

# **OC Waste & Recycling Bowerman Renewable Natural Gas Plant Project**

## **MITIGATION MONITORING AND REPORTING PROGRAM**

### **Prepared For:**

**OC Waste & Recycling**  
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### MITIGATION MONITORING AND REPORTING PROGRAM

Public Resources Code, Section 21081.6 (Assembly Bill 3180) requires that mitigation measures identified in environmental review documents prepared in accordance with California Environmental Quality Act (CEQA) are implemented after a project is approved. Therefore, this Mitigation Monitoring and Reporting Program (MMRP) has been prepared to ensure compliance with the adopted mitigation measures during the Bowerman Renewable Natural Gas Plant Project (Project). The OC Waste & Recycling (OCWR) is the agency responsible for implementation of the mitigation measures identified in the Initial Study/Mitigated Negative Declaration.

This MMRP provides OCWR with a convenient mechanism for quickly reviewing all the mitigation measures including the ability to focus on select information such as timing. The MMRP includes the following information for each mitigation measure:

- The phase of the project during which the required mitigation measure must be implemented;
- The phase of the project during which the required mitigation measure must be monitored; and
- The monitoring agency.

The MMRP includes a checklist to be used during the mitigation monitoring period. The checklist will verify the name of the monitor, the date of the monitoring activity, and any related remarks for each mitigation measure.

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SCAQMD – Permit to Construct, Dust Control	<b>AQ-1:</b> Construction equipment greater than 350 HP for the trenching and pipeline construction phase must be equipped with Tier 4 Final engines.	Construction	Construction	OCWR		
NCCP/HCP	<p><b>BIO-1:</b> To address potential Project impacts to intermediate mariposa lily (<i>Calochortus weedii</i> var. <i>intermedius</i>), an in-lieu fee shall be paid via minor amendment to the NCCP/HCP, as approved by USFWS and CDFW. The in-lieu fee will contribute to a management and monitoring program for rare plants in the Nature Reserve of Orange County.</p> <p>Silt fencing or flagging shall be installed under the guidance of a biological monitor along the limits of coastal sage scrub areas that are immediately outside of the grading/impact limits. The silt fencing/flagging shall be used to minimize impacts to sensitive natural resources including special-status plant species and native plant communities outside</p>	Pre-Construction	Pre-Construction	OCWR		

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	and immediately adjacent to the grading limits. Construction activities and personnel will be restricted within these adjacent coastal sage scrub areas and a biological monitor will be present during the silt fence/flagging installation and removal.					
Special Status Species	<p><b>BIO-2:</b> Impacts to coastal sage scrub habitat shall occur outside the breeding and nesting season of the coastal California gnatcatcher (February 15 through July 15) to the extent practicable.</p> <p>A pre-construction survey shall be conducted within the Project site to determine the presence/absence of coastal California gnatcatcher and coastal cactus wren prior to clearing or grading activities. The survey shall include a 100-foot buffer around the grading limits. Any coastal California gnatcatcher or coastal cactus wren observations shall be recorded and marked on the construction/grading plans.</p> <p>All coastal sage scrub habitat outside of the Project impact area shall be fenced or marked with flagging materials prior to the commencement of grading. No construction access, parking, or storage of equipment or materials will be allowed within these areas.</p> <p>A qualified biologist shall conduct and document a pre-construction meeting to educate construction staff (including supervisors, equipment operators, and other site employees) on all mitigation measures required for the Project.</p> <p>A qualified biologist shall monitor the clearing of coastal sage scrub and oak woodland. USFWS/CDFW shall be notified at least 7 calendar days (preferably 14 calendar days) prior to clearing habitat occupied by Target/Identified Species, if observed. The qualified biologist will ensure that clearing activities and earth-moving equipment do not harm coastal California gnatcatchers or coastal cactus wren. The biologist will also ensure that these activities do not harm other species that may occur, including western spadefoot, orange-</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	<p>throated whiptail, red-diamond rattlesnake, and coast patch-nosed snake.</p> <p>The access road(s) shall be sprayed with water on occasion to reduce dust accumulation on the leaves of coastal sage scrub species, as overseen by the biological monitor.</p>					
Special Status Species	<p><b>BIO-3:</b> Avoid ground-disturbing and vegetation removal activities during the nesting bird season (February 15 to September 15). If these activities must occur during the nesting season, a pre-construction nesting bird survey would be conducted by a qualified biologist on and within 300 feet of the Project construction area. The survey would be conducted no more than 10 days prior to initiation of ground-disturbance, vegetation clearing, or construction activities and repeated between delays of greater than 10 days during the nesting season.</p> <p>If an active nest is found, an appropriate no-disturbance buffer for the species would be developed by a qualified biologist. No ground-disturbing or vegetation removal activities would occur within the buffer until the nesting season has ended or the nest is vacated, and juveniles have fledged, as determined by the qualified biologist. At the discretion of a qualified biologist, encroachment into the buffer may occur for non-listed bird species.</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		
Special Status Species	<p><b>BIO-4:</b> For work occurring during the Crotch's bumble bee nesting season between March 15 through September 15 where potential nesting habitat occurs, a pre-construction nesting survey shall occur prior to ground-disturbing or vegetation-trimming activities within the Project's work area and a 50-foot buffer. A qualified Crotch's bumble bee biologist, whose resume has been submitted and approved by CDFW, will conduct a nest clearance survey within 2 weeks of ground-disturbing construction activities. Surveys shall be conducted during daylight hours when ambient temperatures are between 60 degrees Fahrenheit (°F) and 90 °F. In the event that a bumble bee nest is suspected (i.e.g., bumble bee was</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	observed to have entered a burrow or tree cavity, or disappeared under a shrub or into thatch), the suspected nest location will be passively observed for at least 20 minutes to confirm the presence/absence of a nest. A minimum 50-foot no disturbance buffer will be established and visibly flagged for avoidance if a nest location is discovered and the discovery shall be reported to CDFW by the qualified Crotch's bumble bee biologist within 24 hours of discovery. If Crotch's bumble bee and/or Crotch's bumble bee nests are detected, surveys should record the location of the nest, nest substrate, slope, aspect, and distance to nearest active foraging areas (if known), number of Crotch's bumble bee observed, and vegetation used by individuals. During active construction, the Crotch's bumble bee biologist will monitor the nest on a weekly basis and will update the buffer size as necessary and in coordination with CDFW to ensure protection. Construction activities will not occur within the buffer until the nest is no longer active as determined by the qualified Crotch's bumble bee biologist and CDFW will be notified prior to deactivation of the avoidance buffer and commencement of construction activities in this area. The Crotch's bumble bee qualified biologist shall submit results of preconstruction surveys to CDFW prior to start of vegetation removal activities and shall provide a weekly status update should a Crotch's bumble bee nest no disturbance buffer be established and until the nest is determined.					
Special Status Species	<b>BIO-5:</b> Herbicide and insecticide use shall be limited to spot spraying individual plants that are not in bloom and avoiding all rodent burrows to the greatest extent possible within suitable Crotch's bumble bee nesting areas. The qualified Crotch's bumble bee biologist will review the proposed spray areas with OCWR and contractor to ensure burrows and nectar sources are avoided to the greatest extent possible.	Construction, Operation	Construction, Operation	OCWR		
Special Status Species	<b>BIO-6:</b> Temporary impacts to nectar sources shall be restored in place through either broadcasting of appropriate Crotch's bumble bee seed mix or by incorporating the seed mix into a	Construction, Operation	Construction, Operation	OCWR		

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	hydro-mulch application. Minor vegetation trimming to preferred nectar sources, that are expected to recover naturally within one year, do not require restoration.					
Special Status Species	<b>BIO-7:</b> A qualified Crotch's bumble bee biologist shall attend the pre-construction meeting (see BIO-2) to educate construction staff (including supervisors, equipment operators, other site employees, and biological monitors) on all Crotch's bumble bee specific mitigation measures required by this Crotch's Bumble Bee Avoidance Plan. Training Materials (tri-fold colored pamphlet) shall be provided at the training and shall include detailed photos that can be utilized as a reference for qualified biological monitors to identify Crotch's bumble bee and implement the avoidance measures appropriately. Training Materials will assist in training contractor staff in recognizing bumble bees and inform them of potential penalties (e.g., monetary fines, project delays, jail time) for take of Crotch's bumble bee or other California Endangered Species Act (CESA) violations.	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		
Special Status Species	<b>BIO-8:</b> CDFW shall be notified at least 14 calendar days prior to initial vegetation removal and ground-disturbing activities in areas identified as potential Crotch's bumble bee nesting, foraging, or overwintering habitat, regardless of time of year. All Crotch's bumble bee detections shall be reported to CDFW via email within 24 hours of detection. A qualified biological monitor who has received the Crotch's bumble bee training and is in possession of the Training Materials shall monitor the staking of limits, clearing and grubbing, and removal of stockpiled vegetation from the site until the site no longer provides potential Crotch's bumble bee habitat. The biological monitor shall be responsible for monitoring Crotch's bumble bee when they are detected and shall ensure active foraging patches are not removed until the Crotch's bumble bee(s) leave the area on their own volition. The biological monitor, shall monitor the slow and methodical removal of vegetation in patches and by hand where necessary should Crotch's bumble bee nesting or	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	overwintering behavior be observed (scanning the ground instead of targeting flowering resources, seen entering a burrow or disappearing into thick vegetation and not re-emerging, sitting on the open ground), until it is confirmed that a Crotch's bumble bee nest or overwintering site is not present. Should the Project result in unpermitted take of a Crotch's bumble bee individual or nest, work shall immediately halt and CDFW shall be immediately notified by the Crotch's bumble bee biologist.					
Archaeological Resources	<b>CUL -1:</b> Environmental Training – Prior to construction of the Project, a Secretary of Interior-qualified archaeologist shall be retained by Bowerman Power to serve as the Project Archaeologist. Cultural resource awareness training will be provided by the Project Archaeologist that includes all applicable laws and penalties pertaining to disturbing cultural resources, a brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area, types of cultural resources found in the area, and instruction that Project workers will halt construction if a cultural resource is inadvertently discovered during construction, and Project personnel contact information in the event of an inadvertent discovery.	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		
Archaeological Resources	<b>CUL -2:</b> Archaeological Monitoring – A qualified Archaeological monitor acceptable to the OCWR shall be retained by Bowerman Power prior to Project-related ground disturbance. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. A qualified Archaeological Monitor will have at least a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field and previous monitoring experience. The monitors will conduct on-site daily archaeological monitoring of construction ground disturbance. The Archaeological monitor will provide daily documentation of construction activity and any findings. The Archaeological monitor will prepare a daily monitoring log	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	and submit it daily to the Project Archaeologist via email, briefly describing the field conditions, construction progress and activities, non-compliance activities, and record any finds of archaeological material. A final report summarizing the monitoring activities will be prepared by the Project Archaeologist.					
Archaeological Resources	<p><b>CUL -3:</b> Monitoring and Inadvertent Discovery Plan – Prior to the start of construction, a Secretary of Interior-qualified Project Archaeologist (retained by Bowerman Power) shall prepare a Monitoring and Inadvertent Discovery Plan (Plan) for the Project. The Plan will be submitted to OCWR for review and approval prior to the start of construction. The Plan shall include at a minimum:</p> <ul style="list-style-type: none"> <li>• Overview of mitigation measures and responsibility for compliance;</li> <li>• Project description of construction activities and maps;</li> <li>• Description of relevant laws and regulations;</li> <li>• Brief cultural context information and types and description of cultural resources that could be inadvertently discovered;</li> <li>• Description of how monitoring shall occur;</li> <li>• The roles and responsibility of the Archaeological Monitor (e.g., authority to halt construction for an inadvertent discovery, daily monitoring, daily reporting, etc.) and Project Archaeologist (e.g., oversee monitors, response to inadvertent discovery, final reporting, etc.);</li> <li>• Description of protocols in the event of an inadvertent discovery (i.e., halt work) and notification procedures and contact list; and</li> <li>• Description of final monitoring report.</li> </ul> <p>Stop work protocols shall be implemented in the event of an inadvertent discovery of cultural resources. If a cultural resource is encountered within the new SoCalGas pipeline</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		



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	route, halt work protocols shall include notifying the SoCalGas Project Archaeologist designated by SoCalGas and the OCWR Environmental Engineering Specialist designated by OCWR. Cultural resources shall not be relocated without consultation with a SoCalGas Archaeologist.					
Paleontological Resources	<p><b>GEO-1:</b> Worker Education Program. The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (SVP 2010), to carry out all mitigation measures related to paleontological resources. The qualified paleontologist shall conduct the following:</p> <p>a. Prior to the start of any ground disturbing activities, the qualified paleontologist shall conduct a Paleontological Resources Awareness Training program for all construction personnel working on the project site. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the OCWR. The training guide may be presented in video form.</p> <p>b. Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements.</p> <p>c. The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of paleontological resources.</p> <p>d. The project operator shall ensure all new employees who have not participated in earlier Paleontological Resources</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	<p>Sensitivity Trainings shall meet the provisions specified above.</p> <p>e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with as necessary.</p>					
Paleontological Resources	<p><b>GEO-2:</b> Project Monitoring. A qualified paleontologist or designated monitor shall be onsite initially to spot-check excavations below a depth of one foot below the ground surface in areas of undetermined paleontological potential. If it is determined that sediments consist of older alluvium, then full-time paleontological monitoring shall ensue within that area. If sediments are determined to consist of Holocene Quaternary alluvium, paleontological monitoring shall not be required unless an excavation depth of 15 feet below the ground surface is reached in the area. The use of post-driving or rotary drilling shall not require monitoring.</p> <p>a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with OCWR and shall be based on a review of geologic maps and grading plans.</p> <p>b. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the paleontologist, in consultation with OCWR, may adjust the level of monitoring to circumstances, as warranted.</p> <p>c. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified paleontologist shall have authority to temporarily divert excavation operations away from exposed fossils to collect associated data and recover the fossil specimens if deemed necessary.</p> <p>d. Following the completion of construction, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources onsite. If fossils are found, the report shall summarize the results of the</p>	Construction	Construction	OCWR		

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	inspection program, identify those fossils encountered, recovery and curation efforts, and the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to OCWR and to an appropriate repository such as the Natural History Museum of Los Angeles County.					
Paleontological Resources	<b>GEO-3:</b> Inadvertent Discoveries of Paleontological Resources — If construction staff or others observe previously unidentified paleontological resources during ground disturbing activities, they will halt work within a 200-foot radius of the find(s), delineate the area of the find with flagging tape or rope (may also include dirt spoils from the find area), and immediately notify a qualified paleontologist. Construction will halt within the flagged or roped-off area. The paleontologist will assess the resource as soon as possible and determine appropriate next steps in coordination with OCWR. Such finds will be formally recorded and evaluated. The resource will be protected from further disturbance or looting pending evaluation.	Construction	Construction	OCWR		
Tribal Cultural Resources	<b>TCR-1:</b> Should evidence of human remains be discovered during project construction, the Orange County Coroner (OCC) shall be immediately notified of the discovery. Evidence of human remains requires mandatory compliance with the provisions of State Health and Safety Code Section 7050.5, which restricts further disturbance in the vicinity of the discovery, defined herein as a 50-foot radius, until the OCC has made a determination within two business days of the origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American, the OCC shall notify the Native American Heritage Commission (NAHC) within 24 hours that remains have been discovered. The NAHC shall determine the identity of the Most Likely Descendant (MLD). The MLD shall complete the inspection of the remains within 48 hours of notification by the NAHC. In addition, per CR-3, SoCalGas Project Archaeologist designated by SoCalGas and the OCWR	Construction	Construction	OCWR		

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	Environmental Engineering Specialist designated by OCWR will be notified of the discovery.					
Tribal Cultural Resources	<p><b>TCR-2:</b> If unanticipated tribal cultural resources or deposits are discovered during earth-moving activities, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• All work shall halt within a 200-foot radius of the discovery. a qualified professional archaeologist shall assess the significance of the find (if a tribal cultural monitor is not present). If the resources are Native American in origin, the OCWR shall coordinate with the Tribe regarding evaluation, treatment, curation and preservation of these resources. The archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCWR. Work shall not continue within the no-work radius until the archaeologist conducts sufficient research, evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the California Register of Historical Resources.</li> </ul>	Construction	Construction	OCWR		
Tribal Cultural Resources	<p><b>TCR-3:</b> Tribal Cultural Resource Monitor: Prior to the issuance of any grading permit in which soil would be disturbed, Montauk shall provide evidence in the form of an executed Agreement to OCWR that they have retained a qualified Native American tribal monitor to provide third-party monitoring during excavation and grading activities and to recover and catalogue tribal resources as necessary. The tribal monitor shall be from or approved by the Kizh Nation. The agreement shall include (i) professional qualifications for the tribal cultural resource monitor(s); (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/monitoring report to OCWR, as applicable; (iii) contact information; (iv) communication protocols between Contractor and Tribal Cultural Resource</p>	Pre-Construction, Construction	Pre-Construction, Construction	OCWR		

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	Monitor; (v) acknowledgment that if the Kizh Nation monitor is not available, Montauk or their contractor as designee may contract with another qualified tribal monitor acceptable to the OCWR. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. The cover sheet of the grading plans shall include a note to identify that third party tribal monitoring is required during excavation and grading activities in accordance the with the OCWR Agreement.					