

4.17 Mineral Resources

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This section describes existing mineral resources in the vicinity of the Monterey Peninsula Water Supply Project (MPWSP or proposed project) and analyzes the potential effects of construction and operation of the proposed project on these resources. Sand is the largest known and valuable mineral resource in the region, and is the focus of this section. Other minerals such as oil and gas are present in the region, but are not present within the project area.

Comments received on the 2015 Draft EIR requested that construction of the subsurface slant wells and source water pipeline on CEMEX property be accounted for and addressed in a reclamation plan amendment pursuant to the Surface and Mining Reclamation Act; the comment is addressed in Section 4.17.1.2. In addition, comments requested clarity about the impact of maintenance activities associated with the slant wells, which the commenter assumed would be in the active mining area. Since the slant wells would be in the retired portion of the CEMEX property, this comment is moot. A comment also requested information about the suitability and likelihood of future mining in the area of the ASR Wells, and why the ASR Wells would not preclude mining activities in this area; the comment is addressed in Section 4.17.5.1.

4.17.1 Setting/Affected Environment

The study area for evaluation of impacts on mineral resources includes the project area boundary (see Figures 3-3 through 3-16) and the general vicinity of the proposed project, within coastal northern Monterey County. MBNMS resources that would be affected by impacts identified in this section are limited to the seafloor and subsurface materials (e.g., sand, sediments) within MBNMS above the ends of the slant wells; all other impacts related to mineral resources would occur outside of MBNMS boundaries.

4.17.1.1 Mineral Resources

In accordance with California’s Surface Mining and Reclamation Act of 1975 (SMARA) (discussed in Section 4.17.2.2, below), the state geologist, through the California Department of Conservation, California Geological Survey (CGS; formerly known as the California Division of Mines and Geology [CDMG]), is responsible for identifying and mapping the non-fuel mineral resources of the state. Economically significant mineral deposits are classified based on the known and inferred mineral resource potential of the land using the California Mineral Land Classification System, which includes the following four mineral resource zones (MRZs).

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3:** Areas containing mineral deposits, the significance of which cannot be evaluated.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other zone.

The CGS's classification of lands in the Monterey Bay Production–Consumption Region,¹ within which the proposed project is located, focuses on significant sand, gravel, or stone deposits that are suitable as sources of aggregate (CDMG, 1987). Construction-grade aggregate is used in construction to provide bulk and strength to concrete, plasters, and stucco, and is used in road construction and other building applications. The CGS estimates that the Monterey Bay Production–Consumption Region has 323 million tons of permitted aggregate reserves.² The estimated 50-year demand for aggregate in the region is 346 million tons (CGS, 2012).

A large portion of the study area is classified as MRZ-2 due to the presence of significant sand and gravel deposits (CDMG, 1987). The MRZ-2 within the study area extends from the Salinas River in the north to Highway 68 in the south, and from the Pacific coast to inland areas east of General Jim Moore Boulevard. Project components that would be located in MRZ-2 include the slant wells, the Source Water Pipeline, the MPWSP Desalination Plant, the Brine Discharge Pipeline, the Brine Mixing Box, the Pipeline to CSIP Pond, the new Desalinated Water Pipeline, the southern portion of the Castroville Pipeline, the new Transmission Main, the ASR conveyance pipelines, the ASR-5 and ASR-6 Wells, and the Ryan Ranch-Bishop Interconnection Improvements. North of the Salinas River, portions of the proposed and alternate Castroville Pipeline routes are located within MRZ-1 and MRZ-4. The Main System–Hidden Hills Interconnection Improvements, and the Carmel Valley Pump Station would not be located within an MRZ (CDMG, 1987).

4.17.1.2 Mining Operations

The only remaining active mining operation in the project area is the CEMEX sand mining facility located on the coast in north Marina, within the Marina Dune Complex (City of Marina, 1982). The Marina General Plan recognizes this facility being located within a designated mineral resource, but does not contain policies protecting or promoting mineral resource extraction at this site (City of Marina, 2006). The northern portion of the Marina Dune Complex is undisturbed but the southern portion has been affected by ongoing sand mining activities at the CEMEX facility, which has been in operation since 1906. Sand deposits at the CEMEX sand mining facility, also known as the Lapis #110 Pit, the Lapis Sand Pit, and the Lapis Plant, include beach sands and eolian dunes (USGS, 2016; RMC Lonestar, 1989).

¹ A production-consumption region consists of one or more aggregate-producing districts and the market area they serve.

² Permitted aggregate reserves are aggregate deposits that have been determined to be acceptable for commercial use, and that exist within properties owned or leased by aggregate-producing companies that have permits authorizing the mining of these aggregate materials.

CEMEX operators use a floating suction dredge to extract beach sand from a dredging pond located on the western portion of the CEMEX facility (see Figure 3-3a). Although a beach berm provides some separation between the dredging pond and Monterey Bay, the pond receives surface flow from the Monterey Bay during incoming tides and storm events and is replenished by sand that washes over the berm (PWA, 2008). The dredging pond is continuously being filled with sand and this sand is dredged by CEMEX facility operators. Mining operators pump the dredged sand through a feedpipe to processing facilities located in the eastern portion of the CEMEX facility. CEMEX also operates several settling ponds located south of the dredging pond and north of the CEMEX access road. As described in Section 3.2.1 of Chapter 3, Description of the Proposed Project, and depicted in **Figure 3-3**, the proposed subsurface slant wells would be located south of the CEMEX access road in the southern portion of the CEMEX property. Active sand mining operations no longer occur in the southern portion of the CEMEX property, and this area is retired and under reclamation (Ron Wilson, CEMEX Land Manager, personal communication, August 3, 2016). If the proposed project is implemented, CEMEX, as the land owner, would need to amend the Reclamation Plan to include the construction and operation of the slant wells in the retired portion of CEMEX property and the source water pipeline underneath the CEMEX access road.

According to the Lapis Plant Reclamation Plan approved in 1991 and mine inspection reports conducted by the California State Mining and Geology Board, Phase I revegetation and recontouring measures have been carried out along the slopes of the southern portion of the CEMEX property, while Phase II reclamation plans call for revegetation of the northeastern slope once mining operations have ceased (RMC Lonestar, 1989; CSGMB, 2016). At the conclusion of mining operations, the Reclamation Plan proposes that the land would be available for coastal uses allowed by the Marina Coastal Zone Land Use Plan once regrading, recontouring, revegetation, and slope stabilization efforts are complete or underway (RMC Lonestar, 1989).

CEMEX personnel continue to conduct vegetative reclamation activities in the southern portion of the CEMEX property, and CEMEX would continue to be responsible for reclamation activities as long as the property is still owned by CEMEX (Tony Lombardo, Attorney at Law, personal communication, August 3, 2016; Ron Wilson, CEMEX Land Manager, personal communication, August 3, 2016). However, under SMARA, CEMEX is required to provide financial assurance that guarantees a funding mechanism for reclamation in case the mine site is abandoned or the operator becomes financially insolvent (CSMGB, 2004). The latest financial assurance was approved by the California State Mining and Geology Board in 2016 (CSMGB, 2016).

Although the Reclamation Plan states that the CEMEX mining site could operate for 50 years or more, from the time the plan was written in 1989 (RMC Lonestar, 1989), the legality of sand mining activities at the CEMEX site has been under review by state and federal agencies. On March 17, 2016, the California Coastal Commission (CCC) issued a Notice of Intent to Commence a Cease and Desist Order (NOI) to CEMEX property owners. The NOI instructed them to shut down mining operations due to the lack of proper coastal development permits and several other violations of the Coastal Act regarding sensitive dune habitat in the vicinity of the active mining operations and coastal access (Monterey County Weekly, 2016). In addition, on April 21, 2016, the MBNMS Sanctuary Advisory Council sent a letter to the Acting Director of

the National Oceanic and Atmospheric Administration Office of National Marine Sanctuaries (MBNMS SAC, 2016) seeking a resolution that would decrease or cease active mining at the CEMEX property, due to the possible taking of a sanctuary resource and/or possible violation of MBNMS regulations. Subsequently, CalAm, the CCC, the California State Lands Commission, and the City of Marina signed the Consent Settlement Agreement and Cease and Desist Order No. CCC-17-CD-02 in July 2017 that requires the complete removal of all sand mining structures and operational machinery, and the restoration of all areas affected by the Lapis sand mining operations by December 31, 2020. Before that end date, CEMEX may not extract more than 720,000 tons of sand in total from the site and may not extract more than 240,000 tons of sand from the site in any calendar year (CCC, 2017). The Removal Plan and the aforementioned Reclamation Plan are identified in Table 4.1-2 as a potential project considered in the cumulative analysis (see project No. 63, CEMEX Removal Plan and Reclamation Plan) (CCC, 2017).

4.17.1.3 Oil, Gas, and Geothermal Wells

According to the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), there are three plugged oil or gas wells in the project vicinity. DOGGR shows the status of the three wells, which are located in the cities of Seaside, Sand City, and Del Rey Oak, as “plugged,” and the status of the well operators as “inactive” (DOGGR, 2016). These wells are not located within the project area.

4.17.2 Regulatory Framework

This section provides an overview of federal, state, and local environmental laws, policies, plans, regulations, and/or guidelines (hereafter referred to generally as “regulatory requirements”) relevant to mineral resources, and analyses of the proposed project’s conformity with such regulatory requirements, without mitigation.

4.17.2.1 Federal Regulations

There are no federal regulations that pertain to mineral resources that are applicable to the proposed project.

4.17.2.2 State Regulations

Surface Mining and Reclamation Act of 1975

SMARA (CCR, Title 14, Division 2, Chapter 8, Subchapter 1) requires the State Mining and Geology Board (SMGB) to adopt state policies that regulate the operation of surface mines, the reclamation of mined lands, and the conservation of mineral resources. In accordance with SMARA, the State of California established the Mineral Land Classification System to help identify and protect mineral resources in areas that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Protected mineral resources include construction materials, industrial and chemical mineral materials, metallic and rare minerals, and non-fluid mineral fuels.

The MPWSP would be consistent with SMARA as the proposed project would not preclude reclamation of mined lands, would not limit mining potential in the Monterey Bay Production – Consumption Region, and would not interfere with existing mining operations.

4.17.2.3 Applicable Regional and Local Land Use Plans, Policies, and Regulations

To evaluate project consistency with applicable regulatory requirements related to land use, **Table 4.17-1** identifies the regional and local land use plans, policies, and regulations pertaining to mineral resources that are relevant to the MPWSP that were adopted for the purpose of avoiding or mitigating an environmental effect, and indicates project consistency with such plans, policies, and regulations. As shown in the table, the proposed project would not conflict with any applicable plan, policy, or regulation.

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**TABLE 4.17-1
APPLICABLE REGIONAL AND LOCAL PLANS AND POLICIES RELEVANT TO MINERAL RESOURCES**

Project Planning Region	Applicable Plan	Plan Element/Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
City of Marina (coastal zone)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, new Desalinated Water Pipeline, and new Transmission Main	Policy 4.124: To conserve soil and mineral resources within the Marina Planning Area, the following policies and conditions shall be established: 4. The City recognizes the presence of designated mineral resources west of Highway 1, and shall continue to allow the existing sand-mining operation on RMC Lonestar property [now known as the CEMEX sand mining facility] west of Highway 1 in accordance with the provisions of Marina's local coastal plan (LCP) and the approved Reclamation Plan for that site. In accordance with the Marina LCP, new or expanded sand-mining operations shall be limited to the surf zone and already-disturbed areas, and shall be subject to completion and approval of the prerequisite environmental review, Reclamation Plan, and coastal permit process.	This policy is intended to ensure that new or expanded mining operations are protective of coastal sediments and biological resources.	<u>Consistent:</u> The proposed project does not propose any new or expanded mining operations.
County of Monterey (coastal zone & inland area)	Monterey County Code	Chapter 16.04 - Surface Mining and Reclamation	MPWSP Desalination Plant, Source Water Pipeline, new Desalinated Water Pipeline, Brine Discharge Pipeline, Brine Mixing Box, Pipeline to CSIP Pond, Castroville Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Carmel Valley Pump Station	Chapter 16.04 - Surface Mining and Reclamation recognizes that mineral extraction is essential to the economic well-being of the county and that reclamation of the mined lands is necessary to prevent or minimize adverse effect on the environment and to protect public health and safety. The purpose of Chapter 16.04 is to ensure the continued availability of important mineral resources while regulating surface mining operations as required by SMARA.	This section is intended to provide for continued mining and mined lands reclamation, consistent with public health and safety needs.	<u>Consistent:</u> The proposed project would not substantially limit opportunities to extract mineral resources or preclude reclamation of mined lands within unincorporated areas of Monterey County.
County of Monterey (coastal zone & inland area)	Monterey County Code	Chapter 16.04 - Surface Mining and Reclamation	MPWSP Desalination Plant, Source Water Pipeline, new Desalinated Water Pipeline, Brine Discharge Pipeline, Brine Mixing Box, Pipeline to CSIP Pond, Castroville Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Carmel Valley Pump Station	Section 16.04.140 - Mineral Resource Protection protects mineral resource areas that have been classified by the CDMG or designated by the SMGB, as well as existing surface mining operations that remain in compliance with the provisions of Chapter 16.04, from intrusion by incompatible land uses that may impede or preclude mineral extraction or processing, to the extent possible while remaining consistent with the Monterey County General Plan.	This section is intended to protect lands identified as having high mineral resource potential, as well as existing mining operations from encroachment by incompatible land uses that may preclude mining activities.	<u>Consistent:</u> The proposed project does not propose any land uses that would preclude present or future mining of lands designated as having high mineral resource potential or existing mining operations within unincorporated Monterey County.
County of Monterey (coastal zone & inland area)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, new Desalinated Water Pipeline, Brine Discharge Pipeline, Brine Mixing Box, Pipeline to CSIP Pond, Castroville Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Carmel Valley Pump Station	Policy OS-2.1: Potentially significant mineral deposits and existing mining operations identified through the State Division of Mines and Geology, including idle and reserve properties, shall be protected from on-site and off-site land uses that would be incompatible with mineral extraction activities.	This section is intended to protect lands identified as having high mineral resource potential, as well as existing mining operations from encroachment by incompatible land uses that may preclude mining activities.	<u>Consistent:</u> The proposed project does not propose any land uses that would preclude present or future mining of lands designated as having high mineral resource potential or existing mining operations within unincorporated Monterey County.
County of Monterey (coastal zone & inland area)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, new Desalinated Water Pipeline, Brine Discharge Pipeline, Brine Mixing Box, Pipeline to CSIP Pond, Castroville Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Carmel Valley Pump Station	Policy OS-2.3: Efforts to conserve raw mineral resources through recycling shall be supported.	This policy is intended conserve raw mineral resources.	<u>Consistent:</u> As discussed in Section 4.13, Public Services and Utilities, Monterey County requires that 50 percent of inert solids and 100 percent of non-inert materials be diverted from landfills. The proposed project would also be required to comply with State regulations requiring waste diversion and recycling. Therefore the proposed project would be consistent with this policy.

**TABLE 4.17-1 (Continued)
 APPLICABLE REGIONAL AND LOCAL PLANS AND POLICIES RELEVANT TO MINERAL RESOURCES**

Project Planning Region	Applicable Plan	Plan Element/Section	Project Component(s)	Specific Plan, Policy, or Ordinance	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Plan, Policy, or Ordinance
County of Monterey (coastal zone & inland area)	Monterey County General Plan	Conservation and Open Space	MPWSP Desalination Plant, Source Water Pipeline, new Desalinated Water Pipeline, Brine Discharge Pipeline, Brine Mixing Box, Pipeline to CSIP Pond, Castroville Pipeline, Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Carmel Valley Pump Station	Policy OS-2.5: The County shall inventory, assess, and characterize the location and condition of identified pre-SMARA abandoned gold, mercury and coal mines and implement such measures as may be necessary to ensure that such mines do not contribute to a significant risk to public health or safety or non-compliance with water quality standards and criteria.	This policy is intended to ensure that abandoned mines do not create a significant health risk to people or water quality.	<u>Consistent:</u> The proposed project would not be located with an abandoned mine or otherwise contribute to an abandoned mine's public health or safety risk, or violation of water quality standards.
Fort Ord Reuse Authority (Seaside)	Fort Ord Reuse Plan	Conservation	New Transmission Main, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, and ASR Recirculation Pipeline	Soils and Geology Policy B-2: The City shall protect designated mineral resource protection areas from incompatible land uses.	This section is intended to protect lands identified as having high mineral resource potential from encroachment by incompatible land uses that may preclude mining activities.	<u>Consistent:</u> The project does not propose any land uses that would preclude present or future mining of designated mineral resource protection areas within former Fort Ord lands.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Conservation	Ryan Ranch-Bishop Interconnection Improvements	Soils and Geology Policy B-2: The County shall protect designated mineral resource protection areas from incompatible land uses.	This section is intended to protect lands identified as having high mineral resource potential from encroachment by incompatible land uses that may preclude mining activities.	<u>Consistent:</u> The project does not propose any land uses that would preclude present or future mining of designated mineral resource protection areas within former Fort Ord lands.

SOURCE: City of Marina, 2006; FORA, 1997; Monterey County, 2010.

4.17.3 Evaluation Criteria

Implementation of the proposed project would have a significant impact related to mineral resources if it would:

- 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; or
- 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.

4.17.4 Approach to Analysis

This impact analysis evaluates the potential for the proposed project to result in the loss of availability of locally or regionally important mineral resources based on mineral resource maps prepared by the CGS using the California Mineral Land Classification System, and mineral resource maps produced by Monterey County and the City of Marina. Impacts related to the loss of mineral resources would be considered significant if construction activities were to disrupt active mining activities and make known mineral resources unavailable, or if siting of new facilities were to preclude the future recovery of known mineral resources or adversely affect the availability of these resources for future recovery.

All potential impacts related to mineral resources are associated with project construction and/or facility siting; no impacts would result from project operations. Therefore, the evaluation presented below only considers impacts related to construction and facility siting.

4.17.5 Direct and Indirect Effects of the Proposed Project

Table 4.17-2 summarizes the proposed project’s impacts and significance determinations related to mineral resources.

**TABLE 4.17-2
 SUMMARY OF IMPACTS – MINERAL RESOURCES**

Impacts	Significance Determinations
Impact 4.17-1: Loss of availability of known mineral resources that are of value to the region or residents of the state, or result in the loss of a locally-recognized important mineral resource recovery site.	LS
Impact 4.17-C: Cumulative impacts related to mineral resources.	LS

NOTES:

LS = Less than Significant impact, no mitigation proposed

4.17.5.1 Construction and Facility Siting Impacts

Impact 4.17-1: Loss of availability of known mineral resources or locally important mineral resource recovery sites. (*Less than Significant*)

All proposed project components north of Highway 68 and south of the Salinas River would be located in areas designated as MRZ-2 – that is, areas where adequate information indicates that significant mineral deposits (in this case, sand for use as aggregate) are either present or are likely to be present. The CEMEX sand mining facility is within the MRZ-2 designation. There are no locally important mineral resource sites delineated on a local general plan, specific plan, or other land use plan in the study area.

Subsurface Slant Wells and Source Water Pipeline

The subsurface slant wells for the Seawater Intake System are proposed within the southern portion of the CEMEX property, in an area that is no longer mined and has been restored by CEMEX consistent with the Reclamation Plan; the proposed Source Water Pipeline would be aligned beneath the existing CEMEX access road. Construction equipment, materials, and trucks would access the existing CEMEX access road via Lapis Road. Increased truck traffic on the CEMEX access road from project-related construction vehicles and the temporary reduction in the width of the access road during installation of the Source Water Pipeline could delay the movement of vehicles through the CEMEX facility. Although mining operations could experience minor disruptions during project construction, mining operations would continue throughout project construction. Therefore, project implementation would not result in the temporary loss of known mineral resources and construction-related impacts would be less than significant.

This analysis assumes the current methods of sand extraction could continue during project construction and possibly during the first several months of future operations, subject to the schedule requirements of the Settlement Agreement signed by CalAm, the CCC, the California State Lands Commission, and the City of Marina, as discussed in Section 4.17.1.2, Mining Operations. Upon completion of project construction, the CEMEX access road would be restored to its existing condition and purpose. The Source Water Pipeline would be buried beneath the access road and would not interfere with the movement of mining vehicles or other sand mining activities. Since CEMEX is currently only mining sand from the dredging pond in the northern portion of the property, the siting of the subsurface slant wells in the southern portion of the CEMEX property would not interfere with sand mining activities or adversely affect the availability of mineral resources for future recovery. As noted in **Table 3-1** in Section 3.2 Project Components, slant well sites 2 through 6 would include a concrete pad ranging in size from 5,250 and 6,025 square feet. These structures could preclude mineral resource extraction but since sand mining is being discouraged by regulatory entities, this particular area is no longer being mined and is now under a reclamation plan. Therefore, it is unlikely that future sand mining would be permitted in the southern portion of the CEMEX property, and this impact would be less than significant.

The seafloor and subsurface mineral materials (e.g., sand, sediments) that overlie the ends of the subsurface slant wells within MBNMS would provide filtration for the ocean water taken in by the subsurface slant wells. The proposed project's use of this environmental service provided by the seafloor and subsurface mineral materials would not 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 or 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. No mineral resource consumption or extraction would occur related to the operation of the subsurface slant wells, and therefore, no impact would occur.

MPWSP Desalination Plant

There is no active mining in the proposed MPWSP Desalination Plant project area. However, the 46-acre Desalination Plant site is located in an area designated as MRZ-2. Constructing the MPWSP Desalination Plant on 25 acres of this site could limit the future recovery of mineral resources beneath the plant footprint. The MPWSP Desalination Plant site was previously used for agriculture but is currently fallow. Parcels designated as important farmland by the California Department of Conservation surround the proposed site (CDC, 2015) and mineral extraction would be an incompatible land use, thereby limiting the mining potential of the adjacent and subject parcel. Further, even if implementation of the proposed project were to preclude future recovery of mineral resources at the MPWSP Desalination Plant site, this impact would not be significant due to the small size of the site relative to the overall size of the mineral resource zone. The MRZ-2 area within the study area is roughly 7,000 acres, therefore the MPWSP Desalination Plant footprint would preclude approximately 0.36 percent of future mineral recovery potential. Implementation of the MPWSP Desalination Plant would have a less-than-significant impact on mineral resources.

All Other Pipelines and Conveyance Facilities North of Reservation Road

Construction of portions of the Source Water Pipeline, the new Desalinated Water Pipeline, and the Castroville Pipeline would occur either within or adjacent to the Charles Benson Road rights-of-way and within the Monterey Peninsula Recreational Trail and/or the Transportation Agency for Monterey County (TAMC) rights-of-way. Construction of the Brine Discharge Pipeline and Pipeline to the CSIP Pond would generally occur within existing road rights-of-way but certain pipeline segments could be installed adjacent to the road shoulder in undeveloped portions of the MRZ-2 area. The Brine Mixing Box would be installed adjacent to a road shoulder in an undeveloped portion of the MRZ-2 area. Installing these components within or adjacent to existing road rights-of-way would minimize disturbance to nearby MRZ-2 land and future mining operations. Because the proposed pipelines would have a limited footprint and would not be constructed across any active mining areas, they would not result in a significant reduction in the availability of mineral resources (primarily sand dunes). Therefore, the construction and operation of the proposed conveyance facilities would have a less-than-significant impact on mineral resources.

Pipelines and Other Conveyance Facilities South of Reservation Road

The impacts on mineral resources associated with project components located south of Reservation Road would be similar to those of the conveyance facilities located north of Reservation Road. Because these facilities would generally be constructed within road rights-of-way and would have limited footprints, the potential impact on mineral resources would be less than significant.

ASR-5 and ASR-6 Wells

The proposed ASR-5 and ASR-6 Wells would be constructed along the east side of General Jim Moore Boulevard in Seaside, entirely on federally-owned land within the former Fort Ord military base. No active mining sites are known to exist within the former Fort Ord. The wells would not include a concrete pad so the impact on mineral resources would be less than significant. The wells would be built in the Fitch Park Military Housing area within 50-feet of existing homes, and the land uses in the vicinity of these facilities are predominantly residential, recreational (e.g., Bayonet and Black Horse Golf Courses), and public/quasi-public (e.g., Seaside Middle School); mineral extraction would be incompatible.

Impact Conclusion

The proposed project would not significantly affect the availability of known mineral resources for future recovery or substantially interfere with active mining operations at the CEMEX sand mining facility. The impact would be less than significant.

For a discussion of mitigation measures that would apply to all project components related to traffic control and safety, as well as roadway rehabilitation, see Section 4.9, Traffic and Transportation, Impacts 4.9-1 and 4.9-6.

Mitigation Measures

None proposed.

4.17.6 Cumulative Effects of the Proposed Project

The cumulative scenario and cumulative impacts methodology are described in Section 4.1.7. Table 4.1-2 lists potential cumulative projects.

Impact 4.17-C: Cumulative impacts related to mineral resources. (*Less than Significant*)

As described in Section 4.17.5, above, the MPWSP would have a less-than-significant impact on mineral resources. The geographic extent of potential cumulative mineral resources impacts includes the sites of proposed MPWSP components and areas in coastal Northern Monterey County that are mapped by the California Department of Conservation as MRZ-2, meaning the area contains or is thought to contain significant mineral deposits, particularly sand and gravel. The MPWSP and most of the cumulative projects identified in **Table 4.1-2** are located in an area

mapped as MRZ-2. The timeframe during which the MPWSP could contribute to mineral resources effects includes the 24-month construction phase.

The MPWSP seawater intake facilities that are proposed at CEMEX would be set back from active mining areas and would not preclude sand mining activities. None of the cumulative projects identified in **Table 4.1-2** would be constructed within, or would otherwise disrupt, the CEMEX active mining area, with the exception of the CEMEX Removal Plan (No. 63) which requires that sand mining operations cease, all structures associated with mining operations be removed, and the affected area be restored by December 31, 2020. Therefore, operation of the cumulative projects would not affect CEMEX mining operations.

However, development of the MPWSP and many of the projects in **Table 4.1-2** would preclude the use of other lands within the MRZ-2 designation for sand, gravel, and stone mining for the duration of these cumulative projects' lifetimes. A large portion of the MRZ-2 area in the project vicinity is already developed, and development of certain components of the MPWSP and cumulative projects within that zone would further limit the amount of land available for potential future mining operations within the MRZ-2. The only project planned in an undeveloped portion of the MRZ-2 area is the Collection at Monterey Bay Resort (No. 56). This approved 340-room coastal resort is planned on a 26.46-acre site located west of Highway 1 and north of Tioga Avenue in Sand City. The construction and operation of the resort would contribute to the loss of availability of a known mineral resource, but not a locally important mineral resource recovery site since CEMEX is the only active mining operation in coastal Northern Monterey County. However, Sand City's General Plan specifically states that "Sand City has adopted a policy of not allowing the reestablishment of any mining within the city limits" (City of Sand City, 2002). Therefore, the General Plan precludes the mineral resource extraction from the area where the Collection at Monterey Bay Resort will be constructed and operated. As a result, the resort would not change the availability of this site for mining compared to existing conditions.

Since all cumulative projects in MRZ-2, including MPWSP, are on developed lands, on areas adjacent to important farmland which limits mining potential (the Desalination Plant component of the MPWSP), or on lands where mining is prohibited (the Collection at Monterey Bay Resort), the combined effects of cumulative projects in MRZ-2 would not have a significant cumulative impact on the availability of mineral resources relative to the total amount of known mineral resources available. As a result, MPWSP implementation would have a less than significant contribution to the cumulative impact on mineral resources.

Mitigation Measures

None proposed.

References – Mineral Resources

- California Coastal Commission (CCC), 2017. Consent Settlement Agreement and Cease and Desist Order CCC-17-CD-02. July 13, 2017.
- California Department of Conservation (CDC), Division of Land Resource Protection, 2015. Monterey County Important Farmland 2012, Sheet 1 of 2. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/.../2012/mnt12_no.pdf. Accessed May 6, 2016.
- California Division of Mines and Geology (CDMG), 1987. *Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area*, Special Report 146, Part IV, Monterey Bay Production-Consumption Region, 1987.
- California Geological Survey (CGS), 2012. *Aggregate Sustainability in California*, Map Sheet 52, 2012.
- California State Mining and Geology Board (CSMGB), 2004. Surface Mining and Reclamation Act Financial Assurance Guidelines. Available online at: <http://www.conservation.ca.gov/smggb/guidelines/fincl%20assurances/Documents/04aguidelines.pdf>. Accessed August 9, 2016.
- California State Mining and Geology Board (CSMGB), 2016. 2015 SMARA Mine Inspection, Lapis Sand Plant. Available online at: [ftp://ftp.consrv.ca.gov/pub/smggb/February-18-2016/16%20RBM%200218-14%20Inspection%20Reports/RBM%200218%20-14%20F%20Lapis%20Sand%20Plant%20\(91-27-0006\).pdf](ftp://ftp.consrv.ca.gov/pub/smggb/February-18-2016/16%20RBM%200218-14%20Inspection%20Reports/RBM%200218%20-14%20F%20Lapis%20Sand%20Plant%20(91-27-0006).pdf). Accessed August 9, 2016.
- City of Marina, 2006. *City of Marina General Plan*. As amended through December 31, 2006.
- City of Marina, 1982. *The City of Marina Local Coastal Land Use Plan*. Prepared by Ironside and Associates. Certified by California Coastal Commission on April 30, 1982.
- City of Sand City, 2002. *Sand City General Plan, 2002-2017*.
- Division of Oil, Gas, and Geothermal Resources (DOGGR), 2016. DOGGR Online Mapping System. Available online at: <http://maps.conservation.ca.gov/doggr/index.html#close>. Accessed May 16, 2016.
- Fort Ord Reuse Authority (FORA), 1997. *Fort Ord Reuse Plan*. Adopted June 13, 1997.
- Lombardo, Tony. Personal communication with ESA staff, August 3, 2016.
- Monterey Bay National Marine Sanctuary, Sanctuary Advisory Council, 2016. *Letter to Acting Director of NOAA ONMS*. April 21, 2016
- Monterey County, 2010. *2010 Monterey County General Plan*, adopted October 26, 2010.
- Monterey County Weekly, 2016. Coastal Commission Brings Down the Hammer on CEMEX. March 18, 2016. Available online at http://www.montereycountyweekly.com/blogs/news_blog/coastal-commission-brings-down-the-hammer-on-cemex/article_5e3c42a6-ed52-11e5-906d-6f50048f71dd.html. Accessed November 21, 2016.
- Philip Williams & Associates, LTD, (PWA), 2008. *Coastal Regional Sediment Management Plan for Southern Monterey Bay*. Prepared for the Association of Monterey Bay Area Governments (AMBAG).

RMC Lonestar, 1989. *Reclamation Plan, Lapis Plant*.

U.S. Geological Survey (USGS), 2016. *Mineral Resources Data System*. Available online at: <http://mrdata.usgs.gov/mineral-resources/mrds-us.html>. Accessed May 16, 2016.

Wilson, Ron. Personal communication with ESA staff, August 3, 2016.

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