<p>Prior to construction</p>

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Biological Resources (cont.)</b>			
<p><b>Mitigation Measure BIO-3: Nesting Bird Protection.</b>                      Nesting birds and their nests shall be protected during construction by use of the following measures:</p> <ul style="list-style-type: none"> <li>• Removal of riparian vegetation and trimming or removal of trees shall occur outside the bird nesting season (February 1 to August 30), to the extent feasible.</li> <li>• If construction activities during bird nesting season cannot be fully avoided, a qualified wildlife biologist shall conduct pre-construction nesting surveys within 7 days prior to the start of such activities or after any construction breaks of 14 days or more. Surveys shall be performed for the Project site and suitable habitat within 250 feet of the Project site in order to locate any active passerine (perching bird) nests and within 500 feet of the Project site to locate any active raptor (birds of prey) nests.</li> <li>• If active nests are located during the pre-construction bird nesting surveys, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination:                             <ul style="list-style-type: none"> <li>— If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply:</li> <li>— If construction may affect the active nest, the biologist shall establish a no-disturbance buffer. Typically, these buffer distances are between 100 feet and 250 feet for passerines and between 300 feet and 500 feet for raptors. These distances may be adjusted depending on the level of surrounding ambient activity (e.g., if the Project site is adjacent to a road or community development) or if an obstruction, such as a tree or building, obscures line-of-sight between the nest and construction. For bird species that are regulated as federal and/or State sensitive species (i.e., fully protected, endangered, threatened, species of special concern), a City representative, supported by the wildlife biologist, shall confer with the USFWS and/or CDFW regarding modifying nest buffers and allowable construction within the buffer.</li> </ul> </li> <li>• To be evaluated on a case-by-case basis, birds that begin nesting within the Project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and minimum work exclusion zones of 25 feet shall be established around active nests in these cases.</li> </ul>	<p>If nesting birds are present, confer with the USFWS and/or CDFW</p>	<p>City/Biologist</p>	<p>Prior to and during construction</p>
<p><b>Mitigation Measure BIO-4: Roosting Special-Status Bat Protection.</b>                      A qualified biologist shall conduct a pre-construction survey for special-status bats in advance of tree trimming to characterize potential bat habitat and identify active roost sites. Should potential roosting habitat or active bat roosts be found in trees to be disturbed, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• Trimming or removal of trees and disturbance to bridge structures shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 to August 15) and outside of months of winter torpor (approximately October 15 to February 28), to the extent feasible.</li> <li>• If trimming or removal of trees and disturbance to bridge structures during the periods when bats are active is not feasible and bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the Project site where these activities are planned, a no-disturbance buffer as determined by a qualified biologist shall be established around these roost sites until they are determined to be no longer in-use as maternity or hibernation roosts.</li> </ul>	<p>If pallid bat or any other State-sensitive species is detected, a City representative, supported by the wildlife biologist, shall confer with CDFW regarding modifying roost buffers and allowable construction within the buffer.</p>	<p>City/Biologist</p>	<p>Prior to construction</p>

**APPENDIX F (CONTINUED)  
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Biological Resources (cont.)</b>			
<ul style="list-style-type: none"> <li>• Buffer distances may be adjusted around roosts depending on the level of surrounding ambient activity (i.e., if the Project site is adjacent to a road) and if an obstruction, such as a building structure, is within line-of-sight between the roost and construction. If pallid bat or any other State-sensitive species is detected, a City representative, supported by the wildlife biologist, shall confer with CDFW regarding modifying roost buffers and allowable construction within the buffer, and modifying construction around maternity and hibernation roosts.</li> <li>• The qualified biologist shall be present during tree trimming if bat roosts are present. Trees with roosts shall be disturbed only when no rain is occurring or is forecast to occur within the next 3 days and when daytime temperatures are at least 50°F. Branches and limbs not containing cavities or fissures in which bats could roost shall be cut only using chainsaws. Branches or limbs containing roost sites shall be trimmed the following day, under the supervision of the qualified biologist, also using chainsaws.</li> <li>• Bat roosts that become established during remediation shall be presumed to be unaffected, and no buffer would be necessary.</li> </ul>			
<p><b>Mitigation Measure BIO-5: Relocation of Special-Status Fish and California Freshwater Shrimp.</b></p> <p>If necessary and as specified in and authorized by regulatory permits, fish and California freshwater shrimp shall be captured and relocated to avoid injury and mortality and minimize disturbance during construction. The NMFS would be the point of contact for any fish relocation activities and results; and the USFWS and CDFW would be the lead for California freshwater shrimp. Handling of special-status fish and shrimp could result in increased stress or mortality if conducted with insufficient care. The following relocation plan contains sufficient detail related to handling protocol to minimize impacts to these special-status species. The process shall follow these guidelines:</p> <ol style="list-style-type: none"> <li>a. The federal lead agency shall consult with NMFS and USFWS (under Section 7 of the federal Endangered Species Act) and CDFW for state listed species to confirm preservation and avoidance measures commensurate with the agency standards for the affected species. An Incidental Take Permit would be required from CDFW prior to relocation of California freshwater shrimp.</li> <li>b. Prior to and during the initiation of construction activities, a qualified, regulatory agency -approved biologist shall be present during installation and removal of creek diversions.</li> <li>c. For sites that require flow diversion and exclusion, the work area will be blocked by placing fine-meshed nets or screens above and below the work area to prevent state or federally listed species from re-entering the work area. To minimize entanglement, mesh diameter will not exceed 1/8 inch. The bottom edge of the net or screen will be secured to the channel bed to prevent fish from passing under the screen and avoid scour by flow. Exclusion screening will be placed in low velocity areas to minimize impingement. Screens will be checked twice daily (at the beginning and end of each work day) and cleaned of debris to permit free flow of water. Block nets will remain in place in order to prevent aquatic species from re-entering the project area following relocation.</li> <li>d. Before removal and relocation begins, a qualified biologist will identify the most appropriate release location(s). In general, release locations should have water temperatures similar to (&lt;3.6°F difference) the capture location and offer ample habitat (e.g., depth, velocity, cover, connectivity) for released fish and/or shrimp, and should be selected to minimize the likelihood of reentering the work area or becoming impinged on exclusion nets or screens.</li> </ol>	<p>Reports on fish relocation activities will be submitted to NMFS</p>	<p>Biologist/Contractor</p>	<p>During construction</p>

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Biological Resources (cont.)</b>			
<p>e. The means of capture will depend on the nature of the work site, and will be selected by a qualified biologist. Complex stream habitat may require the use of electrofishing equipment (e.g., Smith-root LR-24 backpack electrofisher) to capture fish, whereas in outlet pools, California freshwater shrimp may be captured by pumping down the pool and then seining or dipnetting. Electrofishing will be used only as a last resort; if electrofishing is necessary, it will be conducted only by properly trained personnel following the NMFS guidelines dated June 2000 (NMFS, 2000).</p> <p>f. When feasible, initial relocation efforts will be performed several days prior to the scheduled start of construction. To the extent feasible, flow diversions and species relocation will be performed during morning periods. The qualified biologist will survey the flow exclosures throughout the diversion effort to verify that no state or federally listed fish or aquatic invertebrates are present. Afternoon pumping activities should generally not occur and pumping should be limited to days when ambient air temperatures are not expected to be high. Air and water temperatures will be measured periodically, and flow diversion and species relocation activities will be suspended if temperatures exceed the limits allowed by NMFS guidelines (e.g., electrofishing should not occur when water temperatures are above 18°C) (NMFS, 2000).</p> <p>g. Handling of fish and California freshwater shrimp will be minimized. When fish handling is necessary, personnel will wet hands or nets before touching them.</p> <p>h. Prior to translocation, any state or federally listed species that are collected during surveys will be temporarily held in cool, aerated, shaded water using a five-gallon container with a lid. Overcrowding in containers will be avoided; at least two containers will be used and no more than 25 fish will be kept in each bucket. Aeration will be provided with a battery-powered external bubbler. Fish will be protected from jostling and noise, and will not be removed from the container until the time of release. A thermometer will be placed in each holding container and partial water changes will be conducted as necessary to maintain a stable water temperature. Special-status fish and shrimp will not be held more than 30 minutes. If water temperature reaches or exceeds NMFS limits, the fish and other aquatic species will be released and relocation operations will cease.</p> <p>i. If state or federally listed fish or shrimp are abundant, capture will cease periodically to allow release and minimize the time spent in holding containers.</p> <p>j. Fish will not be anesthetized or measured. However, they will be visually identified to species level, and year classes will be estimated and recorded.</p> <p>k. Reports on fish relocation activities will be submitted to NMFS in a timely fashion, as will reports on California freshwater shrimp to USFWS and CDFW.</p> <p>l. If mortality during relocation exceeds three percent (or as determined by NMFS), relocation will cease and NMFS will be contacted immediately or as soon as feasible.</p>			
<p><b>Mitigation Measure BIO-6: Protection for and Restoration of Sensitive Natural Communities.</b></p> <ul style="list-style-type: none"> <li>• No construction activities, parking, or staging shall occur outside of designated areas.</li> <li>• During construction, as much understory vegetation and as many trees as possible will be retained. All trees to remain during construction within the grading area will be flagged for avoidance, and trimmed if necessary to ensure their trunks and/or limbs to not get disturbed during construction.</li> <li>• All vehicles and equipment entering each Project site shall be clean of noxious weeds and pathogens. All construction equipment shall be washed thoroughly to remove all dirt, plant, and other foreign material prior to entering the Project sites.</li> <li>• Certified weed-free permanent and temporary erosion control measures shall be implemented to minimize erosion and sedimentation during and after construction.</li> </ul>	<p>Habitat Restoration and Monitoring Plan for restoration of sensitive natural communities and jurisdictional waters</p>	<p>City</p>	<p>Prior to and during construction</p>



**APPENDIX F (CONTINUED)  
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<p><b>Biological Resources (cont.)</b></p> <ul style="list-style-type: none"> <li>The City shall prepare a Habitat Restoration and Monitoring Plan (HRMP) for restoration of sensitive natural communities and jurisdictional waters following construction activities. This plan shall include protocols for restoring these areas, replanting of vegetation removed prior to or during construction, success criteria, invasive plant control, and management and monitoring of the plants and channel banks to ensure site success.</li> <li>An Invasive Species Management Plan will be a component of the HRMP, and will include monitoring for invasive non-native reptile and amphibian species.</li> <li>The HRMP shall describe a five-year riparian monitoring program that assesses the survival and health of on-site plantings. Appropriate performance standards may include, but are not limited to: a 75 percent survival rate of restoration plantings; absence of invasive plant species in restored areas; and self-sustaining conditions (i.e., plant viability without supplemental water) at the end of five years and shall be submitted to CDFW and other appropriate regulatory agencies for review and approval at least 30 days prior to start of construction. The plan shall contain vegetation management protocols, protocols for monitoring replanting success, and an adaptive management plan if success criteria are not being met. The plan shall include interim thresholds for planting success and alternative management approaches, such as weed control or additional replanting, to undertake if thresholds are not met.</li> <li>The plan shall specify that areas impacted from construction-related activity shall be replanted or reseeded with native trees, shrubs, wetland vegetation, and herbaceous species under guidance from a qualified biologist.</li> </ul>			
<p><b>Mitigation Measure BIO-8: Tree Protection Plan.</b> A Tree Protection and Replacement Plan consistent with Calistoga Municipal Code Chapter 19.01 shall be reviewed and approved by the City of Calistoga before construction and tree removal commences. The plan may additionally require CDFW review and approval under the 1602 Lake and Streambed Alteration Agreement permit. All requirements and restrictions contained in Chapter 19.01 shall be complied with, including the incorporation of replacement trees for those trees slated for removal at a ratio of 1:1 or greater, determined in coordination with the City Public Works Department, as well as any recommendations of the Project arborist, to ensure the survival of replaced trees. If it is not feasible to replant at a ratio of 1:1, in lieu payment will be made for replacement of oak trees, consistent with Napa County Ordinance No. 2018-01. Planted trees shall be irrigated, cages placed around them to avoid deer browse, and weeded within and around the cages for at least the first two years and monitored for a minimum of five years to ensure the plantings achieve at least 80% survival, as will be detailed in the site Habitat Restoration and Monitoring Plan.</p>	A Tree Protection and Replacement Plan	City	Prior to construction

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<p><b>Cultural Resources</b></p> <p><b>Mitigation Measure CR-1: Unanticipated Discovery Protocol for Archaeological Resources.</b>                      If indigenous or historic-era archaeological resources are encountered during Project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The City and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the find within 24 hours of discovery and notify the City of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.</p> <p>If the City determines, based on recommendations from the qualified archaeologist, that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5), or a tribal cultural resource (as defined in PRC Section 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the Project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, the City shall consult with appropriate Native American tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery or other measures. Treatment for most resources would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource. The resource and treatment method shall be documented in a professional-level technical report to be filed with CHRIS. Work in the area may commence upon completion of approved treatment and under the direction of the qualified archaeologist.</p>	<p>Consultation with appropriate Native American tribes (if the resource is indigenous) and other appropriate interested parties</p>	<p>City/Qualified Archaeologist</p>	<p>During construction</p>
<p><b>Mitigation Measure CR-2: Unanticipated Discovery Protocol for Human Remains.</b>                      If human remains are uncovered during Project construction, all work shall immediately halt at the find and the Napa County Coroner shall be contacted to evaluate the remains, and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, the County Coroner shall contact the NAHC, in accordance with HSC Section 7050.5(c) and PRC Section 5097.98. Per PRC Section 5097.98, the City shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the City has discussed and conferred, as prescribed in this section (PRC Section 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.</p>	<p>Coroner to contact the NAHC</p>	<p>Contractor/City</p>	<p>During construction</p>

**APPENDIX F (CONTINUED)  
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Geology and Soils</b>			
<p><b>Mitigation Measure GEO-1: Implementation of Design Criteria recommended in Geotechnical Report.</b> The structural requirements of the CBC are applicable to certain structural components of the Project, including retaining walls, screen walls, fences, and control shelters. The Lead Agency and/or its contractors shall design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Project's Geotechnical Investigation Report by A3GEO Inc. In addition, The Lead Agency shall retain a California registered professional engineer(s) to prepare a supplemental geotechnical report. This report shall address specific geotechnical hazards that were not addressed in the Geotechnical Investigation Report (i.e., seismic ground shaking and liquefaction), and provide recommendations for mitigating such hazards.</p>	Supplemental geotechnical report	City	Prior to construction
<b>Transportation</b>			
<p><b>Mitigation Measure TRAN-1: Construction Traffic Management Plan (CTMP).</b> To ensure that construction of the Project does not adversely interfere with local traffic safety and circulation, a CTMP shall be prepared for the Project. The CTMP would be subject to review and approval by the City of Calistoga, and shall include, but not be limited to the following elements:</p> <ol style="list-style-type: none"> <li>1. The contractor shall provide flaggers as needed to temporarily hold traffic to safely stage equipment in advance of and/or during construction.</li> <li>2. The contractor shall coordinate with the City of Calistoga's Police Department to ensure that the movement, staging, and storage of materials in and near the proposed offsite staging and stockpile areas does not interfere with law enforcement activities, emergency response, or evacuation procedures.</li> <li>3. The contractor shall install advance warning signs to alert motorists and Napa Valley Vine Trail users of the work zone and temporary trail closure. Advance warning signs might be reflective signs, cones, or barricades. Signage should state the anticipated duration for construction, and reflect that the work is scheduled to occur between the hours of 7:00 am to 7:00 pm, Monday through Friday.</li> <li>4. Signage shall be installed at both ends of the Napa Valley Vine Trail segment affected by Project construction, directing pedestrians and bicyclists to detours facilities.</li> <li>5. Work shall be confined to the immediate Project site and work shall be performed in a manner that would be least disruptive to the public.</li> </ol>	Construction Traffic Management Plan	Contractor/City	Prior to construction
<b>Utilities and Service Systems</b>			
<p><b>Mitigation Measure UTIL-1: Utility Safety and Emergency Response Plan.</b></p> <ul style="list-style-type: none"> <li>• Prior to construction activities, the locations of overhead and underground utility lines, such as natural gas, electricity, sewer, telephone, cable, and water that may be encountered during construction work will be determined. Pursuant to various provisions of California law, the City or its contractor(s) is required to notify USA (Underground Services Alert) North so that utility companies may be advised of the work and may field-mark or otherwise protect and warn the contractor of their existing utility lines. Information regarding the location of existing utilities shall be reviewed before construction activities begin. Utilities may be located by customary techniques such as geophysical methods and hand excavation.</li> </ul>	Emergency Response plan	City/Contractors	Prior to construction

Mitigation Measure	Monitoring / Reporting Action	Responsible Party	Timing
<b>Utilities and Service Systems (cont.)</b>			
<ul style="list-style-type: none"> <li>Contract specifications shall include procedures for the excavation, support, and fill of areas around subsurface utilities, cables, and pipes. If the Project encounters overhead electric and/or telephone lines during pipeline construction, coordination with appropriate telecommunication service providers shall occur to de-energize overhead electric lines as required by the federal and State OSHA regulations.</li> <li>As required by Cal/OSHA (Section 1926.651), while any excavation is open, measures will be taken to protect, support, or remove underground utilities as necessary to safeguard employees. If construction activities result in damage to high-priority utility lines, the Calistoga Fire Department will be immediately notified to protect worker and public safety.</li> <li>As part of contract specifications, the contractor(s) will be required to provide updates on excavations planned for the upcoming week and to specify when construction would occur near a high-priority<sup>1</sup> utility. At the beginning of each week when this work would take place, per Cal/OSHA, the contractor is required to hold safety tailgate meetings and to document contents of meeting. The City or its contractor(s) shall promptly notify utility providers to reconnect any disconnected utility lines as soon as it is safe to do so.</li> <li>As required by Cal/OSHA, an emergency response plan will be developed prior to the commencement of construction activities. The emergency response plan shall identify measures to be taken in response to a leak or explosion resulting from a utility rupture. In addition, the City of Calistoga's Police Department and/or other appropriate emergency response department (to be determined in consultation with the City of Calistoga) shall be notified whenever damage to any utility results in a threat to public safety.</li> </ul>			

<sup>1</sup> Electric, water, and/or sewer lines.

**CITY OF CALISTOGA  
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RESOLUTION PC 2019-XX**

**APPROVING USE PERMIT UP 2019-17 FOR THE CALISTOGA WASTEWATER  
TREATMENT PLANT RIVERSIDE PONDS IMPROVEMENT PROJECT AT 1100  
DUNAWAEL LANE**

1           **WHEREAS**, the Calistoga Public Works Department has filed use permit  
2 application UP 2019-17 requesting approval of the Calistoga Riverside Wastewater  
3 Storage Ponds Relocation Project on City-owned property located at 1100 Dunaweal  
4 Lane (APNs 020-180-035 and 020-150-010); and

5           **WHEREAS**, heavy erosion of the Napa River bank has significantly progressed  
6 towards the edge of the storage ponds, and catastrophic failure of the bank is possible  
7 without corrective action. Significant creek bank erosion has progressed towards the  
8 edge of the headworks structure and catastrophic failure of the bank is possible without  
9 corrective action; and

10           **WHEREAS**, the San Francisco Bay Area Regional Water Quality Control Board  
11 has adopted a Cease and Desist Order mandating that the City address these issues;  
12 and

13           **WHEREAS**, the subject properties are within the P Public Zoning District, which  
14 allows wastewater facilities with a use permit; and

15           **WHEREAS**, the City of Calistoga Planning Commission has adopted the  
16 Calistoga Riverside Wastewater Storage Ponds Relocation Project Final IS/MND in  
17 compliance with the California Environmental Quality Act (CEQA); and

18           **WHEREAS**, the Planning Commission considered the use permit application  
19 request at a regular meeting on December 11, 2019. Prior to taking action on the  
20 application, the Planning Commission received written and oral reports by the staff, and  
21 received public testimony; and

22           **WHEREAS**, the Planning Commission pursuant to CMC Section 17.40.030(D)  
23 has made the following findings regarding the project:

24 1.       Finding: The project is in accord with the General Plan and any applicable  
25 planned development.

26           Substantial evidence: The proposed storage ponds and related improvements  
27 are consistent with the properties' Public/Quasi-Public Land Use Designation.  
28 The project is consistent with all applicable provisions of the Infrastructure  
29 Element of the General Plan. There is no applicable planned development.

30 2.       Finding: The project is in accord with all applicable provisions of the Zoning  
31 Code.

32           Substantial evidence: The properties are located within the Public (P) Zoning  
33 District. Wastewater facilities are allowed in the P District with a use permit. The  
34 P District development standards provide regulations for buildings and structures.  
35 Per the Zoning Code, the project does not meet the definition of a building or  
36 structure and therefore is not subject to these regulations.

37 3. Finding: The project will not substantially impair or interfere with the  
38 development, use or enjoyment of other property in the vicinity.

39 Substantial evidence: Mitigation measures agreed to by the City, as contained in  
40 the Final IS/MND Mitigation Monitoring and Reporting Program, would avoid  
41 potentially-significant effects or mitigate the effects to a point where clearly no  
42 significant effect would occur.

43 4. Finding: The project is consistent with and enhances Calistoga's history of  
44 independently-owned businesses, thus contributing to the uniqueness of the  
45 town, which is necessary to maintain a viable visitor industry and promote its  
46 economy.

47 Substantial evidence: The project does not involve a business.

48 5. Finding: The project is resident-serving, in the case of a formula business.

49 Substantial evidence: The project is not a formula business.

50 **NOW, THEREFORE, BE IT RESOLVED** by the City of Calistoga Planning  
51 Commission that based on the above findings, the Planning Commission approves the  
52 proposed project, subject to following conditions of approval:

53 1. This use permit allows the Calistoga Riverside Wastewater Storage Ponds  
54 Relocation Project as described in the Project Description. The uses hereby  
55 permitted shall substantially conform to the Calistoga WWTP Riverside Ponds  
56 Improvements Draft 50% Design Plans prepared by Environmental Science  
57 Associates (ESA) dated May 17, 2019.

58 2. This permit shall be null and void if not used within two years.

59 3. This use permit does not abridge or supersede the regulatory powers or permit  
60 requirements of any federal, state or local agency, special district or department  
61 which may retain regulatory or advisory function as specified by statute or  
62 ordinance. The applicant shall obtain permits as may be required from each  
63 agency.

**APPROVED AND ADOPTED** by the Planning Commission of the City of  
Calistoga at a regular meeting held the **11th day of December 2019**, by the following  
vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
Paul Coates, Chair

ATTEST: \_\_\_\_\_  
Lynn Goldberg, Secretary



SOURCE: USDA, 2016; ESA, 2019

Calistoga Riverside Ponds

Existing Project Site





Callistoga Riverside Ponds

Project Elements

SOURCE: USDA, 2016; ESA, 2019





**City of Calistoga Riverside Ponds Relocation and Improvements Project  
Use Permit Application Project Description**

The proposed Project, a refined version of Alternative No. 2 in the Engineers Report (Kennedy/Jenks, 2016), would protect the riverside ponds from flooding, line them to prevent percolation, protect WWTP headworks structure from failing into Simmons Creek and provide a new pipe for higher conveyance to the new pond and install valve controls to better automate Napa River discharges. The Project would protect the riverside ponds, WWTP headworks structure, and associated critical infrastructure from flooding, erosion, and catastrophic bank failure that threatens the continuous uninterrupted operation of the City WWTP by relocating the riverside ponds and associated water conveyance and treatment utilities; realigning river channels away from infrastructure, restoring a vegetated riparian buffer of sufficient width, and stabilizing channel banks between the riverside ponds and headworks structure and the adjacent active river channels to protect the facilities from subsequent erosion. **Figure 1** shows these project elements on the project site. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented for all construction activities. Flooding risk would be reduced by elevating riverside pond berms and headworks protection infrastructure above the 100-year flood elevation.

***Relocate Riverside Ponds and Associated Infrastructure***

To maximize the floodplain buffer width between the ponds and along the Napa River and the Oat Hill Mine Ditch tributary, the four existing ponds would be abandoned and replaced by two lined ponds on the approximate footprint of existing Ponds 2 and 3 outside of the 100-year floodplain, and above the 100-year flood elevation.

To reconfigure the site of the four existing wastewater treatment ponds, the grading footprint would be cleared and grubbed, erosion control measures would be installed, and the SWPPP would be implemented. Existing piping and utility infrastructure would be removed prior to site regrading. 86 trees would be removed from the Project site.

Existing Pond 4 and associated infrastructure would be abandoned. The floodplain on the Pond 4 footprint would be re-contoured and revegetated. An existing trunk pipeline and abutments located over Oat Hill Mine Ditch near the Napa Valley Vine Trail and west of Pond 4 would be removed along with a manhole located adjacent to Oat Hill Mine Ditch.

Existing Pond 1 would be abandoned, re-contoured, and revegetated. The general basin shape of Pond 1 will be retained, which would provide the function of storage of emergency overflow from the new ponds in the unlikely event that the system controls fail.

After abandoning Ponds 1 and 4, Ponds 2 and 3 would be converted to the new East and West ponds. The East and West ponds would first be excavated. The material from the bottom of the ponds would be reused on site as fill. The interior berms would be relocated and rebuilt with a raised top elevation with either clay material from the stockpile that originated from other pond berms, or with appropriate imported soil. A 20-foot wide flat shoulder would be graded to surround the base of the East and West ponds on the floodplain and to separate the ponds from each other as well as from the newly graded and stabilized channel banks. The new East and West ponds would have the same or slightly larger storage capacity (a minimum of 1.8 MG) for treated wastewater as the four existing ponds.



To ensure that water quality objectives can be achieved with the reconfiguration of the ponds, the new ponds would be plumbed to include existing SolarBee mixers and sprinklers for aeration. New instrumentation and associated equipment would be installed including: flowmeters, check valves, automated outlet control valves, electrical, communication, and Supervisory Control and Data Acquisition (SCADA) systems. Additional facilities would be installed to convey treated wastewater from the West pond to the East pond, and from the East pond to the outfall facility, to provide electrical and SCADA control outlet control valve to the Napa River (based on river gauge flows near Dunaweal) and aeration, and for other ancillary facilities.

The East and West ponds would be fitted with an underdrain, lined,<sup>1</sup> and provided access points for maintenance. A subliner underdrain and dewatering system would be installed on the bottom of the ponds, consisting of a 4-inch layer of permeable material overlain by a grid bottom with 12-inch x 12-inch trenches filled with permeable material and 6-inch perforated polyvinyl chloride (PVC) pipe, 50-foot O.C. Cleanouts would be installed at the end of 6-inch perforated pipes. A dewatering well (14-inch C905 pipe with submersible pump and level instrument) would be installed to pump out the 6-inch perforated PVC pipes. A 12-oz protective filter fabric would be installed over the completed liner subgrade and dewatering system. A 60-mil<sup>2</sup> HDPE smooth liner would then be installed followed by pipe-liner penetrations. One liner access stairway and associated lanyards, and one dinghy access point would be installed to each pond.

To provide mixing, the existing SolarBee aerators would be relocated to the East and West ponds, and moorings would be installed.

Electrical service upgrades would be installed to support all improvements including operation of automated valves, flow meters, and other associated infrastructure.

The East and West ponds would be fitted with inlet pipes to deliver wastewater between the WWTP and the ponds. An 18-inch PVC C905 pipe would be installed that connects to the existing 10-inch RWL pipe and 18-inch RWL pipe, with a total of eight isolation valves at two locations: (1) at the northwest corner of West pond and (2) at the northwest corner of East pond. A meter would be installed at each pond inlet with a magmeter, extra spool piece, and branch tee with valves and cam fittings for hose connections. There would be four valves total. A pump pad would be installed adjacent to the meter vault for placing a temporary mobile pump in the event that the ponds need to be pumped out. A pump discharge hose would be connected to the cam fitting described above. A liner-pipe penetration would be installed for the pond inlets with an attached hose on the pond slope and a tee fitting at 3 feet above the pond bottom.

A component for transferring water between the East and West ponds would be installed, which would consist of either: (1) a sluice gate with stop logs; or, (2) high water and low water pipes with valves; or (3) a hybrid, such as a pipe to a manhole with adjustable interior baffles.

An outlet would be installed in the new West pond, which would either consist of relocating the existing floating intake structure from Pond 1, or it would be a new outlet structure. A sampling station would be installed.

An effluent line and outfall pipe would be installed to discharge treated wastewater from the New East pond to the Napa River. A new 18-inch HDPE outfall pipe would be installed from the

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<sup>1</sup> The liner along the bottom of the ponds would be a 60-mil High Density Polyethylene (HDPE) smooth liner

<sup>2</sup> A mil is defined as 1/1000<sup>th</sup> on and inch, or 0.0001 inch.

outlet on the downstream east end of the new East pond at a concrete box with a flow meter and an automated knife gate. The existing flow meter would be relocated to measure discharge into the Napa River. The automated knife gate would control discharge based on existing river gauge flow volumes (located near the Dunaweal bridge, approximately 1,700 linear feet [LF] downstream of the outfall) and in accordance with National Pollutant Discharge Elimination System (NPDES) river discharge requirements. The 18-inch HDPE outfall pipe would flow east from the concrete box east parallel to, and between, the Vine Trail and the newly stabilized Napa River bank, to the outfall pipe junction at the downstream end of the stabilized channel bank. There it would connect to the existing 24-inch HDPE outfall pipe, which runs perpendicular to the slope from a depression on the north side of the Vine Trail berm south to where it drains into the Napa River. Unlike the current condition, the new outfall pipe configuration would not carry stormwater from north of the Vine Trail berm comingled with effluent from the treatment ponds. As explained in the section below on improving stormwater conveyance, the section of the existing 24-inch HDPE outfall pipe that runs between the depression north of the Vine Trail and the new point of connection with the 18-inch HDPE outfall pipe would either be capped and abandoned in place, or demolished where possible. The stormwater flows would be re-routed through a new open channel north of the bike trail and discharge directly into Simmons Creek. Modifications would be made near the open end of the existing 28-inch HDPE outfall pipe. Erosion control and bank stabilization improvements would be installed at the base of the outfall pipe to protect the Napa River channel bank from erosion.

To accommodate emergency overflows, a spillway would be constructed at the downstream end of the East pond. Emergency overflows would be routed via a drainage swale to the reconfigured Pond 1 emergency storage area.

New lighting would be installed to illuminate key areas as necessary. Likely locations include: at the inlet to the new West pond; in between the East and West ponds where the pond water transfer infrastructure is located; at the outlet to the new East pond; at the point of connection of the new outlet pipe from the East pond and the 28-inch outfall pipe to the Napa River; at the existing shed in the footprint of Pond 1 where the electrical controls for the outfall pipe are located; and at locations where electrical controls would require illumination. Solar batteries would be installed where necessary to power the light-emitting diode (LED) lighting.

### ***Stabilize and Protect Riverside Pond Channel Banks***

To stabilize the river channel banks along the riverside ponds, trees would be removed, and vegetation would be cleared and grubbed within the grading footprint. Approximately 600 linear feet of the channel bank at the confluence of the Oat Hill Mine Ditch and the Napa River would be graded to a stable 3:1 slope along the entire footprint of the New ponds.

To maintain bank toe stability, a 225 feet long buried rock toe protection structure would be installed at the base of the slope along the upstream-most section of the graded channel bank, at the outside of the meander bend which is currently migrating northward into the west end of existing Pond 3, or what will be the west end of the new West pond. The Oat Hill Mine Ditch would be dewatered per the description in the section below to allow access for equipment to install the rock slope protection (RSP), which would be buried in a trench in the channel bed/toe area for toe stability. No exposed RSP is expected with this Project to adequately provide scour countermeasures. Conceptually, the extent of the buried/planted RSP revetment would remain at the toe of the slope and may extend up to 10 vertical feet up the channel bank to prevent toe

failure and bank instability. Biotechnical stabilization methods and materials are expected to be installed on the remaining channel bank areas in the excavated and scour potential areas.

Outfall protection would be added to the base of an existing stormwater culvert outlet located along the upper bank of the Napa River just upstream of the proposed buried rock toe protection. The outfall protection would be installed to protect the Napa River from erosion.

Starting approximately 60 feet downstream of the graded channel bank protecting the New Ponds, approximately 360 LF of the Napa River channel bank would be graded to a stable slope and revegetated to stabilize erosion that is occurring on the outside of the meander bend which is migrating northward between existing Ponds 1 and 2, or what will be the downstream end of the New East pond.

Where possible, large trees removed for the project would be salvaged and stockpiled for reuse as instream habitat enhancement and bank protection structures.

Erosion control measures would be installed following grading. A temporary irrigation system would be established for plant re-establishment. The 2.64 acres of graded areas for the abandoned ponds would be revegetated with native riparian upland vegetation.

### ***Stormwater Conveyance Ditch***

The existing 28-inch HDPE outfall pipe from the riverside ponds to the Napa River drains both wastewater from the ponds and stormwater from an isolated depression located north of the Vine Trail berm. Stormwater conveyance from the depression would be rerouted to Simmons Creek. To separate the stormwater runoff from wastewater, the existing 28-inch HDPE pipe would be closed at the depression, abandoned to the point of connection with the 18-inch HDPE pipe from the New Ponds. The depression would then be filled in and graded to route stormwater eastward into the existing swale that drains the north side of the Vine Trail berm into Simmons Creek upstream of the concrete bridge on the Vine Trail. Vegetation would be removed as necessary for access and grading along the swale to create positive drainage towards Simmons Creek. Erosion control measures would be installed following grading. A temporary irrigation system would be established for plant re-establishment. The 0.03 acre of graded areas along the stormwater conveyance ditch would be revegetated with native riparian upland vegetation.

### ***Realign Simmons Creek to Protect Headworks Structure***

To protect the WWTP headworks from failure due to channel bank erosion and flooding, the Simmons Creek channel would be realigned westward away from the structure, and the channel banks would be stabilized and restored. Construction access to realign the Simmons Creek channel and stabilize the channel bank below the headworks structure would be from the west bank of Simmons Creek in the graded footprint of the existing Pond 1. Simmons Creek would be dewatered per the description in the section below to allow access for equipment to realign the channel, while protecting existing 27-inch sewer trunk line supports and 18-inch recycle water line supports (the old 18-inch trunk line would be removed, along with its bank supports). Biotechnical stabilization methods and materials would be installed on the channel bank areas in the excavated and scour potential areas on both sides of the river channel. The restored channel would be widened and engineered with biotechnical stabilization methods to reduce the erosive power of the flood flows, while improving aquatic habitat, and maintaining fish passage to this anadromous tributary. The Project would also improve conveyance capacity and reduce the potential for localized streambed scour.

Where possible, large trees removed for the project would be salvaged and stockpiled for reuse as instream habitat enhancement and bank protection structures. Erosion control measures would be installed following grading. A temporary irrigation system would be established for plant re-establishment. The 0.21 acres of graded Simmons Creek channel bank areas would be revegetated with native riparian upland vegetation.

### ***14-inch Force Main***

Upgrades to the WWTP headworks structure include a new 14-inch Force Main (FM). The 14-inch FM would be extended mainly along the existing bike path from the connection at the existing effluent pump station to the existing 18-inch recycle waterline crossing over Simon's Creek. A section of fence would be removed and trees would be cleared as needed to perform the crossing to the bike path. The fence section would be repaired and the area revegetated upon completion of the FM installation. The FM would be installed under the Vine Trail bike path. Access to create the utility trench in the Vine Trail would be provided by sawcutting the existing road and bike path pavement along the 14-inch FM alignment. A 30-inch wide pipe trench would be constructed to provide 3 feet of minimum cover. The buried FM would be installed on 6-inch pipe bedding with 12-inch pipe cover, and AWWA C905 DR21 PVC Water Pipe with gasketed joints and MJ fittings. The total estimated FM length is 900 LF.

The Vine Trail bike path would be damaged from construction traffic and creation of the FM utility trench. To ensure that the path is restored to its pre-construction condition, photos and videos will be taken of the Vine Trail prior to construction. Following construction, the bike path will be improved as necessary and repaved with new asphalt.

### ***Modifications to the Road up to the Berm***

To make the berm road accessible, the Vine Trail would be widened to allow travel at the bike path elevation north of the existing Pond 1 footprint. The slope of the path would remain gentle to accommodate bicycle and pedestrian traffic.

### ***Effluent Pump Station Site Modifications***

Modifications would be made to the effluent pump station as follows. The existing piping in Valve Box US-5 would be modified to accommodate the new 14-inch FM tie-in. The Valve Box and 6-inch piping may need to be demolished and upsized. Gate valves would be installed to control the flow to the existing 10-inch TS or to the new 14-inch FM. It may be possible to reuse the existing 6-inch gate valve for the existing 10-inch TS. Valves would be installed to allow for reverse flow from the new East and West ponds back into Effluent Pump Station and the 20-MG Storage pond if needed for treatment. There would also be a pipe connection from the existing 10-inch to the existing WWTP equalization pond to provide the treatment plant operators the ability to run riverside pond water back for re-treatment purposes in case of an unforeseen upset in the process.

### ***Underground Utilities***

There is a 28-inch culvert draining stormwater from a depression north of the Vine Trail berm to the Napa River, which would be closed off and removed where possible. Additional underground utilities, including any sewer, gas, electrical, water and telecommunications lines, would be identified during the design phase.

## **Right of Way**

The Project would take place within existing City Right of Way / Easements. No temporary construction easements from private property owners would be required to construct the Project. Neither are any land acquisitions required.

Access to the site from the south would be through the Dunaweal Avenue entrance to the WWTP, which is located alongside the Lower Washington Street Bike Path section of the Napa Valley Vine Trail. Access to the site from the north would be obtained by turning east off of Lincoln Avenue onto Washington Street, then traveling east past the Public Works Corporation Yard onto the Lower Washington Street Bike Path section of the Napa Valley Vine Trail.

## ***Temporary Detours***

**Roadway:** No lane closures or full street closures are anticipated to be required to safely and adequately construct the Project.

**Pedestrian/Cyclist:** The Washington Street Bike Path section of the Vine Trail would be closed to pedestrian and bicyclist traffic during construction for safety. The City will notice the public about the trail closure approximately one month prior to the start of construction.

## **Construction**

### ***Schedule***

Overall construction is anticipated to take approximately 6 months during Spring and Summer. Construction would occur over approximately 26 weeks (130 days), generally on weekdays, Monday through Friday, from 7:00 a.m. to 7:00 p.m. The schedule may include Saturday work between 7:00 a.m. to 7:00 p.m.

It is anticipated that backhoes, bobcats, bulldozers/loaders, dump trucks, excavators, front-end loaders, graders, haul trucks, pavers, rollers/compactors, scrapers, seed sprayers, and water trucks may be required to construct the Proposed Project.

### ***Staging Areas***

Construction staging for the Proposed Project would be located at two separate locations: on site and off site.

#### ***On-Site Staging Areas***

On-site construction staging areas would be located under the trees on the west side of the Simmons Creek Bridge, and in abandoned footprints of Pond 4 and 1. Construction workers can park cars at the staging area on the west side of the Simmons Creek Bridge. If necessary, a construction trailer can be staged at this location as well.

#### ***Off-Site Staging and Stockpile Areas***

An off-site staging area owned by the City of Calistoga is available for use if necessary to stage construction equipment, materials, construction trailers and other items needed for construction activities. The staging area is located at the City of Calistoga Bone Yard. The Bone Yard is located 0.4 miles west of the Project on the east side of the baseball diamond at the end of Washington Street where the Vine Trail begins. Other nearby land uses include undeveloped parcels, a self-storage facility, and commercial buildings and operations. The fenced-in yard has been used historically to store surplus materials and park construction- and maintenance- related equipment.

If needed, possible activities at the corporation yard staging area would be: overnight parking and temporary storage of construction equipment applicable for the project; fueling and maintenance of construction equipment; and temporary storage of construction materials including rebar, wood, masonry materials, greases, oils, trash receptacles and other miscellaneous raw construction materials.

The City of Calistoga stockpile site is used as a borrow pile to store and import dirt. The off-site stockpile area is located on City property adjacent to the northwest corner of the 16 MG wastewater pond, 0.3 miles northwest (0.6 miles driving distance) from the Project site. The stockpile footprint is approximately 2 acres, and currently stores a 5 feet high pile of clay soil that originated from previous pond berms. Access to the stockpile and upper ponds is via the paved Vine Trail and Washington Street from the south, two narrow (10 feet wide) concrete bridges that cross the Oat Mine Hill Ditch and a drainage ditch, and via dirt roads north of the berm that exit along a mobile home park and vineyards to the paved arterial Silverado Trail. The Silverado Trail links to Washington Street via Lincoln Avenue through Calistoga (Highway 29) to create an alternate access loop from the stockpile to the Project site.

Excavation is not expected at either the off-site staging area or stockpile site. Aggregate base may be applied to certain locations at the Bone Yard if needed. No disturbances to any existing vegetation or trees would occur at the staging area. Activities associated with the off-site staging area would be encompassed in the Project's Erosion and Sediment Control Plan (ESCP) as part of the construction contract. All applicable Best Management Practices (BMPs) related to equipment and material storage would be applicable to this staging area as well as the Project site. For the purposes of analysis, it is assumed that trucks would not be dual purpose (i.e., an empty truck would enter the Project site, and be filled with an off-haul load only).

#### ***Water Source for Construction and Dust Control***

The City will provide a nearby offsite source for recycled water from the WWTP to be used for dust control on the roads and graded areas during construction to protect water quality and surrounding vineyards. The construction water station would be created 0.1 miles east of the Bone Yard, 0.3 miles west along the Vine Trail from the Project.

#### ***Project Site Access and Haul Routes***

A SWPPP will be implemented on all roads to protect water quality. The condition of existing roads will be documented with photos and videos prior to construction, and will be restored appropriately following construction.

Construction equipment and cars may access the Project from the west via Washington Street and the Vine Trail. Entrance to the Project from the east is via the WWTP entrance gate on Dunaweal Lane, through the WWTP, and the WWTP west exit gate, over the Simmons Creek bridge. The narrow width (10 feet) of the bridge over Simmons Creek between the WWTP and the riverside ponds site constrains the size of vehicles that can enter via the WWTP to the east.

In the event that the soil cut from the site would be contaminated, that soil would be hauled to Synagro landfill for disposal. Clay soil would be imported from either the stockpile or an alternative source to construct the berms of the new ponds. If any other offhaul is required, such as any potential excavated spoils, mud or detritus from the base of the demolished ponds, or rip rap material that can be stored for reuse, it would be trucked to the stockpile area. Miscellaneous



pipes, appurtenances, and asphalt would be offhauled to the nearest landfill. Clay material may have to be imported to build the new pond berms.

Access to the stockpile and upper ponds is via the paved Vine Trail and Washington Street from the south, two narrow (10 feet wide) concrete bridges that cross the Oat Mine Hill Ditch and a drainage ditch, and via dirt roads north of the berm that exit along a mobile home park and vineyards to the paved arterial Silverado Trail. The narrow width of the bridges along the haul route from the Project to the stockpile will constrain the size of the trucks used to import and offhaul material to the stockpile site from the south via the Vine Trail berm crossing. Large trucks can access the stockpile via a longer haul route via Washington Street, Lincoln Avenue (Highway 29) and the Silverado Trail.

Approximately 1,900 truck trips (3,800 one-way truck trips), would be required over the course of construction for mass grading cut exports and fill imports and deliveries of other materials and equipment, assuming each truck could contain up to 10 CY of material depending on material type (aggregate, native soil, topsoil, etc.). The majority of construction equipment operation, specifically on- road truck trips, would occur during Site Preparation and Earthwork (Phases 1 and 3 respectively; approximately 8 weeks).

#### ***Temporary Dewatering and In-Channel Work***

A temporary channel water diversion system would be required on the Oat Hill Mine Ditch tributary to the Napa River, but not on the Napa River, to install a rock toe structure to protect the channel bank upstream of the new riverside ponds from stream scour. Temporary dewatering will be required on Simmons Creek to realign the channel away from the headworks, and to stabilize the channel banks. A small cofferdam may be installed in the Napa River around the work area for installation of the 28-inch HDPE outfall pipe protection, although no dewatering is anticipated.

Overall, in-channel work would occur between June and October of the construction year during the summer/early fall months when water levels are at their lowest levels and flood risks are statistically least likely.

Construction impacts to the adjacent waterways would be minimized by the installation and maintenance of a water diversion plan when construction activities are required in the channel. It is expected that river flows would be diverted around work areas to restore the riverbank adjacent to the riverside ponds along the Oat Hill Mine Ditch, as well as when realigning Simmons Creek away from the headworks structure and stabilizing the channel bank. Diversion structures will adhere to RWQCB and CDFW permit requirements including biological screening, sensitive species relocation, and biological monitoring. The water diversion system may include screened pumps, a temporary pipe network, siltation baffles, and coffer dams to route flow around the immediate work area, maintain dewatered conditions, and return flow to the downstream channel network without causing harm to biological resources or affecting water quality.

Prior to the commencement of in-channel work, water in the work area would be removed and discharged in accordance with the applicable stormwater BMPs. It is anticipated that all water removed from the site be pumped into a temporary siltation pond/desilting basin, Baker tank, or similar detention device in order to allow adequate time for settling of sediments prior to their release downstream. Following adequate settling time, water would be released or pumped

downstream at an appropriate rate to maintain downstream flows during construction. During the dewatering process, a biological monitor would be onsite to perform any aquatic species protection measures required by resource agencies. If ground water is encountered in the work area between the isolation barriers, the water would be discharged in accordance with the applicable stormwater BMPs. Impacted waters located in the work area behind the coffer dam would either be treated or disposed of per RWQCB requirements.

After water has been removed from the work area, visqueen would be placed on top of the channel floor to prevent construction debris from falling onto channel bottom. Upon completion of construction activities, the visqueen, cofferdam, and water diversion pipe would be removed and flow returned to the stream channels through the work area with the least disturbance to the substrate.

### **Project Workforce**

Construction would require a 5-person crew, with a maximum of 7 construction workers during periods when multiple activities (e.g., trenching, earthwork, hauling, etc.) are occurring concurrently. Commuter traffic related to the Proposed Project would be comprised of light duty trucks (approximately 50 percent would be diesel and 50 percent gasoline powered) that employees would use to commute to and from the Project site. This would result in an average of 10 one-way vehicle trips per day (assuming that each worker commutes in their own vehicle), with an estimated commute of 20 miles each way to the Project site. In addition to construction workers, archaeological and biological monitors would also be present at the Project site.

### **Operations and Maintenance**

#### ***New Riverside Ponds and Supply Piping***

No additional employees would need to be hired to maintain the Project. The existing chemical treatment protocol would not be modified. The new East and West ponds would be fitted with SCADA system to control water levels, regulate discharge to the Napa River, and provide an alarm if water level exceeds the design elevation. To manage emergency overflows, the new riverside ponds would be graded with an overflow pathway directed towards a temporary storage area in the footprint of Pond 1. To conduct periodic inspection and maintenance, the new ponds may require water drawdown and liner inspection, detritus removal. The ponds would be fitted with quick couplers for connection to portable pumps which could aid the drawdown process. The ponds would also have stairs and boat ramps to facilitate access. The new supply piping will require minimal maintenance and will be controlled by integrating the above-mentioned SCADA controls into the existing control system.

#### ***Restored and Stabilized Channel Slopes***

The restored channel areas would be monitored for geomorphic stability and revegetation establishment. If project elements do not meet established performance criteria, then specific maintenance work would be triggered including placement of erosion control measures, minor adjustment of rock features, weeding, replanting and irrigation management. Once the establishment and monitoring period has formally ended the project area would be inspected by staff periodically (annually) to confirm long term geomorphic stability.