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# Attachment 1

## Mitigation and Monitoring Program



# County of Santa Cruz

## PLANNING DEPARTMENT

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## MITIGATION MONITORING AND REPORTING PROGRAM for Application No. 181146

No.	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
<b>Biological Resources</b>				
<b>BIO-1</b>	<p>In addition to implementing construction protocols BR-1.1 through BR-1.15 pursuant to Mitigation Measure BIO-4 below, the following construction protocols are required to ensure the protection of special-status plant species.</p> <p><b>Construction Protocol BR-2.1.</b> All occurrences of special-status plants within 50 feet of any work areas shall be flagged by a qualified, County-approved biologist prior to construction. Where work will occur within 10 feet of a special-status plant to be preserved, orange construction fencing (or similar) shall be installed at the edge of the work area and no work shall occur beyond the fence. If there are occurrences of special-status plants downslope from the work area, silt fencing shall be installed at the edge of the work area to prevent soil or other materials from being transported downslope where they may impact special-status plants.</p> <p><b>Construction Protocol BR-2.2.</b> Occurrences of special-status plants shall be avoided by re-routing the trail alignment to the extent feasible and practicable. Where this is not possible, impacts to special-status plants shall be minimized by reducing the trail width and associated vegetation removal to the fullest extent feasible. At a minimum, the full width of the trail (i.e., the full extent of vegetation removal) should avoid the dripline of any special-status shrubs and should avoid special-status herbs by a minimum of 10 feet. If trails are re-routed, they should be re-routed downslope, where feasible, of any special-status plants to avoid causing erosion or sedimentation issues which could be detrimental to special-status plants. If not feasible then re-route the drainage away from the special-status plants. If other considerations such as slope or soil stability make it impossible to avoid special-status plants, a qualified, County-approved biologist shall apply a combination of propagation from local seed and habitat enhancement to repair, rehabilitate, or restore the impacted environment.</p>	Applicant	Compliance monitored by the County Planning Department	During trail construction and site grading operations
<b>BIO-2</b>	<p>In addition to implementing Construction Protocol BR 1.1 through 1.15 pursuant to Mitigation Measure BIO-4 below, the following construction protocols are required to ensure the protection of special-status wildlife species.</p> <p><b>Construction Protocol BR-3.1.</b> Tree removal and trimming, regardless of size, shall take place outside of both the maternity and hibernation period for special-status bats (between September and October) and avoid the breeding bird window per Protocols BR 3.4 and BR 3.5. Tree removal can take place during this period without a breeding bird or bat roost survey.</p> <p><b>Construction Protocol BR-3.2.</b> If removal of large trees (e.g., the DBH is greater than 12 inches) occurs during the bat roosting season (November through August), these trees shall be inspected by a qualified, County-approved biologist for the presence of bat roosts. If a maternity roost is detected, up to a 200-foot buffer shall be placed around the maternity site until the bats are no longer utilizing the site. Non-maternity roost sites can be removed under the direction of a qualified, County-approved biologist. Any large tree that will be removed shall be left on the ground for 24 hours before being taken offsite or being chipped. This period will allow any day-roosting bats the opportunity to leave before the tree is either removed from the area or is chipped.</p>	Applicant	Compliance monitored by the County Planning Department	During trail construction and site grading operations

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	<p><b>Construction Protocol BR-3.3.</b> Consultation with the CDFW shall be initiated to determine appropriate conservation measures if active roosting bat sites are disturbed.</p> <p><b>Construction Protocol BR-3.4.</b> Conduct pre-construction breeding bird surveys if construction, vegetation removal, or ground disturbance activities occur during the breeding season (February 1 to August 31). Pre-construction surveys shall be conducted by a qualified individual within 14 days of the start of these activities to avoid disturbance of active nests, eggs, and/or young. If these activities stop or lapse for a period of 14 days or more during the breeding season, a follow-up breeding bird survey shall be conducted to ensure no new breeding activity has occurred within the anticipated work area. Outside of the breeding season, no pre-construction breeding bird survey would be required for construction, vegetation removal, or ground disturbance activities.</p> <p><b>Construction Protocol BR-3.5.</b> If nesting birds are identified, an exclusion zone in which no construction activities would be allowed shall be established around any active nests of any avian species protected by the Migratory Bird Treaty Act and California Fish and Game Code until a qualified, County-approved biologist has determined that all young have fledged. Suggested exclusion zone distances differ depending on species, location, and placement of nest, and shall be at the discretion of the biologist based on the species in question, the proximity of the nest to the work area, and the type of work being conducted (e.g., use of hand tools versus gas-operated machinery).</p> <p><b>Construction Protocol BR-3.6.</b> During construction, all workers shall ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the construction area is deposited in covered or closed trash containers. The trash containers shall not be left open and unattended overnight.</p> <p><b>Construction Protocol BR-3.7.</b> A pre-construction survey of the parking area shall be conducted by a qualified, County-approved biologist to flag and delineate any woodrat middens within the planned disturbance footprint. During construction of the parking area, a biological monitor shall be onsite to ensure vegetation and ground disturbance with heavy equipment shall not impact those delineated resources. When avoidance of woodrat middens is not possible, the qualified, County-approved biologist shall dismantle the nest in accordance with Construction Protocol BR 3.9.</p> <p><b>Construction Protocol BR-3.8.</b> During construction and trail installation, a qualified, County-approved biologist or trained designee from the contractor's crew shall identify woodrat middens located along the trail alignment. If the latter, a qualified, County-approved biologist shall provide the training prior to the start of each construction phase. To the extent feasible and practicable, the trail alignment shall avoid woodrat middens by re-routing the trail alignment. Where this is not possible, implementation of Construction Protocol BR-3.9 would be required.</p> <p><b>Construction Protocol BR-3.9.</b> When construction of the trail alignment or the parking area would result in a direct impact to a woodrat midden, a qualified, County-approved biologist shall dismantle the nest and scatter the nest material a minimum of 10 feet outside of the trail alignment or the footprint of the parking area. If woodrat middens with young are encountered during the dismantling process, the material shall be placed back on the nest and the nest shall remain unmolested for three weeks in order to give the young enough time to mature and leave on their own accord. After three weeks, the nest dismantling process may resume. In the event that a nest must be relocated, the following procedures shall be adhered to:</p> <ol style="list-style-type: none"> <li>a) Prior to nest disturbance, the biologist shall obtain from CDFW a scientific collection permit for the trapping of the dusky-footed wood rats.</li> <li>b) Nests shall be disturbed or dismantled only during the non-breeding season, between October 1 and December 31.</li> <li>c) At least two weeks prior to construction, the qualified biologist shall survey the project disturbance area to confirm the wood rat nest location and locate any other nests that may have been built in the project</li> </ol>			

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	<p>vicinity that may be affected by the proposed development.</p> <p>d) Prior to nest disturbance, woodrats shall be trapped at dusk of the night set for relocation of the nest(s).</p> <p>e) Any existing nest that may be disturbed by construction activities shall be mostly dismantled and the material spread in the vicinity of identified nest relocation site(s).</p> <p>f) In order to avoid the potential health effects associated with handling rodents and their milieu, all workers involved in the handling of the wood rats or the nest materials should wear protective gear to prevent inhalation of contaminant particulates, contact with conjunctiva (eyes), and protection against flea bites; a respirator, eye protection, and skin protection should all be used.</p> <p>g) Dismantling shall be done by hand, allowing any animals not trapped to scape either along existing wood rat trails or toward other available habitat.</p> <p>h) If a litter of young is found or suspected, nest materials shall be replaced, and the nest left along for 2-3 weeks before recheck to verify that young are capable of independent survival before proceeding with nest dismantling.</p> <p>i) Woody debris shall be collected from the area and relocated nests shall be partially constructed in an area determined by the qualified biologist to be both suitable for the wood rats and far enough away from the construction activities that they will not be impacted.</p> <p>j) Rats that were collected at dusk shall be released hours before dawn near the newly constructed nests to allow time for rats to find refuge.</p> <p>k) Once construction is complete, the biologist shall survey the nest area to note whether the new nests are in use, the wood rats have built new nests, or the nest area has been completely abandoned. This information shall be reported in a letter report to the Environmental Planning Section of the Planning Department, and the local CDFW biologist.</p> <p><b>Construction Protocol BR-3.10.</b> A qualified, County-approved biologist shall conduct a pre-construction survey immediately prior to the start of any ground-disturbing activities for stream crossings and areas within 100 feet of wetted features. If California red-legged frog (CLRF) are found within the work area, all work shall cease within the immediate vicinity (approximately 25 feet around the work area) until the individual(s) have been allowed to leave the work area on their own. If CRLF cannot passively leave the work area, work shall cease and the USFWS shall be contacted by the qualified, County-approved biologist to determine the appropriate course of action. The qualified, County-approved biologist shall then implement the appropriate course of action as determined by the USFWS.</p> <p><b>Construction Protocol BR-3.11.</b> Because dusk and dawn are often the times when CRLF are most active and likely to disperse, all construction activities shall cease one half hour before sunset and shall not begin prior to one half hour after sunrise. Furthermore, no mechanized work shall occur during significant rain events, defined here as 0.25 inch or greater within a 24-hour period, when CRLF are more likely to disperse and occur within the work area.</p>			
<b>BIO-3</b>	<p>Educational signage should be placed within the parking lot and at picnic areas informing the public to remove trash and food waste. Signage should provide information on the marbled murrelet and the impact that corvid and avian predators can have on nest sites. This education signage should be in place prior to opening the trails for public access and should be routinely maintained by the Public Access Manager to ensure that signage is not obstructed and is legible at all times.</p>	Applicant	Compliance monitored by the County Planning Department	Prior to opening parking area and trail system for use
<b>BIO-4</b>	<p>Implement the following Biological Resources (BR) construction protocols from the San Vicente Redwoods Public Access Plan:</p> <p><b>Construction Protocol BR-1.1.</b> The construction work area including the parking area shall be minimized to</p>	Applicant	Compliance monitored by the County Planning	During trail construction and site

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	<p>the fullest extent feasible and trails shall be limited to the minimum width necessary to support the proposed use (i.e., hiking, cycling, and horse riding) as detailed in Table 3 (Trail Dimensions by Use Type).</p> <p><b>Construction Protocol BR-1.2.</b> Prior to the start of construction, all construction personnel shall be educated on the sensitivity of the biological communities and species at the site by a qualified, County-approved biologist. Environmental awareness training shall include measures to avoid or reduce impacts to the community, reporting and follow-up actions if sensitive biological communities are impacted, and the worker's responsibility under the applicable environmental regulation(s). A designated staff member from the contractor's crew shall provide follow-up training to any employees who begin work after the initial pre-construction training.</p> <p><b>Construction Protocol BR-1.3.</b> Trails should be routed around sensitive vegetation to the fullest extent feasible. At a minimum, the full width of the trail (i.e., the full extent of vegetation removal and ground disturbance during construction) should avoid the dripline of sensitive vegetation, with greater separation between the trail and sensitive vegetation being preferred. If trails are re-routed, they should be re-routed downslope of any sensitive vegetation to avoid causing erosion or sedimentation issues which could be detrimental to sensitive vegetation.</p> <p><b>Construction Protocol BR-1.4.</b> Tree and shrub removal in sensitive biological communities shall be minimized to the fullest extent feasible. Where necessary, obtaining a tree removal permit may be required per Santa Cruz County Code Chapter 16.34, Significant Trees Protection. Tree removal should be conducted by a licensed arborist or registered professional forester using industry-standard BMPs to prevent the spread of invasive weeds or plant pathogens and avoid damage to vegetation to be retained.</p> <p><b>Construction Protocol BR-1.5.</b> Trail construction shall incorporate the best available technology and industry-standard BMPs to minimize the potential for detrimental impacts such as erosion or sedimentation and to minimize the need for future maintenance.</p> <p><b>Construction Protocol BR-1.6.</b> Any restoration or landscape plantings (e.g., plantings around the proposed parking/parking area) shall use native species appropriate for plant communities found at the site. To the extent feasible, plant material shall be salvaged from trail construction activities at the site. If not possible, plant material shall be propagated by a reputable nursery with protocols in place for minimizing the potential spread of plant diseases (sudden oak death or other <i>Phytophthora</i>-related diseases). Any propagated plant material shall be sourced from as close to the site as possible, ideally from within the site itself to avoid genetic variation.</p> <p><b>Construction Protocol BR-1.7.</b> Stream crossings should ideally be designed and constructed to freespan the channel and be anchored above the top of bank. Crossings of regulated streams that avoid work below the ordinary high-water mark do not require a permit from the United States Army Corps of Engineers (USACE). When required, notify the CDFW and the Central Coast Regional Water Quality Control Board (RWQCB) of the crossing, even if located above the top of bank. If the CDFW and/or RWQCB issue authorizations for such work, the measures included in any such authorizations shall be incorporated into the design.</p> <p><b>Construction Protocol BR-1.8.</b> Where wetlands or streams cannot be avoided, appropriate approvals from the USACE (for impacts to regulated wetlands or areas below the ordinary high water mark of regulated streams) and/or the RWQCB and the CDFW (for impacts to regulated wetlands, riparian vegetation, or areas below the top of bank of regulated streams) shall be secured prior to initiating work in these areas. The measures included in any such authorizations shall be incorporated into the design.</p> <p><b>Construction Protocol BR-1.9.</b> Trails constructed near wetlands or streams shall be designed to minimize changes to pre-project hydrology. Avoid erosion or sedimentation by installing BMPs (e.g., silt fencing, wattles, sterile straw, hydromulch, geotextile fabrics, sediment traps, drainage swales, or sand bag dikes) around wetlands and streams. All materials shall be certified weed-free and must be constructed of natural materials. No plastic monofilament netting may be used. The exact location and configuration of BMPs shall</p>		Department	grading operations

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	<p>be determined by the contractor based on specific site conditions and the type of work being conducted. BMPs shall remain in place until all disturbed ground has been stabilized either through compaction or re-vegetation.</p> <p><b>Construction Protocol BR-1.10.</b> Equipment used for building new trails should generally have tread width of 48 inches or less and mass less than 10,000 pounds.</p> <p><b>Construction Protocol BR-1.11.</b> To avoid the introduction and prevent the spread of invasive weeds or plant pathogens, prior to arriving on the site, all construction equipment and vehicles shall be inspected to ensure they are clean.</p> <p><b>Construction Protocol BR-1.12.</b> Any equipment or vehicles that have been used in areas with known sudden oak death or other <i>Phytophthora</i>-related plant diseases shall be sterilized before being used and inspected by a qualified, County-approved biologist prior to entering the job site.</p> <p><b>Construction Protocol BR-1.13.</b> All disturbed ground shall be stabilized concurrent with or immediately following construction. Stabilization methods may include: compacting the soil (for trail surfaces only), covering disturbed soils with duff and leaf litter as well as branches removed for construction of trails, revegetation using appropriate native plant species, or use of other standard erosion control measures such as weed-free straw or hydromulch. If disturbed areas are to be revegetated, only native plants appropriate for the habitat shall be used per Construction Protocol BR-1.6. If other erosion control materials are to be used, they shall be certified weed-free and as otherwise specified in Construction Protocol BR-1.9.</p> <p><b>Construction Protocol BR-1.14.</b> The importation of soils for construction of the parking area or other parts of the site shall be minimized to the fullest extent feasible. To the extent feasible, soils shall be salvaged from onsite before being imported from offsite. If it is necessary to import soils, they shall be certified weed-free and from a qualified, County-approved source with protocols in place for minimizing the potential spread of plant diseases (e.g., sudden oak death or other <i>Phytophthora</i>-related diseases).</p> <p><b>Construction Protocol BR-1.15.</b> Equipment and vehicle fueling and maintenance parking areas shall be at least 100 feet from any wetland or stream. A spill containment kit shall be provided at the work site and located within 50 feet of the fueling or maintenance area. All spills shall be cleaned immediately (i.e., within 5 minutes of the spill) and all resulting materials shall be disposed of properly. All construction vehicles shall be inspected daily for leaks of oil, hydraulic fluid, or other potentially hazardous materials by a qualified construction crew member and drip pans shall be placed under parked vehicles during prolonged periods of disuse (e.g., during evenings and weekends).</p>			
<b>BIO-5</b>	<p>To minimize the introduction of invasive plants or plant pathogens that could threaten sensitive vegetation, parking and parking areas should include signage or other materials aimed at instructing the general public on the potential threats associated with invasive plants, plant pathogens, and other pests of concern. These materials should include basic prevention methods that the general public can implement such as inspecting shoes and pet fur for weed seeds or avoiding the movement of plant material or soil from one area to another. This education signage should be in place prior to opening the trails for public access and should be maintained annually by the Public Access Manager to ensure that signage is not obstructed and is legible at all times.</p>	Applicant	Initial compliance monitored by the County Planning Department; Annual compliance monitored by the Public Access Manager	Prior to opening parking area and trail system for use
<b>BIO-6</b>	<p>To minimize impacts to sensitive vegetation from use of the trail network, the trail maintenance system should be implemented as described in Chapter 6 of the San Vicente Redwoods Public Access Plan. The trail maintenance system includes an annual monitoring program aimed at identifying maintenance issues (e.g., erosion) and other problems (e.g., nuisance trash areas or other impacts from trail users). The trail maintenance system should include specific methods for routinely documenting and implementing the</p>	Applicant	Compliance monitored by the Public Access Manager	Annual monitoring after parking area and trail system is open for use

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	necessary maintenance by the Public Access Manager.			
<b>BIO-7</b>	All picnic locations shall be located outside of old-growth stands.	Applicant	Compliance monitored by the County Planning Department	At submittal for construction and grading permits
<b>Cultural Resources</b>				
<b>CUL-1</b>	The following text shall be clearly identified on all grading plans and construction drawings: <i>Pursuant to sections 16.40.040 (Site Discovered During Excavation or Development) of the Santa Cruz County Code, if archaeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.</i>	Applicant	Compliance monitored by the County Planning Department	At submittal for construction and grading permits
<b>CUL-2</b>	<p>Implement the following CR construction protocols from the San Vicente Redwoods Public Access Plan:</p> <p><b>Construction Protocol CR-1.1.</b> Prior to the start of construction, all construction personnel shall be educated on the identification and treatment of prehistoric and/or historic artifacts that may be discovered by a qualified, County-approved archaeologist who meets the Secretary of Interior standards or a registered, County-approved forester who has successfully completed the CAL FIRE archeology program.</p> <p><b>Construction Protocol CR-1.2.</b> If ground disturbing activity takes place and possible artifacts are discovered, then all construction activities within a 50-foot radius of the find shall be halted immediately and a qualified, County-approved archaeologist who meets the Secretary of Interior standards (including CAL FIRE archaeologists) shall be consulted to determine whether the resource requires further study. (Note, it is CAL FIRE policy that registered professional “foresters” do not perform significance evaluations of cultural resources). Prehistoric archaeological site indicators include: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of the CEQA criteria by a qualified archaeologist. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources. The report shall be submitted to the County of Santa Cruz, Northwest Information Center, and State Historic Preservation Office, if required.</p> <p><b>Construction Protocol CR-1.3.</b> When trail building in the vicinity of sites P-44-000069, P-44-000070, P-44-000071, P-44-000123, and P-44-000596 as identified in the <i>Cultural Resources Study</i> dated October 2017 and on file with the County, a County-approved, qualified archaeologist who meets the Secretary of the Interior standards or a County-approved, registered forester who has successfully completed the CAL FIRE archaeology program shall be present during the initial ground-disturbing phase of construction. Selected portions of trail routes may be in close proximity to sites P-44-000069, P-44-000070, P-44-000071, P-44-000123, and P-44-000596, and monitoring at locations shown on Figure 3 and Figure 4 of the <i>Cultural Resources Study</i> is required. If archaeological specimens are discovered, a qualified archaeologist who meets</p>	Applicant	Compliance monitored by the County Planning Department	During trail construction and site grading operations

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	<p>the Secretary of the Interior standards should evaluate their significance.</p> <p><b>Construction Protocol CR-1.4.</b> For sites P-44-000596 and Camp ZZZ, a signage program at all entrances shall be developed by the applicant prior to final inspection at the entrances to the property. Signs shall include a brief description of the history of San Vicente Railroad, including various camps throughout the area, a discussion of the historic value of the sites, and the citation of the regulatory codes that protect artifacts. The signage shall also include the requirement to stay on trails.</p> <p><b>Construction Protocol CR-1.5.</b> If a trail is planned at site P-44-000596, the trail shall be constructed within the old railroad grade wherever possible because no trace of the railroad line, other than the grade is evident. If the trail is planned to be built outside the railroad grade where past land uses have disturbed the ground surface, construction of the trail is acceptable with the provision that any surface artifacts are avoided and ground disturbance is kept to a minimum. Portions of known railroad grade segments are depicted in Figures 5a and 5b of the <i>Cultural Resources Study</i>.</p> <p><b>Construction Protocol CR-1.6.</b> If a trail is planned at the Camp ZZZ site to follow the alignment of the existing gravel road, it is acceptable for the trail to follow within the road route because there is no trace of historic-period specimens evident within this alignment.</p>			
<b>CUL-3</b>	<p>The following text shall be clearly identified on all grading plans and construction drawings: <i>Pursuant to sections 16.40.040 (Site Discovered During Excavation or Development) of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible person shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representative of the local Native California Indian group shall be contacted. If it is determined that the remains are Native American, the Native American Heritage Commission will be notified as required by law. The Commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. Pursuant to Public Resources Code section 5097, the descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.</i></p>	Applicant	Compliance monitored by the County Planning Department	At submittal for construction and grading permits
<b>CUL-4</b>	<p>Implement the following Cultural Resources (CR) construction protocol from the San Vicente Redwoods Public Access Plan:</p> <p><b>Construction Protocol CR-1.7.</b> The following actions are promulgated in Public Resources Code 5097.98 and Health and Human Safety Code 7050.5, and pertain to the discovery of human remains. If human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be “most likely descended” from the deceased Native American. The most likely descendent would then make recommendations regarding the treatment of the remains with appropriate dignity.</p>	Applicant	Compliance monitored by the County Planning Department	During trail construction and site grading operations