EAST BAY DISCHARGERS AUTHORITY

REVISED

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CARGILL MIXED SEA SALT PROCESSING AND BRINE DISCHARGE PROJECT

SCH NO. 2022050436

Date: July 8, 2022

To: Responsible Agencies, Trustee Agencies, and Interested Persons

RE: Notice of Preparation of a Draft Environmental Impact Report for the Cargill Mixed Sea Salt Processing and Brine Discharge Project, SCH No. 2022050436

INTRODUCTION

On May 20, 2022 the East Bay Dischargers Authority (EBDA) issued a Notice of Preparation (NOP) for the proposed project described below (State Clearinghouse [SCH] No. 2022050436). A scoping meeting was conducted on June 1, 2022. This NOP is being re-issued due to a change in the location of part of the project (specifically, a portion of the pipeline alignment). All comments on the original NOP will be considered; if you already commented and have no new comments as a result of the change in the project, you need not comment again.

PROJECT BACKGROUND AND SUMMARY

EBDA is a Joint Powers Public Agency (JPA) consisting of five local agencies (City of San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, City of Hayward, and Union Sanitary District). EBDA owns and operates three effluent pump stations, a dechlorination facility, and combined effluent pipeline/force main and outfall system to manage treated effluent from its member agencies' wastewater treatment plants and discharge the effluent through its common outfall and diffuser into a deep-water portion of the central San Francisco Bay (Bay) under a National Pollutant Discharge Elimination System (NPDES) permit.

Cargill, Incorporated (Cargill) operates a solar sea salt production facility (Solar Salt Facility) in Newark, California. The facility commercially harvests two salts from Bay water, sodium chloride (NaCl) and magnesium chloride ($MgCl_2$). No additives or chemicals are used to produce these salts; evaporation through solar and wind energy drive the process. Water from the Bay is introduced into concentrator ponds, where most of the water evaporates, creating a concentrated brine. Once this brine achieves saturation, it is transferred into crystallizers, where additional evaporation results in the production of NaCl crystals (table salt). The harvested NaCl is further processed and packaged to individual customer's specifications. The brine exiting the NaCl crystallizers is further evaporated through a series of ponds to achieve a concentrated magnesium chloride brine product, also known as liquid bittern,

which is harvested to produce additional commercial products used for road de-icing and dust suppressant. Within the intermediate ponds a variety of salt compounds are crystallized and settle in the ponds. Some additional NaCl is recovered and recycled in the process. Salts that have not yet been recovered as commercial products are referred to as mixed sea salts (MSS); they include small residues of unharvested sodium chloride and magnesium chloride, as well as other salts that naturally exist at lower concentrations in sea water. The remaining excess MSS that is not sold as an alternative salt product is stored in ponds adjacent to the Bay at the Solar Salt Facility. Currently, there are approximately 6 million tons of MSS stored in these ponds.

Facing the potential long-term threat of sea level rise from the Bay, Cargill is proposing to implement innovative technology to enhance extraction of additional salts from the MSS inventory. The proposed project exclusively involves the construction and operation of new infrastructure to facilitate the enhanced harvesting method, tailored to the MSS in ponds 12 and 13 at the Solar Salt Facility, and to dissolve the residual MSS in Bay water to produce a brine that could be pumped into EBDA's combined effluent conveyance system. Once in EBDA's conveyance system, the brine would be blended with and further diluted by EBDA Member Agency effluent and then discharged back into the Bay in accordance with EBDA's NPDES permit. Through this process, the volume of brine and precipitated salts stored in ponds closest to the Bay at the Solar Salt Facility in Newark would be reduced. Therefore, with implementation of the proposed project, Cargill would be accelerating and enhancing the recovery of commercial product from MSS and, as an ancillary benefit, proactively addressing threats associated with sea level rise by reducing the amount of concentrated salts stored in close proximity to the Bay.

The proposed project would involve modifications within a limited portion of Cargill's Solar Salt Facility, including new pipelines and pumping facilities in and around ponds 12 and 13, and construction of approximately 16 miles of new underground pipeline, primarily off site and within roadway rights-of-way, to connect the Solar Salt Facility to EBDA's outfall system on the site of the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in the community of San Lorenzo.

It is anticipated that the MSS brine would be discharged to the EBDA system at an average rate ranging from 0.9 million gallons per day (MGD) to up to 2 MGD (taking approximately 20 to 10 years respectively). Discharge of the MSS brine by Cargill to the EBDA system would be subject to an agreement between EBDA and Cargill. The EBDA JPA term expires on June 30, 2040. Therefore, the proposed project would either terminate on or before that date or could continue under a renegotiated agreement.

In accordance with the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.), EBDA has determined that the proposed project will require preparation of an Environmental Impact Report (EIR). EBDA will serve as the lead agency for CEQA compliance.

SECOND NOTICE OF PREPARATION AVAILABILITY AND REVIEW PERIOD

EBDA has prepared this second NOP to provide the public, interested parties, and public agencies with updated information about the proposed project and its potential environmental effects, and solicit comments on the scope and proposed content of the EIR, including any additional comments resulting from the change in the project pipeline route.

This second NOP initiates a 30-day CEQA scoping process. A hard copy of the NOP is available for public review at:

East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA 94580

The NOP is also available for public review online at: https://ebda.org/projects/cargill-partnership/

EBDA welcomes public and agency input during this review. However, if you or your agency has already provided written comments in response to the previous NOP, and none of those comments would change considering the

proposed changes to the project, those comments do not need to be resubmitted. All comments received on the original NOP have been reviewed and will be considered and addressed in the Draft EIR.

PROVIDING COMMENTS ON THIS SECOND NOTICE OF PREPARATION

Agencies and interested parties may provide EBDA with written and/or email comments on topics to be addressed in the EIR. Because of time limits mandated by State law, comments must be received by **5:00 p.m.** on **August 9, 2022**. Please send all comments on the NOP by mail or email to:

East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA 94580

Attn: Jacqueline Zipkin, General Manager
Phone: (510) 278-5910
E-mail: jzipkin@ebda.org

Comments provided by email should include "Cargill MSS Processing and Brine Discharge Project NOP Scoping Comment" in the subject line, and the name and physical address of the commenter in the body of the email. If you are from an agency that will need to consider the EIR when deciding whether to issue permits or other approvals for the project, please provide the name of a contact person. A new scooping meeting will not be held.

All comments on environmental issues received during the public comment period will be considered and addressed in the Draft EIR, which is anticipated to be available for public review in summer 2022.

Focus of Input

EBDA relies on responsible and trustee agencies to provide information relevant to the analysis of resources falling within their jurisdiction. EBDA encourages input for the proposed EIR, with a focus on the following topics:

- **Scope of Environmental Analysis.** Guidance on the scope of analysis for this EIR, including identification of specific issues that will require closer study due to the location, scale, and character of the proposed project.
- **Mitigation Measures.** Ideas for feasible mitigation, including mitigation that could potentially be imposed by EBDA and that would avoid, eliminate, or reduce potentially significant or significant impacts.
- **Alternatives.** Suggestions for alternatives to the proposed project that could potentially reduce or avoid potentially significant or significant impacts.
- **Interested Parties.** Identification of public agencies, public and private groups, and individuals that EBDA should notice regarding the proposed project and associated EIR.

PROJECT LOCATION

Proposed project features are located in the eastern San Francisco Bay Area, including portions of San Lorenzo, an unincorporated community in Alameda County, and portions of the Cities of Hayward, Union City, Fremont, and Newark. Specifically, project improvements would be constructed at Cargill's Solar Salt Facility, located at 7220 Central Avenue in Newark, California, and primarily within roadway rights-of-way between the Solar Salt Facility and the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo. The MSS are primarily situated in Ponds 12 and 13 of Cargill's Solar Salt Facility, which are located within the United States Fish and Wildlife Service's (USFWS) Don Edwards San Francisco Bay National Wildlife Refuge. In 1979, Cargill transferred this real property, along with additional acreage, through a condemnation process and retained perpetual rights to continue sea salt manufacturing operations within 8,000 acres of the Refuge, including Ponds 12 and 13. The project location and proposed features are shown in Figure 1 below.

PROJECT DESCRIPTION

The proposed project would enable the enhanced processing and removal of MSS in existing Cargill ponds by harvesting additional liquid bittern, a concentrated magnesium chloride brine, from the MSS matrices in these ponds as commercial product, dissolving the residual MSS solids in the ponds using Bay water, and transferring the resulting brine to EBDA's combined effluent pipeline for discharge into the Bay under EBDA's NPDES permit. Harvesting the liquid bittern and final disposition of the residual MSS brine would not require the use of any chemicals. It is anticipated that the MSS brine would be discharged to the EBDA system at an average rate ranging from 0.9 million gallons per day (MGD) up to 2.0 MGD.

The change in the project pertains to the alignment of the pipeline transporting the MSS brine, as described below.

The proposed project has an onsite component of pipelines and pumping facilities within the existing Solar Salt Facility and an offsite component that would involve construction of approximately 16 miles of new underground pipeline primarily within roadway rights-of-way to connect the Solar Salt Facility into EBDA's system just downstream of the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo.

The proposed project consists of the following components, as shown in Figure 1:

- Dissolution Water Pond and Plummer Creek Pump Station. A new pump station would be installed to pump water indirectly from Plummer Creek to a new dissolution water pond.
- Dissolution Water Pump Station and Distribution System. A new dissolution water pump station would be constructed as a cast-in-place slab-on-grade facility located at the Dissolution Water Pond and connected to an onsite high-density polyethylene piping distribution system installed above grade along the internal slope of the existing berms to deliver dissolution water to micro-trenches excavated in the crystallized salt layer above the Bay mud in Ponds 12 and 13 for MSS processing.
- Two MSS Brine Pump Stations. New MSS brine pump stations would be constructed at Ponds 12 and 13 consisting of cast-in-place concrete wet wells connected to cast-in-place slab-on-grade pump stations to pump the resultant brine out of the processing ponds and into the offsite brine discharge pipeline.
- MSS Liquid Brine Recovery. During the processing of Pond 12, sections of the pond would be temporarily isolated using vinyl sheet piling to enable liquid bittern recovery. Two new pipelines would be installed along the internal slope of the berm on the northern shore of Pond 12: (1) a 12-inch header pipe to deliver dissolution water to Pond 12; and (2) a 4-inch pipe to transfer liquid bittern from Pond 12 to Pond 13, where it would be further processed and harvested as commercial product.
- Rainwater Decanting. A new weir box structure, which includes a weir plate (barrier) to control the flow of water, and a pipe would be installed at the northeastern corner of Pond 13 to enable decanting of rainwater from the surface of Pond 13 to supplement dissolution water for Pond 12.
- MSS Brine Transport Pipeline. A MSS brine transport pipeline, up to 16 inches in diameter, would extend north primarily along roadway rights-of-way for approximately 16 miles from the Solar Salt Facility to the Oro Loma Effluent Pump Station (OLEPS), located adjacent to and immediately downstream of the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo. Figure 1 shows the location of the proposed pipeline, as well as the previously proposed alignment and two options through the City of Hayward that were identified in the original NOP. The proposed pipeline alignment is the same as described in the previous NOP except within the City of Hayward. The proposed alignment through the City of Hayward has been moved to the east to avoid a large segment of Hesperian Blvd, and the two optional alignments in Hayward have been eliminated from consideration.

  The MSS brine transport pipeline would be constructed primarily using open-cut methods, except where the pipeline would cross creeks, channels, canals, drains, rail lines, and major roadways. In these locations, trenchless construction methods (i.e., horizontal directional drilling, micro-tunneling) would be used.

Pipeline appurtenances would include isolation valves, air release/vacuum valves, blowoff valves, tracer wire, and a "pig" delivery system. Pigs, or pipeline inspection gauges, are maintenance projectiles used for cleaning and inspecting pipelines.

Construction of the pipeline would affect portions of the following roadways and public facilities in Newark, Fremont, Union City, Hayward, and San Lorenzo: Newark Slough Trail (San Francisco Bay Trail), Thornton Ave, Paseo Padre Pkwy, Ardenwood Blvd, Union City Blvd, Hesperian Blvd, Industrial Blvd, Arden Rd, Corporate Ave, Investment Blvd, Production Ave, Clawiter Rd, W. Winton Ave, Corsair Blvd, Skywest Golf Course, and the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant.

To minimize future disruption to the streets in the City of Hayward, an agreement to install a 4-inch HDPE fiber optic cable conduit and 12-inch HDPE recycled water pipeline ("purple pipe") at the same time trenching and installation of the underground MSS brine transport pipeline would occur, along the segment of pipeline alignment within the City of Hayward, is also being explored.

- Discharge to the EBDA System. The MSS brine transport pipeline would tie into EBDA's combined effluent conveyance system immediately downstream of the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo, either by connection directly to the OLEPS, or to the pump discharge manhole approximately 75 feet north of the OLEPS. The MSS brine would then be combined with the treated wastewater effluents from the other agencies that discharge into the EBDA system before being discharged back to the Bay.

Project construction is estimated to start in summer of 2023 and would take approximately 12-18 months to complete. Pump station construction would occur concurrently with pipeline construction and would require approximately 8 months to complete. Construction of the on-site Pond 12 and Pond 13 processing facilities would be phased, with the facilities required for Pond 12 processing being completed in the first year and facilities for Pond 13 processing being installed approximately 6 years later.

Staging areas would be provided on Cargill property and along the MSS Brine Transport Pipeline alignment at locations approved by the local jurisdiction.

POTENTIAL ENVIRONMENTAL EFFECTS

As required by CEQA, the EIR will describe existing conditions and evaluate the potential environmental effects of the proposed project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The EIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. At this time, EBDA has identified a potential for environmental effects in the areas identified below:

- Air Quality;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise and Vibration, and
- Recreation.

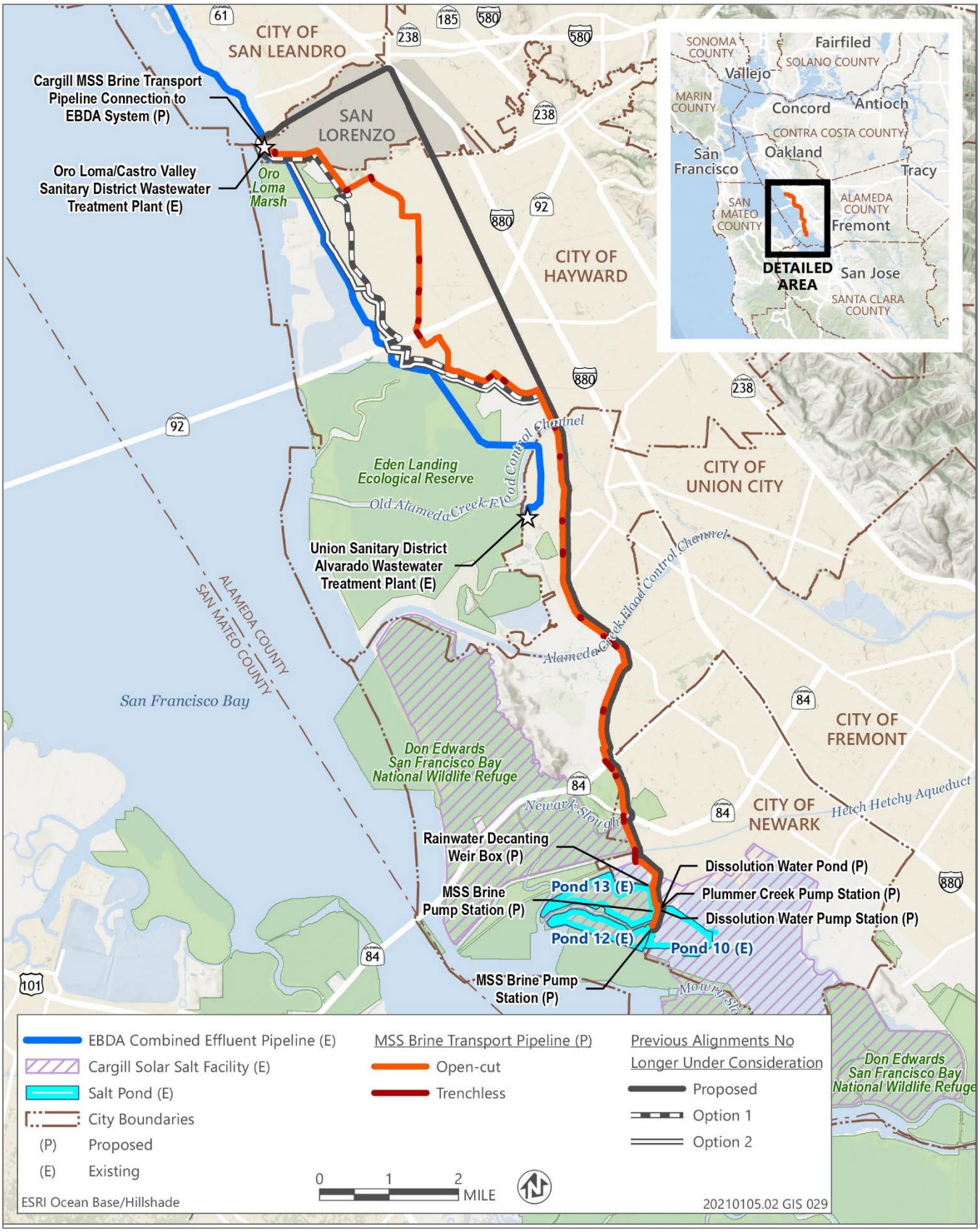
The EIR will evaluate all environmental topic areas included in the State CEQA Guidelines, including the topics identified above. Feasible and practicable mitigation measures will be recommended to reduce any identified potentially significant and significant impacts.

ALTERNATIVES TO BE EVALUATED IN THE EIR

In accordance with the State CEQA Guidelines (14 CCR Section 15126.6), the EIR will evaluate a range of reasonable alternatives to the proposed project that are capable of meeting most of the objectives and would avoid or

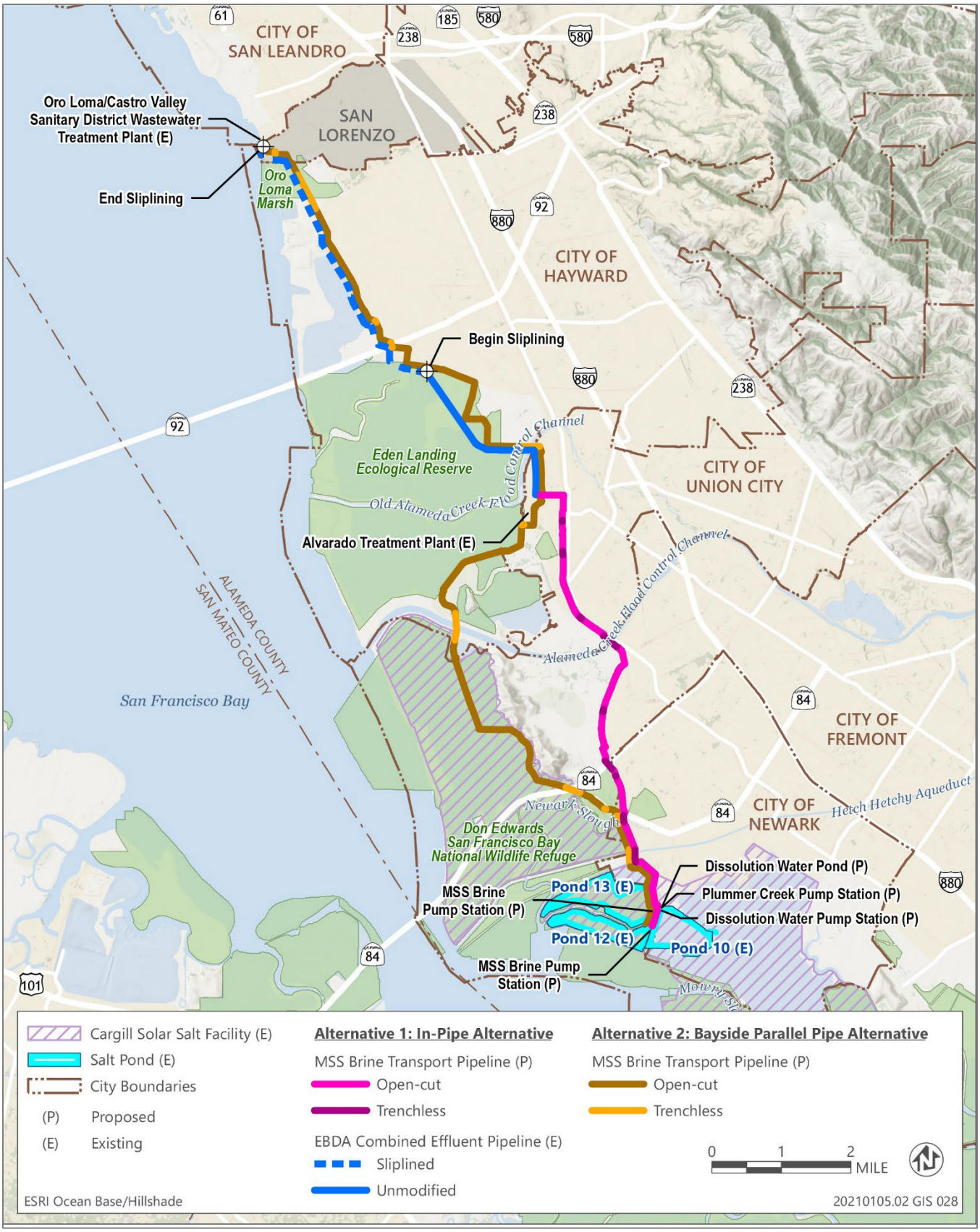
substantially lessen one or more significant effects of the project. The EIR will also identify any alternatives that were considered but rejected by the lead agency as infeasible and briefly explain the reasons why.

Two action alternatives are currently under consideration by EBDA and Cargill (Figure 2). The first action alternative, referred to as the "In-Pipe Alternative" would involve the same improvements at the Solar Salt Facility as those included in the proposed project, but instead of constructing 16 miles of new underground pipeline along the proposed MSS brine transport pipeline alignment shown in Figure 1, the In-Pipe Alternative would involve construction of approximately 7.5 miles of new underground pipeline connecting the Solar Salt Facility to EBDA's system just downstream of the Union Sanitary District Alvarado Wastewater Treatment Plant in Union City and then installation of approximately 4 miles of slip-liner within EBDA's existing combined conveyance pipeline to prevent corrosion in EBDA's system. The 4 miles of slip-liner within the EBDA combined conveyance pipeline would start approximately 3 miles downstream of the MSS brine transport pipeline connection to the EBDA system and extend to the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo. In addition to laydown areas along the 7.5-mile new underground pipeline route, this alternative would require access pits periodically along the 4-mile slip-liner section of EBDA's system. The second action alternative under consideration by EBDA and Cargill, referred to as the "Bayside Parallel Pipe Alternative," also would involve the same improvements at the Solar Salt Facility as those included in the proposed project, but under this alternative, the MSS brine transport pipeline would consist of approximately 17 miles of new underground pipeline that would skirt the edges of existing or former Cargill-owned or operated salt ponds and then run almost parallel to EBDA's existing pipeline until connecting into EBDA's system downstream of the Oro Loma Sanitary District/Castro Valley Sanitary District Water Pollution Control Plant in San Lorenzo. This alternative would rely on directional drilling in several areas to minimize impacts to wetlands and sensitive habitat. The EIR will also provide an analysis of the No Project Alternative and will identify the environmentally superior alternative from among the alternatives evaluated in the EIR.



Source: Data provided by AECOM and Jacobs in 2021 and 2022, adapted by Ascent Environmental, Inc. in 2022

Figure 1 Project Location and Proposed Project Features



Source: Data provided by Jacobs in 2022, adapted by Ascent Environmental, Inc. in 2022

Figure 2 Project Alternatives