

ATTACHMENT 10

MMP FOR MND SCH #2020100267

**Mitigation Monitoring Program
Ameresco Keller Canyon RNG LLC
Renewable Natural Gas Processing Facility
and Pipeline Project**

County File CDLP18-02022

**Keller Canyon Landfill
901 Bailey Road
Pittsburg, CA 94565**

July 13, 2021

SECTION 4: BIOLOGICAL RESOURCES

Potentially Significant Impacts: (a) During project construction, the Ameresco RNGPFP would have potentially significant impacts to certain special status wildlife species including the California red-legged frog and California tiger salamander. (d) Loss of grassland and ruderal habitat would be a potentially significant impact. (f) Non-compliance with HCP/NCCP regulations, requirements, and procedures would be a potentially significant impact.

Mitigation Measure:

Biology 1: HCP/NCCP Participation. The applicant shall participate in and receive take coverage under the HCP/NCCP and comply with all conditions of the take coverage. Prior to the issuance of grading or building permits, whichever occurs first, the applicant shall submit an HCP/NCCP application and associated fee worksheet to the CDD and the East Contra Costa County Habitat Conservancy (ECCCHC) for review and approval.

The temporary and permanent impacts to grassland habitats, jurisdictional waters and wetland resources shall require both temporary and permanent impact fees as defined by the current HCP/NCCP fee schedule at the time of application. Additionally, avoidance and minimization measures as required by the HCP/NCCP shall be implemented to minimize impacts to covered species and jurisdictional resources. The Certificate of Coverage will be issued to the applicant to confirm the fee has been received, that other HCP/NCCP requirements have been met or will be performed and will authorize take of covered species. Participation in the HCP/NCCP will fully satisfy requirements for addressing impacts to the California red-legged frog and California tiger salamander.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases; field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, project biologist, CDD, ECCCHC, and Building Inspection Division.
Compliance Verification:	ECCCHC review and approval of HCP/NCCP application; CDD review and approval of construction documents; ECCCHC certification; verification by contractor, project biologist, and Building Inspection Division.

Potentially Significant Impacts: (a) During project construction, the Ameresco RNGPFP would have potentially significant impacts to certain special status wildlife species including nesting special status bird species, American badger, San Joaquin kit fox, and special status bat species.

Mitigation Measures:

Biology 2: Burrowing Owl. To avoid and minimize impacts on burrowing owls and potential burrows the following measures shall be implemented.

- **Preconstruction Surveys:** Prior to any ground disturbance related to covered activities, a USFWS/CDFW–approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995). Copies of the preconstruction surveys shall be submitted to the CDD, the ECCCHC, and CDFW.

On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys shall take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

- **Avoidance and Minimization and Construction Monitoring:** This measure incorporates avoidance and minimization guidelines from CDFW’s Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995).

If burrowing owls are found during the breeding season (February 1 – August 31), the applicant shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing. All buffers shall be shown on all sets of construction drawings.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Biology 3: Golden Eagle. To avoid and minimize impacts on golden eagles the following measures shall be implemented.

- **Preconstruction Survey:** Prior to commencing with covered activities, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied. If nests are occupied, minimization requirements and construction monitoring will be required. Copies of the preconstruction survey shall be submitted to the CDD, the ECCCHC, and CDFW.
- **Avoidance and Minimization:** Covered activities shall be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size.
- **Construction Monitoring:** Construction Monitoring: Construction monitoring shall focus on ensuring that no covered activities occur within the buffer zone established around an active nest. These measures will include consultation with USFWS and CDFW if an active nest is identified, monitoring conducted by a qualified biologist with stop work authority. Although no known golden eagle nest sites occur within or near the Urban Limit Line (ULL), covered activities inside and outside of the HCP Preserve System designated in the HCP/NCCP have the potential to disturb golden eagle nest sites. The majority of the project activities fall outside of the ULL. Construction monitoring shall ensure that direct effects to golden eagles are minimized through direct consultation with USFWS and CDFW on appropriate buffer zones and construction monitoring requirements, a qualified biologist will monitor all activities to ensure

the buffer zone is maintained and the qualified biologist shall have stop work authority. All buffers shall be shown on all sets of construction drawings.

Biology 4: Nesting and Migratory Birds. To avoid and minimize impacts on nesting and migratory birds and to comply with the federal Migratory Bird Treaty Act pre-construction surveys shall be conducted and construction avoidance measures shall be implemented if necessary.

- **Preconstruction Survey:** Riparian vegetation, grassland habitats and trees shall be surveyed prior to commencing with covered activities to evaluate nesting bird habitat. If work is scheduled to take place between February 1 and August 31, a pre-construction nesting bird survey shall be conducted by a qualified biologist within 14 days of construction, covering a radius of 500 feet for non-listed raptors and 100 feet for non-listed passerines at all locations. Preconstruction surveys will need to be done in phases as work along the alignment will not be occurring concurrently. Copies of the preconstruction survey shall be submitted to the CDD, the ECCCHC, and CDFW.
- **Avoidance and Minimization:** If an active bird nest is found within these buffers, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. If an active nest is present, a minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, shall be submitted prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a biological monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. All buffers shall be shown on all sets of construction drawings.

Biology 5: American Badger. To avoid and minimize impacts on American badgers the following measures shall be implemented.

- **Preconstruction Survey:** Prior to commencing with covered activities, a qualified biologist shall conduct a preconstruction survey, within the limits of proposed temporary and permanent impact in grassland and ruderal habitat, no less than 14 days before the beginning of ground disturbance or any activity likely to affect American badger. Copies of the preconstruction survey shall be submitted to the CDD, the ECCCHC, and CDFW.
- **Avoidance and Minimization:** If potential dens are present, their disturbance and destruction shall be avoided. If potential dens are located within the proposed work area and cannot be avoided during construction, a qualified biologist shall determine if the dens are occupied or were recently occupied using remote cameras or methodology coordinated with CDFW. If

unoccupied, the qualified biologist shall collapse these dens by hand or shall request permission from CDFW to temporarily plug the burrow entrance with sandbags to prevent badgers from re-using them during construction. If occupied, the biologist shall consult with CDFW regarding best practices for encouraging the badger(s) to move to alternate dens outside the work areas.

Biology 6: San Joaquin Kit Fox. To avoid and minimize impacts on San Joaquin kit fox the following measures shall be implemented.

- Preconstruction Surveys: Prior to any ground disturbance related to covered activities, a USFWS/CDFW–approved biologist shall conduct a preconstruction survey in areas that support suitable breeding or denning habitat for San Joaquin kit fox. The surveys shall establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (U.S. Fish and Wildlife Service 1999). Copies of the preconstruction surveys shall be submitted to the CDD, the ECCCHC, and CDFW.

Preconstruction surveys shall be conducted within 30 days of ground disturbance. On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership will not be surveyed. The status of all dens shall be determined and mapped. Written results of preconstruction surveys shall be submitted to USFWS within five working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities.

If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the measures described below will be implemented.

- Avoidance and Minimization Requirements
 - If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for three days by a USFWS/CDFW–approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.
 - Unoccupied dens shall be destroyed immediately to prevent subsequent use.
 - If a natal or pupping den is found, USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.
 - If kit fox activity is observed at the den during the initial monitoring period, the den shall be monitored for an additional five consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged.

For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).

- **Construction Monitoring**: If dens are identified in the survey area outside the proposed disturbance footprint, exclusion zones around each den entrance or cluster of entrances shall be demarcated. The configuration of exclusion zones shall be circular, with a radius measured outward from the den entrance(s). No covered activities shall occur within the exclusion zones. A qualified biologist shall monitor all activities to ensure exclusion zones are maintained and the qualified biologist shall have stop work authority. Exclusion zone radii for potential dens shall be at least 50 feet and shall be demarcated with four to five flagged stakes. Exclusion zone radii for known dens shall be at least 100 feet and shall be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by kit fox. All exclusion zones shall be shown on all sets of construction drawings.

Biology 7: Special Status Bats. To avoid and minimize impacts on roosting bats the following measures shall be implemented:

- **Focused Habitat Assessment**: If trees along the access route or within the project site are to be removed a habitat assessment shall be conducted by a qualified bat biologist to determine if the subject trees have potential habitat.
- **Preconstruction Surveys**: If the project does not avoid impacts to suitable habitat for special status bats, a preconstruction survey shall be required to determine whether the sites are occupied immediately prior to construction or whether they show signs of recent previous occupation. Preconstruction surveys are used to determine what avoidance and minimization requirements are triggered before construction and whether construction monitoring is necessary. Copies of the preconstruction surveys shall be submitted to the CDD, the ECCCHC, and CDFW. If occupied habitat is determined present and cannot be avoided, consultation with CDFW shall occur in order to determine the appropriate plan for eviction and compensatory mitigation.
- **Avoidance and Minimization**: If the species is discovered or if evidence of recent prior occupation is established, construction shall be scheduled such that it minimizes impacts on special status bats. Hibernation sites with evidence of prior occupation shall be sealed before the hibernation season (November–March), and nursery sites shall be sealed before the nursery season (April–August). If the site is occupied, then the action shall occur either prior to or after the hibernation season for hibernacula and after August 15 for nursery colonies. Construction shall not take place as long as the site is occupied.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases; field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, project biologist, CDD, ECCCHC, CDFW, USFWS, and Building Inspection Division.
Compliance Verification:	CDD review and approval of construction documents; ECCCHC certification; CDFW and USFWS certification as required; verification by contractor, project biologist, and Building Inspection Division.
<p>Potentially Significant Impacts: (b) A California buckeye grove occurs in the SBA along the existing ranch road and some trees nearly or slightly overhang the road could be damaged by large project equipment. The loss of one or more California buckeye trees would be a potentially significant impact during project construction. (e) Trees protected by the Tree Protection and Preservation Ordinance are present in the SBA. The trimming of Code-protected trees within the California Buckeye Grove during construction would be a potentially significant impact.</p>	
<p>Mitigation Measure:</p>	
<p>Biology 8: Tree Pruning Overseen by Certified Arborist. Prior to any tree pruning and subject to CDD review, the applicant shall hire a Certified arborist to oversee and/or conduct any native-tree pruning required to access, construct, and implement the Project. Proposed removal of existing pepper trees at the proposed RNG Processing Facility shall be mapped and submitted to the CDD for review.</p>	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases; field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, certified arborist, CDD, ECCCHC, and Building Inspection Division.
Compliance Verification:	CDD review and approval of construction documents; ECCCHC certification as required; verification by contractor, certified arborist, and Building Inspection Division.

Abbreviations:
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Potentially Significant Impact: (b) Gum plant patches occur along the pipeline route and access roads within the SBA. Construction activities that result in direct disturbance to gum plant patches would be potentially significant impacts.	
Mitigation Measure:	
Biology 9: Develop Temporary Restoration Plan. Prior to the issuance of grading or building permits, whichever occurs first, the applicant shall develop a Temporary Restoration Plan to ensure the site is restored to pre-project conditions. This may include measures such as topsoil preservation per station segments and reseeded with native seed mixes. The Temporary Restoration Plan will include updated mapping of current Sensitive Natural Communities, monitoring of topsoil preservation in areas that are directly impacted (California buckeye groves and Gum Plant patches) and monitoring and reporting of SNCs that are to be avoided (rock outcrops and associated California match weed patches). The Temporary Restoration Plan shall be submitted to the CDD and the ECCCHC for review and approval.	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases; field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, project biologist, CDD, ECCCHC, and Building Inspection Division.
Compliance Verification:	ECCCHC review and approval of Temporary Restoration Plan; CDD review and approval of construction documents; ECCCHC certification; verification by contractor, project biologist, and Building Inspection Division.
Potentially Significant Impact: (c) The applicant will need to submit the Aquatic Resources Delineation to the ECCCHC and as required to the U.S. Army Corps of Engineers, CDFW, and the Regional Water Quality Control Board (RWQCB). Neglecting to submit the ARD to the permitting agencies would be a potentially significant impact.	
Mitigation Measure:	
Biology 10: Aquatic Resources Delineation. In conjunction with Biology 1, the applicant shall submit the Aquatic Resources Delineation to the ECCCHC for review and approval, and as required, to the Army Corps, CDFW, and RWQCB.	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases.
Responsible Department or Agency:	Project sponsor, project biologist, CDD, ECCCHC, Army Corps, CDFW, RWQCB.

Abbreviations:

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Compliance Verification:	ECCCHC review and approval of Aquatic Resources Delineation; CDD review and approval of construction documents; ECCCHC certification; Army Corps, CDFW, and RWQCB certification as required.
Potentially Significant Impact: (c) The applicant will need to obtain necessary permits from the Army Corps, CDFW, and RWQCB. Starting construction of the proposed project prior to obtaining the required permits would be a potentially significant impact.	
Mitigation Measure:	
Biology 11: Implement the Permit Conditions of the Aquatic Resource Agencies. Prior to commencing project construction, the applicant shall obtain required permits from the Army Corps, CDFW, and/or RWQCB. Avoidance, minimization, and compensation will be determined by these agencies. The agencies will set the permit conditions, which are likely to include onsite enhancement and monitoring of seeps and drainages to ensure groundwater and surface water interruptions do not occur as a result of the project. The applicant shall be responsible to implement the permit conditions, subject to oversight by the agencies.	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); prior to active construction phases; field review during construction.
Responsible Department or Agency:	Project sponsor, project biologist, CDD, ECCCHC, Army Corps, CDFW, RWQCB. and Building Inspection Division.
Compliance Verification:	CDD review and approval of construction documents; ECCCHC certification; Army Corps, CDFW, and RWQCB certification as required; verification by contractor, project biologist, and Building Inspection Division.

SECTION 5: CULTURAL RESOURCES

Potentially Significant Impacts: (a) Construction of the proposed project would involve grading and other earthwork, and therefore, it is possible that buried historical resources could be present and accidental discovery could occur. Damage or destruction of these historic resources during project construction would be a potentially significant impact. (b) Grading and other earthwork associated with project construction could encounter previously undiscovered archaeological resources. Damage or destruction of these archaeological resources during project construction would be a potentially significant impact.

Mitigation Measures:

Cultural Resources 1: The following Mitigation Measures shall be implemented during project construction.

1. A program of on-site education to instruct all construction personnel in the identification of prehistoric and historic deposits shall be conducted by a certified archaeologist prior to the start of any grading or construction activities.
2. If archaeological materials are uncovered during grading, trenching, or other onsite excavation, all work within 30 yards of these materials shall be stopped until a professional archaeologist who is certified by the Society for California Archaeology (SCA) and/or the Society of Professional Archaeology (SOPA), and the Native American tribe that has requested consultation and/or demonstrated interest in the project site, have had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s) if deemed necessary.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, project archaeologist, CDD, and Building Inspection Division.
Compliance Verification:	CDD review and approval of construction documents; verification by contractor, project archaeologist, and Building Inspection Division.

Potentially Significant Impact: (c) There is a possibility that human remains could be present within the project area and accidental discovery could occur. Consequently, construction activities on the project site could result in a potentially significant impact due to disturbance of human remains.

Mitigation Measure:

Cultural Resources 2: Should human remains be uncovered during grading, trenching, or other on-site excavation(s), earthwork within 30 yards of these materials shall be stopped until the County coroner

has had an opportunity to evaluate the significance of the human remains and determine the proper treatment and disposition of the remains. Pursuant to California Health and Safety Code Section 7050.5, if the coroner determines the remains may those of a Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, the NAHC will then determine a Most Likely Descendant (MLD) tribe and contact them. The MLD tribe has 48 hours from the time they are given access to the site to make recommendations to the land owner for treatment and disposition of the ancestor's remains. The land owner shall follow the requirements of Public Resources Code Section 5097.98 for the remains.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); field review during construction.
Responsible Department or Agency:	Project sponsor, contractor, County coroner, CDD, and Building Inspection Division.
Compliance Verification:	CDD review and approval of construction documents; verification by contractor, County coroner, and Building Inspection Division.

Abbreviations:

Condition of Approval (COA)
Community Development Division (CDD)

SECTION 7: GEOLOGY AND SOILS

Potentially Significant Impacts: (a)(ii) Strong ground shaking could trigger reactivation of shallow slope failures within the dormant landslide, resulting in a potentially significant impact. (a)(iv) There is a potential for portions of the ancient landslide to be reactivated, which could result in a potentially significant impact on the pipeline within the slide area. (c) There is a potential for liquefaction at the proposed RNG processing facility site and for landslides and soil creep along the pipeline corridor area, which could result in potentially significant impacts.

Mitigation Measures:

Geology 1: To mitigate the potential impact of future ground movement/ reactivation of landslide associated with a significant seismic event, implementation of the following measures shall be required:

- A. Avoid crossing the lower elevations of the slide, where down cutting and potential regressive slope failures adjacent to canyon bottoms.
- B. Cross landslides where topography is relatively gentle.
- C. Minimize earthwork in the landslide area by orienting the pipeline crossing so that it parallels the topographic contour.
- D. Implement a ground movement monitoring program that shall include at least bi-annual monitoring (i.e., before and after the rainy season), and after significant earthquake in accordance with the provisions of an “Inspection and Monitoring Program.” That program shall specify the qualifications of the inspector, identify the segments if the pipeline to be inspected, and provide an inspection form that shall identify the date of the inspection; name, title and contact information for the inspector; descriptions of the features observed; recommendations of inspector for supplemental/ special geotechnical investigations or other corrective work; and indicate the entity/ staff position that is to receive the inspection for Ameresco Keller Canyon RNG, LLC (or its successor). Copies of all inspection reports shall be kept on file by the operator of the facility and shall be made available for review by representatives of Contra Costa County (e.g., during routine mitigation monitoring by the County).
- E. Include an automatic shut off valve and other safety measures in the pipeline design.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); monitoring during construction.
Responsible Department or Agency:	Project sponsor, project geotechnical engineer, County peer review geologist, CDD, and Building Inspection Division.

Compliance Verification:	County peer review geologist review of construction documents; CDD review and approval of construction documents; County peer review geologist review of bi-annual reports; CDD review and approval of bi-annual reports; verification by contractor, project geotechnical engineer, and Building Inspection Division.
Potentially Significant Impacts: (a)(iii) There is a potentially significant impact due to seismic related ground failure at the proposed RNG processing facility site. (c) There is a potential for liquefaction at the proposed RNG processing facility site and for landslides and soil creep along the pipeline corridor area, which could result in potentially significant impacts.	
Mitigation Measures:	
<p>Geology 2: To mitigate the confirm/ modify the preliminary assessment of liquefaction for the RNG processing facility, the following measures shall be implemented:</p> <ul style="list-style-type: none"> A. The project geotechnical engineer shall present an updated evaluation of liquefaction potential of the sand body penetrated by boring B-102 from 15 to 20 feet below the ground surface, based on the methodology and parameters required by the CGS for projects located in the Seismic Hazard Zone (SHZ). The seismic parameters peak used in the analysis shall match those provided by SHZ Report 127; the analysis shall reference the methodology selected by the project geotechnical engineer; provide justification the parameters that were inputs into the computer model run(s); and shall clearly demonstrate the analysis is consistent with the standards required for projects in the SHZ. B. The liquefaction analysis presented in response to item 2.A above shall be submitted for review at least 30 days prior to submitting an application for a grading or building permit for the RNG processing facility. That report shall also provide final recommendations for site grading, drainage, and foundation design, including recommendations for reinforced earth, retaining walls, and foundations of proposed structures. It shall also present plan review comments of the project geotechnical engineers, and geologists, outline the recommended observation and testing services during construction. C. The report required by items 2.A and 2.B above shall be subject to review by the County Peer Review Geologist, and review/ approval by the CDD. 	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction documents (with COA compliance review); monitoring during construction.
Responsible Department or Agency:	Project sponsor, project geotechnical engineer, County peer review geologist, CDD, and Building Inspection Division.

Abbreviations:
Condition of Approval (COA)
Community Development Division (CDD)

Compliance Verification:	County peer review geologist review of construction documents and liquefaction reports; CDD review and approval of construction documents and liquefaction reports; verification by contractor, project geotechnical engineer, and Building Inspection Division
<p>Potentially Significant Impacts: (a)(iv) There is a potential for portions of the ancient landslide to be reactivated, which could result in a potentially significant impact on the pipeline within the slide area. (c) There is a potential for liquefaction at the proposed RNG processing facility site and for landslides and soil creep along the pipeline corridor area, which could result in potentially significant impacts.</p>	
<p>Mitigation Measures:</p>	
<p>Geology 3: To mitigate the potential impact of future ground movement/ reactivation of landslide associated with a significant seismic event, the Geology 1 mitigation measures shall be implemented. In addition, the following measures are required:</p> <ul style="list-style-type: none"> A. The project engineering geologist shall view where landslide deposits are in contact with colluvium of bedrock. This shall occur prior to placement of any bedding/ backfill in the following segments of the trench to determine if weak soil conditions are encountered that would warrant special engineering at such interfaces (e.g., over-excavation of any soft material at the slide/ bedrock contact, and replacement with reinforced earth or other special engineering). The findings of the project engineering geologist shall be documented in the final grading report. The project engineering geologist shall view and document exposed conditions in the pipeline trench where it crosses the boundary of landslides Qls #2, Qls #3 and Qls #4. B. The project engineering geologist shall view exposed conditions in the immediate area of the trench pipeline crossing of the Kirker Pass fault. The fault is a geologic contact, so there is potential for contrasting engineering properties of the rock units on opposite sides of the fault, along with the engineering properties of the fault zone. The fault zone area is a potentially weak, marginally stable area that can be expected to include highly fractured rock, shear planes, possible gouge zone, and possible seepage zone. These are adverse conditions could influence local slope stability. The final grading report shall include mapping of the fault zone and provide an explanation of any special recommendations/ special engineering incorporated into the design. 	
Implementing Action:	COA
Timing of Verification:	After grading but prior to CDD approval of building permit documents; monitoring during construction.
Responsible Department or Agency:	Project sponsor, project geotechnical engineer, County peer review geologist, CDD, and Building Inspection Division.

Compliance Verification:	County peer review geologist review of construction documents and final grading report; CDD review and approval of construction documents and final grading report; verification by contractor, project geotechnical engineer, and Building Inspection Division.
Potentially Significant Impacts: (b) There is a potential for substantial soil erosion, which could result in a potentially significant impact at the two identified locations along the pipeline corridor. area. (c) There is a potential for liquefaction at the proposed RNG processing facility site and for landslides and soil creep along the pipeline corridor area, which could result in potentially significant impacts.	
Mitigation Measures:	
<p>Geology 4: To mitigate the potential for future headward erosion, soil creep, and shallow sloughing to undermine the pipeline, implementation of scour protection measures shall be implemented where the pipeline crosses seasonal water courses.</p> <p>A. Where feasible, the pipeline shall be buried below the potential scour depth.</p> <p>B. Scour assessment shall be performed by the project geotechnical engineer at locations specified in the project geotechnical engineer’s reports. Typical scour protection measures shall be considered for use, including structural and/ or biotechnical erosion control. The selection of the scour protection measures shall be based upon completion of the scour assessment and shall consider environmental constraints.</p> <p>C. During construction, the scour assessment shall be determined by the project geotechnical engineer and may include a plan view, typical section(s), and specifications for the proposed stabilization/ erosion control measures.</p>	
Implementing Action:	COA
Timing of Verification:	After grading but prior to CDD approval of building permit documents; monitoring during construction.
Responsible Department or Agency:	Project sponsor, project geotechnical engineer, County peer review geologist, CDD, and Building Inspection Division.
Compliance Verification:	County peer review geologist review of construction documents; CDD review and approval of construction documents; verification by contractor, project geotechnical engineer, and Building Inspection Division.

Abbreviations:
Condition of Approval (COA)
Community Development Division (CDD)

Potentially Significant Impacts: (d) Expansive and corrosive soils on the project site could result in potentially significant impacts on the proposed RNG processing facility and the pipeline.

Mitigation Measures:

Geology 5: To mitigate the potential impact of expansive and corrosive soils, implementation of the following measures shall be required:

- A. For the RNG processing facility, additional soil expansion and corrosion hazard testing shall be required for the on-site and any import earth materials by the project geotechnical engineer. The findings of the testing shall be documented in the final grading report, which shall provide specific standards and criteria for the geotechnical aspects of the RNG processing facility.
- B. The final grading report required by Geology 5.A shall be subject to review by the Peer Review Geologist, and review and approval by the CDD.
- C. For the pipeline, a California licensed corrosion engineer shall be retained by the applicant to identify suitable types of piping and necessary protection for underground metal conduits and fittings.
- D. During pipeline construction, the corrosion potential of the on-site soils shall be verified for each encountered soil type
- E. Any import fill materials shall be tested to confirm that their corrosion potential. All import must be approved by the project geotechnical engineer prior to transporting to the project site.
- F. The corrosion engineer shall review available information on the corrosion hazard and may require additional testing. The corrosion engineer shall document the specific long-term corrosion control design recommendations, and any monitoring recommendations, in a wet signed and stamped letter-report. That report shall be submitted to the CDD prior to placing any pipe.

Implementing Action:	COA
Timing of Verification:	After grading but prior to CDD approval of building permit documents; monitoring during construction.
Responsible Department or Agency:	Project sponsor, project geotechnical engineer, project corrosion engineer, County peer review geologist, CDD, and Building Inspection Division.
Compliance Verification:	County peer review geologist review of construction documents, final grading report, and corrosion report; CDD review and

Abbreviations:

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Community Development Division (CDD)

	approval of construction documents, final grading report, and corrosion report; verification by contractor, project geotechnical engineer, project corrosion engineer, and Building Inspection Division.
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SECTION 13: NOISE

Potentially Significant Impact: (a) Within the PG&E utility corridor, the pipeline would be installed approximately 50 feet from residences to the east. Pipeline construction would be anticipated to occur for relatively short periods of time in any specific location as construction proceeds along the project’s alignment. Nevertheless, noise levels could exceed ambient levels by as much as 26 dBA in the PG&E utility corridor at the nearest residences during daytime periods of construction. As a result, noise from pipeline installation that exceeds the normally acceptable 60 dBA noise level for single-family residences could result in a potentially significant impact.

Mitigation Measures:

Noise 1: The following noise reduction measures shall be implemented during pipeline installation and shall be included on all sets of construction drawings.

1. The applicant shall make a good faith effort to minimize project-related disruptions to adjacent properties, and to uses on the site. This shall be communicated to all project-related contractors.
2. A publicly visible sign shall be posted on the property with the telephone number and person to contact regarding construction-related complaints. This person shall respond and take corrective action within 24 hours. The Department of Conservation and Development phone number shall also be visible to ensure compliance with applicable regulations.
3. Additional noise reduction measures shall be implemented during pipeline installation in the PG&E utility corridor:
 - a. Per City of Pittsburg Municipal Ordinance Section 18.82.040 Noise, no construction event or activity occurring on the PG&E property adjoining existing residential uses shall generate loud noises in excess of 65 decibels measured at the property line, except between the hours of 8:00 a.m. and 5:00 p.m.
 - b. Per City of Pittsburg General Plan Noise Element Policy 12-P-9, the applicant shall restrict outdoor construction activities in the PG&E utility corridor to the period from 8:00 a.m. to 5:00 p.m. Monday through Friday.
 - c. In addition to the foregoing, the applicant shall provide notification to occupants of property directly adjacent to the PG&E utility corridor two weeks prior to, and 24-hours prior to, scheduled construction activity in the PG&E utility corridor.

Implementing Action:

COA

Timing of Verification:

During pipeline installation within the PG&E utility corridor; field verification during pipeline installation.

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Responsible Department or Agency:	Project sponsor, contractor; Building Inspection Division, and City of Pittsburgh.
Compliance Verification:	Verification by contractor; Building Inspection Division, and City of Pittsburgh.

SECTION 18: TRIBAL CULTURAL RESOURCES

Potentially Significant Impact: (a) Because construction of the proposed project would involve grading and other earthwork, it is possible that buried historical resources could be present and accidental discovery could occur. Damage or destruction of these historic resources during project construction would be a potentially significant impact. Implementation of mitigation measures **Cultural Resources 1** would reduce the impact of the future development activities to a less than significant level.

Potentially Significant Impact: (b) Grading and other earthwork associated with project construction could encounter previously undiscovered archaeological resources and human remains. Damage or destruction of archaeological resources and disturbance of human remains during project construction would be potentially significant impacts. Implementation of mitigation measures **Cultural Resources 1** and **Cultural Resources 2** would reduce the impact of the future development activities to a less than significant level.

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SECTION 20: WILDFIRE

Potentially Significant Impact: (d) The proposed project would expose people or structures to potentially significant post-wildfire impacts due to seismic related ground failure, reactivation of ancient landslides, soil erosion, and liquefaction, and unstable geologic units or soil. Implementation of mitigation measures **Geology 1**, **Geology 2**, **Geology 3**, and **Geology 4** would reduce the impact of the proposed project to a less than significant level.

Abbreviations:

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