Initial Study/Environmental Checklist

Davenport North Cement Kiln Dust Area Closure Project

October 2020

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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date:	October, 2020	**Application Number:**	28372
Project Name:	Davenport North Cement Kiln Dust (CKD) Area Closure Project	**Staff Planner:**	David Carlson, Resource Planner

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT:	RMC Pacific Materials, LLC	**APN(s):**	058-022-09, 058-022-10, 058-022-14, 058-022-16, 058-071-06
OWNER:	RMC Pacific Materials, LLC	**SUPERVISORAL DISTRICT:**	3

PROJECT LOCATION: The proposed Project is located at the former Davenport Cement Plant at 700 Highway 1, approximately 0.5 miles north of the Davenport community in northern unincorporated Santa Cruz County (**Figures 1 and 2**). Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito Counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

The Project closure activities would occur on approximately 23 acres of the Cement Plant property, located within a larger 43.5-acre Project boundary that also includes access roads and adjacent lands **(Figure 3)**. The southern portion of the Project area is owned by RMC Pacific Materials, LLC. The northern portion of the Project area is on property that is currently leased from The Trust for Public Land (TPL) and/or under agreement with TPL for temporary use to implement the Closure Plan. The Assessor Parcel Numbers are shown in **Figure 4**.

The proposed closure activities would occur primarily within the developed and/or disturbed footprint of the Cement Plant, including the North CKD Area (**Figures 2 and 3**), which covers approximately 22 acres in the northern portion of the facility. Within this area the proposed water conveyance pipeline between the North Pond and No-Name Creek would extend through non-native grasslands (previously in agricultural production) and the pipeline would be located generally east of the existing pipeline and CKD field. The additional one (1) acre of

land that would support project activities at the retention pond is located in the southern portion of the Project area (**Figures 2 and 3**).

SUMMARY PROJECT DESCRIPTION: RMC Pacific Materials, LLC (Applicant) proposes the Davenport North Cement Kiln Dust (CKD) Area Closure Project (Project). The Project includes implementation of the Final North CKD Area Closure Plan at the former Davenport Cement Plant (Cement Plant), as conditionally approved by the Central Coast Regional Water Quality Control Board (Water Board). The Applicant seeks Santa Cruz County (County) approval of a Grading Permit, Coastal Development Permit, and Riparian Exception for this purpose.

In February 2018, the Water Board issued Waste Discharge Requirement Order No. R3-2018-0001 (Order) to adopt provisions for closure, post-closure maintenance, and monitoring requirements for the North CKD Area. Together, the Order and the Final North CKD Closure Plan prepared on April 1, 2018 (Closure Plan) focus on closure of the North CKD Area as a Class II Solid Waste Landfill, as defined by California Code of Regulations Title 27, §20240 and §20250. The primary goal of the Closure Plan is to minimize infiltration of water into the waste, thereby minimizing the production of contaminated leachate and potential groundwater impacts. After closure, a final landfill cover will constitute the principal waste containment feature for the North CKD Area. The Order currently requires the Applicant to complete final closure construction activities for the North CKD Area before October 1, 2020, or before October 1, 2022 if the Applicant obtains approval of an extension from the Water Board. The Applicant will be seeking the extension as it is not feasible to complete the project this year.

The proposed closure activities include grading the current surface of the North CKD Area so it has the required slope for surface water flow and management, installing a new liner to cap CKD material, reapplying topsoil, and revegetating with native grasses and plant species. The Project also includes remediation of the Retention Pond, located south of the North CKD Area, and drainage improvements in and around the North CKD Area to protect water quality in the area (**Figure 3**). Best Management Practices (BMPs) will be implemented to avoid and minimize potential impacts to sensitive biological resources, to protect water and air quality, and to minimize erosion.

The Closure Plan was developed in consultation with the Water Board as documented by the following approvals and conditions.

- Water Board Waste Discharge Requirements Order No. R3-2018-0001 (dated February 8, 2018)
- Water Board Cemex Davenport Cement Plant CKD Landfills, Santa Cruz County - Final Closure Plan Conditional Approval. Water Board letter to Kori Andrews, CEMEX (dated October 2, 2018)

Figure 1. Regional Location

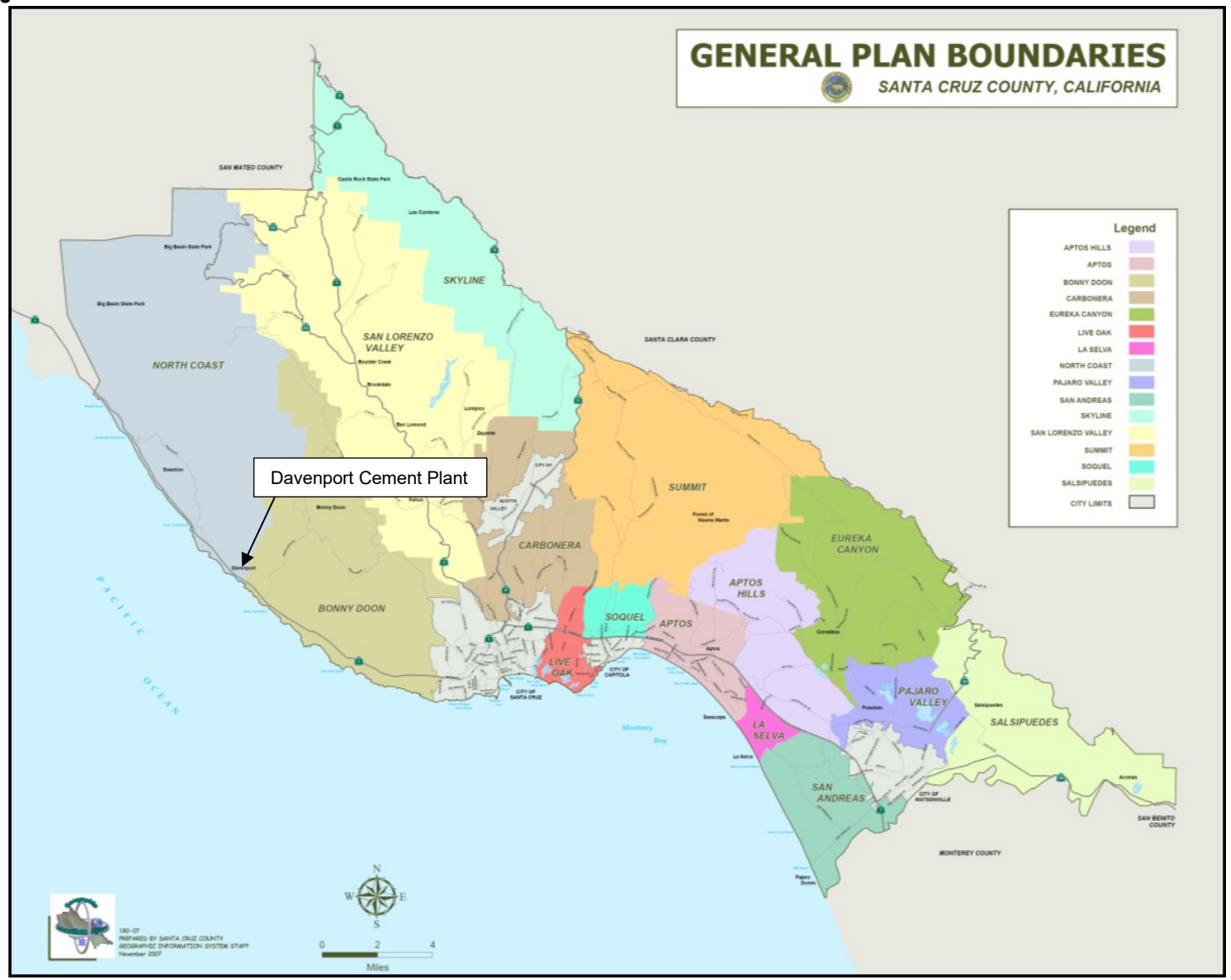

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Figure 2. Existing Conditions

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Figure 3. Project Closure Activities

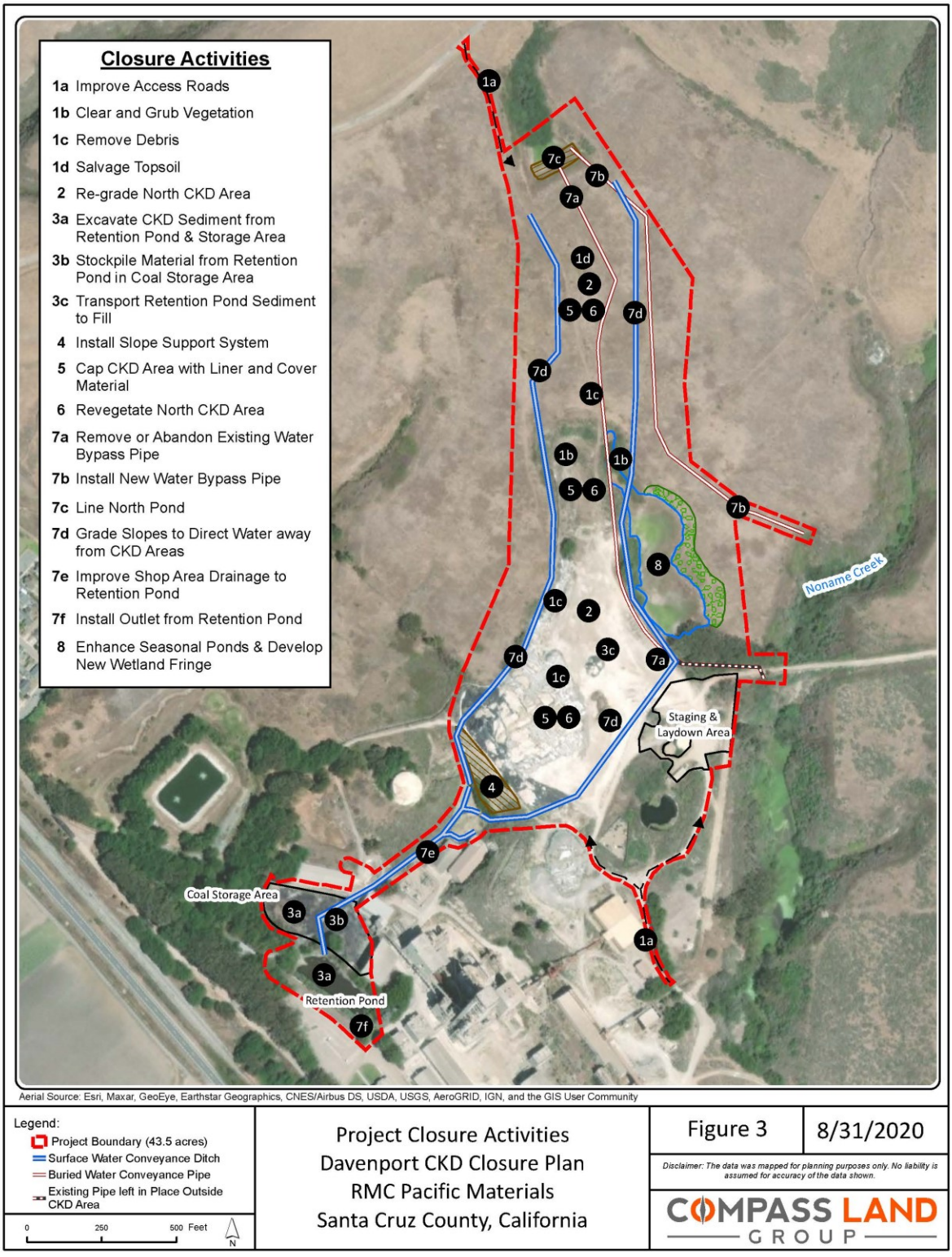

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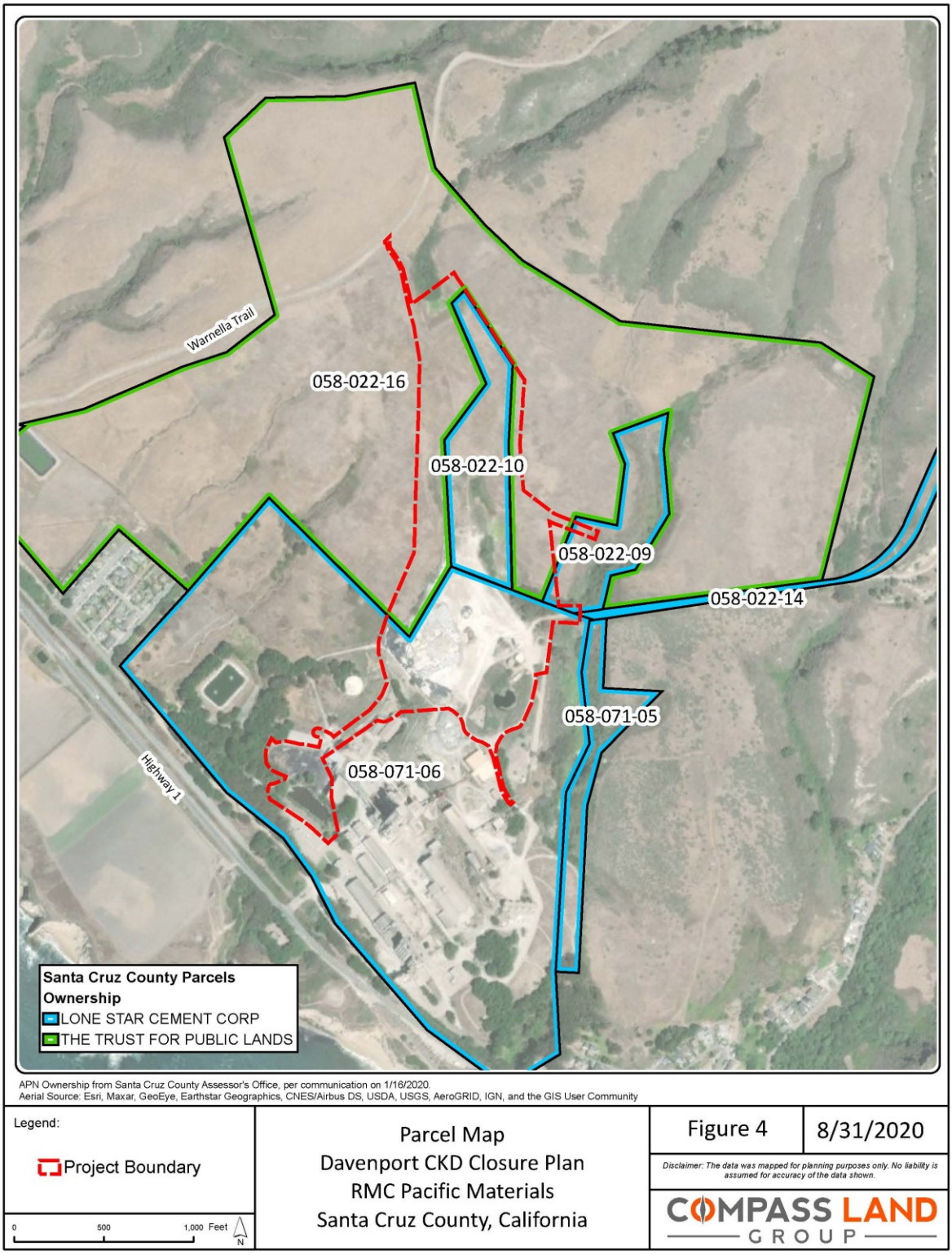
Figure 4. Parcel Map



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The Closure Plan describes the proposed closure activities in detail and includes technical documents and plans as appendices and attachments. The Closure Plan, some of the Closure Plan appendices, and other technical reports are included as **Appendices 1-12** to this IS/MND, as follows:

1. Final North CKD Area Closure Plan and Postclosure Monitoring and Maintenance Plan (ARC April 1, 2018a)
2. Closure Plan Appendix A: Stormwater Hydraulic Analysis Report (ARC March 26, 2018b)
3. Closure Plan Appendix C: Final Geotechnical Design Report (ARC July 27, 2018c)
4. Closure Plan Appendix E: Multi-Season Construction Wet Weather Preparedness Plan (Farallon March 30, 2018)
5. Closure Plan Appendix F: Dust Mitigation Plan related to Closure Construction (Watson and Sheth May 2019)
6. Closure Plan Appendix G: Retention Pond Corrective Action Plan (TRC April 1, 2018)
7. Closure Plan Appendix H: Water Board Waste Discharge Requirements Order No. R3-2018-0001
8. North CKD Area Design Plans (ARC December 2019)
9. Biotic Assessment Report and Delineation of Aquatic Resources (EcoSystems West December 2019)
10. Air Emissions Assumptions and Model Output (Harris & Associates, 2020a)
11. Noise Modeling Results (Harris & Associates 2020b)
12. Mitigation Monitoring and Reporting Program

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- ☐ Aesthetics and Visual Resources
- ☐ Agriculture and Forestry Resources
- ☒ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Energy
- ☒ Geology and Soils
- ☒ Greenhouse Gas Emissions
- ☒ Hazards and Hazardous Materials
- ☒ Hydrology/Water Supply/Water Quality
- ☐ Land Use and Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☒ Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities and Service Systems
- ☐ Wildfire
- ☐ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- ☐ General Plan Amendment
- ☐ Land Division
- ☐ Rezoning
- ☐ Development Permit
- ☐ Sewer Connection Permit
- ☒ Coastal Development Permit
- ☒ Grading Permit
- ☒ Riparian Exception
- ☐ LAFCO Annexation
- ☐ Other:

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

Permit Type/Action	Agency
Clean Water Act 404 Compliance	U.S. Army Corps of Engineers
Clean Water Act 401 Compliance	Central Coast RWQCB
Construction General Permit/SWPPP	State Water Resources Control Board
Streambed Alteration Agreement 1600 Permit	California Department of Fish and Wildlife
Section 7 Compliance	U.S. Fish and Wildlife Service

CONSULTATION WITH NATIVE AMERICAN TRIBES: *Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?*

No California Native American Tribes traditionally and/or culturally affiliated with the area of Santa Cruz County have requested consultation pursuant to Public Resources Code section 21080.3.1.

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

David Carlson, Resource Planner _____ Date

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II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres):	43.5 acres (Project boundary)
Existing Land Use:	Inactive cement plant and associated facilities, access roads, open space
Vegetation:	Disturbed grasslands, shrubs, seasonal wetlands, retention ponds

Slope in area affected by project: ☒ 0 - 30% ☐ 31 – 100% ☐ N/A

Nearby Watercourse:	Pacific Ocean, No-Name Creek (**Figure 2**)
Distance To:	No-Name Creek is within the Project area. The Pacific Ocean is approximately ½ mile southwest of the Project area.

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	No	Fault Zone:	No
Groundwater Recharge:	No	Scenic Corridor:	Yes
Timber or Mineral:	No	Historic:	Yes
Agricultural Resource:	Yes	Archaeology:	Yes
Biologically Sensitive Habitat:	Yes	Noise Constraint:	No
Fire Hazard:	Yes	Electric Power Lines:	Yes
Floodplain:	No	Solar Access:	No
Erosion:	No	Solar Orientation:	No
Landslide:	No	Hazardous Materials:	Yes
Liquefaction:	No	Other:	No

SERVICES:

Fire Protection:	CSA 48 Santa Cruz County Fire; CAL FIRE	Drainage District:	Zone 5
School District:	Pacific Elementary School District; Santa Cruz City School District	Project Access:	Highway 1 and Cement Plant Road

Sewage Disposal:	Davenport County Sanitation District	Water Supply:	Davenport County Sanitation District

PLANNING POLICIES:

Zone District:	Commercial Agriculture (CA) and Heavy Industrial(M-2)	Special Designation:	Historic Landmark (L)
General Plan: Agriculture Commercial			
Urban Services Line:	☐ Inside	☒ Outside	
Coastal Zone:	☒ Inside	☐ Outside	

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. Building and the expansion of development within the County is limited by the Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the County. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and require specific accommodations to ensure building is done in a safe, responsible, and environmentally respectful manner.

The California Coastal Zone affects nearly one third of the land in the urbanized area of the unincorporated County with special restrictions, regulations, and processing procedures required for development within that area. Steep hillsides require extensive review and engineering to ensure that slopes remain stable, buildings are safe, and water quality is not impacted by increased erosion. The farmland in Santa Cruz County is among the best in the world, and the agricultural industry is a primary economic generator for the County. Preserving this industry in the face of population growth requires that soils best suited to commercial agriculture remain active in crop production rather than converting to other land uses.

PROJECT BACKGROUND:

Project Purpose

The purpose of the project is to protect and improve water quality and comply with the Water Board's Waste Discharge Requirement Order No. R3-2018-0001 to adopt provisions for closure, post-closure maintenance, and monitoring requirements for the North CKD Area. The primary goal of the North CKD Area closure is to minimize infiltration of water into the CKD waste, thereby minimizing the production of contaminated leachate and potential groundwater impacts.

The Davenport Cement Plant operated from 1906 to 2010, originally as the Santa Cruz Portland Cement Company, and is currently owned by RMC Pacific Materials, LLC, a wholly owned entity of CEMEX. The operation produced cement from limestone that was sourced from the nearby Bonny Doon quarry. The cement was used for over a century as a component of concrete to rebuild San Francisco after the earthquake and to construct major infrastructure projects, including the Panama Canal, Golden Gate Bridge, and California Aqueduct. The CKD was a byproduct of cement manufacturing and was placed onsite as fill in what is now called the North CKD Area. Although no longer in operation, ongoing maintenance, security, and monitoring activities continue at the site.

The North CKD Area contains fill composed primarily of CKD currently estimated to be approximately 848,000 cubic yards (cy) in volume, much of which is in a cemented, very dense "caked" condition. The CKD was placed within a previously existing canyon (also referred to as the CKD landfill) over several decades. The CKD level reached the elevation of the canyon rim such that the CKD landfill is either generally flat or rises above the adjacent terrain.

From the mid-1990s until the Cement Plant closed in 2010, the fresh CKD was recycled and hauled away to be employed in soil amendments, road stabilization, and other uses. However, given the closure of the Cement Plant, no additional CKD can be feasibly recycled. In development of the Closure Plan it was determined that "clean closure" (relocation of all residual waste offsite) is not feasible. Therefore, the Closure Plan calls for onsite disposal of the CKD through installation of a linear low-density polyethylene (LLDPE) liner (impermeable cap), reapplication of topsoil, and subsequent revegetation of the landfill area.

The North CKD Area has performed well under significant storm and seismic events since the first CKD deposition and has shown no signs of significant mass movement, degradation or erosion. Specifically, the steepest portion of the North CKD Area, at the west end, has shown no signs of seepage, sloughing or movement over time.

Drainage improvements associated with the Project would direct the flow of surface runoff away from the CKD to prevent transport of CKD into streams, groundwater, and the Pacific Ocean. Remediation of the Retention Pond is also designed to protect water quality through removal and on-site disposal of CKD sediment and residual coal. These materials would be placed temporarily in windrows or stockpiles in the adjacent former coal storage area to dry,

and then transported to the North CKD Area to be placed as fill under the LLDPE liner and soil cap. Drainage improvements (including modification of the Retention Pond outlet structure), stormwater conveyance features, and remediation of the Retention Pond for the Closure Plan are designed to accommodate a 1,000-year 24-hour storm (design storm event) per consultation with the Water Board and as required by WDR Section C.9 and Title 27, Section 21090.

Summary of Closure Activities

The proposed closure activities would occur over two construction seasons and include the following tasks, presented in approximate sequential order. The corresponding locations of these activities in the Project area are shown on **Figure 3**. Additional detail is provided under *Detailed Description of Closure Activities* below.

1. Conduct site preparation activities, including:
    a. Improve, as necessary, the existing access road extending from the southern portion of the Project area to the North CKD Area and possibly the existing access road extending from Warnella Road north of the Project area to the North CKD Area.
    b. Clear and grub, including vegetation removal.
    c. Remove concrete blocks, tires, plastic, and other debris from around the North CKD Area and the Retention Pond, as needed, to allow for excavation and grading. Relocated materials would be relocated onsite to a location within the developed area and outside the revegetated area.
    d. Remove topsoil that is currently covering CKD sediment in the North CKD Area and temporarily relocate to the Temporary Stockpile Areas.
2. Re-grade the North CKD Area so it is properly compacted to reduce settlement and has a 7 percent final slope for proper surface water flow and management, matching the design surface water flow calculations.
3. Remediate the Retention Pond located south of the North CKD Area, including:
    a. Excavate residual CKD sediment and debris and remove adjacent residual coal.
    b. Stockpile the excavated material for drying in the Coal Storage Area.
    c. Once dry (with the optimal moisture content for mixing and compaction), transport the material to be mixed with CKD and placed as fill in the North CKD Area under the LLDPE liner and soil cap.
    d. Regrade the final excavated surface of the Coal Storage Area to develop an approximately 0.45-acre seasonal willow pond as part of the Project's habitat mitigation plan.

4. Construct a slope support system (shotcrete wall with grouted soil nails), which would also serve as a cap over a portion of the CKD, along the southwest boundary of North CKD Area.
5. Cap the sediment in the North CKD Area with a LLDPE liner, 18 inches of confinement layer (general backfill) material, and 8 inches (minimum) of vegetative soil layer (topsoil) from the Temporary Stockpile Areas and offsite sources for a total of 26 inches of soil cover.
6. After placement of topsoil, revegetate the North CKD Area with native plant species.
7. Construct drainage improvements to handle a 1,000-year 24-hour storm and avoid significant potential water quality impacts, as approved by the Water Board and in accordance with the aforementioned Water Board requirements, including:
    a. Remove or abandon and plug the existing 30-inch diameter pipe from the North Pond to No-Name Creek.
    b. Install a new water conveyance (42-inch diameter bypass) pipe from the North Pond to No-Name Creek, including an outfall into No-Name Creek with willow and adjacent coastal scrub plantings as part of the Project's habitat mitigation plan.
    c. Place a geosynthetic clay liner of up to one-foot in thickness in the North Pond along its southern (downstream) lateral face to further restrict water from the CKD landfill and to enhance CRLF aquatic habitat to facilitate suitable breeding conditions, with adjacent riparian and adjacent coastal scrub plantings as part of the Project's habitat mitigation plan.
    d. Grade the slopes to direct water away from the North CKD Area and construct perimeter ditches, catch basins, drop structures, stilling basins, and a French drain system along the perimeter of the landfill.
    e. Improve the perimeter and Shop Area ditches that convey water from the North CKD Area to the Retention Pond.
    f. Install an outlet riser and outfall pipe exiting the Retention Pond.
8. Enhance the Seasonal Ponds (aka Ponds C and D) to provide adequate hydrologic function and mitigate for the loss of the seasonal wetland. A shallow approximately 0.7-acre seasonal wetland would be developed along the northern and eastern boundary of the ponds as well as adjacent coastal scrub plantings as part of the Project's habitat mitigation plan.

DETAILED PROJECT DESCRIPTION:

Site Preparation

Prior to initiating Project activities, the contractor would delineate the work and staging areas, and install protective fencing, barriers or signage around all potentially active areas within the Project area that may support:

- Construction equipment,
- Materials storage,
- Stockpiling materials,
- Vehicle/equipment access/parking,
- Turn-around areas,
- Excavation and grading,
- Drainage improvements, and/or
- Revegetation and habitat enhancement.

Protective fencing would serve the purposes of defining the area of disturbance and would confine all work to the fenced Project area, including the mobilization of equipment and materials. This would minimize the transport of sediment and limit potential run-off from the work area and would also serve as a buffer to exclude wildlife from entering the Project area.

The contractor would improve access roads and areas, as needed, to perform proposed closure activities. The contractor would prepare the work area by removing materials that may be in the way of proposed grading and construction activities. These materials would include, but are not limited to, trees, shrubs, concrete blocks, tires, and plastic sheeting. All debris would be stockpiled for removal or for approved use throughout Project activities. Following the clearing and grubbing of existing vegetation, topsoil would be excavated and stockpiled separately from other materials for use in the final soil cover. The removal of trees outside of the North CKD Area is not anticipated.

The contractor would likely select two main roadways for access to the CKD work area; one from the south and one from the north. The southern access route would utilize an existing partly paved roadway that winds through the Cement Plant (**Figure 2**). This route runs south of the Office building and then uphill past the Closed Lonestar CKD Area and back north past the water tanks. The access route from the north would follow an unpaved roadway from Warnella Road north of the North Pond (**Figure 2**).

North CKD Area

Following the clearing and grubbing of vegetation and the excavation and stockpiling of topsoil (as described in the Site Preparation section above), the contractor would excavate, crush, and regrade previously deposited CKD within the existing landfill footprint as necessary to achieve design grades in preparation for accepting a compacted foundation layer for the LLDPE liner. Additional soil materials from the stockpiles, Retention Pond sediment, and residual coal area would be mixed with the CKD.

The foundation layer for the LLDPE would be a 2-foot thick compacted layer consisting of regraded CKD and, if necessary, imported general backfill materials. The LLDPE cap would consist of welded sheets of textured 60 mil LLDPE liner. The LLDPE liner/cap would be installed over the foundation layer and overlain with a geocomposite drainage layer that would facilitate lateral drainage to increase the stability of the liner/cap and protective cover soil.

The liner/cap and drainage layer system would be covered with 26 inches of soil, including 18 inches of protective cover soil (PCS) and an overlying 8-inch minimum vegetative soil layer with

amendments such as compost of other organic materials to promote native vegetation communities. The vegetative soil layer would be planted with native grasses and forbs.

The estimated amount of fill needed for a final cover is approximately 165,000 cubic yards (cy), with the majority obtained onsite as shown in **Table 1**. Approximately 47,400 cy would be imported from a quarry, sand plant, and/or soil farm located in north Santa Cruz County or San Mateo County.

Table 1. Estimated Soil Required for Final Cover[1]

Phase	Total Fill (cubic yards)	Approximate Percentage of Fill to be Imported	Imported Fill (cubic yards)
Mass Grading (Foundation Fill under LLDPE Liner)	110,700	0	0
Protective Cover Soil (General Fill above LLDPE Liner)	38,500	92	35,600
Vegetative Soil Cover (Topsoil Fill above PCS and LLDPE Liner)	15,800	75	11,800
Total Fill	165,000	29	47,400

[1] Bid Form (ARC, December 2019)

The steeper portion at the southwest end of the Project area would not be included with the mass grading of the CKD. Instead, a slope support system consisting of a 6-inch-thick steel-reinforced shotcrete wall, anchored to the slope with grouted soil nails, would be installed. The shotcrete cover would be underlain with fabric drain strips to capture any water that flows down the slope behind the shotcrete cover, although flows are anticipated to be minimal. A shotcrete tie-in would be installed at the top of the wall to cover the LLDPE liner along the south ditch.

The primary purpose of the shotcrete cover is to protect the slope from surface water infiltration or erosion. This slope is considered to be stable in its existing condition under normal (non-seismic) conditions, and exhibits no evidence of sloughing, movement, or slides, likely as a result of the cemented nature of the CKD that comprises the slope (**Appendix 1, Closure Plan, Section 4.3**). Along the base of the shotcrete wall, a crushed-rock-filled geocell-reinforced ditch would convey water from the east drop structure to the lower Shop Area collection system.

Drainage Improvements

Drainage improvements would be installed around the North CKD Area to direct surface and subsurface water away from the CKD landfill in order to prevent pooling on top of the liner/cap system and avoid potential water quality impacts to No-Name Creek, groundwater, and the Pacific Ocean. Post-construction inspection and maintenance activities would ensure that water is successfully transmitted away from the CKD landfill. The stormwater drainage conveyance and retention features in the Closure Plan have been designed to handle a design

storm event, as required by Title 27 and the Water Board WDR, based on the hydraulic analysis conducted for the Project (**Appendix 2, Stormwater Hydraulic Analysis**).

Once the North CKD Area has been filled and graded to reach final elevations, the perimeter ditches, French drains and other ditches would undergo final grading. Drainage ditches located along the eastern and western perimeters of the North CKD Area, positioned to achieve positive drainage down slope, would be replaced and enlarged to collect runoff. The new armored ditch system would be designed to be flexible and durable, withstand minor earth movements, prevent scour, and require minimal long-term maintenance. The LLDPE liner would extend under the perimeter ditches. The ditches would be lined with a 6-inch thick rocked-filled geocell covered with 2 inches of crushed rock or concrete, as shown in the project design drawings (**Appendix 8, Sheets D1, D3 and DR7 in Section A, Design Plans**). The north ends of the perimeter ditches are located near the North Pond to provide back-up overflow relief. The perimeter ditches direct surface water flow southward and connect with enlarged trenches at the southern edge of North CKD Area and east and west drop structures (**Appendix 8, Sheets DR4 and DR7, Design Plans**).

A perimeter French drain system would be installed along the western and southeast perimeters of the North CKD Area to intercept sheet-flow stormwater run-on and shallow groundwater that could build up under or alongside the LLDPE-lined ditches. The French drain would be constructed by excavating trenches, positioned on the outboard side of the perimeter ditches, and where grades allow, extending to depths equal to the perimeter ditches. The French drain would consist of an 8-inch diameter perforated polyvinyl chloride (PVC) pipe enclosed in drain rock and surrounded by filter fabric. The French drains would empty into the drop structures at the south end of Area 3 (**Appendix 8, Sheet D-1, Design Plans**).

Drop structure pipes would convey water down the steeper grades along the southern edge of the landfill to the lower Shop Area stormwater conveyance system. Drop structures would be constructed of high-density polyethylene (HDPE) pipes. Inlet manholes to the drop structures would be capped with trash-racks to minimize clogging. Stilling basins would be installed at the pipe outlets to dissipate energy and protect the outlets from erosion (**Appendix 8, Sheet DR7, Design Plans**).

The drainage ditches in the lower Shop Area of the Plant would be replaced. Loose plastic sheeting would be removed, and an enlarged permanent ditch system would be installed. The lower ditches would also employ the rock-filled geocell-lined system to be installed in the perimeter ditches. A short section of this system would be lined with 3 inches of concrete (**Appendix 8, Sheet DR7, Design Plans**).

A new water conveyance (bypass) pipe system would be installed, between the North Pond and No-Name Creek, east of the North CKD Area, to direct surface water around the North CKD Area. The 42-inch bypass pipe would upgrade and relocate the existing 30-inch corrugated metal pipe that would be removed or abandoned in place after being filled with grout or other acceptable engineered material. Vegetation and sediment would be removed, as

necessary, from the North Pond to expose the existing pipe inlet(s). The sediment would be stockpiled for use during regrading. The inlet structure would be installed at the North Pond, such that a pond depth of at least five feet would be reached before water would discharge into the bypass pipe. The trench for the upgraded bypass pipe would be backfilled with free-draining fill and the ground surface along the pipe would be configured as a shallow, less-permeable swale to facilitate capture of sheet flow and shallow subsurface flow, which would be directed into a series of four catch basins along the swale and in turn into the bypass pipe via manholes. The 42-inch bypass pipe would terminate in an 84-inch manhole, from which flow would either dissipate through an 8-inch drain pipe or bubble from the top of the manhole over a rip rap apron and spillway at the outfall to No-Name Creek (**Appendix 8, Sheets DR4 and PS4, Design Plans**). Willows would be planted within the rip rap apron, and coastal scrub plantings would be installed adjacent to the outfall as part of the Project's habitat mitigation plan.

Pending authorization from applicable regulatory agencies including the Water Board, US Army Corps of Engineers (USACE), and California Department of Fish and Wildlife (CDFW), a geosynthetic clay liner of up to one-foot in thickness would be placed in the North Pond along its southern (downstream) lateral face to enhance CRLF aquatic habitat to facilitate suitable breeding conditions. The liner would be overlain with 0.5 feet of compacted general backfill and one (1) foot of topsoil (**Appendix 8, Sheet DR10, Design Plans**). Riparian and coastal scrub plantings would be installed adjacent to the pond as part of the Project's habitat mitigation plan.

Retention Pond

Proposed plans for the Retention Pond include dewatering, excavation to remove deposited sediments from the North CKD Area and former coal storage area located immediately upslope (north) of the Retention Pond, and improvements to inflow and outflow structures (**Appendix 8, Sheets DR5 and DR6, Design Plans**).

A minimum of approximately 2 feet of deposited sediments and underlying soil would be removed (approximately 3,600 cy) during the first construction season. Sediments would be visually identified during excavation. Additional excavation may be required and has been accounted for in the grading plan in the Closure Plan (**Appendix 1, Closure Plan**).

Excavated sediments would be placed in the former Coal Storage Area in temporary windrows or stockpiles for drying. The stockpiled sediments would be covered during the rainy season. During either the first or second construction season, the dry stockpiled sediments would be relocated to the North CKD Area for placement under the LLDPE cap. The excavated Coal Storage Area would be regraded to develop an approximately 0.45-acre seasonal willow pond as part of the Project's habitat mitigation plan.

If groundwater seeps into the exposed surface of the Retention Pond basin, it would be sampled and tested for contamination, treated (if necessary), and then discharged to be utilized for either dust control or transported to an approved off-site facility.

Additional stormwater run-off and sediments may be directed into the Retention Pond during the construction period and intervening rainy season. During either the first or second Project construction season, the pond would be dewatered, and the sediments would be stockpiled and dried, then transported to the North CKD Area.

The Retention Pond would receive collected water from the newly capped North CKD Area via a buried outlet pipe, which would collect water from the southwest end of the Shop Area ditch. The pipe would deposit this flow onto a riprap apron at the side of the Retention Pond. A concrete gravity wall would be constructed, and a checked-valve orifice would be installed in the outlet of the riser structure, to allow the pond to drain water between storm events and take advantage of available storage (**Appendix 8, Sheets DR5 and DR6, Design Plans**). Riparian container plants and willow pole cuttings would be installed along the north edge of the pond as part of the Project's habitat mitigation plan.

Enhancement of Seasonal Ponds

The Seasonal Ponds (Ponds C and D) located southeast of the North CDK Area (**Figure 3**) would be cleared and grubbed for placement of an LLDPE liner to provide adequate hydrologic function and to enhance existing non-breeding aquatic habitat for CRLF. Under proposed closure conditions, the Seasonal Ponds are anticipated to capture less water than current conditions due the replacement and improvement of the bypass system between the North Pond and No-Name Creek. The Seasonal Ponds would be lined to retain the water that is captured. The liner would consist of the same LLDPE used on the rest of the Project and would extend to the elevation shown on the plans (**Appendix 8, Sheet DR9, Detail 1, Design Plans**). The liner would be covered with sediment and topsoil. The southern end of the Seasonal Ponds is designed to expose the end of a perimeter French drain, and this low point would serve as an overflow outlet if unexpected water volumes fill the ponds (**Appendix 8, Sheet DR9, Design Plans**). Grading would occur on the east side of the ponds to develop approximately 0.7 acre of shallow seasonal wetland, which would be vegetated with native seasonal wetland vegetation to mitigate for loss of a seasonal wetland in the North CKD area. In addition, coastal scrub container plants and willow pole cuttings would be installed along the east edge of the seasonal wetland fringe as part of the Project's habitat mitigation plan.

Construction Best Management Practices

The proposed Project Design Plans (**Appendix 8**) and specifications (**Appendix 1, Closure Plan**) include BMPs to avoid and minimize potential impacts to biological resources, to protect water and air quality, and to minimize erosion. The Project includes implementation of the following BMPs during construction.

General Measures

- Install protective fencing around the work areas and confine Project activities to within these areas.
- Prohibit smoking onsite per CEMEX policy.

Air Quality/Greenhouse Gas Emissions

- Implement air quality and dust control measures and monitoring during construction, as identified in the Dust Mitigation Plan (**Appendix 5, Dust Mitigation Plan**).
- Import soil required for fill in phases and during non-peak commute hours to minimize GHG emissions and traffic impacts.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [as required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]
- Maintain construction equipment in accordance with manufacturers' specifications and comply with California Air Resources Board emissions requirements for construction equipment. Equipment will be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Biological Resources

- Unless otherwise authorized by the Water Board, conduct Project activities during the dry season (from April 15 to October 15 or the first rain) to minimize impacts to CRLF and biological resources.
- Perform preconstruction biological surveys, provide environmental and erosion control trainings to construction personnel, check the work area for sensitive and common wildlife species, and ensure necessary protective measures are implemented by an agency-approved biological monitor and/or trained construction monitor.
- Follow all conservation regulations, policies, and principles in Chapter 5- Conservation and Open Space, of the Santa Cruz County General Plan and LCP (1994). For wildlife habitats and sensitive communities, including wetlands, follow applicable regulations from Sections 16.30 and 16.32 of the Environmental and Resource Protection section of County of Santa Cruz Municipal Code.
- Minimize construction lighting through the use of low-intensity light. Light fixtures shall focus light downward onto the property and minimize casting light onto natural areas adjacent to the immediate work area.
- Throughout the duration of construction activities, all food trash that may attract predators into the work area shall be properly contained and removed from the work site on a daily basis. Construction debris and trash shall also be properly contained and removed from the work site on a regular basis.

- Minimize removal or disturbance of existing vegetation outside of the footprint of Project construction activities. To the maximum extent feasible, confine Project activities and operation of equipment and vehicles, including site access and parking, to designated staging areas.
- Prior to staging equipment on-site, clean all equipment caked with mud, soils, or debris from off-site sources or previous project sites to avoid introducing or spreading invasive exotic plant species. When feasible, remove invasive exotic plants from the Project area.

Fire Hazards

- All equipment to be used during construction and maintenance activities must have an approved spark arrestor.
- Grass and fuels around construction areas where construction vehicles are allowed to be parked would be cut or reduced.
- Mechanical construction equipment that may cause an ignition would not be used when the National Weather Service issues a Red Flag Warning for the Monterey Bay Area, unless prior approval is provided by CAL FIRE.
- Hired contractors would be required to:
    - Provide water and/or fire extinguishers to suppress potential fires caused by the work performed.
    - Remind workers that smoking is prohibited onsite per CEMEX policy.
    - Maintain working ABC fire extinguishers on all vehicles in the work area.
    - Contact CAL FIRE for emergency response in the event of a fire.

Noise

- Conduct construction activities involving heavy equipment during day light hours in accordance with Santa Cruz County Municipal Code (Chapter 13.12 Noise Planning), which allows construction and grading activity between the hours of 8:00 a.m. and 5:00 p.m. on weekdays unless the Building Official has in advance authorized said activities to start at 7:00 a.m. and/or continue no later than 7:00 p.m. Such activities shall not take place on Saturdays unless the Building Official has in advance authorized said activities, and provided said activities take place between 9:00 a.m. and 5:00 p.m. and no more than three Saturdays per month. Such activities shall not take place on Sunday or a federal holiday unless the Building Official has in advance authorized such work on a Sunday or federal holiday, or during earlier morning or later evening hours of a weekday or Saturday. The project activities would occur within these hours or as authorized by the Building Official.
- Ensure construction equipment has standard sound-control devices and mufflers and is maintained in accordance with manufacturer specifications.

Water Quality

- Implement erosion control measures identified in the Multi-Season Construction Wet Weather Preparedness Plan (**Appendix 4, Multi-Season Construction Wet Weather Preparedness Plan**) and grading plans.
- Prepare and implement a construction Stormwater Pollution Prevention Plan in accordance with the requirements of the State of California National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, as well as the County of Santa Cruz Construction Site Stormwater Pollution Control BMP Manual, Section 7.79.100 (October 2011 edition).
- Refuel and/or maintain construction vehicles and equipment in designated staging areas. Workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. Follow all state and federal laws pertaining to hazardous materials handling and management.
- Position all stationary equipment such as motors, pumps, generators, and/or compressors over drip pans. Store vehicles and equipment in designated staging areas. Position parked equipment over drip pans or absorbent materials.
- To the greatest extent possible, stabilize all exposed or disturbed areas within the construction area. Install erosion control measures such as silt fences, weed-free straw bales, plywood, straw wattles, water check bars, and broadcast weed-free straw wherever silt laden water has the potential to leave the work area and enter nearby drainages. Modify, repair, and/or replace erosion control measures, as needed.

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Except as provided in Public Resources Code section 21099, would the project:

1.	*Have a substantial adverse effect on a scenic vista?*	☐	☐	☒	☐

Discussion: The Project area is located in an area that has been designated as the North Coast General Plan Scenic Area in the County General Plan (Santa Cruz County, 1994) (Santa Cruz County GIS Mapping, 2016), and is considered to be an area that supports a scenic vista. The rolling grassland hills north of Highway 1 support sweeping views of open space and grazing fields that surround the former Cement Plant.

The proposed closure activities would be temporary in nature and would occur primarily within the developed footprint of the Cement Plant, including the North CKD Area, which is closed to the public and largely not visible from Highway 1 or scenic vistas. Furthermore, there are no public recreation lands or facilities with views of the Project area. Following project implementation, all disturbed lands would be revegetated with native plants, and the Cement Plant would return to conditions similar to existing conditions, and views within and of the project area would improve compared to existing conditions. The project would include construction of a permanent relatively impervious shotcrete slope to cover the CKD slope that could potentially be visible from limited sections of Highway 1. This is not considered a significant impact due to the limited visibility of the shotcrete cover and the overall improvement in visual quality that will result from the project. Therefore, this impact would be **less than significant.** No mitigation would be required.

2.	*Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*	☐	☐	☒	☐

Discussion: The Project area is located north of Highway 1 along the north coast of Santa Cruz County which has been identified as being an Eligible State Scenic Highway, though it has not been officially designated (Caltrans, 2019). This corridor of Highway 1 is also considered a scenic roadway within the County of Santa Cruz (Santa Cruz County, 1994) (Santa Cruz County GIS Mapping, 2016).

The proposed closure activities would occur primarily within the developed footprint of the Cement Plant, including the North CKD Area, which is closed to the public and largely not visible from Highway 1. Implementation of the project would not damage scenic resources, as there are no scenic resources located within or visible from the Project area, including trees, rock outcroppings or historic buildings. Following project implementation, all

disturbed lands would be revegetated with native plants, and views of the Cement Plant would improve compared to existing conditions (**Figure 5**). Therefore, this impact would be **less than significant.** No mitigation would be required. Also see analysis in Section A.1.

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Figure 5. Photographs of Project Areas

Photograph 1. North CKD Landfill Area.

Photograph 2. Magnesium Chloride Bag for Dust Suppression (used during plant operation for dust control).

Photograph 3. North CKD Landfill Area.

Photograph 4. North Pond Area.

Photograph 5. Retention Pond.

Photograph 6. Seasonal Ponds C and D.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*	☐	☐	☒	☐

Discussion: The existing visual setting of the Project area is a former Cement Plant that is surrounded by rolling grassland hills and grazing pastures north of Highway 1 along the north coast of Santa Cruz County. The proposed closure activities would occur primarily within the developed footprint of the Cement Plant, including the North CKD Area, which is closed to the public and largely not visible from Highway 1. The existing site and views within the North CKD area are dominated by CKD piles and associated materials (e.g., tires, plastic sheets) with seasonal ponds along the site perimeter to the northeast (**Figure 5**). Furthermore, there are no public recreation lands or facilities with views of the Project area.

Following project implementation, all disturbed lands would be revegetated with native plants. Views of and within the Project area would improve from existing piles of CKD and associated materials to grassland, and the visual character and quality of the Project area would be improved. The project would include construction of a permanent relatively impervious shotcrete slope to cover a portion of the CKD slope that could potentially be visible from limited sections of Highway 1. This is not considered a significant impact due to the limited visibility of the shotcrete cover and the overall improvement in visual quality that will result from the project. Therefore, this impact would be **less than significant.** No mitigation would be required.

4. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*	☐	☐	☒	☐

Discussion: Implementation of the Project would not result in the addition of any structures or features that would create new sources of light or glare. Implementation of the closure activities within the Cement Plant would require the presence of construction equipment throughout the Project area that may produce additional glare throughout project construction activities. However, the Project area is largely not visible from Highway 1 or adjacent land uses. Therefore, the glare created by construction crews and equipment would largely not be visible by the public.

Any additional glare that resulted through construction equipment within the Project area would be short in duration, as views from Highway 1 and adjacent lands would be fleeting

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

and equipment would be moving throughout the Project area. Furthermore, construction activities involving the use of heavy equipment would be undertaken during daylight hours, and therefore would not create additional light into the project area through nighttime hours. Therefore, this impact is considered **less than significant**. No mitigation would be required.

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*	☐	☐	☐	☒

Discussion: The Project area does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation, 2017). The Project area has primarily been designated as Urban and Built-Up Land, which is defined as land that is occupied by structures with a building density of at least 1 unit to 1.5 acres. The northern portion of the Project area, which is within property leased from TPL, has been identified as Grazing Land, as land on which the existing vegetation is suited to the grazing of livestock (California Department of Conservation, 2017). The Project area has not been identified through the Santa Cruz County General Plan as an area that supports Farmland of Local Importance (Santa Cruz County GIS Mapping, 2016)

The Project area supports rolling grasslands and the former Cement Plant. Implementation of the Project would result in land uses remaining largely unchanged, including the Grazing Land in the northern Project area. Because there would be no change in land use as a result of Project implementation that would reduce agricultural resources, or convert existing agricultural land uses to non-agricultural uses, there would be **no impact**.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*	☐	☐	☒	☐

Discussion: The Project area is zoned as Commercial Agriculture (CA) and Heavy Industrial-Historic Landmark (M-2-L), in which the landmark refers to the structures within the former Cement Plant. The Project area is not under a Williamson Act Contract (California Department of Conservation, 2017).

Implementation of closure activities within the Project area would not result in the conversion of agricultural land to non-agricultural uses or remove the structures associated with the former Cement Plant. There would be no project activities that would change the land uses within the northern Project area that have been zoned as Commercial Agriculture (CA). Therefore, the project would not result in a significant conflict with existing zoning for an agricultural use and would not impact any lands under a Williamson Act Contract. Furthermore, project implementation would not impact adjacent lands that support agricultural and grazing land uses. Therefore, this impact would be **less than significant**. No mitigation is required.

3. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*	☐	☐	☐	☒

Discussion: The Project area is not located on or near lands that have been zoned for forest lands, timberland, or Timberland Production (Santa Cruz County, 1994) (Santa Cruz County GIS Mapping, 2016). The Project area is predominately disturbed lands that supported the former Cement Plant, and does not support large stands of trees, although vegetation is present around the pond areas. Implementation of the Project would be largely limited to lands that were previously disturbed. Although the Project could remove up to three unprotected cypress trees near the retention pond for cleanup activities, the Project would not result in any impacts to or the removal of forest land, timberland, or trees considered Significant Trees under the Significant Tree Protection Ordinance (refer to discussion D.5 below). Therefore, the project would not affect any forest or timber resources, or access to or the harvest of timber resources in the future. There would be **no impact**.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion: No forest land occurs within the Project area, or within the immediate vicinity of the Project area (Santa Cruz County GIS Mapping, 2016). The Project area is largely limited to lands that were previously disturbed by the former Cement Plant, as discussed above. Therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use. There would be **no impact**.

5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion: The Project area does not support lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, timberlands or forest lands (California Department of Conservation, 2017) (Santa Cruz County GIS Mapping, 2016). There would be no project activities that would change the land uses within the northern Project area that has been zoned as Commercial Agriculture (CA). Implementation of the Project would occur largely within disturbed lands that were previously used for Cement Plant activities and would not impact adjacent land uses. The existing CKD piles and associated materials would be replaced with native vegetation, but otherwise the Project area would remain largely unchanged following project implementation. Therefore, implementation of the Project would not result in the conversion of any agricultural, forest or timberland land uses to alternative land uses. There would be **no impact**.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Air Resources District (MBARD)[1] has been relied upon to make the following determinations. Would the project:

1. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

Discussion: The Project area is located within Santa Cruz County, which is within the North Central Coast Air Basin (NCCAB), comprised of Monterey, Santa Cruz, and San Benito Counties. The Monterey Bay Air Resources District (MBARD) consists of all three counties within the NCCAB; therefore, MBARD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education, and public

[1] Formerly known as the Monterey Bay Unified Air Pollution Control District (MBUAPCD).

information activities related to air pollution, as required by the California Clean Air Act (CCAA) and Amendments, and the Federal Clean Air Act (CAA) and Amendments.

Implementation of the Project would not conflict with or obstruct any long-range air quality plans of the MBARD. No stationary sources would be constructed that would be long-term permanent sources of emissions. As further discussed in 2 below, construction of the Project would not result in an exceedance of particulate matter (PM_{10}) thresholds. Additionally, the proposed Project would involve typical construction practices and general construction activity related emissions (i.e., temporary sources). According to Section 5.3 of the MBARD CEQA Air Quality Guidelines (2008), Criteria for Determining Construction Impacts, typical construction practices are accounted for in the emission inventories included in the air quality plans. Therefore, impacts to air quality plan objectives would be **less than significant**. No mitigation is required.

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Discussion: The NCCAB does not meet state standards for ozone and particulate matter (PM_{10}), which are both emitted during construction activities (Monterey Bay Unified Air Pollution Control District (MBUAPCD), 2013a). **Table 2** lists the attainment status of the NCCAB for the criteria pollutants. The US EPA classifies the NCCAB as in attainment or unclassified for all pollutants with respect to federal air quality standards. The NCCAB is not in federal nonattainment status for any pollutant.

The State of California, under the CCAA, has established standards for criteria pollutants that are generally stricter than federal standards. The CARB establishes air quality standards in the state and measures progress in reducing pollutant emissions. As shown in **Table 2**, the NCCAB is currently in California nonattainment status for respirable particulate matter (PM_{10}), and transitional nonattainment status for ozone (reactive organic gases [ROGs] and nitrogen oxides [NOx]). An area is designated transitional nonattainment if, during a single calendar year, the state standard is not exceeded more than three times at any monitoring location within the applicable district.

Table 2. North Central Coast Air Basin Attainment Status			
Pollutant	**Averaging Time**	**California Standards**	**Federal Standards**
Ozone (O3)	1 Hour	Nonattainment – Transitional	No Federal Standard
	8 Hour		Attainment
Respirable Particulate Matter (PM10)	Annual Arithmetic Mean	Nonattainment	No Federal Standard
	24 Hour		Unclassified(1)
Fine Particulate Matter (PM2.5)	Annual Arithmetic Mean	Attainment	Attainment
	24 Hour	No State Standard	
Carbon Monoxide (CO)	8 Hour	Unclassified	Unclassified/Attainment
	1 Hour		
Nitrogen Dioxide (NO2)	Annual Arithmetic Mean	No State Standard	Attainment
	1 Hour	Attainment	No Federal Standard
Lead	Calendar Quarter	No State Standard	Attainment
	30 Day Average	Attainment	No Federal Standard
	Rolling 3-Month	No State Standard	Attainment
Sulfur Dioxide (SO2)	Annual Arithmetic Mean	No State Standard	Attainment
	24 Hour	Attainment	Attainment
	1 Hour	Attainment	No Federal Standard
Sulfates	24 Hour	Attainment	No Federal Standard
Hydrogen Sulfide	1 Hour	Unclassified	No Federal Standard
Visibility Reducing Particulates	8 Hour (10:00 a.m. to 6:00 p.m., PST)	Unclassified	No Federal Standard

(1) Unclassified; indicates data are not sufficient for determining attainment or nonattainment.
Source: CARB 2017, EPA 2017a

The primary sources of ROG within the air basin are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NOx are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes. In 2010, daily emissions of ROGs were estimated at 63 tons per day. Of this, area-wide sources represented 49%, mobile sources represented 36%, and stationary sources represented 15%. Daily emissions of NOx were estimated at 54 tons per day with 69% from mobile sources, 22% from stationary sources, and 9% from area-wide sources. In addition, the region is considered "NOx sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NOx as opposed to the availability of ROGs (MBUAPCD, 2013b).

PM_{10} is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. The majority of NCCAB exceedances occur at coastal sites, where sea salt is often the main factor causing exceedance.

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality.

Construction

Construction activities associated with the Project would result in temporary increases in air pollutant emissions. Project construction emissions were estimated using the CalEEMod Model, version 2016.3.2, based on construction information provided by CEMEX in 2019. Emissions modeling for implementation of the Closure Plan assumes closure activities would take place in eight phases. All activities would occur during two six-month construction phases, for a total of 12 months of construction activity.

Import of material and installation of the proposed liner and cap would occur simultaneously with other construction activities for three months out of each construction season. Installation of the North Pond geosynthetic clay liner (GCL) is assumed to occur simultaneously with seasonal pond construction. No other closure activities are assumed to overlap. Import of liner and cap material would begin approximately one month following initial installation activities. Movement of material from the on-site stockpiles to the cap installation area is accounted for in the trips associated with the mass grading phase. **Table 3** includes the duration of each phase and details of material movement.

The Project includes a Dust Mitigation Plan that was approved by MBARD (**Appendix 5**). In accordance with the Dust Mitigation Plan, the Project includes restricting vehicle speeds to a maximum of 15 miles per hour on site and watering of exposed areas twice daily. These restrictions were assumed in the air quality modeling of construction activities, and an off-highway truck was added to the construction fleet in each phase as a proxy for a water truck. In addition, the Project would implement the following best management practices to reduce equipment exhaust emissions.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [as required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]
- Maintain construction equipment in accordance with manufacturers specifications, and comply with California Air Resources Board emissions requirements for construction equipment. Equipment will be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Detailed assumptions and model output are provided in **Appendix 10** (Harris 2019a).

Table 3. Construction Assumption Summary					
Closure Activity	**Duration (Working Days)**	**Material to be Hauled**	**Total Haul Truck Trips Required (One-Way Trips)**	**Average Trip Length (Miles)**	**Percentage of Haul Route Assumed to be Paved**
Site Preparation	40	4,600 CY moved to stockpile	614	0.5	None. All on-site hauling.
Retention Pond Construction	20	8,500 CY moved to stockpile	1,134	0.5	None. All on-site hauling.
Mass Grading CKD	60	110,700 CY moved to and from stockpile	14,760	0.25	None. All on-site hauling.
Shotcrete Wall Construction	40	None.	None.	Not applicable.	Not applicable.
Drainage Improvements	60	300 CY imported	40	20	90%
Seasonal Pond Construction	20	778 CY imported	104	20	90%
North Pond GCL	20	4,600 CY moved to and from stockpile	614	0.5	None. All on-site hauling.
Initial Liner Installation	20	None.	None.	Not applicable.	Not applicable.
Liner/CAP Installation and Import	100	47,400 CY imported	6,321	18.4	97.3%

According to MBARD, construction activities (e.g., excavation, grading, on-site vehicles) which directly generate 82 pounds per day or more of PM_{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors, such as the community of Davenport. As shown in **Table 4**, the Project is not estimated to generate PM_{10} levels in exceedance of the 82 lb/day threshold during any phase or simultaneous phase of construction. Project phasing is shown in **Table 4a**. Therefore, construction emissions would be **less than significant**. No mitigation would be required.

Table 4. Estimated Construction Daily Maximum Air Pollutant Emissions (lbs/day)						
Construction Phase	**VOC**	**NOx**	**CO**	**SOx**	**PM_{10}**	**PM2.5**
Site Preparation	5	47	25	<1	16	7
Retention Pond Construction	5	60	37	<1	23	5
Mass Grading CKD	6	82	45	<1	45	8
Shotcrete Wall Construction	5	25	40	<1	7	3
Drainage Improvements	4	33	25	<1	7	3
Seasonal Pond Construction	5	51	34	<1	13	4
North Pond GCL	5	52	34	<1	15	4
Initial Liner Installation	3	23	20	<1	3	1
Liner/Cap Installation and Import	7	83	47	<1	37	8
Maximum Daily Emissions (Liner/Cap Installation/Import & Mass Grading)[1]	13	165	92	<1	81	16
MBARD Threshold	–	–	–	–	82	–
Significant Impact?	–	–	–	–	No[2]	–

[1] Maximum daily emissions scenario selected based on maximum PM_{10} emissions.

[2] Emission quantities are rounded to the nearest whole number. Exact values are provided in **Appendix 10.** Exact value (81.3791 lbs/day) does not exceed 82 lbs/day.

Source: CalEEMod Version 2016.3.2

Definitions: VOC = Volatile Organic Compounds. NOx = Oxides of Nitrogen. CO = Carbon Monoxide. SOx. = Sulfur oxides. PM10 = Particulate matter 10 micrometers or less in diameter. PM2.5 = Particulate matter 2.5 micrometers or less in diameter.

Table 4a. PM_{10} Emissions (lbs/day) During Project Phases								
Construction Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Site Preparation	16							
Retention Pond Construction	23							
Mass Grading CKD		45	45					
Shotcrete Wall Construction				7				
Drainage Improvements					7	7		
Seasonal Pond Construction							12	
North Pond GCL								15
Initial Liner Installation			3					
Liner/Cap Installation and Import	37	37						
Maximum Daily Emissions (Each Phase)	76	81	48	7	7	7	12	15
MBARD Threshold	82	82	82	82	82	82	82	82
Significant Impact?	No	No[1]	No	No	No	No	No	No

[1] Emission quantities are rounded to the nearest whole number. Exact values are provided in **Appendix 10.** Exact value (81.3791 lbs/day) does not exceed 82 lbs/day.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Operation

Following construction, the Project area would be passive and closed to the public. The proposed Project does not include any new buildings or other components that would result in an increase in criteria pollutant emissions. Furthermore, future operations, maintenance, and monitoring activities would be similar to existing conditions. Therefore, cumulative operational impacts related to emissions of criteria pollutants would be **less than significant.** No mitigation is required.

3. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Discussion: MBARD defines sensitive receptors for CEQA purposes as any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. Sensitive receptors also include long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

The Project area is located on lands used for industrial uses and agricultural operations. The community of Davenport, located approximately 0.5 mile southeast of the Project area, contains private homes, living quarters, shops, restaurants, and Pacific Elementary School. The New Town neighborhood is located approximately 0.25 miles northwest of the Project area (**Figure 2**). The nearest sensitive receptors to the proposed construction area are Pacific Elementary School and residences in Davenport and the New Town neighborhood. The school is located approximately 2,000 feet (or 0.38 miles) away from the North CKD Area where primary grading is proposed (grading area shown in **Figure 3**). The nearest residences are located approximately 1,500 feet (or 0.3 miles) from the area proposed for grading.

As such, project construction activities, such as the operation of heavy equipment, would occur relatively far away from sensitive receptors associated with the school and residences, and are not anticipated to expose these receptors to short-term criteria pollutant emissions. However, BMPs, such as those measures listed in the Dust Mitigation Plan (**Appendix 5, Dust Mitigation Plan**) and other Construction Best Management Practices included in the Project Description would reduce impacts to sensitive receptors within the Davenport Community. In addition, following construction, the Project would not generate any net increase in long-term criteria pollutants. Under the MBARD CEQA Guidelines, a project would result in a significant impact if it would expose surrounding sensitive receptors to significant amounts of air pollution. As described, impacts to sensitive receptors would be minimal. The Project would not expose sensitive receptors to substantial pollutant concentrations; therefore, Project impacts would be **less than significant**. No mitigation is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion: Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not propose any new uses that would be associated with new objectionable odors. Odor emissions from the proposed Project would be limited to odors associated with vehicle and engine exhaust and idling from cars entering, parking, and exiting the facility. The Project does not include any known sources of objectionable odors associated with the long-term operations phase.

During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight would be used in all diesel-powered equipment, which minimizes emissions of sulfurous gases (sulfur dioxide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide) (U.S. Environmental Protection Agency, 2020). The Project site is located in a coastal area subject to coastal breezes off of the Monterey Bay that would disperse construction-related odors. Due to distance, it is unlikely that construction would cause substantial odors at the closest sensitive receptors (residences located approximately 0.3 miles northwest and southeast of the Project area). Construction-related odors would be short-term and would cease upon completion. Therefore, no objectionable odors are anticipated from construction activities associated with the Project.

The Project would not create objectionable odors affecting a substantial number of people; therefore, the Project would result in a **less than significant impact** related to objectionable odors during construction or operation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

D. BIOLOGICAL RESOURCES

Would the project:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service?*	☐	☒	☐	☐

Discussion: The following sensitive wildlife species are present within the Biological Study Area: monarch butterfly, California red-legged frog, Allen's hummingbird, northern harrier, white-tailed kite, birds of prey, other nesting common bird species, and common roosting bat species. The following sensitive species have potential to occur within the Biological Study Area: American peregrine falcon, olive-sided flycatcher, grasshopper sparrow, western red bat, and San Francisco dusky-footed woodrat. An overview of these species has been provided in **Appendix 9, Biotic Assessment Report**; and potential project-related impacts are described below. The Biological Study Area, existing habitat types, and special status wildlife habitat and observations are shown in **Figures 6 and 7**.

As described in the Detailed Project Description, under Construction Best Management Practices, the following BMPs will be included in the construction specifications and implemented throughout construction activities to minimize potential impacts on plant and wildlife species:

- Minimize construction lighting through the use of low-intensity light. Light fixtures shall focus light downward onto the property and minimize casting light onto natural areas adjacent to the immediate work area.
- Throughout the duration of construction activities, all food trash that may attract predators into the work area will be properly contained and removed from the work site on a daily basis. Construction debris and trash will also be properly contained and removed from the work site on a regular basis.
- Minimize removal or disturbance of existing vegetation outside of the footprint of Project construction activities. To the maximum extent feasible, confine Project activities and operation of equipment and vehicles, including site access and parking, to designated staging areas.
- Prior to staging equipment on-site, clean all equipment caked with mud, soils, or debris from off-site sources or previous project sites to avoid introducing or spreading invasive exotic plant species. When feasible, remove invasive exotic plants from the Project area.

Figure 6. Habitat Types and Natural Plant Communities

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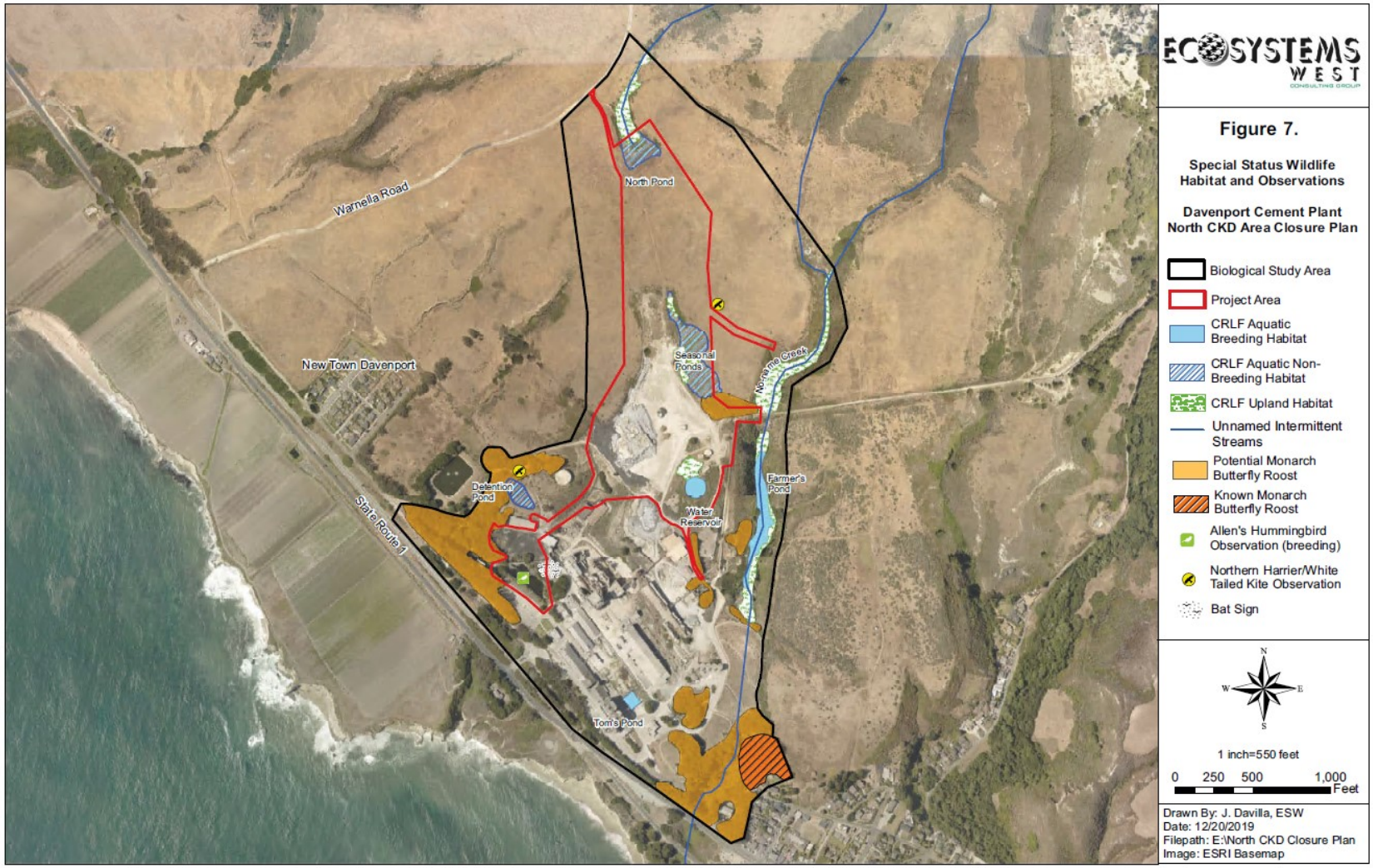
Figure 7. Special Status Wildlife Habitat and Observations



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Botany

No sensitive plant species were identified within the Biological Study Area, nor are they expected to occur. No impacts to sensitive plant species are anticipated to result from the proposed Project. Further, the BMPs described above would minimize vegetation removal outside the construction footprint and the introduction of exotic plant species. Therefore, impacts to native vegetation would be **less than significant**. No mitigation is required.

Monarch Butterfly

The monarch butterfly was petitioned to be listed as a Threatened species under the federal Endangered Species Act in 2014, and it is currently under review by USFWS after a positive 90-day finding (USFWS 2014). A final ruling is expected in December 2020. The winter roost sites of the monarch butterfly are listed by NatureServe as imperiled/vulnerable (S2/S3) within California[2] (CDFW CNDDB 2018) and are considered significant under CEQA. Because of this listing as a Special Animal, winter roost sites are considered ESHA under the California Coastal Act and the Santa Cruz County Local Coastal Program.

Individual monarch butterflies were observed during field surveys. No winter roosts were observed during the November 2019 survey, but a known winter roost site has been documented (2016-2018) within the southern portion of the Biological Study area (Xerces Society 2019). The known winter roost site is located outside of the Project area, however the access road to the Project area is located nearby. Monarch butterflies may utilize this stand or other eucalyptus and cypress stands within the Biological Study Area as autumnal or winter roosts in the future (**Figure 7**).

Impact BIO-1 (Construction Related Dust and Vibration Impacts to Monarch Butterflies). Trucks accessing the Project area along the access roads could generate noise (vibrations) and dust that could harm potential roosting monarchs, generally mid-October (but as early as September) through March. Through implementation of **Mitigation Measure BIO-1** (Monarch Butterfly Surveys), this impact would be **less than significant with mitigation**.

Mitigation Measure

BIO-1: Conduct monarch butterfly surveys. During each proposed construction year, a qualified biologist will conduct autumnal and winter roost surveys, if work is scheduled to occur during monarch roost season (September through March). Surveys will occur beginning September 1. If no monarchs are detected, surveys will occur on

[2] S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

a weekly basis until construction concludes for the year or until November 30 (when stable winter aggregates will have formed). If autumnal or winter roosts are present, the biologist will determine the protective buffer necessary to avoid impacts to the roost and develop a site-specific monarch butterfly roost management plan following the guidelines described in Xerces Society 2017.

California Red-Legged Frog

The California red-legged frog (CRLF) is listed as threatened under the federal Endangered Species Act and is a California Species of Special Concern. The CRLF is known to utilize the aquatic habitats of the Biological Study Area for breeding and can be expected to utilize the adjacent upland, movement, and/or dispersal habitats (**Figure 7**). All life stages of CRLF were observed during 2018 and 2019 surveys of the Biological Study Area. This species has been consistently observed within the Biological Study Area since 1996 (BioSearch 1999, EcoSystems West, unpublished survey data, 2009, 2010, 2012, 2013, 2017).

Ultimately, the Project would result in improved habitat conditions for CRLF through capping and revegetation of the unclosed portion of the CKD landfill, enhancement of the North Pond and the Seasonal Ponds, development of a replacement wetland at a 3:1 ratio, and remediation of the Retention Pond. Landfill closure activities are summarized in the Project Description above and described in greater detail in **Appendix 1, Closure Plan**.

Enhancement of the North Pond consists of excavating and removing or capping the existing bypass pipe, and replacing it with an upgraded bypass pipe that would maintain the water level at a depth of five (5) feet for as long as intermittent seasonal flow in the pond persists. A clay/geotextile liner would be installed along the southern embankment of the North Pond to restrict downgradient percolation into the North CKD landfill. These activities are expected to extend the hydrologic period of the North Pond to support successful CRLF breeding (ARC, Pers. Comm. 2019b). Currently, CRLF attempt to breed in the North Pond (egg masses and numerous tadpoles have been consistently observed during winter and spring surveys of this feature). However, the water level drops abruptly in the late spring/early summer, presumably due to infiltration into the existing buried bypass pipe; and CRLF larva are unable to complete metamorphosis and perish.

As described in the Project Description, under Construction Best Management Practices, the Project includes enhancement of the seasonal ponds. Enhancement of the Seasonal Ponds consists of grubbing and lining the bottom 3 feet of the ponds with an LLDPE liner to restrict percolation, thereby retaining seasonal run-off longer into the summer (ARC, Pers. Comm. 2019b). As with the North Pond, the Seasonal Ponds currently do not hold water long enough into the summer for CRLF larva to complete metamorphosis. The development of a mitigation (replacement) wetland on the eastern fringe of the Seasonal Ponds would also improve habitat conditions for CRLF. The mitigation wetland would include excavating a shallow area (approximately 0.7-acre) along the outside edge of the

wetland, and planting native wetland vegetation including *Juncus* species and arroyo willow. In addition, coastal scrub plantings would be installed in the uplands on the east side of the wetland fringe. When standing water is present in the pond and wetland areas, this area would provide potential tadpole rearing habitat with warmer, shallower water, vegetative cover and ostensibly, algal food sources. Later in the season the wetland would provide potential upland habitat for CRLF.

Remediation of the Retention Pond would result in the gradual improvement of habitat conditions at this currently unsuitable (due to highly alkaline conditions) and uninhabited perennial pond, as the pH level improves toward more neutral conditions.

Elimination of the existing bypass pipe from the North Pond would reduce direct water flow into Farmer's Pond, known breeding habitat for CRLF. Currently, an undetermined volume of water is captured at the existing buried bypass pipe in the North Pond. This pipe, although decaying, still conveys water to Farmer's Pond until approximately July, when the volume of water in the pipe is reduced to a trickle. No-Name Creek is a second source of water into Farmer's Pond, located immediately upstream of Farmer's Pond, north of the Beltline Road, and presumed to flow intermittently into the pond either through subsurface flow or through a buried culvert. The new proposed bypass pipe will discharge water from the North Pond further east into No-Name Creek, such that the volume of water lost through elimination of the existing bypass would be replaced through discharge into No-Name Creek; however, no quantifiable information is available on the existing or proposed bypass pipe flow volumes or on the connectivity between No-Name Creek and Farmer's Pond. A third source of water into Farmer's Pond is the Water Reservoir overflow. Water from San Vicente and Mill Creeks directed into the sand box and subsequently the Water Reservoir, is treated for drinking water for the town of Davenport. The County Department of Public Works (DPW) water treatment plant raw water feed line is prior to the sand box and water reservoir. The water that flows to the sand box and on to the CEMEX water reservoir is raw water for CEMEX's needs only and does not get processed through the DPW water treatment plant. Flow volume is regulated by the County of Santa Cruz. When at capacity, the water reservoir overflows a weir located on its eastern side into Farmer's Pond. At the request of CEMEX, flow into the Reservoir is maintained such that it is constantly discharging water into Farmer's Pond, which is located outside the Project boundary. This flow ensures sufficient inundation in Farmer's Pond during the summer months to support CRLF tadpole development (**Appendix 9, Biotic Assessment Report)**.

To avoid unlawful "take" of CRLF, during project permitting under Section 404 of the Clean Water Act, the USACE will initiate formal consultation with USFWS. The Project Biotic Assessment Report (**Appendix 9, Biotic Assessment Report**) and a federal Biological Assessment will be provided to USFWS at that time. Based on informal consultation with USFWS representative, Chad Mitcham, it is anticipated that the USFWS will generate a

biological opinion for the project under Section 7 of the Endangered Species Act. The Biological Opinion will describe protective measures and conditions for the Project, including the conditions for a USFWS-approved biologist to handle and relocate CRLF that move into the Project area. With the approval of USFWS, the biologist will identify relocation sites for CRLF.

Impact BIO-2 (Construction Related Impacts to CRLF). Implementation of construction activities within the Project area may result in direct impacts to CRLF through the use of construction equipment and the movement of earth/materials.

The Project may result in temporary impacts to CRLF during Closure Plan activities, including grubbing and vegetation removal, grading of the landfill, drainage improvement activities, scraping and lining of the Seasonal Ponds and North Pond, excavation for and installation of drainage improvements, including the new bypass pipe and outfall structure into No-Name Creek, and equipment and vehicle access.

Work occurring directly in CRLF habitat would temporarily reduce available CRLF habitat in the ponds, non-native grassland and scrub habitats, and just below the break in the upland slope bank at No-Name Creek. Construction activities would temporarily degrade CRLF habitat in and adjacent to the construction footprint through the introduction of sediment, highly alkaline CKD, and potential unanticipated releases of equipment fuel, hydraulic fluid, or other potentially hazardous substances used in construction equipment; and through vegetation removal, grubbing, and disturbance in aquatic, upland and dispersal habitats.

CRLF are likely to move through the Project Area during Closure Plan activities. Construction equipment, grading, earth moving, and drainage improvements could cause direct injury or mortality to CRLF, as well as harassment though increased noise levels, vibrational and visual disturbances, and barriers to movement and dispersal. These activities could interfere with important CRLF life events, including movement to breeding habitat, breeding, foraging, dispersal, and movement to aquatic non-breeding habitats.

As described in the Project Description, under Construction Best Management Practices, erosion and sediment control measures would be installed and maintained to reduce sediment and chemical-laden runoff introductions (**Appendix 8, Design Plans**. These BMPs have been incorporated into Project plans and would reduce potential impacts to CRLF and habitat, but not necessarily to a **less than significant** level).

With implementation of the construction BMPs included in the Project Description and **Mitigation Measure BIO-2** (Construction Related Protective Measures for CRLF), this impact would be **less than significant with mitigation**.

Mitigation Measure

BIO-2: Implement Construction Related Protective Measures for California Red Legged Frog. The following protective measures for CRLF will be implemented for the duration of construction activities:

- Prior to the initiation of construction activities, a USFWS- and CDFW-approved biologist will prepare a construction monitoring plan that identifies all areas to be protected with exclusion fencing on a 1:1500 scale map (or similar scale determined to be practicable), and all areas requiring monitoring by a USFWS- and CDFW-approved biologist.
- Prior to the initiation of construction activities, a USFWS-approved biologist will conduct an environmental training for all construction personnel. The training will include a description of CRLF and its habitat, measures to protect CRLF, and other sensitive wildlife species known or with potential to occur in the Project area and surroundings (sensitive and native nesting bird species, potential roosting bats species, and potential San Francisco dusky-footed woodrat).
- If it is determined through consultation with USFWS that exclusion fencing (solid silt fencing) is necessary for minimizing impacts to CRLF, prior to the initiation of construction activities, the construction contractor will install exclusion fencing in specified areas along the Project boundaries, 2 feet below grade and 3 feet above grade, with wooden stakes at intervals of no more than 5 feet. The fence will be maintained in working order for the duration of construction activities. The USFWS-approved biologist or designated trained construction monitor shall inspect the fence daily and notify the construction foreman when fence maintenance is required. The fence will allow for wildlife passage across the Project area at intervals to be determined in conjunction with USFWS and CDFW.
- Construction activities will take place during the dry season and before the first rain of the season, especially vegetation removal and work in or near aquatic features, including ditch wetlands. Work shall not take place at night or during rain events when special-status amphibians are generally more active. The Project contractor will consult weather forecasts from the National Weather Service at least 72 hours prior to performing work.
- Ground-disturbing activities in upland areas including clearing, grubbing, and grading shall not occur between November 1 and March 31, unless authorized by the USFWS, because that is the time period when CRLF are most likely to be moving through upland areas.

- If the project seeks and obtains winter grading approval from the County and disturbance of upland areas between November 1 and March 31 is authorized by USFWS, measures to prevent CRLF from entering the Project area shall be implemented. These measures shall include installation of exclusion fencing and all other recommendations and conditions provided through consultation with USFWS.
- Prior to commencement of construction, a Service-approved biologist(s) will identify suitable relocation sites for CRLF. If it is determined that individual CRLF must be relocated to avoid harm, a plan shall be developed in consultation with USFWS to relocate individual CRLF prior to initiation of disturbance in aquatic habitat. The biologist shall be given enough time to move the animals from the work site before ground disturbance is initiated.
- A Service-approved biologist(s) shall be onsite during all activities that may result in take of the CRLF, to be determined at the discretion of the Service-approved biologist in consultation with USFWS. The approved biologist shall have the authority to stop work that may result in the "take" of a special-status species. If a CRLF is encountered during Project construction, the approved biologist shall be given enough time to move the animals from the work site to a designated relocation site.
- The approved biologist will have the authority to stop work that may result in the "take" of a special-status species.
- Capturing and handling CRLF is not permitted unless a project-specific Take Permit has been obtained from USFWS.
- Only USFWS-approved biologists shall participate in activities associated with surveying, capturing, handling, and monitoring of CRLF.
- The USFWS-approved biologist or construction monitor will check under all equipment for wildlife before use. If any special-status wildlife is observed under equipment or within the work area, the approved biologist will be permitted to handle and relocate it.
- At the end of each work day, excavations will be secured with a cover, or a ramp installed to prevent wildlife entrapment.
- All trenches, pipes, culverts or similar structures will be inspected for animals prior to burying, capping, moving, or filling the structures.

Avian Species

Allen's hummingbird (USFWS Bird of Conservation Concern [BCC]), northern harrier (CDFW Species of Special Concern [SSC]), and white-tailed kite (CDFW Fully Protected Species) were observed during 2019 field surveys in or near the Project area (**Figure 7**).

The American peregrine falcon (USFWS BCC and CDFW Fully Protected), olive-sided flycatcher (USFWS BCC and CDFW Fully Protected), and grasshopper sparrow (CDFS SSC) may also occur within or near the Project area based on suitable available habitat and recent occurrences in the immediate area (ebird 2019).

Both sensitive and common avian species are likely to utilize the habitats of the Biological Study Area for nesting activities (**Appendix 9, Biotic Assessment Report**). The Biological Study Area provides suitable nesting habitat for the white-tailed kite, other raptors, and the olive-sided flycatcher in the large cypress/eucalyptus groves located in the southwest corner of the Biological Study Area, where the kite was observed (adjacent to the Retention Pond and approximately 80 meters [270 feet] from the CKD landfill work area). Another cypress/eucalyptus grove located in the southeast corner of the Biological Study Area (adjacent to the proposed access road, approximately 300 meters [1000 feet] from the Retention Pond and approximately 300 meters [1000 feet] from the CKD landfill work area also provides potential nesting habitat for these sensitive avian species.

The northern harrier and grasshopper sparrow (if present) may utilize the non-native grasslands within and north, east, and west of the Project area for breeding. Two male Allen's hummingbirds were observed in a territorial display neat the Seasonal Ponds during spring 2019 surveys; this species is presumed to breed within scrub and riparian habitats within and near the Project area. The peregrine falcon and other raptors, including owls, may utilize the Pre-heater Tower and Coal Mill buildings for breeding and perching [approximately 70 meters (230 feet) from the Retention Pond and 90 meters (290 feet) from the CKD Landfill work area]. The peregrine falcon is also likely to forage over the Project area. The coastal and riparian scrub, eucalyptus grove, and non-native forest habitats within the Project area all provide potential nesting habitat for common avian species.

Breeding bird season is typically February 1 to September 15. All nesting birds of prey (i.e., hawks and owls), other native nesting birds and their occupied nests, and individual birds of prey and passerine birds are protected by the California Fish and Game Commission Code (CFGC) (§ 3503 and 3503.5). Sensitive bird species receive additional protections, primarily for nesting activities with some species (such as "fully- protected" species) receiving additional protection for wintering and foraging activities.

Impact BIO-3 (Construction Related Disturbance to Avian Species). Project construction activities during the avian breeding season (February 1 to August 30) may disrupt breeding activities, cause nest abandonment or failure, or directly harm or cause mortality to nesting birds, eggs, and young located within the Project area and surroundings.

Limited tree and scrub removal may result in direct harm or mortality to nesting avian species and loss of potential nesting habitat. Limited non-native tree and vegetation removal (totaling approximately 0.3 acre) would be replaced at a minimum 1:1 ratio with

native trees and vegetation. Once established, replacement plantings would benefit nesting avian species. Ultimately, the Project will benefit avian species through capping and revegetation of the CKD landfill, enhancement of aquatic features, and re-vegetation with native plant species.

Construction activities, including grubbing and vegetation removal, grading/earth moving of the landfill, excavation, and equipment and vehicle access will generate increased dust, noise, and vibrational and visual disturbances. These activities may disrupt sensitive and common bird species nesting within the Project area or Biological Study Area. Through implementation of **Mitigation Measure BIO-3** (Preconstruction Surveys and Construction Related Protective Measures for Avian Species), this impact would be **less than significant with mitigation**.

Mitigation Measure

BIO-3: Conduct Preconstruction Surveys and Construction Related Protective Measures for Avian Species. The following protective measures for avian species will be implemented for the duration of construction activities:

- The avian breeding season occurs between February 1 and September 15. To the greatest extent practicable, initiate non-native tree and ruderal vegetation removal activities outside of the breeding bird season to avoid direct harm or mortality to potential nesting bird species and other sensitive biological resources.
- For all Project activities initiated during the breeding bird season, or if construction activities lapse for a period of two weeks or more during breeding bird season, a qualified biologist will conduct a breeding bird survey for nesting birds, including raptors. Surveys will be conducted within 15 days prior to beginning Project activities and will include all work, staging, and access areas and a minimum buffer radius of 150 meters (or more as determined by the resource agencies). The survey will include potential habitat for raptors and sensitive and common nesting avian species known to occur within the Biological Study Area [arroyo willow riparian scrub, coastal scrub, eucalyptus grove (adjacent to the Seasonal Ponds), other non-native forest (adjacent to the Retention Pond), large cypress/eucalyptus groves, non-native grassland, and the Pre-heater Tower and Coal Mill buildings].
- If no nesting sensitive or common avian species are observed during breeding bird surveys no additional measures will be required.
- If nesting birds are observed within vegetation proposed for removal, postpone vegetation removal activities until young have fledged to avoid direct harm or mortality of nesting birds.

- Sensitive bird species, if nesting in or near the Project area, will be given special consideration and may require additional protective measures as determined through consultation with the relevant agency (USFWS or CDFW), such as protective buffers recommended in PG&E et al. 2015:
  - American peregrine falcon: 150 meters (500 feet)
  - Northern harrier, white-tailed kite, and other raptors: 90 meters (300 feet).
  - Olive-sided flycatcher and grasshopper sparrow: 25 meters (75 feet)
  - Allen's hummingbird: 15 meters (50 feet).
- If the biologist determines that a smaller avoidance buffer will provide adequate protection for nesting birds, a proposal for alternative avoidance/protective measures, potentially including a smaller avoidance buffer and construction monitoring, may be submitted to USFWS and CDFW for review and approval prior to removal of vegetation, grading activity, or other use of heavy equipment.
- If removal of vegetation, grading activity, or other use of heavy equipment stops for more than two weeks during the nesting season (February 1st - August 31st) a new survey shall be conducted prior to re-commencement of construction.

San Francisco Dusky-Footed Woodrat

The San Francisco dusky-footed woodrat is considered a CDFW Species of Special Concern (Bolster 1998, CDFW 2019d). During field surveys, no woodrat houses were identified in the immediate Project area. Coastal scrub and arroyo willow riparian scrub habitats, especially those adjacent to aquatic features and other edge habitats, provide potential habitat for this species (**Figure 6**).

Impact BIO-4 (Construction Related Disturbance to San Francisco dusky-footed doodrat). If it is determined that removal of coastal scrub and arroyo riparian willow scrub is necessary, individual woodrats present in this habitat or their houses may be directly impacted through implementation of the project. Furthermore, construction activities may directly impact woodrat individuals if present within the Project area. Through implementation of **Mitigation Measure BIO-4** (Construction Related Protective Measures for San Francisco dusky-footed woodrat), this impact would be **less than significant with mitigation.**

Mitigation Measure

BIO-4: Implement Construction Related Protective Measures for San Francisco dusky-footed woodrat. The following protective measures for San Francisco dusky-footed woodrat will be implemented for the duration of construction activities:

- Within one month prior to the onset of construction activities, a CDFW qualified biologist will conduct a preconstruction survey for woodrat houses, and clearly flag all houses within the construction impact area and immediate surroundings.
- The construction contractor will avoid woodrat houses to the greatest extent feasible by installing a minimum 10-foot (preferably 25-foot) buffer with silt fencing or other material that will prohibit encroachment. If this buffer and avoidance is not feasible, the qualified biologist will allow encroachment into the buffer, but preserve microhabitat conditions such as shade, cover and adjacent food sources.
- If avoidance of woodrat houses is not possible, in coordination with CDFW and County Environmental Planning staff, a qualified biologist will develop and implement a San Francisco dusky-footed woodrat Relocation Plan and the following conditions or conditions of a CDFW agreement shall be adhered to:
    - Prior to house disturbance, the biologist shall obtain from CDFW a scientific collection permit for the trapping of the dusky-footed wood rats.
    - Houses shall be disturbed/dismantled only during the non-breeding season, generally between late summer and early fall, as determined in consultation with the project biologist and CDFW.
    - If trapping is utilized in the relocation plan, prior to house disturbance, wood rats shall be trapped at dusk of the night set for relocation of the nest(s).
    - Any existing house that may be disturbed by construction activities shall be mostly dismantled and the material spread in the vicinity of identified house relocation site(s).
    - In order to avoid the potential health effects associated with handling rodents and their milieu, all workers involved in the handling of the wood rats or the house materials should wear protective gear to prevent inhalation of contaminant particulates, contact with conjunctiva (eyes), and protection against flea bites; a respirator, eye protection and skin protection should all be used.
    - Dismantling shall be done by hand, allowing any animals not trapped to escape either along existing woodrat trails or toward other available habitat.

- If a litter of young is found or suspected, house and nest material shall be replaced, and the house left alone for 2-3 weeks before a recheck to verify that young are capable of independent survival before proceeding with house dismantling.
- Woody debris shall be collected from the area and relocated house shall be partially constructed in an area determined by the qualified biologist to be both suitable for the wood rats and far enough away from the construction activities that they will not be impacted.
- If trapping is utilized in the relocation plan, rats that were collected at dusk shall be released hours before dawn near the newly constructed nests to allow time for rats to find refuge.

Bats

The western red bat (*Lasiurus blossevillii*) is listed as High Priority by the Western Bat Working Group (2017) and is a CDFW Species of Special Concern (Bolster 1998, CDFW 2019d). The western red bat may roost in the foliage of tree canopies in the mature arroyo willow scrub, riparian and non-native forest habitats (Heady 2018). Common bats may also utilize these habitats for roosting. Two large bat guano piles were observed in the coal hangar during spring 2019 surveys (**Figure 7**). Common bat species are expected to utilize the buildings within the Cement Plant for roosting. Bat maternity roosting occurs typically between May 1 and September 1, and winter hibernacula (shelter occupied during the winter by a dormant animal) for many bat species are found between November 1 and February 15.

Impact BIO-5 (Construction Related Disturbance to Bats). Minimal tree/vegetation removal (0.44 acre of permanent impacts and 0.10 acre of temporary impacts) of non-native forest/scrub vegetation is proposed for Closure Plan activities. If roosting bats are present in trees proposed for removal, direct harm or mortality of bats may occur. Minimal potential bat roosting habitat would be removed as a result of this project; non-native trees would be replaced with native tree species and, once established, replacement habitat would benefit roosting bats. Bats are expected to utilize the buildings within the Cement Plant for roosting. Noise, vibrations, dust, and other disturbances associated with Closure Plan activities may disrupt bat maternity roosts, if present. Through implementation of **Mitigation Measure BIO-5** (Construction Related Protective Measures for Bats), this impact would be **less than significant with mitigation.**

Mitigation Measure

BIO-5: Implement Construction Related Protective Measures for Bats. The following protective measures for bats will be implemented throughout the duration of construction activities.

- To the greatest extent feasible, conduct limbing/tree removal operations between September 15 and November 1 to avoid bat maternity roosts and winter hibernacula, as well as other sensitive biological resources.
- To avoid impacts to potential roosting bats, a qualified biologist shall conduct a pre-construction survey for bats during all months as follows:
    - A qualified biologist will determine if bats are utilizing the Project area where construction activities would occur, or adjacent trees/snags/buildings for roosting. For any trees/snags/buildings that could provide roosting space for cavity or foliage-roosting bats, potential bat roost features will be thoroughly evaluated to determine if bats are present. Visual inspection and/or acoustic surveys will be utilized as initial techniques. If roosting bats are found, the biologist will develop and implement acceptable passive exclusion methods in coordination with or based on CDFW recommendations. If feasible, exclusion will take place during the appropriate windows (September 15 and November 1) to avoid harming bat maternity roosts and/or winter hibernacula. (Authorization from CDFW is required to evict winter hibernacula for bats).
    - If established maternity colonies are found, in coordination with CDFW, a buffer will be established around the colony to protect pre-volant young from construction disturbances until the young can fly; or implement other measures acceptable to CDFW.
    - If a tree is determined not to be an active roost site for roosting bats, it may be immediately limbed or removed as follows:
        - If foliage roosting bats are determined to be present, limbs will be lowered, inspected for bats by a bat biologist, and chipped immediately or moved to a dump site. Alternately, limbs may be lowered and left on the ground until the following day, when they can be chipped or moved to a dump site. No logs or tree sections will be dropped on downed limbs or limb piles that have not been in place since the previous day.
    - If the tree is not limbed or removed within four days of the survey, the survey efforts shall be repeated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*	☐	☒	☐	☐

Discussion: Two sensitive habitats, coastal scrub and arroyo willow riparian scrub, occur within the Biological Study Area (**Figure 6**).

To the greatest extent feasible, the proposed Closure Plan has been designed to avoid and minimize impacts to biological resources, including sensitive habitats. Closure Plan activities occur primarily within the disturbed habitat of the North CKD landfill area where CKD is mounded, in the adjacent non-native grassland habitat that currently covers portions of the North CKD landfill, and at the Retention Pond, which does not currently provide suitable conditions for most biological resources. The proposed Closure Plan activities would result in temporary and permanent impacts to coastal scrub (Table 5a) and arroyo willow riparian scrub (CCC wetland) (**Table 5b)**. The Project's upland habitat impacts, including impacts to coastal scrub, non-native forest, and non-native grassland are shown on **Figure 8**. The Project's aquatic impacts, including impacts to jurisdictional and non-jurisdictional waters, are shown on **Figure 9**.

Coastal Scrub

Equipment access, grading of the North CKD area, construction of the shotcrete wall, and improvements to the drainage and ditch systems that convey water from the North CKD Area to the Retention Pond would result in permanent and temporary impacts to coastal scrub, a Coastal Zone ESHA (**Figure 8**). Northeast of the Seasonal Ponds, grading of the North CKD Area and improvements to the drainage system would result in both permanent and temporary impacts to coastal scrub. Where CKD is present, the LLDPE cap would be installed, precluding replanting with coastal scrub in this area; therefore, this would be a permanent impact. Where LLDPE is not present, coastal scrub is expected to resprout from stumps or roots; this would be a temporary impact. The new perimeter ditch northeast of the Seasonal Ponds would also permanently displace a small amount of coastal scrub.

West of the North CKD Area, the installation of the shotcrete wall and improvements to the ditch system would result in permanent and temporary impacts to coastal scrub. A catchment basin at the base of the shotcrete wall and an enlarged ditch system along the footprint of the existing Shop Ditch alignment are proposed to be installed; construction of these features would result in both permanent and temporary impacts (**Appendix 8, Design Plans; Figure 8**).

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Figure 8. Upland Impacts

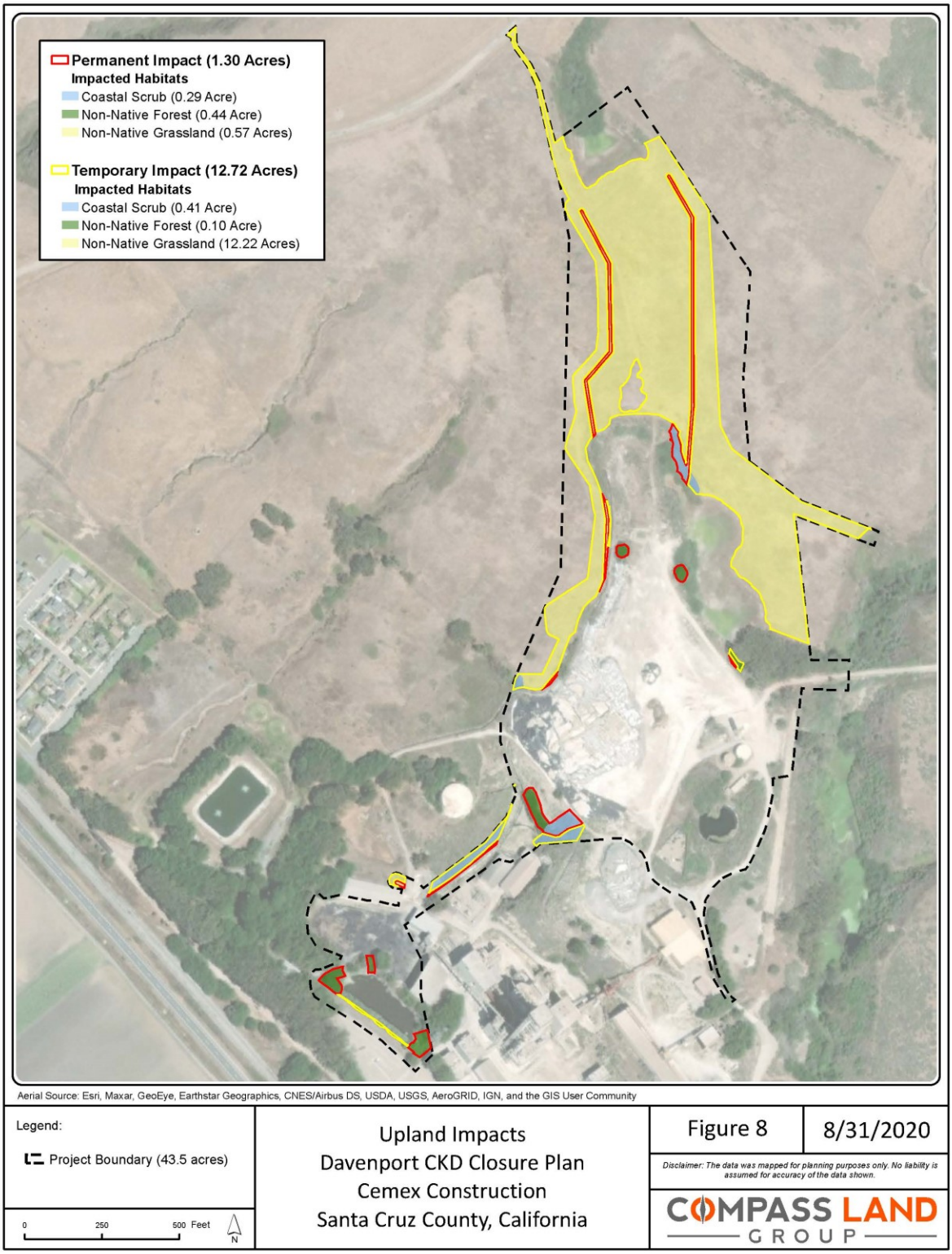

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Figure 9. Aquatic Impacts

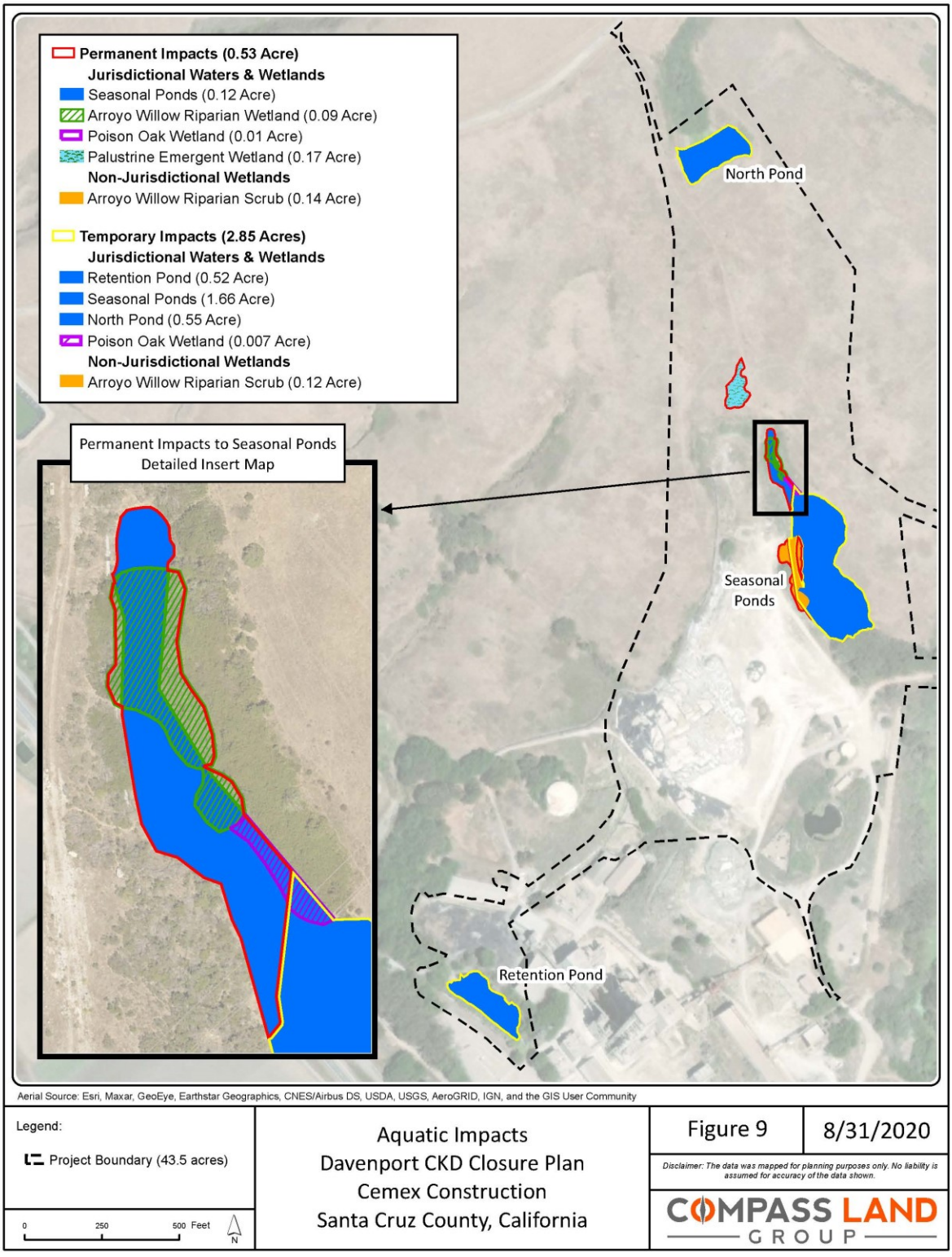

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Table 5a. Temporary and Permanent Impacts to Sensitive Habitat Types and ESHA (non-aquatic) by Project Activity					
	Biological Resource	**Closure Plan Activity**	**Description**	**Sensitive Habitat/ESHA**	
				Permanent	**Temporary**
A	Coastal Scrub	North CKD Area Closure	Grade to Improve Surface Run-off	0.29 acre 1,260 ft^2	0.17 acre 7,400 ft^2
		Water Quality Protection	Drainage Improvements Ditch System Improvements		
Total Impact Areas				0.29 acre	0.17 acre

Table 5b. Temporary and Permanent Impacts to Aquatic Resources and Associated Habitats by Project Activity									
	Biological Resource	Closure Plan Activity	Description	Wetlands		Other Waters		Other Habitats	
				Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
A	Weedy Seasonal Wetland	North CKD Area Closure	Grub Existing Weedy Vegetation Remove Topsoil Grade to Improve Surface Run-off Install LLPDE Liner Install Protective Cover Soil (Compacted General Fill) and Vegetative Soil Layer Re-vegetate	0.17 acre 7,600 ft^2	0	-	-	-	-
B	North Pond (Intermittent)	Water Quality Protection	Access Road Expose and Cap/Remove Existing Bypass Install Grated Inlet Structure & Rock Slope Protection for Proposed Bypass Re-vegetate	-	-	0	0.55 acre 23,960 ft^2	-	-
		Enhancement for CRLF	Grub Existing Weedy Vegetation Line Southern Embankment w/ Clay/Geotextile Fabric						
C	Seasonal Ponds (Intermittent)	Storm Event Catchment/ Enhancement for CRLF	Grade to Improve Surface Run-off Access Road Grub Existing Vegetation Line Lower 3 feet with LLDPE Re-vegetate	Arroyo Willow/ Poison Oak (404/401) 0.10 acre 4,350 ft^2	Arroyo Willow/ Poison Oak (404/401) 0.127 acre 5,530 ft^2	0.12 acre 5,230 ft^2	1.66 acres 72,310 ft^2	Arroyo Willow (CCC) 0.14 acre 6,100 ft^2	Arroyo Willow (CCC) 0.12 acre 5,230 ft^2
D	Retention Pond (Perennial)	Remediation/ Water Quality Improvements	Remove Non-native Materials (Coal and CKD)	-	-	0	0.515 acre 22,650 ft^2	-	-
			Install Outfall Structure	-	-	0	0.005 acre 210 ft^2	-	-
E	(West) Embankment of No-Name Creek (Intermittent)	Outfall Structure	Install Rip Rap below Break-In-Bank approximately 75 feet above Channel	-	-	-	-	Poison Hemlock 0.003 acre 150 ft^2 15 linear ft	0
Total Impact Areas				0.27 acre	0.127 acre	0.12 acre	2.73 acres	0.143 acre	0.12 acre

Impact BIO-6 (Permanent and Temporary Impacts to Coastal Scrub Habitat). Approximately 0.29 acre of permanent and 0.41 acre of temporary impacts to coastal scrub are anticipated as a result of the implementation of the Closure Plan (Table 5a and **Figure 8**). Through implementation of **Mitigation Measure BIO-6** (Construction Related Protective and Replacement Measures for Coastal Scrub Habitat), this impact would be **less than significant with mitigation.**

Mitigation Measure

BIO-6: Implement Construction Related Protective and Replacement Measures for Coastal Scrub Habitat. The following protective and replacement measures for coastal scrub habitat will be implemented throughout the duration of construction activities.

- Construction equipment will be staged in ruderal and developed areas only and, to the greatest extent feasible, equipment will access the ditch system from the south side in ruderal and developed habitat.
- Coastal scrub habitat will be fenced off to prevent encroachment from construction related equipment and materials, and the construction footprint adjacent to this habitat will be minimized to the greatest extent practicable.
- Permanent impacts to coastal scrub will be mitigated through replacement at a 3:1 ratio in suitable upland locations east of the Seasonal Ponds, east of the North Pond, and along the top of the embankment to No-Name Creek where poison hemlock currently dominates the area. Plantings will consist of locally-sourced native coastal scrub plantings (such as coastal sage brush, coffeeberry, coyote bush, California blackberry, California wild rose, and lizard tail) in accordance with the Mitigation and Management Plan required by Mitigation Measure BIO-8.
- Where temporary impacts to coastal scrub occur, the area will be allowed to resprout from stumps and roots and will be re-vegetated, as needed, with locally-sourced native coastal scrub plantings (as listed above for permanent impacts) in accordance with the Mitigation and Management Plan required by Mitigation Measure BIO-8. Adjacent non- native grassland and ruderal habitats may also be planted with coastal scrub vegetation, where appropriate, to support the revegetation of this habitat.

Arroyo Willow Scrub

Arroyo willow scrub vegetation, a California Coastal Commission (CCC) one-parameter wetland, occurs at the western margin of the Seasonal Ponds (**Figure 6**). This habitat type is considered a sensitive habitat. In addition, adult CRLF have been observed utilizing the arroyo willow scrub for cover and refuge. Closure Plan activities are proposed within and

adjacent to the Seasonal Ponds to regrade and cap the CKD landfill, to improve water retention for large (> 100 year) storm events and to enhance CRLF habitat. The western embankment of the Seasonal Ponds is part of the Project and would be regraded and capped to achieve the topography necessary to direct surface runoff away from the CKD landfill and to protect water quality. This activity would impact arroyo willow scrub on the western embankment. Grubbing, scraping and lining the Seasonal Ponds with LLDPE for stormwater capture capacity and CRLF enhancement (to extend the hydoperiod later into the summer) would also impact arroyo willow scrub in the Seasonal Ponds (Figure 8). The LLDPE liner would both cap the newly regraded landfill and line the lowest 3 feet of the Seasonal Ponds; these areas would not subsequently support arroyo willow and would therefore be considered permanent impacts to this habitat type. Where LLDPE is not installed, willows can be expected to resprout from stumps or roots or re-establish through natural recruitment; impacts to arroyo willow scrub where LLDPE is not present area would be considered temporary.

Impact BIO-7 (Permanent and Temporary Impacts to Arroyo Willow Scrub). Grading of the North CKD Area and enhancement of the Seasonal Ponds (through installation of the LLDPE liner) would result in the permanent loss of approximately 567 square meters (6,098 square feet or 0.14 acre) and temporary impacts to 486 square meters (5,227 square feet or 0.12 acre) (Table 5b) of arroyo willow scrub, a sensitive habitat and Coastal Act wetland. Through implementation of **Mitigation Measure BIO-7** (Construction Related Protective and Replacement Measures for Arroyo Willow Scrub Habitat), the impacts to arroyo willow scrub would be **less than significant with mitigation**.

Mitigation Measure

BIO-7: Implement Construction Related Protective and Replacement Measures for Arroyo Willow Scrub Habitat. The following protective and replacement measures for arroyo scrub habitat will be implemented throughout the duration of construction activities.

- To the greatest extent feasible, minimize removal of arroyo willow scrub and protect the remaining habitat from construction activities through installation of protective fencing.
- At a minimum, the Project will result in no net loss of arroyo willow scrub habitat. Replace arroyo willow scrub at a ratio to be determined by the County and other state and federal agencies in accordance with the Mitigation and Management Plan required by Mitigation Measure BIO-8.
- To mitigate for permanent impacts, arroyo willow pole cuttings will be planted in other suitable locations within and immediately adjacent to the Project area as described in the Mitigation and Management Plan: along the

southwestern corner of the North Pond, at the outfall structure from the North Pond bypass pipe to No-Name Creek, on the northern side of the proposed mitigation seasonal willow pond in the remediated coal storage area, and along the western edge of the "frog swale", a feature located west of the wastewater treatment pond immediately west of the Project boundary area within CEMEX property. .

- Where temporary impacts to arroyo willow scrub occur, the area will be allowed to resprout from stumps and roots, through natural recruitment, and will be re-vegetated, as needed, with locally-sourced willow pole cuttings in accordance with the Mitigation and Management Plan required by Mitigation Measure BIO-8.

3. *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*	☐	☒	☐	☐

Discussion: A jurisdictional aquatic resources delineation report (EcoSystems West 2019) was prepared for the Project area. The proposed construction activities would result in temporary and permanent impacts to wetlands, other waters, and associated habitats as listed in **Table 5b** and shown on **Figure 9**.

The outfall structure for the proposed bypass pipe between the North Pond and No-Name Creek would be located below the break-in-bank in the upland area above No-Name Creek within habitat dominated by the non-native and invasive plant, poison hemlock. Installation of the 42-inch bypass pipe system (**Appendix 8, Sheets D3, D4, PS4 and DR4, Design Plans**) consists of excavation and installation of the bypass pipe along the designated alignment within non-native grassland. The 42-inch bypass pipe would terminate in an 84-inch manhole, from which flow would either dissipate through an 8-inch drain pipe or bubble from the top of the manhole over a riprap apron and spillway at the outfall to No-Name Creek. This bypass outlet structure is situated in non-native grassland. The proposed 15-foot wide, 2-foot deep rock armoring would extend down the embankment of No-Name Creek approximately 10 feet (an area of 150 square feet), positioned entirely in poison hemlock. No-Name Creek is located approximately 85 feet downslope from the proposed outfall structure with intervening shallow bedrock and coastal scrub. No equipment would be operated below the break-in-bank, and rock would be installed with equipment staged above in non-native grassland. This would not be

considered a significant impact under CEQA. Because the location of the outfall structure is below the break-in-bank, it is anticipated that CDFW will regulate work proposed for the embankment of No-Name Creek under Section 1602, through issuance of a Lake and Streambed Alteration Agreement (LSAA). The proposed structure would be positioned well above the ordinary high water mark (OHWM) and, therefore, would not require a Section 404 Permit from the USACE. This structure may require a Riparian Exception from the County of Santa Cruz.

Proposed construction activities would displace a seasonal wetland located within the existing North CKD landfill. One shallow, seasonal wetland of 0.17 acre, comprised of non-native weedy plants (Italian ryegrass, curly dock, brome fescue, Mediterranean barley, and rabbitfoot grass) would be permanently displaced by the proposed grading, lining, and capping of the existing North CKD landfill (see **Figure 9**). These activities would convey surface water away from the CKD and prevent pooling of surface water on top of the liner/cap system in order to avoid potential water quality impacts to No-Name Creek, groundwater, and the Pacific Ocean.

The proposed construction activities would affect three intermittent ponds (the Seasonal Ponds and the North Pond) and one perennial pond (the Retention Pond). The northernmost finger of the Seasonal Ponds (including aquatic habitat and arroyo willow riparian and poison oak wetlands) would be permanently impacted during regrading and capping of the North CKD Area.

In addition, temporary impacts would result from the development of access roads to allow equipment to work within the Seasonal Ponds and the North Pond, clearing, grubbing, scraping/excavating, and (for the North Pond and the Seasonal Ponds) lining of these features. Temporary impacts would also occur at the North Pond and the Retention Pond from the installation of inlet/outlet structures.

After regrading of those portions of the Seasonal Ponds that lie within the Project area, the Seasonal Ponds would be cleared and grubbed for placement of an LLDPE liner to restrict percolation. Under proposed closure conditions, the Seasonal Ponds are anticipated to capture less water than current conditions due to drainage improvements east of the ponds. The liner would allow for surface water catchment in large storm events and is expected to retain reduced surface run-off, thereby enhancing conditions for CRLF (ARC, pers. Comm. 2019). Clearing, grubbing, and lining the Seasonal Ponds would be considered temporary impacts and would result in no additional loss or permanent displacement of these ponds.

Work proposed within the North Pond includes grubbing weedy vegetation, exposing and capping or removing the existing bypass pipe, installing an inlet structure for the proposed upgraded bypass pipe, and installing a geosynthetic clay liner along the southern

embankment of the pond. The volume of water retained in the North Pond would be limited to a depth of 1.5 meter (5 feet) (the depth of the inlet structure to the bypass pipe). The liner would restrict percolation of the retained water and is expected to enhance CRLF aquatic habitat to facilitate suitable breeding conditions (ARC, Pers. Comm. 2019). Work within the North Pond would be considered a temporary impact.

Proposed plans for the Retention Pond include dewatering, excavation to remove approximately 0.6 meters (2 feet) of non-native materials (CKD and coal sediments) and installation of upgraded inlet and outlet structures. These activities are considered temporary impacts.

Work within wetlands and other waters is subject to regulation by the USACE under Section 404 of the CWA, by the Water Board under Section 401 of the CWA, and by CDFW under Section 1600. Wetlands are granted protections under the County's Sensitive Habitat Protection and Riparian Corridor and Wetlands Protection ordinances (Santa Cruz County Code [SCCC] 16.30 and 16.32). In order to conduct work within 100 feet of a wetland, the project must be granted a riparian exception. The Project meets the preliminary requirements for approval of a Riparian Exception by the County based on the following criteria:

- There are special circumstances or conditions affecting the property. The seasonal wetland that would be permanently lost during CKD landfill closure is located within the boundary of the existing CKD landfill. Grading of this area would be necessary to install the LLDPE liner/cap system and to direct surface and subsurface water away from the CKD landfill in order to prevent pooling on top of the liner/cap system and avoid potential water quality impacts to No-Name Creek, groundwater, and the Pacific Ocean. Proposed work within the aquatic features (ponds) is for the purpose of improving drainage, water quality and/or enhancing habitat for CRLF.
- The riparian exception is necessary for the proper design and function of the Closure Plan activities proposed for the existing CKD landfill, a permitted activity.
- The granting of the riparian exception will not be detrimental to the public welfare or injurious to other property downstream or in the area in which the Project is located; proposed Closure Plan activities have been designed for the purpose of protecting water quality in compliance with WDR No. R3-2018-0001, conditionally approved by the Water Board.
- The granting of the exception, in the Coastal Zone, would not reduce or adversely impact the riparian corridor; no impacts to the riparian corridor are anticipated as a result of the proposed Project and there is no feasible

less environmentally damaging alternative.

- The granting of the exception is in accordance with the purpose of the Riparian Ordinance. The proposed Project would ultimately help preserve, protect, and restore the riparian corridor and wetlands within the immediate area, including for the protection and enhancement of wildlife habitat; water quality; aquatic habitat; and open space, as well as the other values listed in the purpose of the Riparian Ordinance. The project has been designed for the 1000-year (24-hour) storm event; water quality protections and erosion control measures have also been included in the Closure Plan designs and associated documentation (ARC 2018 and ARC 2019a).

Impact BIO-8 (Permanent and Temporary Impacts to Jurisdictional Wetlands and Waters). Closure Plan activities would affect 14 square meters (150 square feet) along the top of the west embankment of No-Name Creek. Based on the design of the outlet structure to dissipate flows and the location of the structure within poison hemlock approximately 85 feet above the channel of the intermittent No-Name Creek, with intervening shallow bedrock and coastal scrub, no impacts to the aquatic habitat of No-Name Creek, the adjacent riparian vegetation, or intervening coastal scrub are anticipated. This would not be considered a significant impact under CEQA, and no mitigation is required.

Closure Plan activities (regrading and capping of the North CKD Area) would permanently displace a 0.17-acre seasonal wetland, as well as the northernmost finger of the Seasonal Ponds [including 486 square meters (5,227 square feet or 0.12 acre) of aquatic habitat, 364 meters (3,920 square feet or 0.09 acre) of arroyo willow riparian wetland, and 40 square meters of poison oak wetland (436 square feet or 0.01 acre)] (Table 5b and **Figure 9**). The displacement of these features is unavoidable, and no feasible less environmentally-damaging alternative exists. Closure Plan activities would also result in temporary impacts to the Seasonal Ponds, the North Pond, and the Retention Pond, as shown in **Table 5b**.Implementation of **Mitigation Measure BIO-8** (Protective and Replacement Actions for Jurisdictional Wetlands and Waters of the U.S.), would result in a **less than significant impact with mitigation.**

Mitigation Measure

BIO-8: Implement Protective and Replacement Actions for Jurisdictional Wetlands And Waters of The U.S. Implementation of the following measures would minimize potential temporary and permanent impacts on jurisdictional wetlands and waters of the U.S.

- Avoid or minimize disturbance to wetlands, aquatic features (ponds), as well as to other sensitive habitats (coastal scrub, arroyo willow scrub, and edge habitats) through the installation of construction fencing around staging and work areas, and access routes, outside of which no activities would occur and no materials would be stored. The construction fencing will be placed in accordance with the stages of work being implemented in specific areas throughout the Biological Study Area, as feasible, to allow a corridor for wildlife movement along the southern boundary of the Project area.
- Where feasible, avoid grubbing and construction within 100 feet of the edge of wetlands, ponds, and No-Name Creek, per the County of Santa Cruz General Plan/LCP and Sensitive Habitats Ordinance.
- Restrict access roads that must enter into aquatic features to one location, and minimize the area of impact that results from these access roads to the greatest extent feasible.
- Construct a replacement seasonal wetland at a ratio of 3:1, as included in the Closure Plan. A shallow mitigation feature of approximately 0.7 acre would be excavated along (outside of) the eastern fringe of the Seasonal Ponds, planted with locally sourced native wetland vegetation, including, but not limited to, a seed mix composed of California oat grass, Mediterranean barley, and seep monkey flower; plugs of spreading rush and Pacific rush; and stakes of arroyo willow, where applicable.
- As detailed in the Mitigation and Management Plan, to mitigate for permanent impacts to aquatic habitat in the Seasonal Ponds, develop a replacement seasonal willow pond in the coal storage area north of Retention Pond. To mitigate for permanent impacts to riparian and poison oak wetlands, the northern portion of the mitigation pond will be planted with riparian wetland plantings and willow pole cuttings. Container plants and/or willow pole cuttings will also be planted along the northern margin of the Retention Pond, in the wetland fringe east of the Seasonal Ponds, along the southwestern corner of the North Pond, at the outfall structure from the North Pond Bypass Pipe to No-Name Creek, and along the western edge of the "frog swale", a feature located west of the wastewater treatment pond immediately west of the project boundary area within CEMEX property. In addition to arroyo willow pole cuttings, plantings will consist of locally-sourced native riparian plantings including red elderberry, beaked hazelnut, California blackberry, and coffeeberry, as well

as those wetland species listed above. Develop and implement a Mitigation and Management Plan that will include the following:

- Planning mitigation strategies with regulatory agencies, including the County of Santa Cruz, CDFW, the Water Board, and USFWS.
- Developing a description of the Project, including acreages of temporary and permanent impacts to palustrine emergent wetlands, Coastal Act wetlands (arroyo willow scrub), and aquatic features (ponds), as identified in the formal delineation of jurisdictional wetlands and other waters of the U.S.
- Goals of the compensatory mitigation project, including types and areas of wetland and aquatic habitat to be created, restored, and/or enhanced, and mitigation ratios (created/restored/enhanced : impacted).
- Disturbed areas of coastal scrub habitat and arroyo willow riparian scrub habitat shall be restored at a 3:1 ratio.
- Identifying the location and acreage of wetland and riparian mitigation areas, including size and ownership status.
- Detailing wetland and aquatic construction and planting techniques.
- Species, size, and locations of all restoration plantings. These plantings shall occur at sizes and ratios determined by the restoration specialist to adequately restore native habitat while maximizing plant health and survivability of individual trees and shrubs.
- Information regarding the methods of irrigation for restoration plantings.
- Replacing all non-native tree and shrub vegetation with native, locally-sourced vegetation.
- Describing and designing of habitat requirements for special-status wildlife, including CRLF, potentially occupying wetland and aquatic habitats.
- Identifying maintenance activities that will occur during the monitoring period, including replanting native wetland and riparian vegetation and weed removal that will not result in take of CRLF.

- Producing long-term quantitative and qualitative monitoring and reporting, and documenting the ability of the areas to meet or surpass performance criteria.
- 5-year management plan for maintenance and monitoring of restored areas to maintain 100% survival of installed container stock in year 1, 90% survival rate in year 2, and at least 80% survival in years 3-5. Replacement plants shall be installed as needed during the monitoring period to meet survival rates. Annual reports shall be submitted to the County Planning Department by December 31 of each monitoring year.
- Developing adaptive management strategies to ensure the long-term viability of mitigation areas.
- Developing strategies to protect remaining wetland and aquatic/riverine habitats.

4. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☒	☐	☐

Discussion: Implementation of the Closure Plan may temporarily deter wildlife from moving through the Project area.

Impact BIO-9 (Temporary Interference With Wildlife Movement Through the Project Area). Implementation of Closure Plan activities could temporarily deter wildlife movement through the Project area. With implementation of Mitigation Measure BIO-8 (Protective and Replacement Actions for Jurisdictional Wetlands and Waters of the U.S.), fencing would be placed in accordance with the stages of work being implemented in specific areas throughout the Biological Study Area, as feasible, to allow a corridor for wildlife movement along the southern boundary of the Project area. Once construction is complete, the proposed Closure Plan activities would result in an overall long-term improvement in movement opportunities within the Biological Study Area by capping and revegetating the unclosed portion of the North CKD landfill. Therefore, this impact would be **less than significant with mitigation**.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?	☐	☒	☐	☐

Discussion: Implementation of the Project would require approval of a Riparian Exception in order to be consistent with the County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance, as described under 3 above.

Preliminary analysis has determined that the project complies with these findings. With implementation of **Mitigation Measure BIO-8** (Protective and Replacement Actions for Jurisdictional Wetlands and Waters of the U.S.), the project would be consistent with the County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance. Therefore, implementation of the project would be considered **less than significant with mitigation incorporated.**

Implementation of the project would result in removal of approximately 0.44 acre of non-native forest and temporary impacts to 0.10 acre of non-native forest through the proposed Closure Plan activities. This includes up to 3 non-native cypress trees that would not be considered Significant Trees under the Significant Tree Protection Ordinance criteria for projects located outside of the rural services line. Through implementation of the Project, non-native trees and vegetation would be replaced with locally-sourced native vegetation, as discussed in 2 and 3 above. Therefore, the Project would result in an overall benefit to the vegetation within the Biological Study Area, and comply with the Significant Tree Protection Ordinance.

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Discussion: With the exception of the County's Sensitive Habitat Protection and Riparian Corridor and Wetlands Protection ordinances (SCCC 16.30 and 16.32), discussed above under 2 and 5, implementation of the Project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Justification for obtaining a County Riparian Exception was provided above in 2 and 5. Therefore, the impact on federal, state and local natural resources conservation plans would be **less than significant**. No mitigation is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

E. CULTURAL RESOURCES

Would the project:

1. *Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☒	☐	☐

Discussion: The analysis in this section is based on the *Phase I Archaeological Investigations for the Davenport Cement Plant North Cement Kiln Dust Area Closure Plan* (Albion Environmental, 2020) and the *Extended Phase I Archaeological Investigations for the Davenport Cement Plant Final North Cement Kiln Dust Area Closure Plan* (Albion Environmental,2020), prepared by professionally qualified staff with Albion Environmental. As part of this effort, Albion conducted archival research at the Northwest Information Center at Sonoma State University, reviewed records from the California Inventory of Historic Resources and Historic Property Data File for Santa Cruz County, and conducted field surveys of the entire Project area in June 2019.

The proposed three-dimensional Area of Potential Effect (APE) for this Project, as defined by Section 106 of the National Historic Preservation Act (NHPA), is defined as all areas that may experience ground disturbance as a result of excavation and grading, along with ancillary Project elements that include staging of vehicles, equipment, and construction materials. The records search revealed no known cultural resources within the Project APE but seventeen within a half-mile radius, including multicomponent archaeological sites and a series of historic buildings and structures, including the cement plant complex. The results of Albion's pedestrian survey identified no new cultural resources within the APE, either precontact or historic. The historic context of the Cement Plant was also evaluated; and it was found that there are no standing structures in the Project APE older than fifty years, and all aspects of the industrial landscape exhibit evidence of modern maintenance and alteration.

Outside the Project APE and on the cement plant property several structures have been identified as potentially historic. As part of a reuse study five structures were identified as potentially eligible for individual listing on the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and/or Santa Cruz County Historic Resources Inventory (SCCHRI). These buildings include: Administration Building, Powerhouse, Control Room, Roundhouse, and Crocker Hospital. However, none of these structures would be affected by the Project.

The project area was once largely used for agricultural and dairy production, but as early as 1906 was under the ownership of the Santa Cruz Portland Cement Company. The area has a long industrial history supporting the Cement Plant processes and was supported by the

adjacent railroad lines. The area is now bordered by the community of Davenport and agricultural and grazing lands.

Because the eastern edge of the North CKD Area, which was used historically for agricultural purposes, has the appearance of relatively little disturbance over time, Extended Phase I investigations were recommended prior to the implementation of any ground disturbing activities within this area. The purpose of the Phase I investigations is to identify the presence/absence and extent of any buried archaeological deposits that may be impacted by the Project. The Extended Phase I studies were undertaken by Albion Environmental in August 2019 and the report was revised in June 2020 to note the updated records search. The results of these studies found that there are no buried cultural resources within the eastern portion of the North CKD Area.

Based on the results of the studies undertaken by Albion Environmental, impacts to known historical resources are not expected through Project implementation. However, construction activities could result in the disturbance of previously undiscovered or unknown historical resources within the project area. With implementation of **Mitigation Measure CR-1** (Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction), potential impacts to historic resources would be **less than significant with mitigation.**

Mitigation Measure

CR-1 Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction. Prior to the onset of construction activities at the Cement Plant, a qualified archaeologist (who meets the Secretary of the Interior's Professional Qualifications Standards as promulgated in 36 CFR 61 and who has experience with precontact, historic period, and tribal resources) shall be present at the construction site to conduct awareness training. The aware training will inform the construction crew of historic activities that may result in the presence of cultural or historic resources throughout the Project area, and will provide photographic examples of the types of resources that may be found.

- Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be

observed. If previously unknown cultural or historic resources are encountered, an archaeological report must be prepared by a qualified professional archaeologist and no further excavation or development may take place except as authorized by an archaeological site development approval. The archaeologist will work to determine the extent of the materials encountered and develop an appropriate course of action. Such actions may include identifying alternative construction methodologies or the placement of Project materials/structures in alternative locations, with the ultimate goal of providing the ability for the project to move forward while protecting the resources in place.

2. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☒	☐	☐

***Discussion*:** According to the *Phase I and Extended Phase I Archaeological Investigations for the Davenport Cement Plant North Cement Kiln Dust Area Closure Plan*, prepared by professionally qualified staff with Albion Environmental (Albion Environmental, 2020a, 2020b), there is no evidence of pre-historic cultural resources located within or adjacent to the project area. Further, it was found that the Native American Heritage Commission (NAHC) had no information in their files about potential cultural resources in or near the project area, and the reconnaissance level and Extended Phase I surveys conducted by Albion's qualified archeologists had negative results. Therefore, it was determined that the Project area was not considered sensitive for archaeological resources.

Ground disturbing activities, such as grading and excavation, could reveal previously undiscovered resources of significance. Although it is unlikely resources would be discovered because the Project area was previously disturbed through historic Cement Plant operations, there is a possibility of the unanticipated and accidental discovery of archeological resources during ground disturbing project-related activities. With implementation of **Mitigation Measure CR-1** (Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction), potential impacts to unknown resources would be **less than significant with mitigation**.

Mitigation Measure

CR-1: Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction. This mitigation measure is described above.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Discussion: According to the *Phase I and Extended Phase I Archaeological Investigations for the Davenport Cement Plant North Cement Kiln Dust Area Closure Plan*, prepared by professionally qualified staff with Albion Environmental (Albion Environmental, 2020a, 2020b), there is no evidence of human remains located within or adjacent to the Project area. It was found that the Native American Heritage Commission (NAHC) had no information in their files about potential human remains in or near the Project area. Furthermore, reconnaissance and Extended Phase I level surveys were undertaken by qualified archeologists at Albion that also had negative results. Therefore, the Project area has not been determined to be sensitive for cultural resources, including human remains or funerary objects.

Ground disturbing activities proposed through Project implementation could reveal previously undiscovered resources of significance. Although it is unlikely resources would be discovered because the project area has been previously disturbed for Cement Plant operations, there is a possibility of the unanticipated and accidental discovery of human remains during ground disturbing Project related activities. With implementation of **Mitigation Measures CR-2** (Stop Work in the Event of Unexpected Occurrence of Human Remains During Construction), potential impacts to unknown resources would be **less than significant with mitigation**.

Mitigation Measures

CR-2: Stop Work in the Event of Unexpected Occurrence of Human Remains During Construction. If human remains and/or associated/or unassociated funerary objects are discovered during ground disturbing activities, construction crews will stop work and immediately notify the Santa Cruz County Coroner, the Planning Director, and a qualified archeologist, in accordance with applicable local and State laws. In the event that the Coroner determines that the human remains are Native American, the County will notify the Native American Heritage Commission (NAHC) according to the requirements in PRC Section 5097.98. NAHC will appoint a Most Likely Descendent (MLD). A qualified archeologist, County and MLD will make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement will take into consideration the appropriate preservation measures, with the preference to preserve all resources intact and in place. The County will work with RMC Pacific Materials, LLC to develop an alternative pipeline route, or excavate, remove, record,

analyze, take custody of, and finally respectfully dispose of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters.

F. ENERGY

Would the project:

1.	*Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*	☐	☐	☒	☐

Discussion: Implementation of the Project would be responsible for an incremental increase in the consumption of energy resources during construction activities, as discussed in the Project Description. Construction equipment, materials processing, the import and export of soil, and other activities would require the use of fossil fuels, primarily diesel fuel. All project construction equipment would be required to comply with the California Air Resources Board (CARB) emissions requirements for construction equipment, which includes measures to reduce fuel-consumption, such as imposing limits on idling and requiring older engines and equipment to be retired, replaced, or repowered. The Project would not require any unusual construction practices that would require the unnecessary, inefficient, or wasteful consumption of energy. The Project proposes to utilize graded material onsite to the extent possible to minimize fossil fuel consumption from material import. As a result, impacts associated with the temporary increase in consumption of fuel during construction are expected to be less than significant.

Following project implementation, energy use within the project area would remain largely unchanged as the area would remain closed for operation. Therefore, construction and operational impacts on energy resources would be **less than significant**. No mitigation is required.

2.	*Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*	☐	☐	☒	☐

Discussion: The Association of Monterey Bay Area Government's (AMBAG's) 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) recommends policies that achieve statewide goals established by CARB, the California Transportation Plan 2040, and other transportation-related policies and state senate bills. The SCS element of the MTP targets transportation-related greenhouse gas (GHG) emissions in

particular, which can also serve to address energy use by coordinating land use and transportation planning decisions to create a more energy efficient transportation system.

The Santa Cruz County Regional Transportation Commission (SCCRTC) prepares a County-specific regional transportation plan (RTP) in conformance with the latest AMBAG MTP/SCS. The 2040 RTP establishes targets to implement statewide policies at the local level, such as reducing vehicle miles traveled and improving speed consistency to reduce fuel consumption.

In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) focused on reducing the emission of greenhouse gases, which is dependent on increasing energy efficiency and the use of renewable energy. The strategy intends to reduce energy consumption and greenhouse gas emissions by implementing a number of measures such as: reducing vehicle miles traveled through County and regional long-range planning efforts, increasing energy efficiency in new and existing buildings and facilities, increasing local renewable energy generation, improving the Green Building Program by exceeding minimum state standards, reducing energy use for water supply through water conservation strategies, and providing infrastructure to support zero and low emission vehicles that reduce gasoline and diesel consumption.

In addition, the Santa Cruz County General Plan has historically placed a priority on "smart growth" by focusing growth in the urban areas through the creation and maintenance of an urban services line. Objective 2.1 directs most residential development to the urban areas, limits growth, supports compact development, and helps reduce sprawl. The Circulation Element of the General Plan further establishes a more efficient transportation system through goals that promote the wise use of energy resources, reducing vehicle miles traveled, and transit and active transportation options.

Energy efficiency is also a major priority throughout the County's General Plan. Measure C was adopted by the voters of Santa Cruz County in 1990 and explicitly established energy conservation as one of the County's objectives. The initiative was implemented by Objective 5.17 and includes policies that support energy efficiency, conservation, and encourage the development of renewable energy resources. Also, Goal 6 of the Housing Element promotes energy efficient building code standards for residential structures constructed in the County.

As described in the Project Description, the Project primarily involves the grading, closure, and revegetation of the CKD landfill and associated drainage and area improvements. The Project would not involve the construction of any new buildings and would not increase the working or residential population within or adjacent to the Project area. The Project would not result in an increase in VMT in the region following construction, as the Project area would support similar conditions, and would not conflict with the AMBAG 2040 MTP/SCS and the SCCRTC 2040 RTP. VMT throughout construction would be minimized through the use of excavated material onsite for fill rather than importing offsite materials. The Project

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

does not include any new facilities that would be subject to the energy efficiency requirements of Santa Cruz County General Plan, the CAS, CALGreen, the state of California's green building code, or any other energy efficiency standards. Furthermore, a permanent net increase in energy consumption would not occur as a result of the implementation of the Project.

Therefore, the Project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency, and this impact would be **less than significant**. No mitigation is required.

G. GEOLOGY AND SOILS

Would the project:

1.	*Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*				
	A. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*	☐	☐	☒	☐
	B. *Strong seismic ground shaking?*	☐	☐	☒	☐
	C. *Seismic-related ground failure, including liquefaction?*	☐	☐	☒	☐
	D. *Landslides?*	☐	☐	☒	☐

Discussion (A through D): The Project area is located outside of the limits of the State Alquist-Priolo Special Studies Zone or any County-mapped fault zone (County of Santa Cruz GIS Mapping 2016; California Division of Mines and Geology, 2001). The Davenport community is located approximately 10-16 miles southwest of the San Andreas fault zone, and approximately 3 miles east of the offshore San Gregorio fault zone. The U.S. Geological Service has estimated that the San Andreas fault could produce an earthquake of 8.5 magnitude on the Richter scale. The San Gregario fault, a major branch of the San Andreas,

is considered capable of generating earthquakes of magnitude 7.2 to 7.9. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. On October 17, 1989, the Loma Prieta earthquake occurred in the area (magnitude 7.1) and was the second largest earthquake in central California history. This earthquake caused substantial shaking within the Davenport area. Consequently, large earthquakes can also be expected in the future.

A geotechnical investigation for the project was performed by Adams Resource Consultants Company in April 2018 that evaluated the seismic and geologic conditions of the Project area (**Appendix 3, Final Geotechnical Design Report**). The report concluded that the North CKD Area has performed well under significant storm and seismic events since the first CKD deposition, and has shown no signs of significant mass movement or degradation. The steepest portion of the North CKD Area, at the west end, has shown no signs of seepage, sloughing or movement over time. The Project area is also located in an area that is designated as having low potential for soil liquefaction, and it not located in a landslide hazard area (Santa Cruz County GIS Mapping, 2016).

As described in the Project Description, the Project would involve the regrading of the North CKD Area to a 7 percent final slope, the construction of a slope support system, capping the North CKD Area with a LLDPE material, reapplying a minimum of 18 inches of protective cover soil and 6 inches of vegetative soil layer, planting native plant species on the surface of the capped area, and constructing drainage improvements. All project elements have been designed in accordance with recommendations included in the geotechnical investigation that was undertaken for the project (**Appendix 3, Final Geotechnical Design Report**). The geotechnical report was reviewed and accepted by County engineering and geologic staff.

Implementation of the Project would not result in new buildings, nor increase the residential or working population within or adjacent to the Project area. Therefore, the Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving geologic hazards. Therefore, this impact would be **less than significant**. No mitigation is required.

2. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Discussion: Project construction activities would result in the potential for erosion or loss of topsoil from excavation and grading activities required for implementation of the Closure Plan. As stated in the Project Description under Construction BMPs to minimize erosion and loss of topsoil, the construction contractor would be required to prepare and implement a construction Stormwater Pollution Prevention Plan to be included in the application for a County grading permit, in accordance with the *County of Santa Cruz Construction Site*

Stormwater Pollution Control BMP Manual, Section 7.79.100 (October 2011 edition), and in accordance with the requirements of the State of California National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. This plan would include standard BMPs to minimize erosion from the site (e.g. placement of straw wattles, placement of jute netting). Following the implementation of the Closure Plan, all soils would be replaced and revegetated with native vegetation, as described the Project Description under North CKD Area, to return the entire project area to pre-project or better conditions. Therefore, the potential for substantial soil erosion or loss of topsoil would be **less than significant.** No mitigation would be required.

3.	*Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*	☐	☐	☒	☐

Discussion: Following a review of information mapped by Santa Cruz County (Santa Cruz County GIS Mapping, 2016) and the California Geological Survey (California Department of Conservation, 2015), the Project geotechnical report (**Appendix 3, Final Geotechnical Design Report)**, and a field visit to the Project area, there is no indication that implementation of the Closure Plan within the relatively flat portions of the Project area would contribute to any landslides, lateral spreading, subsidence, liquefaction or collapse of soils or local geologic units. Implementation of the Project would also not create cut or fill slopes that could be unstable.

As described in the Project Description, the canyons that were once present in the Project area have been filled with CKD, and the CKD level has reached the elevation or risen above the adjacent terrain. As a result, the Project area that would be subject to grading is relatively flat in nature, and the majority of the CKD grading would be less than 13 percent, with the exception of the southwest boundary of the North CKD Area (**Appendix 1**, **Closure Plan**). The southwest boundary of the North CKD Area rises approximately 150 feet at an average angle of 45 degrees. The proposed Project includes the construction of a shotcrete supporting wall with grouted soil nails to support the southwestern slope of the CKD Area, which would reduce on-site landslide risk (**Appendix 1, Closure Plan, Appendix 3, Final Geotechnical Design Report**).

Therefore, impacts related to Project construction that may cause or increase geologic instability would be **less than significant**. No mitigation is necessary.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. *Be located on expansive soil, as defined in section 1803.5.3 of the California Building Code (2016), creating substantial direct or indirect risks to life or property?*	☐	☐	☒	☐

Discussion: The proposed project is underlain with artificial fill, channel sands and gravels, marine terrace deposits, Santa Cruz Mudstone, and Santa Margarita Sandstone (**Appendix 3**, **Final Geotechnical Design Report**). While the channel sands and gravel and marine terrace deposits have a relatively high permeability, the Santa Cruz Mudstone is relatively impermeable. Though portions of the project area have been mapped to have expansive soils (Santa Cruz County GIS Mapping), the geotechnical investigations undertaken for the Project did not identify any elevated direct or indirect risks associated with expansive soils. Additionally, the expansive soils within the Project area have been taken into consideration in the design of the Closure Plan activities through the use of the LLDPE liner that would be used to cap the North CKD Area. The LLDPE liner is very flexible and elongates under stress (**Appendix 3, Final Geotechnical Design Report**). Furthermore, the proposed Project would not result in the construction of any permanent buildings that would be at risk from expansive soils, and therefore would not pose a substantial direct or indirect risk to life or property. Therefore, this impact would be **less than significant**. No mitigation is required.

5. *Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*	☐	☐	☐	☒

Discussion: There are no septic tanks, leach fields, or alternative waste water disposal systems proposed as part of or affected by the Project. The Project area would continue to convey the limited sewage produced on site through the current collection system in accordance with the requirements of the Santa Cruz County Sanitation District, and conditions would remain unchanged through implementation of the Project. Therefore, there would be **no impact**.

6. *Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?*	☐	☒	☐	☐

Discussion: Paleontological resources are located within geologic deposits or bedrock that underlie the soil layer. Throughout Santa Cruz County, areas that are considered sensitive for paleontological resources have been mapped (Santa Cruz County GIS Mapping, 2016). To develop this map, a review of relevant scientific literature was undertaken, in addition to a review of local museum records. This information was then evaluated in conjunction with

the local geography to identify valuable paleontological and geologic resources that are known to exist, or are likely to be present, throughout the County. Throughout this process, seven areas were identified as supporting, or being likely to support, rare or unique paleontological or geologic resources. These areas are all located within the northern portion of the County, the closest of which are in the marine terraces that separate the City of Santa Cruz from the Davenport Community (Santa Cruz County GIS Mapping, 2016). Because the Project area is not located within or adjacent to an area that has been identified as supporting paleontological or geologic resources, or characteristics in which paleontological or geologic resources may occur, ground disturbing activities are not expected to disturb these resources.

Ground disturbing activities proposed through Project implementation could reveal previously undiscovered paleontological or geological resources of significance. Although it is unlikely resources would be discovered because the Project area has been previously disturbed, there is a possibility that unanticipated and accidental discovery of paleontological resources or unique geologic features during ground disturbing project related activities could occur. Through implementation of **Mitigation Measure GEO-1** (Stop Work in the Event of Unexpected Paleontological Resources or Unique Geological Features During Construction), the impacts to unknown resources would be **less than significant with mitigation.**

Mitigation Measure

GEO-1: Stop Work in the Event of Unexpected Paleontological Resources or Unique Geological Features During Construction. If paleontological resources or unique geologic features are discovered during soil-disturbing activities, the construction crew will stop work and immediately notify the County Planning Director and a qualified paleontologist. The procedures established in Santa Cruz County Code Section 16.44.070, shall be observed. A paleontological resource or fossil is any evidence of ancient life preserved in a geologic context (e.g., leaves, bones, teeth, shells). A paleontologist will inspect the discovery and determine whether further investigation is required. If the discovery can be avoided, no further mitigation will be required. If the resource cannot be avoided, the qualified paleontologist will evaluate the resource and determine whether it meets the definition of "unique". If the resource is determined to not be unique, work may continue in the area. If the resource is determined to be unique, work will remain halted, and a preservation or recovery plan will be prepared. Preservation in place is the preferred protective measure. If preservation in place is not possible, resources and/or fossils will be recovered, prepared, identified, catalogued and analyzed according to current professional standards under the direction of the qualified paleontologist. Work may commence at the time of completion of the treatment. A final summary report will be completed and submitted to the County. The report will include a discussion of

the methods used, stratigraphy exposed, fossils collected, and the significance of the recovered fossils. The report will also include an itemized inventory of all the collected and catalogued fossil specimens.

H. GREENHOUSE GAS EMISSIONS

Would the project:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☐	☐	☒	☐

Discussion: Implementation of the Project would generate greenhouse gas (GHG) emissions by usage of fossil fuels during the site grading and construction activities. In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under Assembly Bill (AB) 32 legislation. The strategy intends to reduce GHG emissions and energy consumption by implementing measures such as reducing vehicle miles traveled through the County, implementing regional long-range planning efforts, and increasing energy efficiency in new and existing buildings and facilities. In accordance with the CAS, all Project construction equipment would be required to comply with the CARB emissions requirements for construction equipment.

In order to implement the CAS, Monterey Bay Community Power (MBCP) was formed in 2017 to provide carbon-free electricity to the County. All PG&E customers in unincorporated Santa Cruz County were automatically enrolled in the MBCP in 2018, including the Project area. Implementation of the Closure Plan would not change the operational use of electricity following Project construction activities.

At the state level, the CARB 2017 Scoping Plan establishes a framework of action for California to reduce statewide emissions to achieve the statewide emissions reduction goals of AB 32, S-3-05, and SB 32 (CARB, 2017). The 2017 Scoping Plan Update states that achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. The CARB recognizes that achieving no net increase in annual ongoing GHG emissions would demonstrate that a project is not participating in climate change impacts. As such, it is reasonable to assume that a project that would not result in on-going annual operations would not result in significant GHG emissions.

Neither the County of Santa Cruz nor MBARD have established a numeric threshold for screening impacts related to GHG emissions. However, a threshold of 900 MT CO2e (annual operational emissions) is recommended by the California Air Pollution Control Officers Association (CAPCOA) (CAPCOA 2008), and a threshold of 1,100 MT CO2e (annual

operational emissions) was adopted by neighboring air districts, including the Sacramento Metropolitan Air Quality Management District, as referenced in the 2017 Scoping Plan (CARB 2017b), and the Bay Area Air Quality Management District (BBAQMD 2017). These bright-line thresholds address the state's long-term emissions reduction goals by determining a screening level under which a project would not be considered to hinder the state's ability to meet long-term goals. Bright-line thresholds are typically intended to screen out smaller projects with relatively minimal emissions so that the vast majority (typically 90 percent) of total future development would be subject to mitigation or project features that would reduce GHG emissions compared to business-as-usual emissions, and consistent with GHG reduction goals (CAPCOA 2008). Although these thresholds do not specifically address construction emissions or the contribution of emissions in Santa Cruz County to the statewide goals or the goals of the CAS, these screening levels provide a reasonable proxy for screening Project impacts related to AB 32 GHG reduction goals.

The total GHG emissions estimated for project construction were estimated by the CalEEMod model, consistent with the assumptions of the air quality analysis described above in Section C. Modeling does not take into account the Construction Best Management Practices included in the Project Description requiring limitations on idling and properly maintained equipment, which would also reduce GHG emissions. See **Appendix 10, Air Emissions Assumptions and Model Output** for detailed model input and output. Estimated emissions are provided in **Table 6.**

As shown in **Table 6**, the proposed Project would result in a total of 1,487 MT CO2e over the duration of construction activities within the Project area. Emissions would occur over two six-month construction seasons, so that annual construction emissions are calculated to be 741 MT CO2e in the first season and 746 MT CO2e in the second season. The Project would be responsible for a temporary increase in GHG emissions over two years by the usage of fossil fuels during construction. However, annual construction emissions would not exceed annual emissions thresholds recommended by CAPCOA or neighboring air districts for on-going operational impacts. Following construction, the Project would not include any components that would generate GHG emissions, and there would be no operational impacts. The Project would have no impact on vehicle miles traveled or energy use in the County, as operational maintenance trips would be similar or reduced compared to existing conditions. Therefore, the Project would not result in any on-going net increase in annual GHG emissions, and would also be consistent with guidance from the Scoping Plan. This impact would be **less than significant**, and no mitigation is required.

Table 6. Estimated Total Construction GHG Emissions	
Construction Phase	**Emissions ($MTCO_2e$)**
Construction Year 1	
Site Preparation	87
Retention Pond Construction	69
Mass Grading CKD	276
Liner/Cap Installation/Import[1]	309
Total Construction Year 1	***741***
Construction Year 2	
Shotcrete Wall Construction	147
Drainage Improvements	124
Seasonal Pond Construction	67
North Pond GCL	66
Initial Liner Installation	32
Liner/Cap Installation and Import	619
Total Construction Year 2	***746***
Total for All Phases	**1,487**

[1] Liner/cap installation and import would occur during construction seasons. Total emissions are divided between seasons.

Source: CalEEMod Version 2016.3.2. Emission quantities are rounded to the nearest whole number. Exact values are provided in **Appendix 10, Air Emissions Assumptions and Model Output.**

Definition: $MTCO_2e$ = Metric tons of carbon dioxide equivalents

2. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?* ☐ ☐ ☒ ☐

Discussion: See the discussion under H-1 above. The Project would not result in an increase in on-going annual GHG emissions. Therefore, the project is not anticipated to conflict with the CAS, statewide emissions reduction goals (AB 32, S-3-05, and SB 32), or any other applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The impact would be **less than significant**. No mitigation is required.

I. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1. *Create a significant hazard to the public or the environment through the routine* ☐ ☐ ☒ ☐

transport, use, or disposal of hazardous materials?

***Discussion*:** The project would not create a significant hazard to the public or the environment.

The existing liner that caps the North CKD Area has been damaged through ultraviolet degradation and wind damage (**Appendix 7**, **Water Board Waste Discharge Requirements**). As described in the Project Description, the Project would involve the closure of the CKD landfill located in the North CKD Area. This would involve installing a new LLDPE liner to cap the CKD sediment from entering the environment, and improvements to the on-site drainage system and Retention Pond to protect water quality.

Implementation of the Project would result in the removal of the topsoil that currently covers the CKD sediment in the North CKD Area, and this material would be relocated to the Temporary Stockpile Area located south of the North Pond (**Figure 3**). The Temporary Stockpile Area would be lined so that no soil would be transported into nearby water bodies or drainages.

In the Retention Pond and Coal Storage Area, the excavation and relocation of the CKD sediment, debris, and residual coal (**Figure 3**) would involve the transport of hazardous materials within the Project area. However, the materials placed in the Coal Storage Area would be covered throughout transportation and while stored during the rainy season to minimize the transport of the materials off-site. These materials would be later mixed in with the CKD sediment and capped under the LLDPE liner for containment. As described in the Project Description under Construction BMPs and in Section G, Geology and Soils, BMPs required to obtain the Project grading permit would be implemented and include provisions for erosion control to ensure that hazardous materials do not enter adjacent waterways and/or drainages (e.g. silt fencing, location away from waterways).

Throughout construction activities, fuel would be used to power construction vehicles and equipment to implement Closure Plan activities. Refueling would be limited to the staging area to minimize potential impacts into local waterways and drainages (**Figure 3**). BMPs to protect water quality are included in the Project Multi Season Construction Wet Weather Preparedness Plan (**Appendix 4**) and the erosion control design drawing (**Appendix 8**, Sheets E1 and E2). BMPs include requirements for equipment and vehicle maintenance, materials storage, and other construction practices which could result in the inadvertent release of fuel, motor oil, and other hazardous fluids and materials. Measures to ensure proper disposal of construction and demolition waste and other debris containing hazardous materials are also included. BMPs would be selected to represent the best available technology that is economically achievable, subject to review and approval by the County.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Following the implementation of the Closure Plan, the Project would not involve the routine transport or disposal of hazardous materials. Protective measures have been built into the project design and construction specifications, which would minimize potential impacts to the public and environment from the release of hazardous materials, as discussed above. Therefore, impacts from hazardous materials transport or storage would **be less than significant.** No mitigation is required.

2.	*Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*	☐	☐	☒	☐

Discussion: See discussion under I-1 above. The Project has been designed in compliance with the Regional Water Quality Control Board's Waste Discharge Requirements (**Appendix 7, Water Board Waste Discharge Requirements**) that includes the development of a stormwater pollution control plan. Furthermore, BMPs included in the Project Multi Season Construction Wet Weather Preparedness Plan (**Appendix 4**), erosion control design drawing sheets (**Appendix 8**) and the Project Dust Mitigation Plan (**Appendix 5, Dust Mitigation Plan**) would further minimize the potential release of hazardous materials. Therefore, the Project would not create a significant hazard to the public or environment through the release of hazardous materials into the environment, and this impact would **be less than significant**. No mitigation is required.

3.	*Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*	☐	☐	☒	☐

Discussion: Pacific Elementary School is located at 50 Ocean Street, Davenport, California 95017, approximately 0.25 miles to the south of the southern boundary of the Project area. Although the Project area is located within one-quarter mile of an existing school, the North CKD Area, where the majority of grading and construction activities are proposed, is located approximately 0.4 miles north of the school.

As described in I-1 above, all project construction activities, including the movement and storage of CKD material would occur within the Project area, would require hazardous materials limiting and erosion control BMPs, as discussed above. Following the implementation of Closure Activities, the Project area would be similar in nature to existing conditions; and no additional hazardous materials, substances, or waste would be introduced

to the Project area. Therefore, this impact would be **less than significant**. No mitigation is required.

4.	*Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*	☐	☐	☒	☐

***Discussion*:** The Project area is included on the July of 2019 list of hazardous sites in Santa Cruz County compiled pursuant to Government Code Section 65962.5. The Cleanup Program Site listed is CEMEX Davenport Cement Plant, Case #RO0000356. The purpose of the Project Closure Plan is to remediate the Project area and to improve conditions throughout the Project area, so that the site would not result in any ongoing degradation of the environment through the release of hazardous materials onsite or offsite. Therefore, this impact would be **less than significant**. No mitigation is required.

5.	*For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*	☐	☐	☐	☒

***Discussion*:** The Project area is not located within two miles of a public airport or public use airport. Therefore, there would be **no impact** on an airport land use plan.

6.	*Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☒	☐

***Discussion*:** The proposed Project would not conflict with the implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2015-2020 (County of Santa Cruz, 2015). During project construction, slow-moving construction vehicles could delay or obstruct the movement of emergency vehicles along Highway 1 on the North Coast of Santa Cruz County. However, construction equipment and materials would be stored onsite, and would not require regular trips to and from the Project area. Therefore, the minimal increase in construction equipment along Highway 1 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be **less than significant**. No mitigation is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
7. *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*	☐	☐	☒	☐

Discussion: The Project area is not located within an area that has been identified as a Santa Cruz County Critical Fire Hazard Area or a state-designated High or Very High Fire Hazard Severity Zone (Santa Cruz County GIS 2016). Implementation of the Project would not involve the construction of any permanent buildings, and the Project area would remain closed to the public. Furthermore, the Project would not result in a change to the natural environment within or within the general vicinity of the Project area. Therefore, the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, this impact would be **less than significant**. No mitigation is required.

J. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*	☐	☐	☒	☐

Discussion: The Project area includes No-Name Creek, North Pond, Seasonal Ponds (C and D), and a Retention Pond. The Project area is also located approximately 0.5 mile south of Agua Puera Creek and approximately 0.5 mile north of San Vicente Creek. The purpose of the Project is to improve the conditions within the Project area to ensure that the CKD and related hazardous materials are capped and contained to ensure that water bodies and drainages within and adjacent to the Project area are not contaminated by these materials. Though the Project has the potential to generate temporary water quality impacts throughout the implementation of construction activities, the Project has been designed in compliance with the Water Board's Waste Discharge Requirements (**Appendix 7, Water Board Waste Discharge Requirements**) that includes an erosion control plan, as required per section 16.22.060 of the SCCC. BMPs included within the erosion control plan would minimize impacts to water bodies and drainages within and adjacent to the Project area. Refer to the Project Description (Construction BMPs) and Section G, Geology and Soils.

Implementation of the Project Closure Plan would result in the ground disturbance of more than one acre of land and, therefore, would be regulated under the Clean Water Act through the National Pollutant Discharge Elimination System (NPDES) stormwater program, which requires compliance with the Construction General Permit. This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP)

which includes a description of the Project area, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls.

The Project area includes 15 groundwater monitoring wells associated with the North CKD Area, and two existing groundwater monitoring wells (PZ-15/MW1 and PZ-17) were installed to investigate downgradient groundwater impacts and to monitor the effectiveness of closure activities at the Retention Pond and North CKD Area. Wells would be monitored throughout Project construction and after completion to ensure Project activities do not lead to the contamination of groundwater (**Appendices 1 and 7, Closure Plan and Water Board Waste Discharge Requirements**). It is anticipated that the removal of the residual coal and CKD sediments and capping of the North CKD Area would substantially remove source materials that may cause groundwater degradation.

Implementation of the Project in accordance with the Closure Plan would result in an overall improvement to runoff and surface water quality, and groundwater quality would be monitored to ensure that water quality continues to improve over time as hazardous materials are further contained within the Project area. Therefore, this impact would be **less than significant**. No additional measures or mitigation are required.

2. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*	☐	☐	☒	☐

Discussion: The Project area has not been identified as a groundwater recharge area or water supply watershed as mapped by Santa Cruz County GIS Mapping (Santa Cruz County 2016). However, monitoring data shows that groundwater exists at approximately 5 to 25 feet below the ground surface within the Project area, moving between the channel sands and gravels, marine terrace deposits, and Santa Cruz Mudstone (**Appendix 7, Water Board Water Discharge Requirements**). Surface inflow and subsurface inflow recharge shallow groundwater near the North CKD Area. As described in J-1 above, the Project includes both construction and post-construction groundwater monitoring to ensure the Project does not contribute to contaminated groundwater.

As described in the Project Description, the Project would involve the excavation, grading, relining, and the planting of a vegetative cover on top of the CKD landfill, as well as the removal of residual coal from the Coal Storage Area, the removal of CKD sediments from the Retention Pond, Seasonal Pond enhancements, and drainage improvements. The liner for the North CKD Area would be an impermeable LLDPE material that would reduce the risk of

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

CKD contaminates leaching from the landfill into the groundwater. The proposed drainage improvements would also redirect water away from the North CKD Area that would protect groundwater from contamination via polluted surface run-on or runoff.

Although water would be sprayed from a water truck for dust suppression during construction, water spraying would be minimal as applying too much water may create mud that could be tracked out onto public roadways (**Appendix 5, Dust Mitigation Plan**)[3]. The water used for dust suppression would not be sourced from onsite groundwater. The construction contractor would obtain water from existing available sources. Aside from the temporary use of water for dust suppression, water use at the site would not change compared to existing conditions.

Implementation of the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Furthermore, implementation of the Project would improve both surface and groundwater quality, thereby resulting in a benefit to groundwater within the greater region surrounding the Project area. Therefore, this impact would be **less than significant**. No mitigation is required.

3.	*Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*	☐	☐	☒	☐
	A. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	B. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
	C. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial	☐	☐	☒	☐

[3] Estimates of water truck use for dust suppression during grading, earthmoving and revegetation phases are up to 32,000 gallons per day, based on: Water truck in use up to 8 hours per day, with up to 4,000 gallons per load, and average of 1 load per hour.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
additional sources of polluted runoff; or;				
D. impede or redirect flood flows?	☐	☐	☒	☐

Discussion: Implementation of the Project would include the grading of the North CKD Area to a 7 percent final slope, relining of the North CKD Area with an impermeable LLDPE liner, planting native vegetation over 26 inches (minimum) of soil on top of the liner, and implementing drainage improvements to protect water quality on and off-site (**Figure 3**).

The drainage improvements would prevent runoff from infiltrating and pooling near the North CKD Area. The Project would also install a 42-inch bypass pipe between the North Pond and No-Name Creek east of the North CKD Area to reroute surface water flows away from the North CKD Area, and was designed to withstand a 1,000-year 24-hour storm event (**Figure 3 and Appendix 2, Stormwater Hydraulic Analysis**). Ongoing inspection and maintenance would ensure that water is transmitted away from the CKD landfill. The proposed LLDPE liner/cap would not substantially increase the amount of impervious surfaces within the Project area as to increase the amount of surface runoff, as the liner would be covered with native soil and revegetated with native vegetation to allow water infiltration and movement throughout the Project area.

The Project Closure Plan was developed in accordance with the Project Hydraulic Analysis (**Appendix 2, Stormwater Hydraulic Analysis**), Wet Weather Preparedness Plan (**Appendix 4, Multi-Season Construction Wet Weather Preparedness Plan**), and Water Board Requirements (**Appendix 7, Water Board Waste Discharge Requirements**) that include details that have been included in the Project design and specifications to minimize erosion, sedimentation and water quality impacts. The Hydraulic Analysis (**Appendix 2, Stormwater Hydraulic Analysis**) also modeled a 24-hour, 1,000-year storm event, for which the Project was designed to convey flows without resulting in flood conditions within or adjacent to the Project area. All proposed improvements to Project area water bodies and drainages would improve both water quality and flooding conditions following project implementation. Therefore, this impact would be **less than significant**. No mitigation is required.

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Discussion: According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated September 29, 2017, a portion of the project Area lies within the 500-year flood hazard zone. However, the Project was designed to convey a 24-hour, 1,000-year storm event, as analyzed in the Stormwater Hydraulic Analysis Report (**Appendix**

2, Stormwater Hydraulic Analysis), and would be constructed to withstand that event as required by CCR Title 27. The project would also meet the minimum flood plain management standards of the National Flood Insurance Program and the minimum flood plain design criteria in County Code section 16.10.070(F)(3). Therefore, implementation of the Project would not result in an increase in flood hazards.

There are two primary types of tsunami vulnerability in Santa Cruz County. The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2013).

A greater risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County could arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher causalities than if it were a distant tsunami (County of Santa Cruz 2013).

The Project area is not located within a Tsunami Wet Area as identified by County of Santa Cruz GIS Mapping (Santa Cruz County GIS 2016). The southwestern boundary of the Cement Plant is located approximately 0.10 miles inland of the Pacific Ocean, outside of the area that has been mapped for potential inundation by a tsunami. Furthermore, the majority of Project Closure Plan activities would occur within the northern section of the Project area, further in distance and elevation from the Pacific Ocean. The existing topography generally slopes to the west, with elevations within the Project Area ranging from approximately 100 feet at the Retention Pond to approximately 300 feet along the North Pond Bypass Pipe (**Figure 3**). Implementation of the Project would not result in a change in topography within the Project area that would increase risks associated with tsunamis.

Seiches are recurrent waves oscillating back and forth in an enclosed or semi-enclosed body of water. They are typically caused by strong winds, storm fronts, or earthquakes. The Project area supports a retention pond and seasonal ponds (C and D) that support permanent standing water (**Figure 3**). Through implementation of the Project, these features would remain intact, and Project area related impacts from seiches would remain similar to existing conditions.

Implementation of the Project would not include the construction of any permanent buildings and would not increase the residential or working population within or adjacent to the Project area. The Project would also improve the stability of the CKD landfill that would improve the potential for the Project area to not release hazardous materials into the

environment in the event of a flood, tsunami or seiche. Therefore, this impact would be **less than significant.** No mitigation is required.

5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion: Santa Cruz County water agencies are experiencing a lack of sustainable water supply due to groundwater overdraft and diminished availability of streamflow. Because of this, coordinated water resource management has been of primary concern to the County and to the various water agencies. As required by state law, each of the County's water agencies must update their Urban Water Management Plans (UWMPs) every five years, with the most recent updates completed in 2016.

County staff are working with the water agencies on various integrated regional water management programs to provide for sustainable water supply and protection of the environment. Effective water conservation programs have reduced overall water demand in the past 15 years, despite continuing growth. In August 2014, the Board of Supervisors and other agencies adopted the Santa Cruz Integrated Regional Water Management (IRWM) Plan Update 2014, which identifies various strategies and projects to address the current water resource challenges of the region. Other efforts underway or under consideration are stormwater management, groundwater recharge enhancement, increased wastewater reuse, and transfer of water among agencies to provide for more efficient and reliable use.

The County is also working closely with water agencies to implement the Sustainable Groundwater Management Act (SGMA) of 2014. Groundwater Sustainability Plans have been developed for two basins in Santa Cruz County that are designated as critically overdrafted: the Santa Cruz Mid-County and Corralitos - Pajaro Valley. These plans will require management actions by all users of each basin to reduce pumping, develop supplemental supplies, and take management actions to achieve groundwater sustainability by 2040. A management plan for the Santa Margarita Basin will be completed by 2022, with sustainability to be achieved by 2042.

Since the sustainable groundwater management plan is in development, the Project would comply with SCCC Chapters 7.69 (Water Conservation), 7.70 (Water Wells), 7.71 (Water Systems) section 7.71.130 (Water use measurement and reporting), and 13.13 (Water Conservation – Water Efficient Landscaping) to ensure that it would not conflict with or obstruct implementation of current water quality control plans or sustainable groundwater management plans, such as the Santa Cruz County IRWMP and UWMP. Compliance with the SCCC would be achieved through adherence to the specifications of the Project Closure

Plan that has been developed to protect and enhance water quality within, and within the general vicinity of, the Project area.

The Project area is not located within or in close proximity to a groundwater basin mapped by Santa Cruz County (Santa Cruz County GIS Mapping 2016). Additionally, the proposed Project is anticipated to improve the quality of the regional groundwater by improving drainage in and from the North CKD Area to minimize pollutants within the water flowing from the Project area. Throughout implementation of the Project Closure Plan and following the completion of all construction activities, the Cement Plant would not require groundwater and would not conflict with or obstruct implementation of current water quality control plans or sustainable groundwater management plans. Therefore, this impact would be **less than significant**. No mitigation is required.

K. LAND USE AND PLANNING

Would the project:

1.	*Physically divide an established community?*	☐	☐	☐	☒

Discussion: The Project area supports the former Cement Plant clean-up and closure activities and is not open to the public. Implementation of the Project does not include any elements that would physically divide the existing Davenport community, located adjacent to the Project area. Furthermore, the Project does not include the addition of any barriers or changes in local roadways. Therefore, there would be **no impact**.

2.	*Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*	☐	☐	☒	☐

Discussion: The Project area is located within unincorporated Santa Cruz County, north of the Davenport community, within the Coastal Zone. The area is zoned for Commercial Agriculture (CA) and Heavy Industrial-Historic Landmark (M-2-L) and supports the Cement Plant facilities. The Project area is not open to the public and does not support any public roadways.

Implementation of the Project would not change the overall land uses within the Project area, and would implement the Closure Plan for the Cement Plant that would permanently contain hazardous materials onsite (CKD, coal) and divert surface flows from within the Project area away from the CKD landfill site that would contain these materials (**Figure 3**).The Santa Cruz County General Plan land use and zoning plans, policies and regulations allow for the

remediation of hazardous materials sites and for improvements to water quality (Santa Cruz County General Plan, Chapters 6, 7 and 13, 1994).

Implementation of the Closure Plan would result in impacts to riparian vegetation, as discussed in Section D-5. General Plan Policy 5.2.3 (Activities Within Riparian Corridors and Wetlands) states: "Development activities, land alterations and vegetation disturbance within riparian corridors and wetlands and required buffers shall be prohibited unless an exception is granted per the Riparian Corridor and Wetlands Protection ordinance". Implementation of **Mitigation Measure BIO-6** (Construction Related Protective and Replacement Measures for Coastal Scrub Habitat) and **Mitigation Measure BIO-7** (Construction Related Protective and Replacement Measures for Arroyo Willow Scrub Habitat) would minimize these impacts to a less than significant level. Furthermore, the Project would comply with requirement to obtain a County exception prior to the onset on ground disturbing activities.

It is anticipated that the Project Closure Plan, in conjunction with Project BMPs and Mitigation Measures, would not conflict with any land use policies or regulations that would result in significant impacts. Therefore, this impact would be **less than significant**. No additional mitigation is be required.

L. MINERAL RESOURCES

Would the project:

1.	*Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*	☐	☐	☐	☒

Discussion: The Cement Plant was active from 1906 to 2010 where plant operations included using limestone obtained from nearby limestone quarries (offsite) to create cement. The proposed Project includes the closure of the North CKD Area, where the majority of the CKD byproduct was stored through plant operation. The Project area is highly disturbed and does not contain any known mineral resources that would be of value to the region and the residents of the state (Santa Cruz County GIS 2016). Therefore, there would be **no impact** on the availability of known regional mineral resources.

2.	*Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*	☐	☐	☐	☒

Discussion: The Project area is zoned Commercial Agriculture (CA) and Heavy Industrial-Historic Landmark (M-2-L), which are not considered to be Extractive Use Zones (M-3). The Project area also does not have a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, implementation of the Project would not result in the loss of availability of

a locally-important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan. There would be **no impact**.

M. NOISE

Would the project result in:

1.	*Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*	☐	☐	☒	☐

Discussion: Implementation of the Project is required pursuant to the Water Board Order and would improve the conditions within the Project area by permanently capping and containing hazardous materials (CKD and coal) and improving overall water quality conditions.

The existing ambient noise environment in the immediate project vicinity is defined primarily by local and distant traffic along Highway 1 and activity in the nearby town of Davenport. Currently, there is very little activity occurring at the Project site. The cement facility is no longer in operation and thus no longer contributes significantly to ambient noise.

There are no Project components that would produce a permanent increase in noise throughout the Project area. However, the Project would result in short-term construction-related noise increases in the immediate vicinity of Project area. The closest sensitive receptors are residences located in the New Town neighborhood approximately 0.25 mile to the northwest and in the community of Davenport 0.3 mile to the southeast of the Project area. Although construction in the Project area would occur over a two-year period, construction equipment would be used at various locations throughout the Project area and would largely go dormant throughout the rainy seasons (October 15th – April 15th). Additionally, a substantial buffer of distance exists between construction activity that would occur in the Project boundary and the property parcel boundaries (**Figure 4**). For example, the North CKD Area, where the majority of grading activity would occur, is approximately 0.25 mile (1,230 feet) from the nearest off-site receptor.

Throughout construction activities, the Project would have the potential to result in short-term noise impacts primarily from the operation of heavy construction equipment to excavate and grade the Project area. As stated in the Project Description under Construction BMPs, construction activities associated with the Closure Plan would occur during the daylight hours. In accordance with County Code 13.12 Noise Planning construction activities may occur outside of normal construction hours of 8:00 a.m. and 5:00 p.m. on weekdays with

approval in advance from the Building Official. It is anticipated that grading and construction activities may occur during daylight hours starting at 7:00 a.m. and continue no later than 7:00 p.m., and on Saturdays between 9:00 a.m. and 5:00 p.m. and no more than three Saturdays per month. Such activities could also occur on Sunday or a federal holiday with approval in advance from the Building Official.

Construction equipment that may be required during Project construction includes: crane, forklift, welder, generator, compactor, rock crushing/processing equipment, excavator, grader, dozer, scraper, loader/backhoe, roller, trucks and water pump.

The construction activity that would require the most construction equipment would be earthwork associated with the installation of the cap. A total of thirteen pieces of equipment are anticipated during this phase, including: crane, forklift, welder, generator, grader, dozer, truck, and two each of excavators, scrapers, and loader/backhoes.

The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to estimate worst-case construction noise. Reference noise levels available from RCNM for relevant equipment are provided in **Table 7**. A reference noise level is not available in RCNM for a forklift. Operation of a forklift is conservatively represented by a grader in Project modeling.

Table 7. Maximum Noise Generation of Construction Equipment

Equipment Type	Estimated Noise Level (Lmax) at 50 feet, dBA
Compactor	83.2
Crane	80.6
Dozer	81.7
Excavator	80.7
Generator	80.6
Grader	85.0
Loader	79.1
Roller	80.0
Scraper	83.6
Truck	74.3
Water Pump	80.9
Welder	74.0
Source: FHWA Roadway Construction Noise Model Version 1.1	

The noise level from operation of the largest required construction fleet is estimated to be 88.6 dBA at 50 feet from the construction area (**Appendix 11, Noise Modeling Results**) (Harris 2019b). Although this exceeds the 60 dBA standard established through the Noise Planning

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

(SCCC 13.12) ordinance, the Project area is not located adjacent to residences or sensitive receptors, and the nearest are approximately 0.25 mile northwest and 0.3 mile southeast from the grading site. The dB level of a sound decreases (or attenuates) as the distance from the source of that sound increases. For a point source such as mechanical equipment, the sound level normally decreases by approximately 6 dBA for each doubling of distance from the source. At the nearest receptor from the North CKD Area (approximately 1,230 feet), construction noise levels would be reduced to approximately 61 dBA (**Appendix 11**). The 60 dBA standard in the ordinance applies to permanent noise impacts from a project. The noise impacts from construction activities associated with this project would be temporary. Construction noise sources would be largely mobile and not at the closest point to the nearest sensitive receptor all the time and most of the time would be further away. In addition, intervening vegetation and varying topography will further reduce noise impacts under some project construction circumstances. Therefore, implementation of the Project would not violate the County Noise Ordinance.

The Santa Cruz County General Plan Policy 6.9.7 requires mitigation measures to be implemented throughout construction activities to minimize noise impacts on adjacent land uses, as a condition of future project approval. As described in the Project Description under Construction BMPs, construction activities involving heavy equipment would be conducted during daylight hours between the hours approved by the Building Official; and construction equipment has standard sound-control devices and mufflers and is maintained in accordance with manufacturer specifications. These measures would minimize construction-related noise impacts on adjacent residences.

With implementation of the construction BMP, this impact would be **less than significant.** No additional mitigation is required.

2. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Discussion: Implementation of the Project would require the use of construction and grading equipment that would potentially generate periodic vibration within the Project area. However, high impact equipment associated with pile driving or blasting is not required for implementation of the Project Closure Plan. According to Caltrans, in most cases, vibration induced by typical construction equipment does not result in adverse effects on people or structures (Caltrans 2013). The nearest sensitive receptors (residences) are located 0.25 mile northwest and 0.3 mile southeast of the proposed grading site within the Project area (**Figure 3**). Due to the distance between the grading site and sensitive receptors, and because only typical construction equipment would be required for implementation of the Project, it is not anticipated that any residences or other community buildings would be subject to

groundborne vibration because of the Project, and no damage would occur. Therefore, this impact would be **less than significant**. No mitigation is required.

3.	*For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*	☐	☐	☐	☒

Discussion: The Project area is not in the vicinity of a private airstrip or within two miles of a public airport. Therefore, implementation of the Project would not expose people working in the Project area to excessive noise levels. There would be **no impact.**

N. POPULATION AND HOUSING

Would the project:

1.	*Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*	☐	☐	☐	☒

Discussion: Implementation of the Project would not induce substantial population growth in the Project area because the Project Closure Plan does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in the Project area. The Project area is closed to the public, and project implementation would result in the permanent capping of hazardous materials (CKD and coal) and improvements to local water quality. Therefore, the Project would not substantially induce population growth, either directly or indirectly. There would be **no impact**.

2.	*Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The Project area is closed to the public, and Project implementation would result in the permanent capping of hazardous materials (CKD and coal) and improvements to water drainage and thus water quality within and downstream of the Cement Plant, including regional groundwater. These actions would not displace any people or housing and, therefore,

would not result in the need for the construction of replacement housing elsewhere. There would be **no impact**.

O. PUBLIC SERVICES

Would the project:

1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*

a.	*Fire protection?*	☐	☐	☐	☒
b.	*Police protection?*	☐	☐	☐	☒
c.	*Schools?*	☐	☐	☐	☒
d.	*Parks?*	☐	☐	☐	☒
e.	*Other public facilities; including the maintenance of roads?*	☐	☐	☐	☒

***Discussion (a through e)*:** The Project area is not open to the public, and the Cement Plant has been out of commission since 2010. Following the implementation of the Project and Closure Plan, the Project area would remain closed to the public and would not induce population growth or otherwise generate land uses requiring additional public facilities. The Project would not result in any new permanent facilities, buildings, or other uses that would generate the need for additional fire or police services, or that would generate students within the local school district boundaries. There would be **no impact**.

P. RECREATION

Would the project:

1.	*Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*	☐	☐	☐	☒

***Discussion*:** There are no parks or recreation facilities within the Project area where project implementation would occur, and the Project area is closed to the public. As discussed above for O-1 and O-2, implementation of the Project would not result in an increase in the population, provide a recreation destination or facilities, or otherwise increase the use of

existing parks or other recreation facilities in the surrounding area. Therefore, there would not be an increase in the use of existing neighborhood and regional parks or other recreational facilities as a result of the Project, or subsequent degradation of the existing neighborhood and regional parks as a result of project implementation. There would be **no impact**.

2.	*Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*	☐	☐	☐	☒

Discussion: There are no parks or recreation facilities within the Project area, and the Project area is not open to the public, and the Project does not include recreational facilities or require the construction or expansion of recreational facilities. Furthermore, implementation of the Project would not result in a population increase or otherwise require the expansion of existing or the generation of new recreational facilities. There would be **no impact**.

Q. TRANSPORTATION

Would the project:

1.	*Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*	☐	☐	☒	☐

Discussion: Implementation of the Project would temporarily result in a minor increase in construction-related traffic on Highway 1 near Cement Plant Road and on Warnell Road where construction equipment and personnel would enter the Project area. Two onsite existing access roads, one that extends from the southern portion of the Project area to the North CKD Area and another that extends from Warnella Road north of the Project area to the North CKD Area would be used for construction vehicles and equipment (**Figure 2**). The two access roads are located entirely within the Project area and are not open to the public.

Construction equipment and materials would be staged onsite (**Figure 3**) for the duration of the two construction seasons to minimize impacts to traffic that would occur through daily trips to and from the site on Highway 1. However, there would be a temporary increase in trips to and from the Project site when fill is being imported for the cover.

As described in the Project Description under North CKD Area (**Table 1**), approximately 47,400 cubic yards of fill would be imported from a quarry, sand plant, and/or soil farm located in north Santa Cruz County or San Mateo County. As described in the Air Quality analysis (**Table 3**), liner/cap installation and fill import is assumed to require 6,321 one-way

trips, with an average trip length of 18.4 miles, over 100 working days. Therefore, there could be an additional approximately 60 trips (120 roundtrips) on Highway 1 each day during the approximately 100 days fill could be imported to the site.

Existing traffic conditions along Highway 1 are free-flowing, with most vehicular traffic on this portion of Highway 1 occurring on weekends[4]. Project construction would be primarily Monday-Friday. The increased construction-related traffic could slow traffic traveling on Highway 1 as the trucks enter and leave the site, but the overall conditions of free-flowing traffic along Highway 1 is not expected to change substantially.

Upon completion of the Project Closure Plan, the number of trips to and from the Project area would remain similar to existing conditions.

The Project would not result in any changes or closures of local roadways, bicycle lanes along Highway 1, or a change in the regional transportation system (e.g. Santa Cruz METRO bus system). Because implementation of the Project would not result in any changes to existing transportation facilities, and would not result in substantial changes in local circulation patterns, the Project would be consistent with applicable Santa Cruz County plans, policies, and ordinances. Therefore, this impact would be **less than significant**. No mitigation is required.

2.	*Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1) (Vehicle Miles Traveled)?*	☐	☐	☒	☐

Discussion: In response to the passage of Senate Bill 743 in 2013 and other climate change strategies, the Governor's Office of Planning and Research (OPR) amended the CEQA Guidelines to replace level of service (LOS) with vehicle miles traveled (VMT) as the measurement for traffic impacts. The "Technical Advisory on Evaluating Transportation Impacts in CEQA," prepared by OPR (2018) provides recommended thresholds and methodologies for assessing impacts of new developments on VMT. Tying significance thresholds to the State's GHG reduction goals, the guidance recommends a threshold reduction of 15% under current average VMT levels for residential projects (per capita) and office projects (per employee), and a tour-based reduction from current trips for retail projects. Based on the latest estimates compiled from the Highway Performance Monitoring System, the average daily VMT in Santa Cruz County is 18.3 miles per capita (Department of

[4] This statement is based on the traffic analysis conducted for the North Coast Rail Trail Environmental Impact Report, prepared by the Santa Cruz County Regional Transportation Commission in 2019 and available on their website (www.sccrtc.org/projects/multi-modal/monterey-bay-sanctuary-scenic-trail/north-coast-rail-trail/). The traffic study for the Rail Trail project included Highway 1 in the Davenport area.

Finance [DOF] 2018; Caltrans 2018). The guidelines also recommend a screening threshold for residential and office projects—trip generation under 110 trips per day is generally considered a less-than-significant impact.

As described in Q-1 above, the Project would result in a temporary increase in construction-related traffic when fill is imported to the site for the cover and planting of native vegetation. Once construction is complete, the operational number of trips to and from the Project area would be similar to existing conditions. The Project would not increase the residential or working population within the Project area or larger vicinity. Therefore, the impact would be **less than significant**. No mitigation is required.

3.	*Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*	☐	☐	☐	☒

***Discussion*:** Implementation of the Project would not include any permanent design features that would increase any types of traffic hazards along Highway 1, which provides primary access to the Project area. All access road improvements within the Project area would not be open to the public and, therefore, would not result in the addition of a hazardous features or an incompatible land use with existing conditions. There would be **no impact**.

4.	*Result in inadequate emergency access?*	☐	☐	☒	☐

***Discussion*:** Implementation of the Project would not alter any public roadways that would impair the implementation of an adopted emergency response plan or emergency evacuation plan. Throughout project construction, particularly the 100 days during which fill would be imported to the Project area, construction vehicles entering the Project area may result in traffic delays along Highway 1, Warnell Road or Cement Plant Road. In the event that these delays occurred during an emergency, the Project could result in a minor delay in the movement of emergency vehicles. However, as required by California state law, the construction vehicles would pull to the side so emergency vehicles could pass. Aside from the import of fill, the construction vehicles, equipment and materials would be staged onsite, and all construction activities would be contained within the Project area. Therefore, construction vehicle related impacts to local roadways would be minimal in duration and infrequent in occurrence. Following project implementation, the number of trips to and from the Project area would be similar to existing conditions. Therefore, this impact would be **less than significant**. No mitigation is required.

R. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*				
A. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources Code section 5020.1(k), or*	☐	☐	☒	☐
B. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*	☐	☒	☐	☐

***Discussion*:** The results of the cultural resources investigation identified no previously documented cultural resource within the Project area, based on all historic inventories consulted for the project including California Inventory of Historic Resources, Northwest Information Center at Sonoma State, and the Historic Property Data File for Santa Cruz County, managed by the State Office of Historic Preservation (Albion 2020a and 2020b).

Section 21080.3.1(b) of the California Public Resources Code (AB 52) requires a lead agency to formally notify a California Native American tribe, which is traditionally and culturally affiliated within the geographic area of the discretionary project, when formally requested by a tribe. Resources of interest might include archaeological deposits, traditionally important plants, or locales that have been or are currently used for tribal activities.

As described in Section E, Cultural Resources, the County has not received a formal request for consultation from a Tribe under AB 52. However, the County did consult with the Native American Heritage Commission and local Native American tribes, as part of Section 106 Consultation for this project in compliance with AB 52. As part of this outreach process, the California Native American Heritage Commission was contacted in July 2019 for information from the Commission's Sacred Lands File and a list of respondents.

In summary, the Commission found no information in their files and provided the names of

applicable tribal representatives. As of January 9, 2020, there have been no formal requests for Native American consultation (Carlson 2019).

AB 52 established that a substantial adverse change to a Tribal Cultural Resource would have a significant impact on the environment. Based on archival and field-based research of the Project area undertaken in the preparation of the *Phase I and Extended Phase I Archaeological Investigations for the Davenport Cement Plant North Cement Kiln Dust Area Closure Plan* (Albion Environmental 2020a, 2020b), it is not anticipated that tribal resources would be impacted through project implementation. However, there always remains the potential for ground-disturbing activities to expose and/or impact unknown tribal cultural resources, which could result in significant impacts to tribal cultural resources. With implementation of **Mitigation Measures CR-1** (Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction) And **Mitigation Measures CR-2** (Stop Work In The Event Of Unexpected Occurrence Of Human Remains During Construction), identified in Section E, Cultural Resources, this impact would be **less than significant with mitigation.**

Mitigation Measures

CR-1: Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources During Construction. This measure is described in Section E, Cultural Resources, above.

Mitigation Measure

CR-2: Stop Work in the Event of Unexpected Occurrence of Human Remains During Construction. This measure is described in Section E above.

S. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*	☐	☐	☒	☐

Discussion: Implementation of the Project would not result in the need for or relocation of wastewater facilities, electric power, natural gas or telecommunications facilities. Several underground utility lines exist in the unimproved road that crosses the project site immediately above the proposed shotcrete supporting wall with grouted soil nails. Proposed drainage structures would also be located in the same area near the existing utilities. The

location and depth of each utility is unknown and will require potholing and tracing to be accurately located. This is noted on the existing project plans and the following conditions of approval would require the accurate location information to be shown on the plans for the building permit. The vertical and horizontal alignments of the water and sewer mains would be determined by the engineer. The engineer must also provide on the building plans elevation views of the drainage structures that cross the existing utilities. If there is a potential conflict with the soil nail construction or drainage structures, the engineer must provide plans (horizontal and profile view) to the District for approval that shows how the utility lines will be rerouted. Utilities not proposed to be rerouted should be identified and called out to be protected.

As described in the Project Description under Drainage Improvements, the Project would include stormwater drainage improvements throughout the Project area to improve water quality conditions onsite and offsite. The Project has been designed in compliance with Water Board WDR to support a 24-hour, 1,000- year flood event, and therefore would require the installation of an improved stormwater drainage system to support the capacity of water that was modeled for the Project (**Appendix 2, Stormwater Hydraulic Analysis Report**). These improvements would be limited to within the Project area and would not require upgrades to the stormwater system within the vicinity of the Project area. Therefore, the impact would be **less than significant**. No mitigation is required.

2.	*Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*	☐	☐	☒	☐

Discussion: All the main aquifers in this County, the primary sources of the County's potable water, are in some degree of overdraft. Overdraft is manifested in several ways including 1) declining groundwater levels, 2) degradation of water quality, 3) diminished stream base flow, and/or 4) seawater intrusion. Surface water supplies, which are the primary source of supply for the northern third of the County, are inadequate during drought periods and will be further diminished as a result of the need to increase stream baseflows to restore habitat for endangered salmonid populations. In addition to overdraft, the use of water resources is further constrained by various water quality issues.

Implementation of the Project would use small amounts of water throughout construction activities for dust control and concrete work, which the construction contractor would obtain from existing available sources. Minor amount of water would also be used to irrigate the native vegetation that would cover the North CKD Area following the excavation, regrading, relining, and placement of 26 inches (minimum) of topsoil over the existing CKD landfill. However, the Project includes the planting of native plant species that would not require

ongoing irrigation after the plant growth has been established. No substantial water use would be required during the operational phase of the project. Therefore, this impact would be **less than significant**. No mitigation is required.

3. *Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*	☐	☐	☐	☒

Discussion: Implementation of the Project would not result in the generation of additional population or other land uses that would generate wastewater above existing conditions. Therefore, no wastewater lines would be connected to the municipal sewer collection and treatment system during construction activities or during other operations at the Cement Plant. Therefore, the Project would not affect wastewater treatment facilities or capacity. There would be **no impact**.

4. *Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*	☐	☐	☒	☐

Discussion: Implementation of the Project would generate debris throughout demolition and construction activities. Deleterious material or excess fill not used to complete the CKD Closure work would be hauled offsite as part of the contract unless otherwise approved to remain onsite by CEMEX and appropriate regulatory agencies (**Appendix 1, Closure Plan**). The waste generated would not exceed local or state standards, or require additional landfills or recycling centers, as debris would be standard construction related materials. There would be no generation of solid waste materials generated during the ongoing operations of the Cement Plant following closure activities. Therefore, this impact would be **less than significant**. No mitigation is required.

5. *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*	☐	☐	☒	☐

Discussion: All solid waste generated by the Project would be hauled offsite by the contractor to an appropriate facility in compliance with relevant statutes and regulations. Therefore, the impact would be **less than significant**. No mitigation is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

T. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

1. *Substantially impair an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☒	☐

Discussion: The state of California is responsible for fire protection in the rural unincorporated areas of Santa Cruz County. The Project area is located in the State Responsibility Area of the North Coast of Santa Cruz County, and is provided service by the Santa Cruz County Fire Department (SCCFD).

Santa Cruz County contracts with the California Department of Forestry and Fire Protection (CAL FIRE) San Mateo-Santa Cruz Unit to provide administrative and operational management of the SCCFD (Hess 2018). CAL FIRE has its headquarters in Felton and is required to provide service only during the state-declared fire season, normally five months out of the year from May to September. Although the County is not required to provide year-round fire protection in unincorporated areas, the County has a long-standing cooperation agreement with CAL FIRE to provide these services year-round.

The Project area is located in County Service Area 48 (CSA 48). The two stations that would primarily serve the Project area are the CAL FIRE Big Creek Station (Station 33) on Swanton Road, and Davenport Volunteer Station (Station 37) on Marine View Avenue, with backup from the City of Santa Cruz Fire Department, as necessary.

The Project area is not located in a Santa Cruz County Critical Fire Hazard Area. Implementation of the Project would result in the land uses within the Project Area remaining largely the same as existing conditions, and there would be no changes in access to the Project area. Therefore, the Project would not impair an adopted emergency response plan or emergency evacuation plan, and this impact would be **less than significant.** No mitigation is required.

2. *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*	☐	☐	☒	☐

Discussion: The Project area is not located in a Santa Cruz County Critical Fire Hazard Area. Implementation of the Project would result in the land uses within the Project Area remaining largely the same as existing conditions, and there would be no increases in the potential for wildfire to result in additional pollutant concentrations being released or the uncontrollable spread of wildfire.

The project area is located in a highly disturbed area that is not located near forest lands. However, the use of gas and diesel-powered vehicles within vegetated areas poses a fire risk. As described in the Project Description under Fire Hazards, the following BMPs would be implemented to reduce the fire ignition risk throughout the Project area.

- All equipment to be used during construction and maintenance activities must have an approved spark arrestor.
- Grass and fuels around construction sites where construction vehicles are allowed to be parked would be cut or reduced.
- Mechanical construction equipment that may cause an ignition would not be used when the National Weather Service issues a Red Flag Warning for the San Francisco Bay Area, unless prior approval is provided by CAL FIRE.
- Hired contractors would be required to:
    - Provide water and/or fire extinguishers to suppress potential fires caused by the work performed.
    - Remind workers that smoking is prohibited on CEMEX property per CEMEX policy.
    - Maintain working ABC fire extinguishers on all vehicles in the work area.
    - Contact CAL FIRE for emergency response in the event of a fire.

The Project would be required to meet the General Plan policies related to fire resilience and access in the Santa Cruz County General Plan, and standards for defensible spaces in the PRC and SCCC, as required by CAL FIRE. Therefore, this impact would be **less than significant**. No mitigation is required.

3.	*Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*	☐	☐	☒	☐

Discussion: Throughout Project implementation, the contractor would improve access roads and access areas within the Project area to perform closure activities, as necessary. Roadway improvements would be limited to the Project area and would not require maintenance following the completion of closure activities. Throughout Project implementation, BMPs to minimize potential fire hazards would be implemented, as discussed above under T-2.

There is one existing PG&E electric power line located within the Project area that would not be impacted as a result of Project implementation and would not require additional maintenance. Therefore, the Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk or result in temporary impacts to the environment. This impact would be **less than significant**. No mitigation is required.

4. *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*	☐	☐	☒	☐

Discussion: Implementation of the Project would not expose people or structures to significant risks, as the Project area is closed to the public and does not support habitable structures. The project does not include the construction of any new permanent buildings and would not increase the working or residential population within or adjacent to the Project area. Furthermore, the Project area is not situated in an area where a population or habitable structure are located downslope from the area.

The proposed project has been evaluated and designed to handle the 1,000-year, 24-hour storm events as required by Title 27 and the WDR (**Appendices 2 and 7, Stormwater Hydraulic Analysis Report and Water Board Waste Discharge Requirement**) which includes changes to the stormwater drainage system within the Project area. These improvements would minimize potential impacts within the Project area and on adjacent land uses. Therefore, this impact would be **less than significant**. No mitigation is required.

U. MANDATORY FINDINGS OF SIGNIFICANCE

1. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal community or eliminate important examples of the major periods of California history or prehistory?*	☐	☒	☐	☐

Discussion: The discussions presented in Section III (A through T) above address the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels,

threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Implementation of Construction BMPs described in the Project Description and the following mitigation identified in this Initial Study would reduce potential effects on these resources.

BIO-1: Conduct Monarch Butterfly Surveys

BIO-2: Implement Construction Related Protective Measures for California Red Legged Frog

BIO-3: Conduct Preconstruction Surveys and Construction Related Protective Measures for Avian Species

BIO-4: Implement Construction Related Protective Measures for San Francisco Dusky-Footed Woodrat

BIO-5: Implement Construction Related Protective Measures for Bats

BIO-6: Implement Construction Related Protective and Replacement Measures for Coastal Scrub Habitat

BIO-7: Implement Construction Related Protective and Replacement Measures for Arroyo Willow Scrub Habitat

BIO-8: Implement Protective and Replacement Actions for Jurisdictional Wetlands and Waters of the U.S.

CR-1: Conduct Awareness Training and Stop Work in the Event of Unexpected Occurrence of Cultural or Historic Resources during Construction

CR-2: Stop Work in the Event of Unexpected Occurrence of Human Remains during Construction

GEO-1: Stop Work in the Event of Unexpected Paleontological Resources or Unique Geologic Features during Construction

As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, the project impacts would be **less than significant with mitigation**.

2.	*Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when*	☐	☐	☒	☐

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Discussion: In addition to Project specific impacts, this evaluation considered the potential incremental effects of the Project that could contribute to a significant cumulative impact. The significant cumulative impacts to which the Project would contribute are air quality, greenhouse gas/climate change, and traffic.

Both air quality and greenhouse gas analyses above (in Sections C, Air Quality, and G, Greenhouse Gas) are cumulative in nature in that the analysis of individual impacts is undertaken in the context of the air quality basin and global climate change arena, respectively. The short-term construction emissions would be minimized through best management practices and measures described in Section II under Project Description, and the project would not exceed MBARD emissions thresholds for criteria pollutants. Therefore, the project would not result in a considerable contribution to significant cumulative impacts for air quality and greenhouse gas.

As discussed in Section Q, Transportation/Traffic, none of the roads serving the Project area are expected to be significantly affected by project implementation. Short term impacts that would occur during construction would be minimized through the storage of construction related equipment and materials onsite, limited trips to and from the Project area.

Therefore, the Project would not result in a considerable contribution to significant cumulative impacts, and the impact would be **less than significant**.

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion: The potential for adverse direct or indirect effects to human beings was considered in the evaluation of environmental impacts in Section III. Based on this evaluation, construction-related noise could adversely affect human beings. However, the closest residences are approximately 0.25 mile away, and Project construction activities would include the following BMPs to ensure potential effects on these receptors to a level below significance.

- Conduct construction activities involving heavy equipment between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday.
- Ensure construction equipment has standard sound-control devices and mufflers and is maintained in accordance with manufacturer specifications.

Through implementation of these measures, the project would not cause substantial adverse effects on human beings, and the impact would be **less than significant**.

In summary, for all three questions, the County has determined that the Project impacts would be less than significant for Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

Adams Resource Consultants (ARC), 2018a. Final North CKD Area Closure Plan and Postclosure Monitoring and Maintenance Plan. April 1, 2018.

Adams Resource Consultants (ARC), 2018b. Final Geotechnical Design North CKD Area. Revised July 27, 2018.

Adams Resource Consultants (ARC), 2018c. Stormwater Hydraulic Analysis Report. March 26, 2018.

Adams Resource Consultants Company (ARC). 2019a. North CKD Area Landfill Closure Stormwater Pollution Prevention Plan. Prepared December 2019.

Adams Resource Consultants Company (ARC). 2019b. Personal Communication with Erin McGinty of EcoSystems West Consulting Group via Phone regarding anticipated hydrologic outcomes of proposed enhancements of the North Pond and Seasonal Ponds. December 11, 2019.

Adams Resource Consultants (ARC), 2019c. North CKD Area Design Plans. December 2019.

Albion Environmental, 2020a. Phase I Archaeological Investigations for the Davenport Cement Plant North Cement Kiln Dust Area Closure Plan. June2020.

Albion Environmental, 2020b. Extended Phase I Archaeological Investigations for the Davenport Cement Plant Final North Cement Kiln Dust Area Closure Plan.June 2020.

Association of Monterey Bay Area Governments, 2018. 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy. June 2018.

Bay Area Air Quality Management District (BAAQMD), 2017. California Environmental Quality Act Air Quality Guidelines. May 2017.

Beier and Loe 1992. "A checklist for evaluating impacts to wildlife corridors." Wildlife Society Bulletin, Volume 20, pp. 434-440.

Brown, P. E., R. Berry and E. D. Pierson. 1996. Recommended bat survey methods checklist. Transactions of the Western Section of the Wildlife Society. 1996(32): 48.

CAL FIRE, 2010. Santa Cruz County-San Mateo County Community Wildfire Protection Plan. May 2010.

California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA and Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA. January 2008.

California Air Resources Board (CARB), 2017. Climate Change Scoping Plan November 2017.

California Air Resources Board (CARB), 2018. National Area Designations. December 2018. https://ww3.arb.ca.gov/desig/adm/adm.htm

California Department of Conservation, 1980. Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

California Department of Conservation, 2015. California Geologic Survey, Geologic Hazards Mapping. June 2015.

California Department of Conservation, 2017. State of California Williamson Act Contract Land.

California Department of Finance. 2018. E-5 Population and Housing Estimates for Cities, Counties and the State—January 1, 2011-2018. Released by the State of California Department of Finance May 2018.

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (March 20, 2018). Viewed on-line at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline=1

California Department of Fish and Wildlife (CDFW). 2019d. Species of Special Concern. https://www.wildlife.ca.gov/Conservation/SSC (accessed November 2019).

California Department of Fish and Wildlife, Natural Diversity Database (CDFW CNDDB). 2019. Special Animals List. Periodic publication. 67 pp. August 2019. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline (accessed November 2019).

California Invasive Plant Council (Cal-IPC). 2019. “The Cal-IPC Inventory.” [tabular database]. Berkeley, CA. https://www.cal-ipc.org/plants/inventory/ (accessed June 2019).

California Native Plant Society. 2019a. Rare Plant Program. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Viewed online at: http://www.rareplants.cnps.org (accessed June 2019).

California Natural Diversity Database (CNDDB). 2019a. Commercial Version dated June 1, 2019, RareFind Version 5.2.14. © State of California 2019. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx (accessed November 2019).

California Natural Diversity Database (CNDDB). 2019b. Commercial Version dated June 1, 2018, Biogeographic Information and Observation System (Bios) Version 5.66.18. © State of California 2019. https://map.dfg.ca.gov/bios/ (accessed November 2019).

California Department of Transportation, 2013. Transportation and Construction Vibration Guidance Manual. September.

California Department of Transportation, 2018. California Public Road Data 2017: Statistical Information Derived from the Highway Performance Monitoring System. Released by the State of California Department of Transportation November 2018.

California Department of Transportation, 2019. California Scenic Highway Mapping System. Santa Cruz County. Accessed June 2019.

Carlson, David. 2019. David Carlson, Santa Cruz County Resource Planner, Personal Communication by email on July 8, 2019.

eBird. 2018. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. https://ebird.org (accessed November 2019).

EcoSystems West. 2019. Biotic Assessment Report and Delineation of Aquatic Resources. December 2019.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Farallon Consulting. 2018a. North CKD Are Landfill Closure Stormwater Hydraulic Analysis Report. March 26.

Farallon Consulting. 2018b. Multi-Season Construction Wet Weather Preparedness Plan. March 30.

Federal Emergency Management Agency (FEMA). 2017. Flood Insurance Rate Map 06087C0189F. Federal Emergency Management Agency. Effective on September 29, 2017.

Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment Manual. September 2006.

Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

Fellers, G.M. and P.M. Kleeman. 2007. California red-legged frog (Rana draytonii) movement and habitat use: implications for conservation. Journal of Herpetology, 41 (2):276-286.

Griffiths, J., and F. Villablanca. 2015. Managing monarch butterfly overwintering groves: making room among the eucalyptus. California Fish and Game 101:40- 50.

Harris & Associates. 2019a. Air Emissions Assumptions and Model Output, California Emission Estimator.

Harris & Associates. 2020. Air Emissions Assumptions and Model Output. January 2020.

Harris & Associates. 2019b. Noise Modeling Results, FHWA Roadway Construction Noise Model.

Hess, Jake. 2018. Deputy Chief, CAL FIRE, Santa Cruz Unit Operations, Santa Cruz County Fire Department and Pajaro Valley Fire Protection District. Telephone Conversation regarding fire response services with Wendy Young, Environmental Specialist, Harris & Associates on July 23, 2018.

Monterey Bay Unified Air Pollution Control District. 2008. Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

Monterey Bay Unified Air Pollution Control District. 2013a. Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at

http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

Monterey Bay Unified Air Pollution Control District. 2013b. Triennial Plan Revision 2009-2011. Monterey Bay Unified Air Pollution Control District. Adopted April 17, 2013.

Natural Resources Conservation Service (NRCS). 2018a. National Water and Climate Center. United States Department of Agriculture. https://www.wcc.nrcs.usda.gov/climate/navigate_wets.html (accessed June 2018).

Natural Resources Conservation Service (NRCS). 2018b. Web Soil Survey. United States Department of Agriculture Last modified: September 21, 2018. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed September 2018).

Santa Cruz County. 1994. 1994 General Plan/Local Coastal Program. County of Santa Cruz, CA. Effective Date: December 19, 1994. http://www.sccoplanning.com/PlanningHome /SustainabilityPlanning /GeneralPlan.aspx (accessed June 2018).

Santa Cruz County. 2011. Construction Site Stormwater Pollution Control BMP Manual. October 2011.

Santa Cruz County. 2013. County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

Santa Cruz County. 2015. County of Santa Cruz Local Hazard Mitigation Plan 2015-2020. Prepared by the County of Santa Cruz Office of Emergency Services.

Santa Cruz County GIS Mapping. 2016. County of Santa Cruz. Available online at https://gis.santacruzcounty.us/gisweb/

Santa Cruz County Regional Transportation Commission. 2018. Final 2040 Regional Transportation Plan. June 2018.

Sawyer, J. and T. Keeler-Wolf. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, California.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

State of California. 2018a. Regional Water Quality Control Board. Waste Discharge Requirements Order No. R3-2018-0001 Waste Discharger Identification No. 3 442004001 for Cemex Davenport Cement Plant CKD Landfills Santa Cruz County. February 8, 2018.

State of California. 2018b. Regional Water Quality Control Board. Monitoring and Reporting Program No. R3-2018-0001 Waste Discharge Identification No. 3 442004001 for Cemex Davenport Cement Plant CKD Landfills. February 8, 2018.

State Water Resources Control Board (SWRCB). 2001. Memorandum: Effect of SWANCC V. United States on the 401 Certification Program. [dated January 25, 2001].

State Water Resources Control Board (SWRCB). 2018. Porter-Cologne Water Quality Control Act, Water Code Division 7 and Related Sections (As Amended and Including Statutes 2017). January 2018. 290 pp.
TRC Solutions. 2018. Retention Pond Corrective Action Plan. April 1, 2018.

U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Eds. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center. May 2010.

U.S. Army Corps of Engineers (USACE), Department of Defense (DOD); and Environmental Protection Agency (EPA). 2019. Revised Definition of ‘‘Waters of the United States’’: Proposed Rule. Federal Register / Vol. 84, No. 31 / Thursday, February 14, 2019. https://www.epa.gov/sites/production/files/2019-02/documents/revised_definition_of_waters_of_the_united_states.pdf

U.S. Department of Justice, Office of Professional Responsibility. 2018 “Technical Advisory on Evaluating Transportation Impacts in CEQA.” Available online at http://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

U.S. Environmental Protection Agency. 2020. “Diesel Fuel Standards and Rulemakings”. Accessed January 9, 2020. Available at https://www.epa.gov/diesel-fuel-standards/diesel-fuel-standards-and-rulemakings

U.S. Fish and Wildlife Service (USFWS). 2014. Endangered and Threatened Wildlife and Plants: 90-Day Findings on Two Petitions. Federal Register, Proposed Rule. 70 FR 78775. December 31, 2014.

U.S. Fish and Wildlife Service (USFWS). 2019d. “National Wetlands Inventory”. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Last up-date May 5, 2019. https://www.fws.gov/wetlands/ (accessed June 2019).

U.S. Geological Survey. 1980. Davenport quadrangle. 7.5 minute topographic map.

Watson, John, and Satish Sheth, 2019. Dust Mitigation Plan Related to Closure Construction for RMC Pacific Materials (CEMEX) in Davenport, CA. May 2019.

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Appendix 1

Final North Cement Kiln Dust Area Closure Plan (Adams Resource Consultants April 1, 2018)

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Appendix 2

Stormwater Hydraulic Analysis Report
(Farallon Consultants March 26, 2018)

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Appendix 3

Final Geotechnical Design
(Adams Resource Consultants July 27, 2018)

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Appendix 4

Multi-Season Construction Wet Weather Prep Plan (Farallon Consultants March 30, 2018)

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Appendix 5

Dust Mitigation Plan
(Watson and Sheth May 30, 2019)

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Appendix 6

Retention Pond Corrective Action Plan
(TRC Solutions, Inc. April 1, 2018)

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Appendix 7a

Waste Discharge Requirements Order No. R3-2018-0001

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Appendix 7b

Monitoring and Reporting Program No. R3-2018-0001

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Appendix 8

Design Plan Sheets
(Adams Resource Consultants 2019)

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Appendix 9

Biotic Assessment
(EcoSystems West Consulting Group January 7, 2020)

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Appendix 10

Air Quality Modeling December 20, 2019

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Appendix 11

Construction Noise Model Output January 17, 2020

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Appendix 12

Mitigation Monitoring and Reporting Program

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