

Appendix I

Mitigation Monitoring and Reporting Program

City of Carlsbad Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project

Mitigation Monitoring and Reporting Program

The California Environmental Quality Act (CEQA) requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with project development.

CEQA Guidelines Section 15091(d) states:

When making the findings required in subdivision (a)(1), the CEQA Lead Agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be enforceable through permit conditions, agreements, or other measures.

CEQA Guidelines Section 15097(a) states:

This section applies when a public agency has made the findings required under paragraph (1) of subdivision (a) of section 15091 to adopt a mitigated negative declaration in conjunction with approving a project. In order to assure that the mitigation measures and project revisions identified in the negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

Mitigation Measures

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
BIOLOGICAL RESOURCES				
BIO-1 Gnatcatcher Nesting Season Avoidance. No clearing of occupied gnatcatcher habitat may occur between March 1 and August 15 per the conditions of coverage for this species.	Include in contract specifications.	March 1 to August 15	Construction contractor	
BIO-2 Nesting Bird Avoidance. Potential direct impacts to nesting bird species protected under the MBTA and CFG Code shall be mitigated by restricting brushing, clearing/grubbing, and grading to outside of the breeding season of most bird species (general breeding season is January 15 to September 15). Grubbing, grading, or clearing during the breeding season could occur if it is determined, based on the results of a	Conduct surveys, if needed. Notification to USFWS and/or CDFW, if needed. Monitor construction activity (fencing and noise), if necessary.	Prior to and during construction between January 15 and September 15, as needed.	City of Carlsbad Qualified biologist Noise monitor	

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preconstruction survey (see below), that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately before impacting potential nesting habitat. The City of Carlsbad shall be notified of any sensitive bird species identified during the pre-construction surveys. If project impacts to vegetation or grading are necessary within and/or adjacent to habitat during the bird breeding season (January 15 to September 15), a qualified biologist shall conduct pre-construction surveys to determine the presence or absence of nesting birds, including raptors and sensitive bird species. The survey shall begin not more than three days before the beginning of impacts or grading activities. If nests of listed birds, migratory birds, raptors, or other sensitive species are located, they will be fenced with a protective buffer of at least 500 feet from active nests of listed species, and 300 feet from other sensitive bird species. Nests of non-sensitive bird species will be flagged for avoidance, and an appropriate setback determined by the biologist. All construction activity will be prohibited within the identified setbacks until a qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged. The USFWS shall be notified of any federally listed species observed nesting within 500 feet of proposed grading activities, and the CDFW shall be notified of any state listed or special-status species observed nesting within 500 feet of proposed grading activities.				

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If listed species are present and construction is to occur during the nesting season, construction noise will be measured regularly to maintain a threshold at or below 60 dBA hourly L_{EQ} within 500 feet of breeding habitat occupied by listed species. If noise levels supersede the threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat from project construction to below 60 dBA hourly L_{EQ}, and/or the activities shall be suspended until nesting is complete.				
BIO-3 Compensatory Mitigation and Revegetation of Temporary Impacts. Project mitigation for impacts to native habitat types shall be provided to achieve no net loss. Impacts to Group A riparian habitats (i.e., southern willow scrub) shall be mitigated at a minimum 1:1 ratio, Group C upland habitat (coastal sage scrub) at a 2:1 ratio, and Group E upland habitat (non-native grassland [disturbed]) at a 0.5:1 ratio. Mitigation for permanent impacts to HMP Group A, C, and E habitat shall be provided at an off-site location approved by the City of Carlsbad. The project mitigation for Group A and C habitat shall include a minimum 1:1 creation or substantial restoration to ensure no-net loss of native habitat. Southern Willow Scrub: Mitigation for impacts to 0.03 acre of Group A southern willow scrub is proposed to occur at a 1:1 ratio through the use of 0.03 acre of the City of Carlsbad's unused North County Habitat Bank mitigation credits. Diegan Coastal Sage Scrub: Mitigation for impacts to 0.33 acre of Group C Diegan coastal sage scrub is proposed to occur at a 2:1 ratio through one of the following options:	Confirm documentation of use of available mitigation credits. Prepare and submit Restoration Plan (if mitigation credits are not used). Recordation of Conservation Easement, Restoration Plan, Preserve Management Plan, long-term management funding, and Management Agreement	Prior to construction	City of Carlsbad Qualified biologist	

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a) Use of 0.66 acre of SANDAG Sage Hill Mitigation Parcel credits; or b) Creation, restoration, and/or enhancement at The Crossings site identified as a “Proposed Future Mitigation Area”, and/or another offsite location to be determined by the City of Carlsbad, totaling 0.66 acre, with at least 0.33 acre (1:1) composed of creation or substantial restoration. Non-native Grassland: Mitigation for impacts to 0.11 acre of Group D non-native grassland is proposed to occur at a 0.5:1 ratio through the use of 0.06 credit at the City of Carlsbad’s Lake Calavera Mitigation Parcel. If mitigation credits are not used to mitigate for project impacts to Diegan coastal sage scrub, a Restoration Plan addressing compensatory mitigation for impacts to this habitat shall be prepared for review and approval by the City of Carlsbad’s Planning Department and HMP Coordinator. The final restoration plan shall be submitted for review at least 30 days before initiating project impacts. Where the off-site mitigation would occur within lands that are not already preserved in perpetuity and subject to long-term management within an existing biological conservation easement, the City of Carlsbad shall record an Open Space Easement and a Conservation Easement or Restrictive Covenant over the off-site mitigation lands and provide long-term management. Before clearing or impacts to any habitat, the following items shall be approved by the City of Carlsbad’s Planning Department and HMP Coordinator and considered final: Recordation of Conservation Easement, Restoration Plan, Preserve Management Plan, long-term management funding, and Management Agreement with qualified preserve manager, if not the City of Carlsbad.				

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BIO-4 Construction Fencing and Equipment Staging and Maintenance. To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, environmental fencing (including silt fencing where determined necessary by the SWPPP) would be installed at the edges of the impact limits before the initiation of grading. All construction staging shall occur within the approved limits of construction. Throughout construction, employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint or within existing developed areas. Equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced project impact limits. These designated areas shall be located in previously developed and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering adjacent off-site habitats and shall be shown on the construction plans. Fueling of equipment shall take place within existing developed areas. Contractor equipment shall be checked for leaks before operation and repair, as necessary. “No-fueling zones” shall be designated on construction plans. If work occurs beyond the fenced or demarcated limits of impact, work shall cease until the problem has been remedied to the satisfaction of City Planning. Impacts to jurisdictional areas or HMP Habitat Groups that occur beyond the approved work limits fence shall be mitigated in accordance with ratios specified in the Carlsbad HMP or as otherwise determined by City Planning and in coordination with the applicable resource agencies, as appropriate. Temporary construction fencing shall be removed upon project completion.	Monitor construction activities for compliance and document in project file.	During construction	Construction contractor	

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BIO-5 Biological Construction Monitoring. A qualified biologist will monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or wetlands, or biological open space. The biologist also will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources on-site and avoidance measures to remain in compliance with project approvals. The biologist also will monitor vegetation clearing, grubbing, and grading activities on a regular basis to help ensure compliance with project approvals.	Conduct pre-construction environmental training. Monitor construction activities for compliance and document in project file.	Prior to and during construction	Construction contractor Qualified biologist	
CULTURAL RESOURCES				
CUL-1 Contractor Awareness Training. An archaeological sensitivity training program will be developed in consultation with the TCA tribe retained to monitor and delivered by a qualified professional archaeologist prior to the beginning of ground-disturbing work for construction crews working within the project area. The cultural awareness and sensitivity training shall provide notification procedures if potential archaeological material is discovered, procedures for coordination between construction and monitoring personnel, and information about other situations that may arise if cultural resources, including human remains, are discovered during construction. This training and communication protocol shall be communicated to all new construction personnel prior to construction crews beginning ground-disturbing work on the project, and on a poster that is placed in a visible location inside the construction job trailer.	Conduct archaeological sensitivity training.	Prior to construction	Qualified archaeologist Construction contractor	
GEOLOGY AND SOILS				
GEO-1 Unanticipated Discovery of Paleontological Resources. If evidence of subsurface paleontological resources is found during construction, excavation and other ground-disturbing construction activity shall immediately cease at	If paleontological resources are encountered, halt construction and establish a temporary no-work buffer zone. Notify City of Carlsbad.	During construction	Qualified paleontologist Construction contractor	

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the location of the suspected paleontological exposure plus a 50-foot radius around the suspected find (no-work area) and the construction contractor shall contact the City of Carlsbad Planning Division. With direction from the City of Carlsbad Planning Division, a qualified paleontologist shall evaluate the find prior to resuming ground-disturbing construction activity in the no-work area of the find. If warranted, the paleontologist shall prepare a Paleontological Resources Mitigation Program for the salvage and curation of identified resources for approval by the City of Carlsbad and implementation by the construction contractor.	Prepare Paleontological Resources Mitigation Program, if necessary. Implement appropriate salvage and curation measures.			
NOISE				
NOI-1 Construction Noise Management Plan. Noise levels from project-related construction activities shall not exceed 10 dBA above existing ambient noise levels, or 70 dBA, when measured at nearby noise-sensitive land uses or receptors. A Construction Management Plan that describes the measures included on the construction plans to ensure compliance with the noise limit shall be prepared and submitted to the City of Carlsbad Planning Division for approval prior to issuance of the grading permit. The following measures may be included to reduce construction noise generated by graders and scrapers: • Construction equipment to be properly outfitted and maintained with manufacturer-recommended noise-reduction devices. • Diesel equipment to be operated with closed engine doors and equipped with factory-recommended mufflers. • Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) to be equipped with shrouds and noise control features that are readily available for that type of equipment.	Include in contract specifications. Prepare and implement Construction Noise Management Plan.	Prior to and during construction	Construction contractor	

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- Electrically powered equipment to be used instead of pneumatic or internal-combustion powered equipment, where feasible. - Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) to be prohibited. - Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise sensitive receptors. - The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. - No project-related public address or music system shall be audible at any adjacent sensitive receptor. Temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7 to 8 feet above ground, a sound wall at least 10 feet in height above grade, to block the line-of-sight between project construction activities and residences along the northern, southern, and eastern property lines. These barriers would mitigate noise levels to within acceptable levels. To effectively reduce noise levels, the sound barrier should be constructed of a material with an STC rating of 22 or 23 with no gaps or perforations and remain in place until the conclusion of demolition, grading, and construction activities.				

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General working hours are Monday through Friday, 7:00 a.m. - 6:00 p.m. Site mustering (i.e., gathering/assembly at the site) is not allowed prior to and after the allowable working hours.				
TRIBAL CULTURAL RESOURCES				
TCR-1 Tribal Monitoring. Prior to the commencement of ground-disturbing activities, the applicant shall: - Retain the services of a qualified archaeologist, defined as one either meeting the Secretary of the Interior's 1997 Professional Qualification Standards for Archeology or working under the supervision of a qualified archaeologist, who shall be on-site for ground-disturbing activities. In the event cultural material is encountered, the archaeologist is empowered to temporarily divert or halt grading to allow for coordination with the Luiseño Native American monitor, or other Traditionally and Culturally Affiliated Luiseño tribe ("TCA Tribe"), and to determine the significance of the discovery. The archaeologist shall follow all standard procedures for cultural materials that are not tribal cultural resources. - A Luiseño Native American monitor shall be present during all ground disturbing activities. Ground disturbing activities may include, but are not limited to, archaeological studies, geotechnical investigations, clearing, grubbing, trenching, excavation, preparation for other infrastructure, and grading activities. - Any and all uncovered artifacts of Luiseño Native American cultural importance shall be returned to the San Luis Rey Band of Mission Indians, and/or the Most Likely Descendant for later reburial on project site, if applicable, and not be curated, unless ordered to do so by a federal	Luiseño Native American monitor and archaeologist to be present at pre-construction meetings and prior to any ground disturbing-activities. Should any cultural materials be discovered, construction must halt and notify San Luis Rey Band of Mission Indians and other Luiseño tribes. Should human remains be encountered, halt work and notify the San Diego County Medical Examiner. Prepare monitoring report.	Prior to any ground disturbing activities/ construction, during construction activities, and following construction.	Qualified archaeologist Qualified Native American monitor Construction contractor	

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agency or a court of competent jurisdiction. d. The Luiseño Native American monitor shall be present at the project's pre-construction meeting to discuss with grading and excavation contractors excavation schedules and safety issues, as well as to discuss with the archaeological Principal Investigator (PI) concerning the proposed archaeologist techniques and/or strategies for the project. e. Luiseño Native American monitors and archaeological monitors shall have joint authority to temporarily divert and/or halt construction activities. If tribal cultural resources are discovered during construction, all earth-moving activity within and around the immediate discovery area must be diverted until the Luiseño Native American monitor and the archaeologist can assess the nature and significance of the find. f. If a significant tribal cultural resource(s) and/or unique archaeological resource(s) are discovered during ground-disturbing activities for this project, the San Luis Rey Band of Mission Indians and other TCA tribes shall be notified and consulted regarding the respectful and dignified treatment of those resources. Pursuant to California PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological and tribal cultural resources. If, however, the applicant is able to demonstrate that avoidance of a significant and/or unique cultural resource is infeasible and a data recovery plan, or other culturally appropriate mitigation measure, is authorized by the City of Carlsbad as the lead agency, the San Luis Rey Band of Mission Indians and other TCA tribes				

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shall be consulted regarding the drafting and finalization of such recovery plan. g. If suspected Native American human remains are encountered, California Health and Safety Code Section 7050.5(b) states that no further disturbance shall occur until the San Diego County Medical Examiner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Suspected Native American remains shall be examined in the field and kept in a secure location at the site. A Luiseño Native American monitor shall be present during the examination of the remains. If the San Diego County Medical Examiner determines the remains to be Native American, the NAHC must be contacted by the Medical Examiner within 24 hours. The NAHC must then immediately notify the “Most Likely Descendant” about the discovery. The Most Likely Descendant shall then make recommendations within 48 hours and engage in consultation concerning treatment of remains as provided in Public Resources Code 5097.98. h. In the event that fill material is imported into the project area, the fill shall be clean of tribal cultural resources and documented as such. Commercial sources of fill material are already permitted as appropriate and will be culturally sterile. If fill material is to be utilized and/or exported from areas within the project site, then that fill material shall be analyzed and confirmed by an archeologist and Luiseño Native American monitor that such fill material does not contain tribal cultural resources.				

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i. No testing, invasive or non-invasive, shall be permitted on any recovered tribal cultural resources without the written permission of the San Luis Rey Band of Mission Indians and other TCA tribes. j. Prior to the completion of project construction, a monitoring report and/or evaluation report, if appropriate, which describes the results, analysis, and conclusions of the monitoring program shall be submitted by the archaeologist, along with the Luiseño Native American monitor's notes and comments, to the City of Carlsbad for approval and shall be submitted to the South Coastal Information Center. Said report shall be subject to confidentiality as an exception to the Public Records Act and will not be available for general public distribution.				
TCR-2 Pre-Excavation Agreement. Prior to the commencement of any ground-disturbing activities, the applicant shall enter into a Pre-Excavation Agreement, otherwise known as a Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with a TCA affiliated consulting tribe. This agreement shall meet all standard requirements of the tribe for such agreements in accordance with applicable laws and regulations, including but not limited to the City of Carlsbad's 2017 Tribal, Cultural and Paleontological Resources Guidelines. This agreement will address provision of a Luiseño Native American monitor and will also contain provisions to address the proper treatment of any Tribal Cultural Resources and/or Luiseño Native American human remains inadvertently discovered during the course of the project. The agreement shall outline the roles and powers of the Luiseño Native American monitors and the archaeologist and shall include the provisions outlined in TCR-1.	Enter into a Pre-Excavation Agreement/Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with a TCA affiliated consulting tribe.	Prior to any ground disturbing activities/ construction.	Applicant	