Draft Initial Study / Proposed Mitigated Negative Declaration

for the

Cargill Plummer Slough Bridge Project

Cargill, Incorporated
7220 Central Avenue
Newark, CA 94560
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1.0 INTRODUCTION AND PURPOSE

This Initial Study of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the City of Newark (City). This Initial Study evaluates the potential environmental impacts, which might reasonably be anticipated to result from the proposed Cargill Plummer Slough Bridge Project (proposed project).

The City is the Lead Agency under CEQA and has prepared this Initial Study to address any significant physical environmental impacts of implementing the proposed project. The purpose of the proposed project is to provide an alternative and direct access route across Cargill's facility, away from a new residential development under construction at the northeast intersection of Hickory Street and Central Avenue in Newark. The new access route would be in addition to the existing access route that runs just outside the southern boundary of the new residential development.

2.0 PROJECT INFORMATION

2.1 Project Title

Cargill Plummer Slough Bridge Project

2.2 Lead Agency and Project Applicant

City of Newark
Community Development Department
37101 Newark Boulevard
Newark, California 94560

Cargill, Incorporated
Salt Group
7220 Central Avenue
Newark, California 94560

2.3 Lead Agency Contact Person and Phone Number

Terrence Grindall, Assistant City Manager
510-578-4208
Terrence.grindall@newark.org

2.4 Project Location

The project site is located along a portion of tidal Plummer Slough, within Cargill, Incorporated's (Cargill) solar salt production facility in the City of Newark, California (Figure 1). The project site is located along the eastern margin of the South San Francisco Bay, just inside the southwestern city limits (APNs 537-551-17, 537-551-33-2). The project location is approximately two miles upstream from South San Francisco Bay.

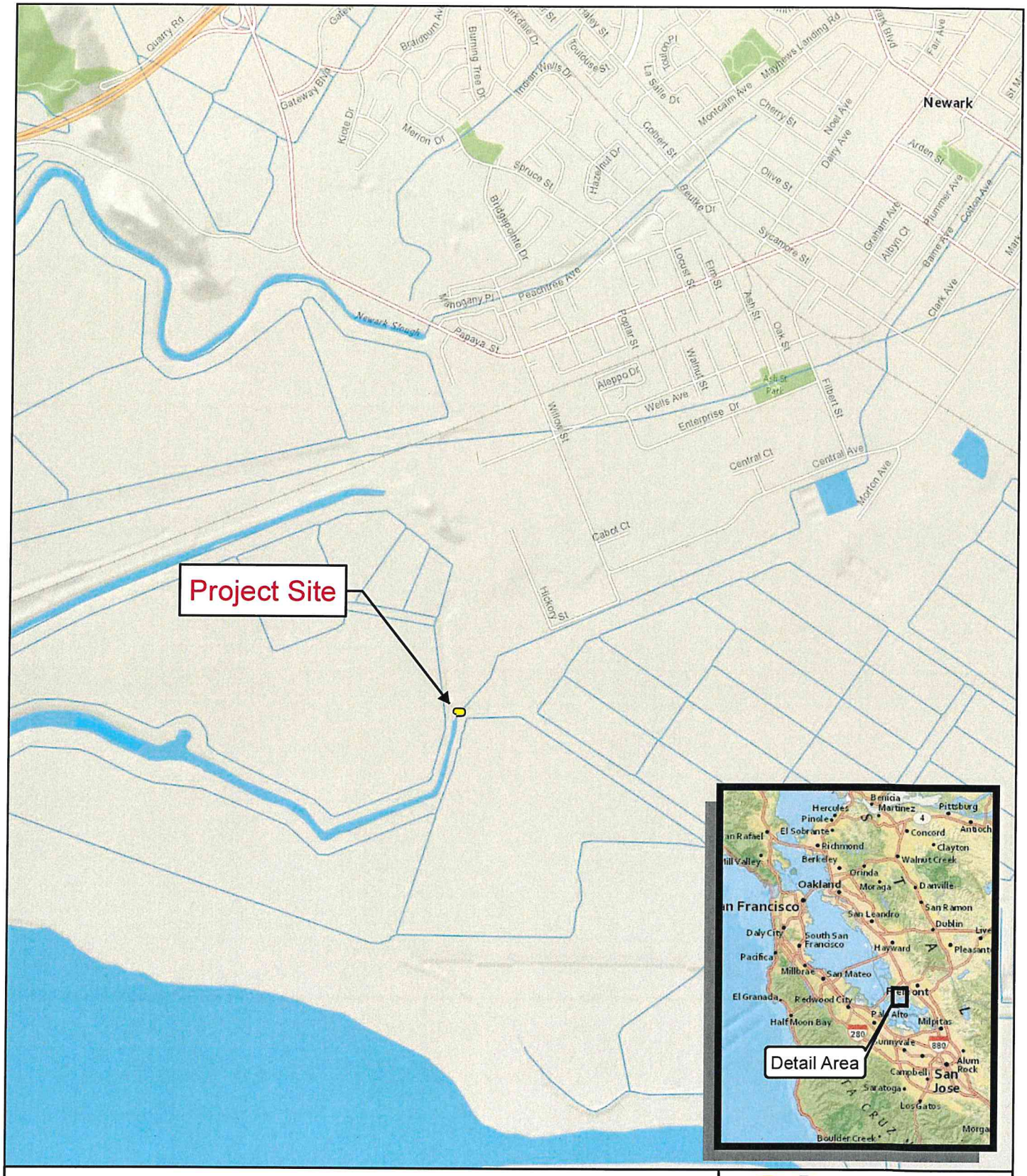

Figure 1. Project Site Location Map

Cargill Plummer Slough Bridge Project
Newark, California

0 0.25 0.5
Miles

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Map Prepared Date: 4/28/2017
Map Prepared By: czumwalt
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\07000\07062-4\GIS\ArcMap\Fig 1 Location.mxd

2.5 General Plan Designation and Zoning District

City of Newark General Plan Designation:

Conservation-Open Space

Salt Harvesting, Refining and Production

City of Newark Zoning Designation:

Resource Production/Open Space (RP-OS)

2.6 Surrounding Land Uses and Setting

Surrounding land uses near the project site include open space to the north, diked salt marsh to the east, and salt ponds to the south and west. The project site is located within an operational salt production facility. All nearby roads are levee access roads. The nearest public access areas (San Francisco Bay Trail, Hickory Street, and Central Avenue) are located approximately 0.4 mile northeast of the project site (see Figure 2). A residential area under development is also located approximately 0.4 mile to the northeast of the project site at the northeast intersection of Hickory Street and Central Avenue.

3.0 PROJECT DESCRIPTION

3.1 Project Description

Cargill operates a solar salt production facility located at 7220 Central Avenue in Newark, California where salt is produced using bay water and evaporation. The only existing access road used by Cargill vehicles for operations is located immediately adjacent to a new residential development that is currently under construction (Figure 2). The purpose of the proposed project is to provide an alternative and direct access route across Cargill's facility, away from the new residential development under construction. As illustrated in Figure 2, the new access route would be in addition to the existing access route that runs just outside the southern boundary of the new residential development. The installation of the bridge and provision of an alternate access route away from the new residential development will improve public safety and public health and permit Cargill to move equipment across Plummer Slough (which divides Cargill's plant site) and streamline operations.

Bridge Installation

The project includes the placement of a 24-foot-wide, 60-foot-long concrete bridge supported by cement wingwalls across the span of Plummer Slough (Figure 3). The bridge would consist of six precast, prestressed, concrete panels that would then be topped with a cast-in-place reinforced concrete topping slab. The abutments on either side of Plummer Slough would each be supported by five, 15-inch tubex pilings. Additionally, a 3 foot 6 inch concrete barrier would be installed on either side of the proposed bridge. All construction of the permanent structures would be conducted within the upland levee areas on-site. Refer to Appendix A for a full set of the Site Plans.

Limited Levee Roadway Improvements

The project includes limited levee roadway improvements on the existing access roads on each side of the proposed bridge approaches, including filling a portion of the brine channel northwest of the bridge. A culvert would be also placed under the roadway within the channel.

Site Access and Equipment Staging

The current access route used by Cargill vehicles utilizes the access road that can be accessed from the Cargill facility east of the project site. Project vehicles follow this road until it exits onto Willow Street. From Willow Street, Cargill vehicles turn left onto Central Access; right onto Hickory Street; and then left onto an unmarked access road. The project would create an alternative access route that would allow Cargill vehicles to stay entirely within Cargill's property (Figure 2). Once implemented Cargill vehicles would be able to follow the access road from Cargill's facility to the western salt ponds along one connected access road. During construction, access to the site by construction workers and equipment would continue to be gained via the current access route. The staging areas would be placed along the access roads, entirely within the man-made levees.

Construction Schedule and Timing

It is anticipated that construction of the proposed project would require approximately six months. The proposed hours of construction would not exceed what is stipulated by City of Newark, which allows construction activities to take place between the hours of 8:00 a.m. to 7:00 p.m. Monday through Friday.

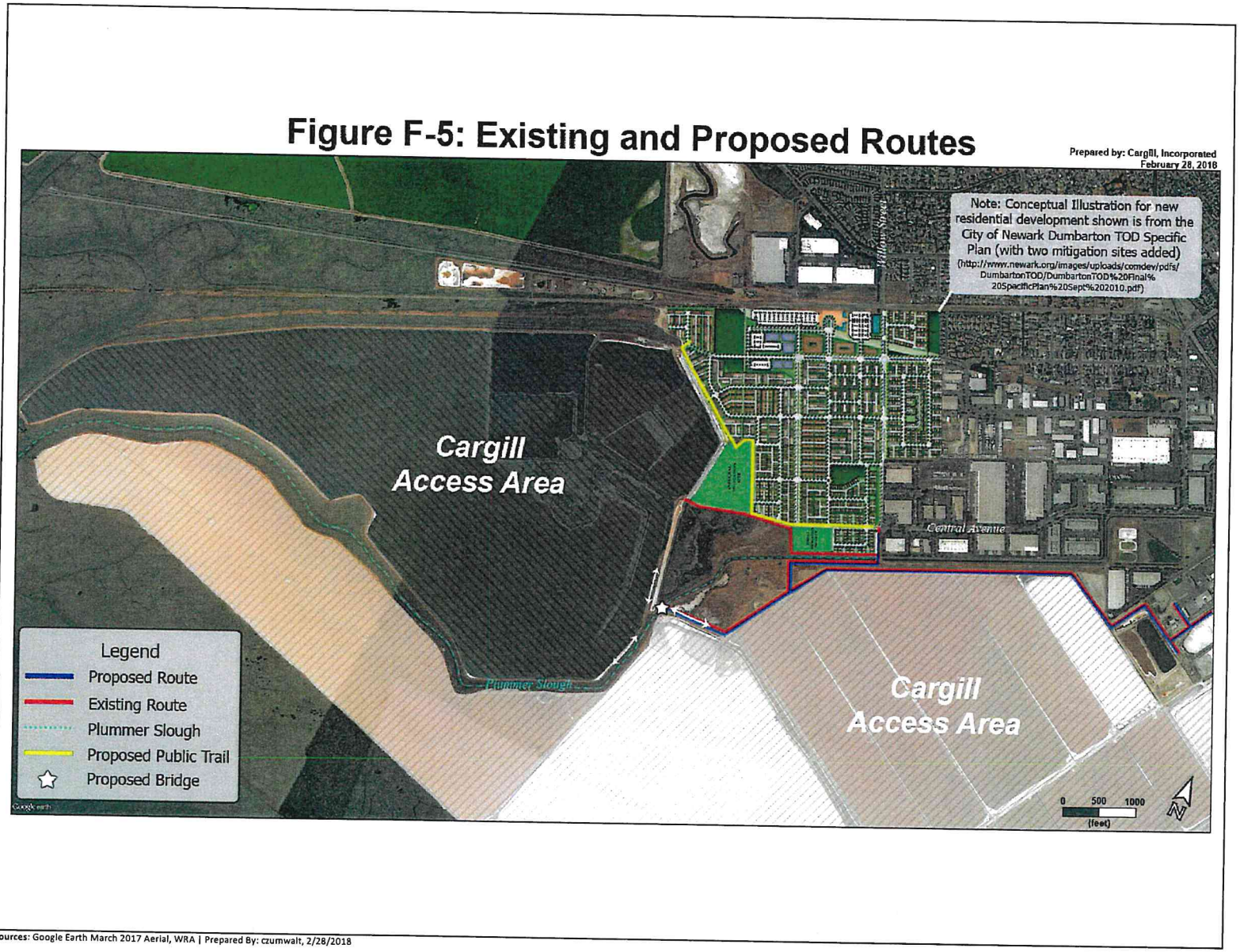

Figure 2.
Locations of Cargill Plummer Slough Bridge Project Improvements

Cargill Plummer Slough Bridge Project
Newark, California

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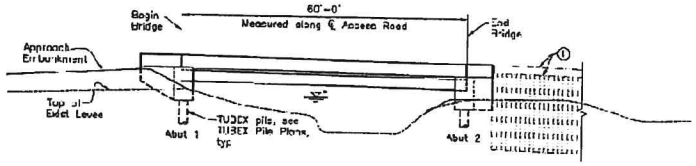
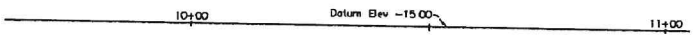
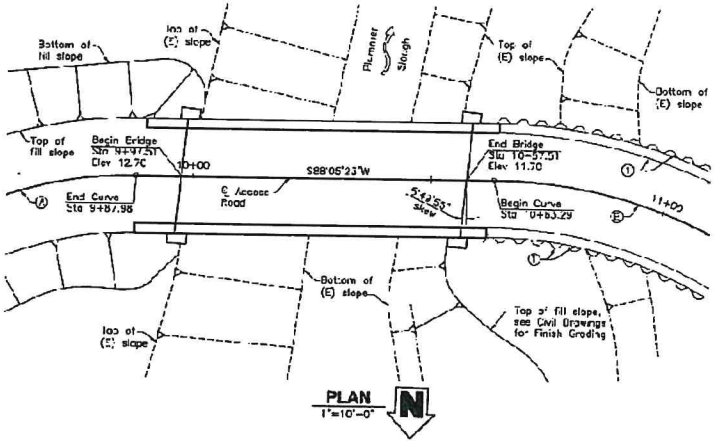


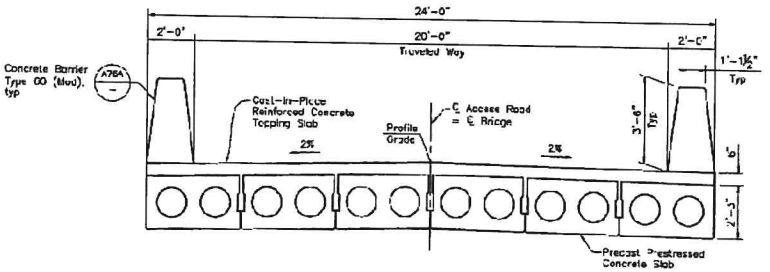


ELEVATION
1"=10'-0"

Note:
* See 'Hydrologic Summary' on FOUNDATION PLAN sheet



PLAN
1"=10'-0"



TYPICAL SECTION
1/2"=1'-0"

INDEX TO BRIDGE PLANS

SHEET NO.	TITLE
S-1	GENERAL PLAN
S-2	GENERAL NOTES
S-3	FOUNDATION PLAN
S-4	ABUTMENT LAYOUT
S-5	ABUTMENT DETAILS
S-6	TYPICAL SECTION
S-7	PRESTRESSED SLAB DETAILS

LEGEND:
① Existing Sheet Pile Retaining Wall and Barrier, see Road Plans

(B0-3) / (3-1) — Indicates Caltrans standard plan sheet no. / Indicates detail no.
(4) / (S1) — Indicates section no. / Indicates sheet no. shown on
(1) / (S2) — Indicates detail no. / Indicates sheet no. shown on

CALTRANS 2015 STANDARD PLANS

A3A	ABBREVIATIONS (SHEET 1 OF 3)	A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
A3B	ABBREVIATIONS (SHEET 2 OF 3)		
A3C	ABBREVIATIONS (SHEET 3 OF 3)	A76A	CONCRETE BARRIER TYPE 60
A10A	LINES AND SYMBOLS (SHEET 1 OF 5)	BC-1	BRIDGE DETAILS
RSP A10B	LINES AND SYMBOLS (SHEET 2 OF 5)	RSP B0-3	BRIDGE DETAILS
A10C	LINES AND SYMBOLS (SHEET 3 OF 5)	BC-13	BRIDGE DETAILS
A10D	LINES AND SYMBOLS (SHEET 4 OF 5)		
A10E	LINES AND SYMBOLS (SHEET 5 OF 5)		

GENERAL NOTES:
1. These plans shall incorporate the 2015 State of California Department of Transportation Standard Specifications, Revised Standard Specifications and Standard Plans, and the Structure Specifications.
2. See Civil Plans for elevation control, finished grade lines, additional details, layout information, and notes.
3. The Contractor shall verify all existing field conditions, layout, dimensions and coordination with the Civil Plans and TUBEX Pile Plans prior to start of construction or ordering or fabricating any material. Any discrepancies shall be immediately brought to the attention of the Engineer.
4. A Geotechnical Investigation dated April 11, 2017 and Supplemental Recommendations Letter dated July 28, 2017 by Berlogar Stevens & Associates have been prepared for this project. Contractor shall conform to all requirements therein.
5. A Representative of the Geotechnical Engineer of Record shall be on site at all times during earthwork, activities and pile installation operations. Upon completion, the Geotechnical Engineer of Record shall provide the Owner and TUBEX Engineer with a letter stating that all earthwork and foundations have met the project requirements.

CURVE DATA				
CURVE	R	Δ	T	L
Ⓐ	85.00'	32°05'28"	24.45'	47.61'
Ⓑ	100.00'	48°26'43"	45.43'	35.29'

Note: Verify Curve Data with Civil Plans

PLAN CHECK SET/NOT FOR CONSTRUCTION

CORNERSTONE structural engineering group	CARGILL INC. – NEWARK PLANT 7220 CENTRAL AVE NEWARK, CA 94560		
DRAWN MB DATE 6/5/20	PLUMMER SLOUGH BRIDGE	SCALE AS NOTED	REVISION
DESIGNED JD DATE 6/5/20	GENERAL PLAN	JOB NO. 20180	
CHECKED - DATE -		DOCUMENT NUMBER 2017003351	SHEET NO. S1
PROJ. MGR. JD DATE -			
QUALITY CONTROL - DATE -			

REVISIONS

Path: L:\Acad 2000 Files\07000\07062-4\GIS\ArcMap\SitePlan.mxd

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Carghill Plummer Slough Bridge Project
Newark, California

Figure 3.

Bridge Plan

Map Prepared Date: 2/2/2018
Map Prepared By: smortensen
Base Source: Esri Streaming - N/A
Data Source(s): Cornerstone, Carghill, Inc.

3.2 Project –Related Approvals, Agreements, and Permits

The information contained in this Initial Study will be used by the City of Newark as it considers whether or not to approve the project as proposed. If the project is approved, the Initial Study would be used by the City and responsible and trustee agencies in conjunction with various approvals and permits. These actions include, but may not be limited to, the following approvals by the agencies indicated:

Alameda County Flood Control District

- Encroachment Permit

City of Newark

- Grading permit
- Structural permit

Bay Conservation and Community Development Commission

- Non-material Amendment to existing BCDC Permit

The Cargill facility currently operates pursuant to a 1995 permit issued by the Bay Conservation and Development Commission (BCDC), as amended and extended. Cargill is preparing a non-material amendment request for that existing permit concurrently with this report.

Related to the BCDC permit, Cargill has also previously applied and received regulatory permits from the Army Corps of Engineers (Corps) and the Regional Water Quality Control Board (RWQCB) to operate and maintain the salt ponds surrounding the project site. These permits were issued in 2010 and due to the location of the project site and nature of the activities, the Corps has determined that potentially jurisdictional aspects of the project, including filling of a portion of the brine channel, are covered under these existing permits.

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

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

Determination

On the basis of this initial evaluation:

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

☒ I find that although the 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 by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the 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 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.

Signature: Terrence Grindall Date: 5-31-18

Name and Title: Terrence Grindall, Assistant City Manager

Initial Study Checklist

This section describes the existing environmental conditions in and near the project site and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

"No Impact" means that no impact to the resource would occur as a result of implementing the project.

"Less than Significant Impact" means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

"Less than Significant with Mitigation Incorporated" means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

"Potentially Significant Impact" means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

4.1 Aesthetics

AESTHETICS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	1,2
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐	1,5
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	1
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒	1

Environmental Setting

The project site is located along the eastern margin of the South San Francisco Bay, just inside the western limits of the City of Newark (Figure 1). The project site is within Cargill's salt production facility. Surrounding land uses near the project site include open space to the north, diked salt marsh to the east, and salt ponds to the south and west. The proposed bridge would cross the Plummer Slough.

Views from the project area are generally limited to the adjacent diked salt marsh, salt ponds and the open space area. The project site is partially visible from the access roads closest to the site and from the open space area to the north.

According to the California Department of Transportation (Caltrans) Scenic Highway Program, there are no scenic highways adjacent to the project site. The closest scenic highway is Highway 680 located approximately 6.0 miles east of the project site.

Discussion of Impacts

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. A significant impact may occur if a project were to introduce incompatible scenic elements within a field of view containing a scenic vista or substantially block views of a scenic element. The project site is located within Cargill's salt production facility. Although the proposed project would include the installation of a new bridge that includes a 3 foot 6 inch concrete barrier, the project site is set back from the publically traversed roadways and would not block views of the San Francisco Bay. Therefore, the proposed project would not impede views of or have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. According to the California Department of Transportation's (Caltrans) California Scenic Highway System for Alameda County, the project site is not adjacent to or within the vicinity of any state scenic highways.[1] There are no rock outcroppings or similarly recognized visual resources on the project site. No trees or historic buildings would be removed as a result of the proposed project. Therefore the installation of the bridge and road improvements would not significantly alter views of the project site. A less-than-significant impact related to scenic resources would occur.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. The proposed project would include the installation of a new bridge over Plummer Slough and implement limited levee roadway improvements. The project site is partially visible from the access roads at the salt pond facility and the open space area to the north. Once the project is implemented views would be similar to existing conditions, as the bridge would be installed at a similar level to the existing access roads and the roadway improvements would not raise the elevation of the existing roads that would impede views. Therefore the bridge installation would be consistent with the existing visual character. The proposed project would not significantly impact the visual character or quality of the project site or its surrounding and impacts would be less than significant.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The proposed project would install a new bridge and include limited levee roadway access improvements. No lighting is proposed as part of the project and no reflective building materials would be used for the bridge. Therefore, the proposed project would not create a substantial permanent source of light or glare. Nighttime construction is also not anticipated to take place. The proposed project would not include a new source of substantial light or glare which could adversely affect daytime or nighttime views in the area. No impact would occur.

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[1] *California Department of Transportation. California Scenic Highway Mapping System, Alameda County. Website: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed: February 1, 2017.*

4.2 Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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?	☐	☐	☐	☒	1,4
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	3,4
c) 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))?	☐	☐	☐	☒	1,3
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1
e) 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?	☐	☐	☐	☒	1

Environmental Setting

According to the California Department of Conservation, Alameda County Important Farmland Map, the project site does not contain any Prime, Unique, Statewide, or Locally Important Farmland. The proposed project is located in an agricultural area. Surrounding land consists of agricultural, residential, and open space uses.

Discussion of Impacts

a) Would the project 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?

No Impact. According to the 2017 Farmland Mapping and Monitoring Program from the California Department of Conservation, the project site is designated as "other land" and the proposed project would therefore not convert any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). No impact to Farmland would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is zoned Resource Production/Open Space (RP-OS). While the project site includes an resource production zoning designation, the proposed bridge would allow the facility (the Cargill salt ponds) to continue to operate. Therefore, all operations adjacent to the site would continue. The proposed project would not conflict with an existing resource production zoning designation. No impact would occur.

c) Would the project 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))?

No Impact. As described above, the proposed project is not zoned for forest land, timberland, or timberland zoned Timberland Production. The proposed project would therefore not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest land is present within or adjacent to the project site. Therefore, the project would not result in the loss of forest land or conversion of forest land to a non-forest use. No impact would result from project implementation.

e) Would the project 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?

No Impact. Construction of the proposed project would not require rezoning and would not involve any activities that would result in the conversion of farmland to non-agricultural use. Therefore, the proposed project would have no impact.

4.3 Air Quality

AIR QUALITY— Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	1, 6
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐	1, 6
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐	1, 6
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	1, 6
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	1, 6

Environmental Setting

Discussion of Criteria Air Pollutants

The project site is located in the southern portion of Alameda County, which is in the San Francisco Bay Area Air Basin. Ambient Air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter, or particles that have a diameter of 10 micrometers or less (PM_{10}), and fine particulate matter, where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate

matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Discussion of TACs

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer or serious illness) and include, but are not limited to, criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a highway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established ambient air quality standards. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Diesel Particulate Matter

Diesel exhaust, in the form of diesel particulate matter (DPM), is the predominant TAC in urban air with the potential to cause cancer. It is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resource Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The U.S. Environmental Protection Agency (EPA) and CARB have adopted low-sulfur diesel fuel standards in 2006 that reduces diesel particulate matter substantially. CARB recently adopted new regulations requiring the retrofit and/or replacement of construction equipment, on-highway diesel trucks, and diesel buses in order to lower fine particulate matter ($PM_{2.5}$) emissions and reduce statewide cancer risk from diesel exhaust.

Fine Particulate Matter ($PM_{2.5}$)

Particulate matter in excess of state and federal standards represents another challenge for the Bay Area. Elevated concentrations of $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Sensitive Receptors

A sensitive receptor is generally defined as human populations, especially children, seniors, and sick persons, located where there is a reasonable expectation of continuous human exposure to air pollutants. These typically include residences, hospitals, and schools. The primary sensitive receptors in the vicinity are the future residents of the residential development under construction at the northeast corner of Hickory Street and Central Avenue, which may include children, elderly people, or people with respiratory illnesses and school children at August Schilling Elementary School; however, both of these locations are over a quarter-mile of away

from the project site. For the proposed project, the primary sources of pollutant emissions are those associated with construction; the proposed project does not involve the construction of a major air emissions source, or of developments, which would attract motor vehicles with associated air emissions.

Discussion of Impacts

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The Bay Area Air Quality Management District (BAAQMD) recently adopted the 2017 Clean Air Plan (CAP). This plan provides a regional strategy to protect public health, protect the climate, and includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents. The proposed project would not conflict with any of the plan measures as the project would result in minimal and temporary construction emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. However, once the project is completed operational emissions are anticipated to decrease due to the shorter (alternative) vehicle access route that would then be utilized by Cargill vehicles. Therefore, the project would help to implement measures contained within the 2017 CAP. The project would not conflict with or obstruct implementation of the CAP and no impact would occur.

b) Would the project violate any air quality standard or contribute to an existing or projected air quality violation?

Less than Significant with Mitigation Incorporated. Construction activities would result in short-term, temporary increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction would produce fugitive dust (PM_{10} and $PM_{2.5}$) during implementation of the road improvements and would generate carbon monoxide, ozone precursors, and other emissions from vehicle equipment and operation. Fugitive dust emissions from grading would be minimal due to the small area of ground disturbance and relatively short construction period. The BAAQMD CEQA Guidelines do not contain thresholds of significance for fugitive dust; however, implementation of the project could result in a temporary impact to air quality. Construction emissions would be temporary, lasting approximately six months, and would not have permanent, long-term effects on air quality in the Bay Area.

As discussed in Section 3.0 (Project Description), the project would only require a minimal amount of fill for the limited levee roadway improvements (approximately 2,700 CY). The proposed project would not generate a substantial amount of construction vehicle trips resulting in significant emissions in the context of existing air quality standards.

Furthermore, as mentioned above, the project is anticipated to reduce operational emissions with the creation of the shorter (alternative) access route for Cargill vehicles. Implementation of Mitigation Measure AIR-1 would ensure compliance with all BAAQMD guidelines and control fugitive dust emissions. Implementation of this mitigation

measure would reduce impacts related to construction emissions and fugitive dust to a less-than-significant level.

Mitigation Measure AIR-1: Construction Emissions

During the construction phase the applicant shall ensure that the project contractor implements measures to control dust and exhaust. The contractor shall implement the following best management practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

7. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

c) Would the project 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant with Mitigation Incorporated. As discussed under items a) and b) above, the proposed project would result in minor construction-related air pollutant emissions and would reduce operational emissions. The project would cause minimal short-term air quality impacts as a result of construction. The proposed project would not result in long-term or cumulatively considerable increases in air quality pollutant emissions for which the region is currently in non-attainment (particulate matter and ozone), as emissions resulting from project implementation would be confined to the construction phase. Furthermore, implementation of Mitigation Measure AIR-1 above would ensure that the temporary increase in air pollutant emissions associated with

construction activities would result in less than significant contributions to cumulative pollutant levels in the region.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated. The primary sensitive receptors in the vicinity include students and employees at August Schilling Elementary School and the future residents of the residential development northeast of the project site. The duration of construction activities would be limited and is only anticipated to last six months. Basic construction measures recommended by BAAQMD, as listed in Mitigation Measure AIR-1 above would be implemented to minimize air pollutants. New construction equipment has been subject to increasingly stringent emissions requirements at the Federal level (e.g. 40 CFR 89 and 1039), designated "Tier 1", "Tier 2", "Tier 3", etc.; older construction equipment is subject to potential retrofit requirements required by the State of California (13 CCR 2449, 13 CCR 2450-2466, and 17 CCR 93116). As a result, sensitive receptors in the vicinity of the proposed project would not be exposed to substantial pollutant concentrations, and impacts would be less than significant with implementation of Mitigation Measure AIR-1.

e) Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact. Potential sources of objectionable odors typically include land uses such as wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The proposed project does not involve construction or operation of any of those types of facilities. Construction activities would involve the use of diesel-powered equipment that emits exhaust gases and particulate matter, which can have objectionable odors. However, construction equipment is mobile (dispersing and diluting pollutants over a wider area than if they were fixed in place). The infrequency of the emissions, rapid dissipation of the exhaust and other odors into the air, and short-term nature of the construction activities would result in less-than-significant odor impacts.

4.4 Biological Resources

BIOLOGICAL RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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?	☐	☒	☐	☐	1, 7
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	1, 7,8
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐	1, 7
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒	1, 7
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	1, 7
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	1

Environmental Setting

A California Natural Diversity Database (CNDDB) search was conducted within the vicinity of the project site (Figures 4 and 5).[2] Based on the results of the CNDDB search, and the US Fish and Wildlife Service Biological Opinion for the Proposed Cargill Salt Division Solar Salt System Activities,[3] the following special-status species have the potential to occur in the vicinity of the project site:

Special-Status Wildlife Species

- salt marsh harvest mouse (*Reithrodontomys raviventris)*,
- western snowy plover (*Charadrius nivosus [alexandrines] nivosus*),
- short-eared owl (*Asio flammeus*),
- San Francisco common yellowthroat (*Geothlypis trichas sinuosa*),
- Alameda song sparrow (*Melospiza melodia pusillula*), and
- salt marsh wandering shrew (*Sorex vagrans halicoetes*)

Special-Status Plant Species

- brittlescale (*Atriplex depressa)*,
- San Joaquin spearscale (*Extriplex joaquinana)*, and
- Congdon's tarplant (*Centromadia parryi* var. *congdonii)*.

None of the special-status plant species known from the region have been observed within the project site by WRA wildlife biologists, and none are expected to occur due to lack of suitable conditions. However, special-status avian species (i.e., Alameda song sparrow and San Francisco common yellowthroat) may nest within or adjacent to the project site, and special-status mammals may forage or seek refuge in uplands (ruderal non-native grassland) within the project footprint.

Biological Communities

Within the project site, northern coastal salt marsh vegetation dominated by pickleweed (*Salicornia pacifica*) is present along the lower levee slopes and banks of Plummer Slough. Salt marsh vegetation transitions into upland ruderal vegetation composed of non-native grasses

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[2] *California Department of Fish and Wildlife. 2017. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, California. Most recently accessed: April 2017.*

[3] *US Fish and Wildlife Service. 2012. Biological Opinion for the Proposed Cargill Salt Division Solar Salt System Activities in Alameda and San Mateo Counties, California (US Army Corps of Engineers [Corps] File Number 2008-00160S). June 12.*

and herbs. The levee tops are bare, maintained, unpaved access roads which are roughly 5 feet higher in elevation than the edge of open water and mudflats of the slough channel.

Regulatory Setting

As noted above, the Cargill facility has previously applied and received regulatory permits from the Corps and the RWQCB to operate and maintain the salt ponds surrounding the project site. These permits were issued in 2010 and due to the location of the project site and nature of the activities, the Corps has determined that the construction of the bridge, including filling of a portion of the brine channel, is covered under these existing permits. Prior to issuing theses permits, the Corps initiated consultation with the United States Fish & Wildlife Service and secured a biological opinion that specifies measures to avoid and minimize the potential incidental take of threatened and endangered species in accordance with the federal Endangered Species Act.

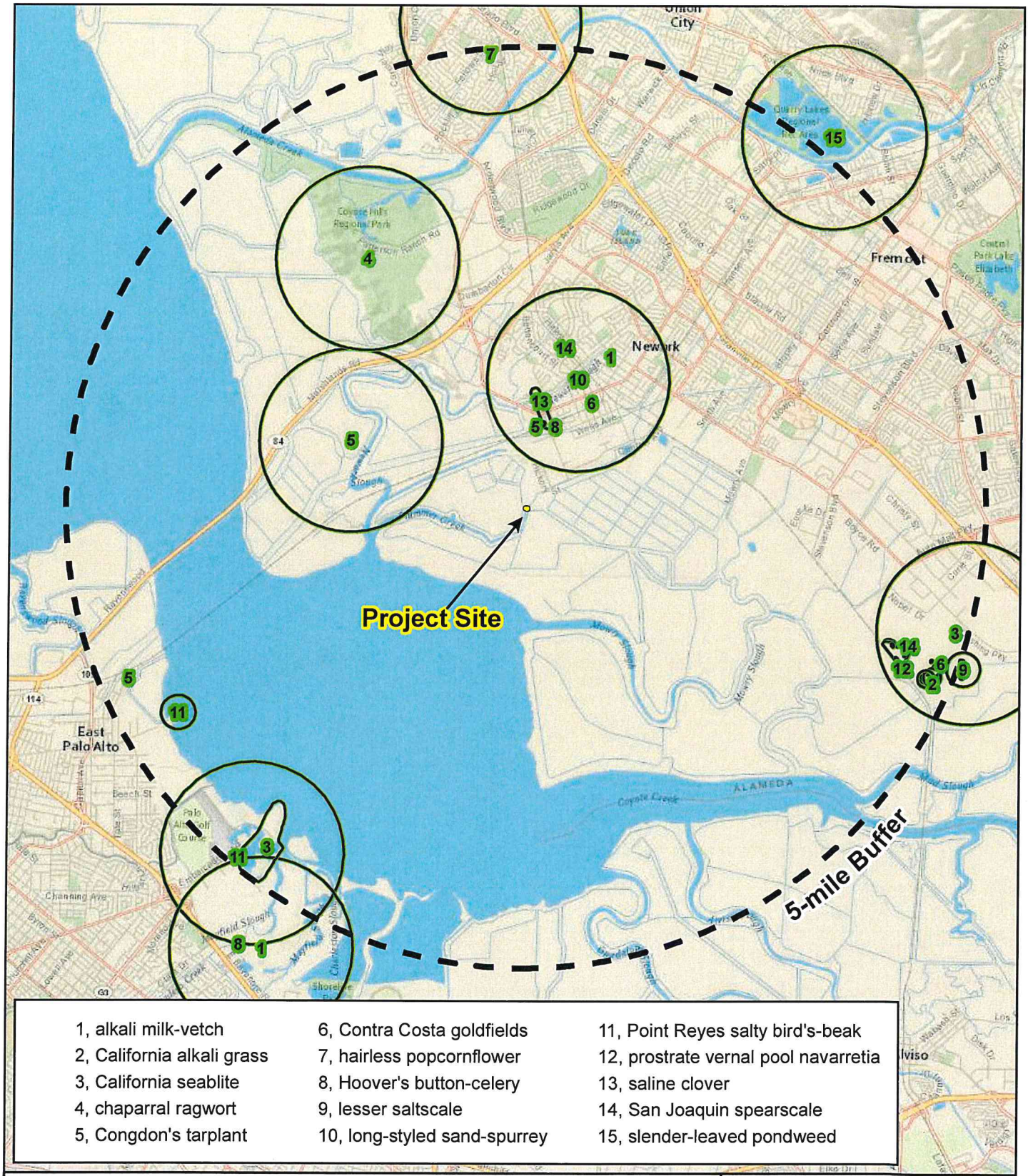

Figure 4. Special-status Plant Species Documented within 5 Miles of the Project Site

Cargill Plummer Slough Bridge Project
Newark, California

0 0.5 1 2
Miles

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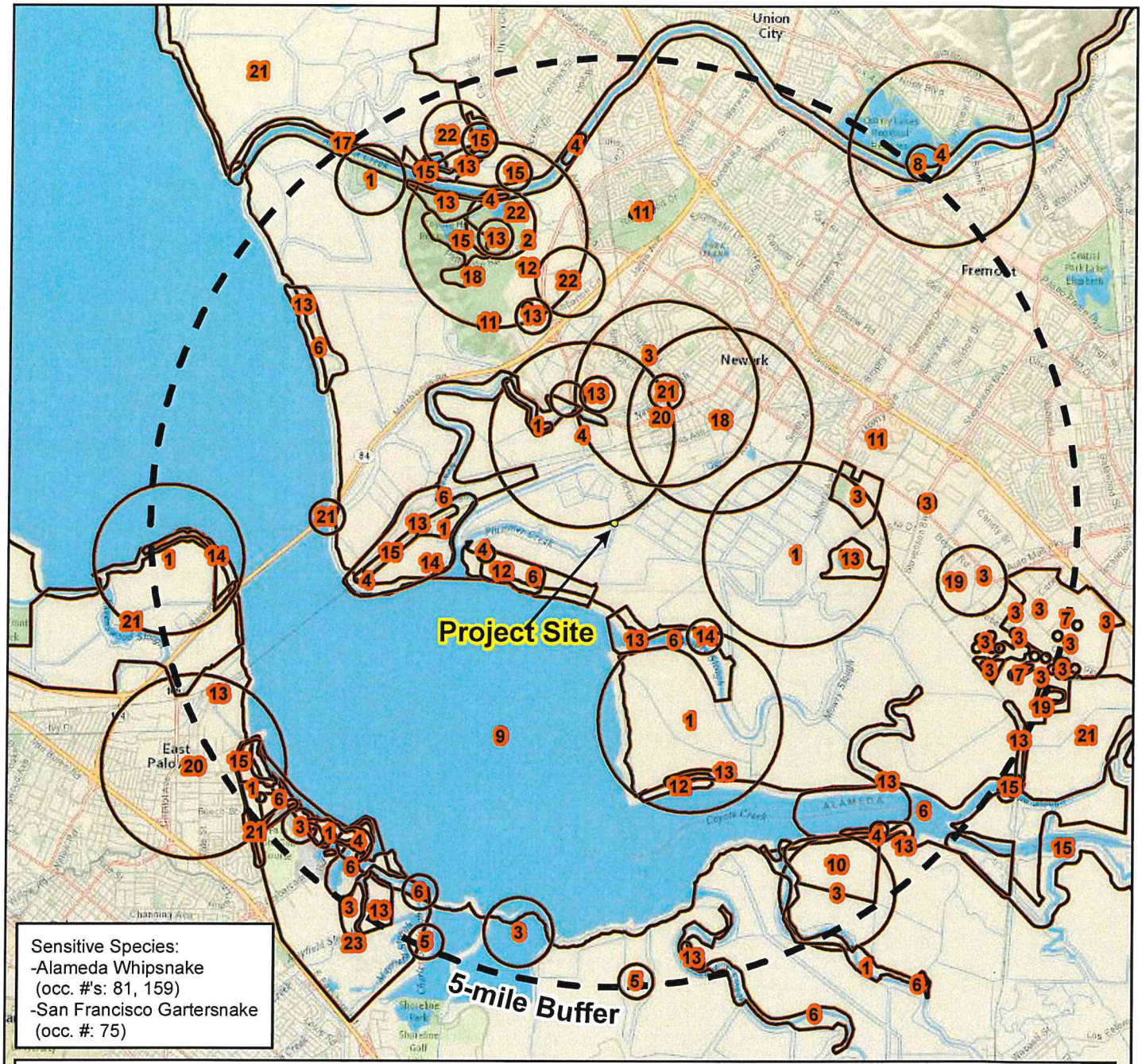
Map Prepared Date: 1/29/2018
Map Prepared By: smortensen
Base Source: National Geographic
Data Source(s): CNDDB January 2018

Path: L:\Acad 2000 Files\07000\07062-4\GIS\ArcMap\CNDDB Plants.mxd



1, Alameda song sparrow
2, bank swallow
3, burrowing owl
4, California black rail
5, California least tern
6, California Ridgway's rail
7, California tiger salamander
8, great blue heron
9, longfin smelt
10, mimic tryonia (=California brackishwater snail)
11, monarch - California overwintering population
12, northern harrier
13, salt-marsh harvest mouse
14, salt-marsh wandering shrew
15, saltmarsh common yellowthroat
16, snowy egret
17, steelhead - central California coast DPS
18, tricolored blackbird
19, vernal pool tadpole shrimp
20, western bumble bee
21, western snowy plover
22, white-tailed kite
23, yellow rail

Figure 5. Special-status Wildlife Species Documented within 5 Miles of the Project Site

N W E S

0 0.5 1 2
Miles

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Cargill Plummer Slough Bridge Project
Newark, California

Map Prepared Date: 1/29/2018
Map Prepared By: smortensen
Base Source: National Geographic
Data Source(s): CNDDB January 2018

Path: L:\Acad 2000 Files\07000\07062-4\GIS\ArcMap\CNDDB Wildlife.mxd

Discussion of Impacts

a) **Would the project 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?**

Less than Significant with Mitigation Incorporated. It was determined that 6 special-status wildlife species and 3 special-status plant species have the potential to occur within the vicinity of the project site. None of the special-status plant species known to occur within the region were observed within the project site and none are expected to occur due to lack of suitable conditions. However, special-status avian species may nest within or adjacent to the project site, and special-status mammals may forage or seek refuge in uplands within the project footprint. Breeding birds potentially utilizing the area may also be protected by the Migratory Bird Treaty Act (MBTA) and could be affected by construction activities. Due to the potential for special-status wildlife to be present within the project site, implementation of the project could result in a potentially significant impact. However with implementation of Mitigation Measure BIO-1, potentially significant impacts to special-status wildlife species would be reduced to a less-than-significant level.

Mitigation Measure BIO-1

Avoidance measures shall be used to prevent significant impacts to special-status wildlife species including the installation of exclusion fencing along the upslope edge of the project site to prevent small mammals from entering the work area, and a nesting bird survey prior to ground disturbance to prevent nest destruction or abandonment. The exclusion fencing will also act as erosion control for the slough and salt marsh vegetation, and shall be installed in a manner consistent with the Conservation Measures described in the Biological Opinion for the Proposed Cargill Salt Division Solar Salt System Activities.

b) **Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Less than Significant with Mitigation Incorporated. The proposed project would install a bridge across Plummer Slough and fill a portion of the brine channel to improve the bridge approach. The installation of the bridge over Plummer Slough is anticipated to result in an indirect impact due to shading to the northern coastal salt marsh biological community present within the project site. Studies addressing shading impacts on salt marsh vegetation show that vegetation under structures 4 to 6 feet high had little difference in density and size than the control as the light field

was 60 to 90 percent full light,[45] suggesting that any area with a sunlight reduction of more than 40 percent would be reduced in productivity. The bridge would ultimately reduce the solar radiation by between 1 and 100 percent over a 1,651 square foot area consisting of open water, salt marsh, and upland vegetation. Of the area to be shaded, approximately 391 square feet of salt marsh vegetation may experience 40 percent or greater reduction in solar radiation. Thus, approximately 391 square feet (0.009 acre) of salt marsh wetlands are expected to be converted to open water/mudflats due to shading from the proposed bridge. However, although the project may reduce the amount of vegetation within a confined area, the value and function of the area would remain similar to existing conditions. This relatively small amount of conversion of salt marsh wetlands to open waters/mudflats is considered a significant impact that can be mitigated to a less-than-significant level via implementation of Mitigation Measure BIO-2.

Mitigation Measure BIO-2

The applicant shall obtain a Non-Material Amendment to the existing BCDC Permit which shall mitigate for the loss of 391 square feet (0.009 acre) of salt marsh wetlands via in-kind replacement at a 1:1 ratio or other methods deemed acceptable by BCDC.

c) **Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than Significant Impact. The bridge is designed to be cantilevered across Plummer Slough such that the entire structure remains above the high tide line. No direct removal, filling, or hydrological interruption to Plummer Slough is anticipated to result. Filling would occur within the brine channel to implement the limited levee roadway improvements. The brine channel may be considered jurisdictional by the Corps and RWQCB, however, the Corps has determined that those impacts are covered under the existing Section 404 and 401 permits for maintenance. A less than significant impact would occur.

d) **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No Impact. Wildlife movement corridors are described as pathways or habitat

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[4] *SW Broome, CB Craft, SD Struck, M San Clements. 2005. Effects of Shading from Bridges on Estuarine Wetlands. North Carolina State University, College of Agriculture and Life Sciences. Raleigh, North Carolina.*

[5] *Logan, J, S Voss, A Davis, and KH Ford. 2018. An Experimental Evaluation of Dock Shading Impacts on Salt Marsh Vegetation in a New England Estuary. Estuaries and Coasts (2018) Vol 41:1, pp 13 - 24. January.*

linkages that connect discrete areas of natural open space otherwise fragmented by topography, changes in vegetation, and other natural or human inducted factors such as urbanization. Although not anticipated to support wildlife, several species have the potential to forage or nest within the project site. The proposed bridge would be placed above the high tide line and would only take up a minimal amount of space compared to existing conditions. All wildlife species would continue to be able to access the Plummer Slough and associated biological communities. It would not serve as a barrier to any fish or wildlife migration corridors. Therefore, no impacts to wildlife movement or native nursery sites would occur.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Newark provides for the protection of City trees per the Street Tree Maintenance Program. This program is specific to trees on City property and within City rights-of-way. A permit to remove a tree is also required for trees on private lots that are 10,000 square feet or larger. The proposed project would not remove any trees within the project site. As no trees would be removed as a result of project implementation no impact related to conflicts with local policies or ordinances protecting biological resources would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No Federal, State, or Regional Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) have been adopted for the project site. No impact would occur.

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Cargill Plummer Slough Bridge Project
Newark, California

Figure 6.

Biological Communities

Map Prepared Date: 4/25/2017
Map Prepared By: czumwalt
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\07000\07062-4\GIS\ArcMap\Bio Communities.mxd

4.5 Cultural Resources

CULTURAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	☐	☐	☐	☒	1, 10
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐	1, 10
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	1, 10
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1, 10

Environmental Setting

History

As early as 1769, expeditions that preceded the arrival of Spanish settlers and missionaries recorded Native American habitation sites along the eastern San Francisco Bay shoreline. European settlement began with the founding of Mission San Jose in 1797. The Newark area remained in control of Mission San Jose until approximately 1836, when the Mission was secularized and came under control of the Mexican government.

In 1844, a large land grant, known as the Rancho Potrero de Los Cerritos grant, made by the Mexican governor gave what is now the entire City of Newark, as well as the Coyote Hills and portions of Union City and Fremont to Augustine Alviso and Thomas Pacheco. Most of the uplands remained as grazing lands, until sold off for use by small-scale ranchers. When California became part of the United States in 1848, American settlers began moving to the Rancho Potrero de los Cerritos area in great numbers. An early settler jurisdiction called Washington Township was established in the vicinity of present day Fremont. Among the first to settle in the Newark area was Origin Mowry, who in 1850 establish Mowry's Landing, for a time known as Mowry's Creek. Landings such as Mowry's, as well as Mayhew's Landing to the north, provided the main source of commerce to the area.

In March 1878, the present day Union Pacific Railroad came into service in between Wells and Thornton Avenues in Newark, and the historic Old Town Newark train station was established at Carter Avenue. Old Town Newark is roughly bounded by Cherry Street in the east, Spruce Street in the west, Thornton Avenue in the north, and Wells Street in the south. Railroad associated businesses, including Carter Brothers railroad car manufacturing shop, were established in the vicinity. Other industry within the area at that time included the commercial salt ponds in the southwestern portion of Newark. By 1880, Newark had a population of 200 people. In 1909, construction of the first Bay bridge crossing was completed, connecting freight

trains from Newark to Redwood City and, ultimately, all the way to San Francisco. By 1900, portions of marshland on the western edge of Newark had been diked, bermed, and converted to salt ponds, and uplands were converted to salt making ponds. The Leslie Salt Company, precursor to Cargill, traces its history back to operations started in Newark in 1936. From the 1950s until the 1990s, Newark has been host to a variety of industrial uses, ranging from brick making, to chemical blending, to semi-truck assembly.

Paleontological Resources

Paleontological resources (fossils) are the remains of prehistoric plant and animal life. Paleontological resources do not include of human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in geologic formations. Paleontological resources are limited, non-renewable, sensitive scientific and educational resources. The potential for fossil remains at a location can be predicted based on whether or not previous fossil finds have been made in the vicinity, and the age of the geologic formations.

Newark is located within a westward sloping alluvial plane and is underlain by Holocene floodbasin deposits and Holocene Bay mud. Many paleontologists consider Holocene biologic remains too recent to qualify as fossils in the strict sense. Using this age-basis definition of significance, the paleontological sensitivity of the Plan Area is considered low. Further, there are no known paleontological resources within the City of Newark. There are, however, many specimens in Alameda County. The closest to Newark are in Irvington, an area within City of Fremont.

Archaeological Resources

Native American habitation sites in Alameda County are often marked by the presence of middens, which are piles of organic debris marking village refuse areas, typically containing marine shells and animal bones. Other types of features that distinguish Native American activity areas are scatters of "flakes" of chipped material that resulted from the hand-crafting of stone tools, and seed or acorn milling stations, which consist of depressions consistent with a mortar and pestle. Native American cultural resources in western Alameda County are typically found near the Bay shore and adjacent to other seasonal and perennial watercourses. Over 50 archeological sites have been documented along the Bay shore from Richmond to Newark.

Previous surveys for archaeological resources have been conducted in the Southwest Newark Residential and Recreational Focus Area, in the area bounded by the intersection of Mowry Avenue, Cherry Street, the Union Pacific Railroad tracks, and City limit. Unique archaeological resources, including Native American human remains, were found. The professional opinion of the project archaeologist in charge of the survey was that large, intact archaeological deposits containing human burials and midden matrices, eligible for the state and national registers, exist in the survey area. All remains were covered and left in place as recommended by the Native American monitor, and the Native American Heritage Commission was notified and has assigned a Most Likely Descendent to ensure appropriate treatment of the human remains. Additionally, the historic salt marshlands at the edge of San Francisco Bay are considered to be moderately sensitive for archaeological resources. A records search conducted by the State of California Office of Historic Preservation Northwest Information Center (NWIC) at Sonoma State University in October 2001 indicated recorded Native American sites in this sector of the City.

Historical Resources

Federal and State Designated Historic Resources

The National Register includes buildings 50 years older, unless deemed to be of exceptional importance. The California State Office of Historic Preservation (OHP) includes buildings, structures and objects 45 years or older on the California Register.

No historic resources in Newark have been placed on the National or California Registers, which would provide these resources special consideration under CEQA. Some structures in the City may be eligible for the National Register or the California Register; however, eligibility does not provide special consideration under CEQA. The City originated in an area referred to as Old Town Newark, considered to be the blocks of Thornton Avenue centered on Sycamore Street between Ash Street and Cherry Street. Industrial buildings in the southwestern portion of Newark, where manufacturing has taken place for decades, could be historically significant. A portion of the Union Pacific Railroad corridor between Wells and Thornton Avenues is eligible for inclusion on the National Register. It is also feasible that the portion of the railroad corridor adjacent to Dumbarton Cutoff train bridge may also be eligible for inclusion on the National Register. The Dumbarton Cutoff train bridge dates back to 1910, and carried freight trains from 1910 to 1982 across the San Francisco Bay. However, none of these are within the project site.

City Designated Historic Resources

The City of Newark's Historic Preservation Program was adopted in 1989. That year, the City undertook an assessment of the historic buildings, which established the historic merit criteria for Primary Landmarks, Secondary Landmarks and Buildings of Historic Merit. Historic Resources Inventory include two properties. These two buildings are the St. Edward's Church (now referred to as the Rose of Sharon Chapel) at 7160 Graham Avenue, and the James Graham residence at 7705 A/B Thornton Avenue. These two buildings are the only resources on the City's list of historic resources and are not in the vicinity of the project site.

Additionally, there are 42 buildings in Newark with "historic merit". These buildings, which may or may not be extant, are not considered to be a part of the City's list of historic resources. The 42 buildings were contained within the Old Town Newark area, an area roughly bounded by Cherry Street in the east, Spruce Street in the west, Thornton Avenue in the north, and Wells Street in the south. None of these buildings are located within or in the vicinity of the project site.[6]

Discussion of Impacts

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

No Impact. The project site does not contain any resource listed in, or determine to be eligible by, the State Historical Research Commission and does not contain a

[6] *City of Newark. 2013. General Plan Tune Up Draft Program EIR. Website: http://www.newark.org/images/uploads/comdev/pdfs/NewarkGP_DEIR_PublicReview.pdf. Accessed: January 25, 2018.*

resource listed in a local register of historic resources. Additionally, the project site does not contain any object, building, structure, site, area, record, or manuscript that a lead agency determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, social, political, military, or cultural annals of California. Therefore, no impact would occur.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. The salt marshlands at the edge of San Francisco Bay are considered to be moderately sensitive for archaeological resources. The salt marshlands are present within and adjacent to the project site. Although no archaeological resources have been found at the project site, the potential for archaeological resources to be encountered during construction exists. Unanticipated and accidental archaeological discoveries during project implementation have the potential to affect significant archaeological resources. Following construction, the operation of the proposed project would not require actions that could expose archaeological resources and would not result in an impact to any such resource. Impacts resulting from unanticipated and accidental discovery of archaeological resources during the construction phase are potentially significant, but would be reduced to a less-than-significant level with the implementation of Mitigation Measures CULT-1.

Mitigation Measure CULT–1

In the event previously unidentified cultural resources are encountered during project implementation, construction crew members and other project staff shall avoid altering the materials and their context. A qualified professional archaeologist shall be contacted immediately to evaluate the situation. Project personnel shall not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. There are no known paleontological resources within the City of Newark. However, the potential for paleontological resources to be encountered during construction exists. Unanticipated and accidental paleontological discoveries during project implementation have the potential to affect significant paleontological resources. Following construction, the operation of the proposed project would not require actions that could expose paleontological resources and would not result in an impact to any such resource. Impacts resulting from unanticipated and accidental discovery of paleontological resources are potentially significant, but would be reduced to a less-than-significant level with the implementation of Mitigation Measures CULT-1 above.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation Incorporated. Although no formal cemeteries or other places of human internment are known to exist at the site, there would be a potentially significant impact if human bone or bone of unknown origin were uncovered during project construction; however, implementation of Mitigation Measure CULT-2 would reduce potentially significant impacts to a less-than-significant level.

Mitigation Measure CULT–2

Although unlikely, if human remains are encountered, all work shall stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist shall be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission shall be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.

4.6 Geology and Soils

GEOLOGY AND SOILS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) 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?	☐	☐	☒	☐	9,11
ii) Strong seismic ground shaking?	☐	☒	☐	☐	9,11
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1,11
iv) Landslides?	☐	☐	☒	☐	1,9,11
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	1
c) 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?	☐	☒	☐	☐	1,11
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☒	☐	☐	1,11
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	1

Introduction

A Geotechnical Engineering Investigation Report along with supplemental recommendations (Geotechnical Report, Appendix B) was prepared for the project site by Berlogar Sevens and Associates in April and July 2017, respectively. The geotechnical report provides information on the geotechnical setting of the site including faulting, ground shaking, and liquefaction and provides recommendations for construction of the proposed project.

Environmental Setting

Soils

The bridge site is located at the mapped contact between Holocene Bay Mud (commonly referred to as Young Bay Mud or simply Bay Mud) (Qhbm) soil and Latest Pleistocene to Holocene alluvial fan levee deposits (Ql). The levee that will be subject to limited improvements for use as an access road is within the area mapped as Holocene Bay Mud. Bay Mud is comprised primarily of silts and clays. These fine-grained soils are typically medium stiff to soft and are moderately to highly compressible. Within the Bay Mud, there are occasional interbedded sand layers, which generally consist of loose to medium dense, fine to medium grained, silty and clayey sands with lenses and layers of shell beds of varying extents and thicknesses. The Holocene Bay Mud is typically underlain by stiff to very stiff silty clays, which is locally referred to as Old Bay Mud. The variation in thickness of the Old Bay Mud soils at the site is not known due to the limited depth of the subsurface explorations.

Seismicity

The San Francisco Bay area is considered by geologists and seismologists to be one of the most seismically active regions in the United States. The project site is in close proximity to several major faults that are susceptible to surface fault rupture, including the Hayward and San Andreas faults. The Hayward fault lies about 5.5 miles to the northeast, the San Andreas fault about 13 miles to the southwest. Although the site is in close proximity to several faults, the site is not crossed by or proximal to mapped active faults. According to the State of California Special Studies Zones map (CDMG CD 2000-004, 2000) for the Newark West Quadrangle, the site is not located within a designated State of California Alquist-Priolo Earthquake Fault Zone for active faults.

Liquefaction and Lateral Spreading

Liquefaction is a temporary transformation of soil into a viscous liquid during strong to violent ground shaking from a major earthquake. Historically, the potential for liquefaction has been associated with a saturated, cohesionless soil such as sands and silty sands. Current practices in liquefaction evaluation now include sands, silty sands and gravels, as well as silts and even some clay soils. According to the Geotechnical report prepared for the project, the site is located within a State-designated Liquefaction Hazard Zone (Appendix B).

Lateral spreading is a potential hazard that is associated with liquefaction. This phenomenon typically occurs where the subject site is sloping, or is adjacent to a descending slope or a free face. Lateral spreading can also occur on relatively flat sites (with very gentle slopes) where the underlying liquefied soil rests on a sloping surface. Based on the depth and thickness of the liquefiable soils the potential of lateral spreading is low.

Landslide

Newark is comparatively flat, sloping gently from 37 feet above mean sea level (msl) in the northeastern part of the city to 5 feet below sea level in the marshes near the Bay shoreline(project site). There are no significant hills or steep slopes. The California Geological Survey's Seismic Hazard Mapping Program reports no landslide hazard areas within the City.

Discussion of Impacts

a-i) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

Less than Significant Impact. According to the Association of Bay Area Governments Resilience Program, the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone and no known or potentially active faults cross through the project site. As described above, the nearest active fault is located approximately 5.5 miles from the project site. Therefore, surface rupture associated with nearby faults would not affect the project site. Impacts would be less than significant.

a-ii) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant with Mitigation Incorporated. According to ABAG, the project site is subject to very strong seismic shaking, which could potentially result in a significant impact. Seismic activity associated with nearby faults could cause ground shaking on the project site and could create a risk for construction workers, if an earthquake happens during construction. Furthermore, once the bridge has been constructed the event of seismic ground shaking could damage the structure and the area of the access road that was extended. The project components would adhere to California Building Code requirements specific to the area to minimize the potential for damage from earthquake activity in the future. Furthermore, implementation of Mitigation Measure GEO-1 would ensure that the project incorporates all recommendations listed in the geotechnical report and subsequent recommendations listed in the Geotechnical Supplemental Recommendations letter (Appendix B). Impacts associated with fault rupture and seismic ground shaking would be less than significant with implementation of Mitigation Measure GEO-1.

Mitigation Measure GEO-1

- Surface vegetation present at the time of grading shall be stripped or removed together with the organic-laden topsoil from areas to receive fill. Similarly, remaining salt deposits blanketing areas to be filled shall be cleared of the salt.

- Following the stripping and clearing operations, the exposed subgrade in areas to receive fill shall be evaluated by the Geotechnical Engineer and the grading contractor to determine if the exposed subgrade is sufficiently stable to support grading equipment and the placement of fill directly on the subgrade or if stabilization measures are required due to the presence of soft subgrade. Soft subgrade is anticipated within the brine ditch. A soft to medium stiff layer of Young Bay Mud, about two feet thick, was encountered in Boring B-2, in the vicinity of the planned western abutment. The depth to the Bay Mud places it at about the level of the bottom of the brine ditch.

Removing this soft soil down to the underlying stiffer clay soil may aid in grading of this portion of the site. The subgrade along the western side of the levee may be stiffer and capable of supporting lighter rubber-tired or track-mounted construction equipment as a result of the use of the area as a salt evaporation pond.

- Where the exposed subgrade will not support construction equipment of any type, the subgrade shall be covered with a woven geotextile fabric, such as Mirafi 600X, followed by the placement of an 18-inch thick section of crushed gravel to create a base on which to place the remaining required fill. The gravel shall be nominally 3" x 1" in size. The gravel shall be placed on the fabric by pushing it out using a bulldozer, with the dozer working on top of the gravel as the gravel fill is built out. The completed gravel layer should be full wrapped by the geotextile fabric. Once the fabric-wrapped gravel layer is in place, the remaining fill shall be placed over the fabric. The initial layer of fill shall be pushed out over the fabric and should have a nominal thickness of 12 inches. Once properly compacted and with demonstrated stability, conventional filling operations shall be able to commence.

- Where the exposed subgrade will support construction equipment but is susceptible to breaking down under construction traffic due to high soil moisture content, the initial one to two feet of fill shall be placed by pushing out 12-inch layers of fill using a bulldozer. The initial 12-inch lift shall be track-walked to increase the soil density to prepare it to receive the balance of the fill. The second 12-inch lift may also need to be pushed out and track-walked, followed by compaction with a sheepsfoot compactor. Once properly compacted and with demonstrated stability, conventional filling operations shall be able to commence.

- After a minimum of 2 feet of fill has been placed and compacted over stable existing subgrade soils, or over geotextile wrapped gravel where required, and where the fill can be demonstrated to be sufficiently stable to support trucks and grading equipment, conventional filling operations shall commence to complete the required fills. Engineered fill above the initial lifts discussed above shall be placed in thin lifts (normally 6 to 12 inches depending on the compaction equipment). Backfill lift thickness behind retaining walls and at utility trenches may need to be limited to between 4 and 6 inches where jumping jack or vibratory plate compactors are used. Lift thickness is a function of the equipment used as well as the material being compacted.

- Fill placed against the existing levee fill shall be tied into the existing fill by cutting benches into the existing fill one to two feet horizontally as the new fill is placed and compacted. Fill shall be compacted to no less than 90 percent relative compaction to with three feet of finished grade. The top two to three feet of fill shall be compacted to no less than 95 percent relative compaction. Fill soils shall be moisture conditioned to between 2 and 5 percent above the optimum moisture content prior to compaction.

- A layer of Class 2 aggregate base (nominally 12 inches thick) shall be considered at the haul road to provide a more durable wearing surface.

- Fill for the embankment across the brine ditch and to be placed as backfill at abutment and wing walls shall consist of Caltrans Class 2 aggregate base. Import fill for the levee widening and improvement project shall contain no deleterious matter, debris, visible organics or rocks greater than 4 inches in largest dimension. Clayey soils with a Plasticity Index of 25 or less are recommended for use as fill to allow for side slopes at inclinations up to 2 horizontal to 1 vertical (2H:1V). If granular or low to nonplasticity soils are used as fill, flatter side slopes at inclinations not to exceed 3H:1V shall be required. Fill materials shall be subject to the evaluation of the Geotechnical Engineer prior to their use.

- Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density determined by ASTM D1557 compaction test method. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.

- Observations and soil density tests shall be carried out by a representative of the Geotechnical Engineer during grading and backfill operations to assist the contractor in obtaining the required degree of compaction and proper moisture content, and to document that the work as completed is in compliance with project requirements. Where the compaction and/or soil moisture content are outside the range required, additional compaction effort and/or adjustment of moisture content shall be made until the specified compaction and moisture conditioning are achieved.

- The Geotechnical Engineer shall be notified at least 48 hours prior to any grading operations. The procedure and methods of grading shall then be discussed between the contractor and the Geotechnical Engineer.

- The retaining wall shall be approximately 6.7 feet in height and the wall backface shall be place a foot or further away from traffic.

- Backfill shall be well-graded gravel extending back from the wall a distance equal to wall height.

a-iii) **Would the project expose people or structures to potential substantial adverse effects, including seismic-related ground failure, including liquefaction?**

Less than Significant Impact. There is potential for seismic-related ground failure, including liquefaction, to occur based on the presence liquefiable soils underlying the project site. According to the Geotechnical Report (Appendix B) prepared for the proposed project, seismic settlement associated with liquefaction is estimated to be approximately 2 inches. However, at this magnitude of total and differential settlement, mitigation of the liquefaction hazard is not considered to be required for the bridge or the access road. Furthermore, the project is subject to all California Building Code requirements for seismic conditions and the bridge would be designed to conform to all seismic building requirements. The project would have a less than significant impact regarding seismic-related ground failure, including liquefaction.

a-iv) **Would the project expose people or structures to potential substantial adverse effects, including landslides?**

Less than Significant Impact. The City of Newark, including the project site is fairly flat, which would not provide the necessary setting for a landslide to occur. Therefore, impacts associated with landslides as a result of the proposed project would be less than significant.

b) **Would the project result in substantial soil erosion or the loss of topsoil?**

Less than Significant Impact. Construction of the proposed project would involve ground disturbing activities for roadway expansion and bridge installation, which would temporarily expose soils to erosion. As described in Section 4.9 (Hydrology and Water Quality) below, the proposed project would be required to include an erosion control plan that contains BMPs designed to control erosion, siltation, and contaminated runoff from construction sites. Therefore, the proposed project would result in a less-than-significant impact related to substantial soil erosion or the loss of topsoil.

c) **Would the project 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?**

Less than Significant with Mitigation Incorporated. As described above, the project site contains Bay Mud soil. According to the Geotechnical Study Report prepared for the proposed project, the primary geotechnical concerns for project construction include the potential for settlement and consolidation to occur due to the presence of highly saturated clay deposits (Bay Mud). Fill in the brine channel is anticipated to result in soil consolidation from approximately 4 to 6 inches over the next 3-5 years. Fill to raise the existing levees in the areas of the two bridge abutments is anticipated to result in settlement of 1 inch or less. However, due to the clay deposits present, the implementation of the project could still result in the site becoming unstable, which could be potentially significant. Mitigation Measure GEO-1 would ensure all recommendations of the site-specific Geotechnical Study Report are implemented and would reduce these impacts to a less-than-significant level.

d) **Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?**

Less than Significant with Mitigation Incorporated. As discussed above, the proposed project site is underlaid by soils that can be suppressed over time or otherwise unstable. Project components such as the bridge supports and the road expansion could be damaged by expansive soils if improperly designed and constructed. The project would be built in compliance with all local, State, and federal regulations, including the California Building Code. Mitigation Measure GEO-1 would implement the recommendations listed in the site-specific Geotechnical Report. With the implementation of the recommendations, the proposed project would have a less than significant impact regarding substantial risks to life or property resulting from the presence of expansive soils.

e) **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No Impact. The proposed project does not involve construction of septic tanks or wastewater disposal systems. Therefore, no impact would occur.

4.7 Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	1, 6
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	1, 6

Environmental Setting

Assembly Bill 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020. Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009.

The major GHG emissions released from human activity are carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research, 2008). The primary sources of GHG emissions are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Discussion of Impacts

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. GHG emissions from the proposed project would be produced from construction-related equipment emissions. Given the nature of the proposed project and short duration of construction, GHG emissions resulting from construction activities would be minor and temporary. Therefore, during the construction phase the associated GHG emissions would result in a less than significant impact. Furthermore, the bridge would provide a shorter alternative route for the Cargill vehicles resulting in fewer vehicle miles travelled and a reduction in operational GHG emissions. Therefore, during operation, GHG emissions in the project vicinity would remain similar to or less than existing conditions and would be less than significant.

b) Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. GHG emissions from off-road equipment are identified and planned for in the BAAQMD's 2017 Clean Air Plan as well as the BAAQMD's GHG Estimates and Draft Forecasts (BAAQMD 2017a and 2017b). A primary objective of the 2017 Clean Air Plan is to reduce Bay Area greenhouse gas emissions 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. The City of Newark adopted a Climate Action Plan Initial Framework in January 2010. This Plans includes policies to improve green infrastructure, increase the use of renewable energy, improving public transportation, moving towards a goal of zero waste, and implementing energy efficiency standards. Due to the nature of the proposed project, the project would not conflict with these policies. The proposed project would install a bridge over Plummer Slough and include limited levee roadway improvements. This would not include significant energy usage. The project would generate minimal emissions during construction and would not result in additional emissions during operation. Therefore, the proposed project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. No impact would occur.

4.8 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1
b) 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?	☐	☐	☒	☐	1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	1
d) 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?	☐	☐	☐	☒	1, 12
e) 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 for people residing or working in the Project Area?	☐	☐	☐	☒	1, 2
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the Project Area?	☐	☐	☐	☒	1, 2
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	1, 2
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐	1, 9

Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (California Code of Regulations, Title 22, Section 66261.10).

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity (as defined in California Code of Regulations, Title 22, Sections 66261.20-66261.24). The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese List," includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. No hazardous materials have been documented by the DTSC within the project site and there are no hazardous substances sites included on the Cortese List in the project vicinity. In addition, the State Water Resource Control Board (SWRCB) Geo Tracker database was accessed to determine if there are any hazardous material sites in the vicinity of the project site. According to the GeoTracker database, no hazardous materials are located at the site.

Discussion of Impacts

a) **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less than Significant Impact. Small amounts of hazardous substances, such as fuels, solvents, and oils, would be used during construction activities for equipment maintenance and bridge installation. Use of hazardous materials would be limited to the construction phase and would comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. As the proposed project includes the installation of a bridge and include limited levee roadway improvements, there would be no routine transport, use or disposal of hazardous materials associated with operation of the project. Therefore, impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant.

b) **Would the project 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?**

Less than Significant Impact. Hazardous materials for construction and equipment maintenance would not be stored or used where they could affect nearby residences or sensitive receptors. Furthermore, the project would be required to prepare an

erosion control plan, including measures to minimize potential contamination from accidental spills and protect water quality at the site. Therefore, with compliance of the erosion control plan, as well as all local, state, and Federal regulations regarding hazardous materials, impacts associated with reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The closest school to the project site is August Schilling Elementary School, located approximately 1.3 miles north. Furthermore, a school is proposed east of Ohlone College, facing Cherry Street; however, this would also be further than one-quarter mile from the project site and is not anticipated to be built prior to or during construction of the proposed project. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) Would the project 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?

No Impact. According to the California Department of Toxic Substance Control's EnviroStor and State Water Resources Control Board's GeoTracker databases, the project site is not included on the list of hazardous material sites compiled pursuant to Government Code Section 65962.5.[7,8] Therefore, the proposed project would not result in impacts related to the being located on a site that is included on a list of hazardous material sites.

e) 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 for people residing or working in the Project Area?

No Impact. The proposed project site is not located within two miles of a public airport or public use airport. Therefore, the project would not result in a safety hazard for people residing or working within the project area.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the Project Area?

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[7] *California Department of Toxic Substances Control, 2018. EnviroStor, Site/Facility Search Database. Available at: <http://www.envirostor.dtsc.ca.gov/public/> Accessed January 2018.*

[8] *State Water Resources Control Board. 2018. GeoTracker. Available at: <https://geotracker.waterboards.ca.gov/map/?global_id=T0603300050> Accessed January 2018.*

No Impact. The project site is not located within two miles of a private airstrip. Therefore, the proposed project would not expose persons to a safety hazard for people residing or working in the project area and no impact would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Construction activities would be located entirely within private property. Although Cargill vehicles may utilize the areas east and west of the project site during construction project construction would not restrict their movement should they need to exit the area. No lane closures or detours would be implemented on City streets that could result in interference with an adopted emergency response or evacuation plan. Once implemented the bridge would allow for vehicles to exit the site easier in the event of an emergency. Therefore, impacts would be less than significant.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. According to the Association of Bay Area Governments Resilience Program's Wildland-Urban Interface Map, the project site is not located within or adjacent to the wildland-urban interface. The project site would therefore not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Furthermore, the installation of a bridge and limited levee roadway improvements would not increase the chances of a fire occurring on-site. No impact related to exposing people or structures to significant wildland fire risk would result.

4.9 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	1
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	1, 2
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐	1
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐	1
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	1
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	1
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	1, 13
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐	1, 13

HYDROLOGY AND WATER QUALITY — Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐	1
j)	Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒	1,9

Environmental Setting

The project site is located in the Alameda County Flood Control District (ACFCD) Plummer Creek Watershed. Upstream of the project site, an ACFCD flood control channel conveys stormwater into Plummer Slough. Plummer Slough discharges to Newark Slough approximately 2 miles downstream near the discharge to San Francisco Bay.

According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Maps (FIRM), the project site is located within Zones AE. Areas classified as AE are defined as subject to inundation by 1-percent-annual-chance flood with average flood depths between one and three feet.[9] The project site has not been identified as being within a tsunamis inundation area for emergency planning.

Discussion of Impacts

a) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant Impact. Construction activities would include ground disturbance and fill in the brine channel to install the bridge. If not adequately controlled, project construction period activities may generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide additional sources of polluted runoff, or otherwise degrade the water quality of Plummer Slough.

In areas of active construction, soil erosion may result in discharges of sediment-laden stormwater runoff if not properly controlled. Additional sediment input to Plummer Slough from project construction activities could contribute to degradation of downstream water quality and impairment of beneficial uses. Sediment can also be a carrier for other pollutants, such as heavy metals, nutrients, pathogens, oil and grease, fuels and other petroleum products.

However, the applicant would be required to prepare an erosion control plan which would include various BMPs for treatment and control of stormwater runoff from the

[9] *Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06001C0443G, Panel 863 of 1000. Effective September 30, 2005.*

site. BMPs included in the erosion control plan may include the following measures, or similar measures, to ensure water quality of surface water is maintained:

- Construction materials and waste would be handled and disposed of properly in compliance with applicable law to prevent their contact with stormwater.
- Discharge of all potential pollutants, including paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to the drainage system and watercourses would be controlled and prevented.
- Sediment controls such as straw mulch, silt fences, sediment basins or traps and/or other measures would be employed during construction.
- Hazardous materials would not be stored or used, such as for equipment maintenance, where they could affect nearby properties, or where they might enter the drainage system.
- All spills of oil and other hazardous materials would be immediately cleaned up and contained. Any hazardous materials cleaned up or used on-site would be properly disposed of at an approved disposal facility.
- All disconnected hoses would be placed in containers to collect residual fuel from the hose.
- Service trucks would be provided with spill containment equipment such as absorbents.
- All containers used to store hazardous materials would be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas would be inspected monthly. Results of inspections would be recorded in a logbook that would be maintained on site.
- The construction contractor would train and provide instruction to all employees and subcontractors regarding construction BMPs.

Preparation and implementation of the erosion control plan would ensure impacts related to water quality standards and waste discharge requirements would be less than significant.

b) **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less than Significant Impact. The proposed project does not involve groundwater pumping or construction of any impervious areas that would inhibit groundwater recharge. Therefore, no activities that would affect groundwater supplies or recharge in that area. A less than significant impact would result.

c) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

Less than Significant Impact. The proposed project would involve earthwork and minimal grading in order to conduct the limited levee roadway improvements and install the bridge across Plummer Slough. This could potentially result in erosion or siltation on- or off-site, that could adversely affect the quality of receiving waters, including San Francisco Bay waters. However, preparation and implementation of the required erosion control plan would ensure that impacts associated with erosion or siltation would be less than significant.

d) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Less than Significant Impact. Runoff from the project site flows into Plummer Slough, which discharges to Newark Slough, which then empties into the San Francisco Bay. The proposed project would involve earthwork and minimal grading in order to conduct the limited levee roadway improvements and install the bridge across Plummer Slough. The proposed bridge would add a new impervious surface; however stormwater runoff would still drain into Plummer Slough. Drainage patterns from the project site are anticipated to be similar to existing conditions and would continue to flow to Plummer Slough. The increase in impervious surfaces would not result in an increase in surface water runoff that would exceed the capacity of Plummer Slough. A less-than-significant impact related to flooding on- or off-site would occur.

e) **Would the project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

Less than Significant Impact. The proposed project would install a concrete bridge over Plummer Slough. This addition of impervious surface may result in a small increase in surface water runoff, however, it is not anticipated that it would exceed the capacity of Plummer Slough. Furthermore, the erosion control plan would require BMPs that would ensure pollutants do not enter the adjacent slough.

f) **Would the project otherwise substantially degrade water quality?**

Less than Significant Impact. The proposed project would not have other water quality impacts beyond those discussed under item (a) above.

g) **Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact. The proposed project would not include the placement of housing within the 100-year floodplain and therefore, no impact would occur.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less than Significant Impact. The proposed project is located within a 100-year flood zone and would include placement of a bridge over Plummer Slough. However, the bridge would be located within the manmade levees and would not impede or redirect flood flows. All surface runoff would still be able to flow into Plummer Slough. Therefore, the proposed project would have a less-than-significant impact related to flood flows.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. The proposed project is located within the manmade levees present within the project site. If the levees failed the bridge and/or bridge users could be affected. The levees are consistently maintained, as required by a previous permit issued to Cargill. This maintenance would continue during the life of the project. Therefore it is unlikely that the levees would fail and result in a hazardous situation for the users within the vicinity or the bridge itself. Furthermore, dam failure from any of the three dams Calaveras, Del Valle, or San Antonio Dams, could result in flooding city-wide. However, the dams are closely maintained to mitigate risk. Furthermore, the site was previously at risk for flooding prior to project implementation and it is not anticipated that completion of the project would increase risk to people or structures. A less than significant impact related to the potential for loss, injury, or death as a result of dam or levee failure would result.

j) Would the project result in inundation of seiche, tsunami, or mudflow?

No Impact. The proposed project would not expose people or structures to risks from inundation by seiche, tsunami, or mudflow. The proposed project is located in an area where seiche hazards are not considered to be a risk, due to the configuration of the shoreline and depth of water offshore. Furthermore, if a tsunami occurred within the San Francisco Bay, the effects would dissipate before they reached Newark. Therefore, no impact would occur.

4.10 Land Use and Planning

LAND USE AND PLANNING – Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Physically divide an established community?	☐	☐	☐	☒	1
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	2, 3
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒	1

Environmental Setting

The project site is located in the southeastern section of the City of Newark, within Cargill's salt production facility. The project site has a General Plan designation of Conservation-Open Space and Salt Harvesting, Refining and Production and is zoned RP-OS (Resource Production/Open Space). Surrounding land uses near the project site include open space to the north, diked salt marsh to the east, and salt ponds to the south and west.

The Newark General Plan provides policies and strategies for City resources and land uses. The City Municipal Code also provide requirements for the protection of resources and compliance with local, state, and federal laws. The proposed project is subject to the City of Newark General Plan and City of Newark Zoning Ordinance. No habitat conservation plans have been adopted for the area.

Regulatory Setting

City of Newark General Plan

The proposed project is subject to the following applicable General Plan policies:

Land Use

The project site is designated as Conservation-Open Space and Salt Harvesting, Refining, and Production. The Conservation-Open Space designation allows for a limited number of recreational improvements such as trails and interpretive nature centers may be acceptable. However, the primary purpose of this designation is to facilitate the restoration and enhancement of native habitat. The Salt Harvesting, Refining and Production designation allows man-made crystallizer beds used for salt crystallization, and related buildings, facilities, and operations for salt harvesting, stacking, sizing, packaging, and/or distribution.

Policy LU-4.13 Bayfront Identity. Reinforce Newark's identity as a bayfront city by orienting new development on the western and southern edges of the city toward the bay and shoreline areas. Future projects in these areas should enhance views to the water and wetlands and be compatible with the area's scenic and recreational qualities. The bayfront identity should be emphasized in gateways and public art as well.

Policy LU-4.14 View Protection. Protect and enhance panoramic views and vistas of horizon features such as Coyote Hills, Mission Peak, the East Bay and Peninsula Hills, and San Francisco Bay.

Conservation and Sustainability

Policy CS-1.1 Environmental Impacts of Development. Ensure that development minimizes its impacts on Newark's environment and natural resources through sound planning, design, and management.

Policy CS-1.2 Conservation of Sensitive Areas. Support the conservation of environmentally sensitive areas and unique natural resources in the city.

Policy CS-1.4 Soil Erosion. Identify and eliminate erosion problems on public and private lands. The potential for erosion should be considered as a design and engineering factor in new development.

Policy CS-2.1 Wildlife and Habitat Protection. Preserve and protect Newark's plant and animal species and habitats, including wetlands, salt marshes, creeks, and lakes. Ensure that land use decisions avoid and mitigate potential impacts on wildlife habitat to the extent feasible.

Policy CS-2.2 Special Status Species. Ensure that adverse impacts on special status species, including those deemed rare, threatened, endangered, or candidate species for protection, are avoided and mitigated to the greatest extent feasible as development takes place.

Policy CS-2.5 Development Near Wetlands. Manage land use and development on upland sites in a manner that minimizes off-site impacts to nearby wetlands.

Policy CS-2.6 Salt Pond Management. Encourage the management of salt ponds within the Don Edwards San Francisco Bay National Wildlife Refuge by the US Fish and Wildlife Service to enhance to enhance their value for wildlife habitat and recreation. Such activities should be consistent with Cargill's perpetual rights to utilize the salt ponds as part of its solar salt production system.

Parks, Recreation, and Open Space

Policy PR-1.1 Public Open Space. Protect and where possible enhance the public open space resources available within or near Newark.

Environmental Hazards

Policy EH-1.1 Development Regulations and Code Requirements. Establish and enforce development regulations and building code requirements to protect residents and workers from flooding, liquefaction, earthquakes, fires, and other hazards.

Policy EH-1.2 Considering Hazards in Project Location and Design. Prohibit development in any area where it is determined that the potential risk from natural hazards cannot be mitigated to acceptable levels.

Policy EH-3.1 Planning to Avoid Flood Hazards. Identify flood prone areas in Newark and utilize this data for land use and transportation planning purposes. Flood resistant construction techniques and minimum building elevations shall be required to reduce flood hazards.

Policy EH-4.1 Hazardous Materials Risk Reduction. Seek to reduce the risk of hazardous materials accidents, spills and vapor releases, and minimize the effects of such incidents if they occur.

Policy EH-6.2 Truck Noise. Establish, maintain, and enforce designated truck routes within the city to reduce noise from truck traffic near residential areas.

Policy EH-6.6 Construction Noise – Regulating Construction Hours. Reduce noise associated with construction activities by prohibiting construction in residential neighborhoods between the hours of 7 PM and 7 AM Monday through Friday and at all times on Saturdays, Sundays, and State/federal holidays.

City of Newark New Zoning Ordinance

The project site has the zoning designation of Resource Production/Open Space (RP-OS).

Sec. 17.11.020. Permitted Uses for the Resource Production or "RP" District

The following uses shall be permitted in the RP district:

A. General Industrial

Section 17.11.020. Permitted uses for the Open Space "OS" District

The following uses are permitted in the OS district:

A. Park and Recreation Facilities

Bay Conservation and Development Commission (BCDC)

BCDC is responsible for the regulation of construction activities in close proximity to the Bay, including, but not limited to: regulating all filling and dredging in the Bay; regulating all new development within the first 100 feet inland of the Bay shoreline; ensuring that public access

to the shoreline is provided; and protecting the Bay for water related industries, water-oriented sports, airports, and wildlife refuges. Application for a BCDC non-material amendment to an existing permit are being prepared concurrently with this report.

Discussion of Impacts

a) Would the project physically divide an established community?

No Impact. Implementation of the proposed project would install a bridge across Plummer Slough and include limited levee roadway improvements. The project would connect two sections of land, previously separated due to the presence of Plummer Slough. Therefore, the proposed project would not physically divide an established community, and no impact would occur.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The proposed project would have a significant land use policy consistency impact if it were to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Per Title 14 of the California Code of Regulation, minor repairs and improvements include any activity for which a BCDC permit is required and this is necessary to the health, safety, or welfare of the public in the entire Bay area and is consistent with the San Francisco Bay Plan (14 CCR § 10601). These activities may include routine repairs, reconstruction, replacement, removal, and maintenance that does not involve any substantial enlargement or change in use within the Bay and Shoreline Band. The project would include installation of a bridge and limited levee roadway improvements to facilitate the continued salt production operations, which are recognized as an important historic operation in the San Francisco Bay Plan. Use within the Bay and Shoreline Band would be similar to existing conditions. The proposed project is thus consistent with all applicable land use plans, policies, and regulations, and impacts would be less than significant.

c) Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

No Impact. No habitat conservation plans or natural community conservation plans have been adopted for the project site or surrounding areas. No impact would occur.

4.11 Mineral Resources

MINERAL RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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?	☐	☐	☐	☒	1
b) 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?	☐	☐	☐	☒	1,2

Environmental Setting

According to the City General Plan, there are no mining operations within the City of Newark. There is one mining operation commonly referred to as the Dumbarton Quarry just west of the City limit line and south of SR 84. This is a gravel quarry within the City of Fremont. It closed in 2007 and is not expected to reopen. The Cargill salt ponds are also considered an important mineral resource production within Newark City limits.

Discussion of Impacts

a) Would the project 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?

No Impact. According to the U.S. Geological Survey (USGS) Mineral Resource Data System,[10] the Cargill salt ponds are designated as a current mineral resources produces. The project would not result in a loss of availability of a locally important mineral resource. No impact would occur.

b) Would the project 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 Impact. The proposed project includes limited levee roadway improvements and the installation of a bridge within the Cargill facility. This facility produces salt, which according to the General Plan is considered a mineral resource that is of value to the City and the residents of the State. However, the project would allow Cargill to continue to operate the facility. No impact would occur.

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[10] *USGS (2011). Mineral Resource Data System (MRDS). Available: https://mrdata.usgs.gov/general/map.html*

4.12 Noise

NOISE — Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	1,2
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	1
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1
e) 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 of public use airport, would the project expose people residing or working in the Project Area to excessive noise levels?	☐	☐	☐	☒	1
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Project Area to excessive noise levels?	☐	☐	☐	☒	1

Environmental Setting

Noise can produce undesirable effects that range from irritability to hearing loss. The extent of adverse effects depends on the intensity, duration, time, and frequency of noise. Even noise of moderate volume and short duration, such as a heavy truck passing by, can have physiological effects. The level of noise at a given location is usually expressed in decibels (dB). Decibels are measured on a logarithmic scale. This means that 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times greater than 1 dB and 30 dB is 1,000 times greater than 1 dB.

A particular type of decibel scale, called the "A" scale, is used to relate decibels to human perception. The A scale filters out very high and very low frequencies. Everyday sounds range from 30 dB, which is very quiet, to 100 dB, which is very noisy. Above 70 dB, noise can become irritating and disruptive. When reporting noise levels, it is important to also report the distance between the source and receiver. Under typical atmospheric conditions, sound

attenuates at a rate of 3 to 6 dB for each doubling of the distance. An untrained human ear typically cannot detect a difference in sound levels of less than 3 dB. It is difficult to tell the difference between 60 dB and 62 dB, but the difference between 60 dB and 65 dB is easily noticed. Typical A-weighted sound levels for various sources of noise measured at specific distances are shown in Table 1. Different rating scales have been developed to assess the severity of noise exposure, taking into consideration such factors as duration, repetition rate, background levels, and time of occurrence. The term Ldn is used to express the average sound level over a 24-hour period, with a 10 dBA weighting factor applied for noise that occurs between 10 PM and 7 AM. The adjustment for night-time noise accounts for the greater human sensitivity to noise during these hours. The use of a 24-hour measurement period accounts for the variations in the intensity of sound levels that may occur throughout the day.

Table 1. Typical Noise Levels

Common Outdoor Activities	Noise levels (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at 3 feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
		Bedroom at Night, Concert Hall (background)
	20	
Quiet Rural Nighttime		Broadcast/Recording Studio
	10	
Lowest Thresholds of Human Hearing	0	Lowest Thresholds of Human Hearing
Source: City of Newark General Plan		

The potential for adverse psychological and physiological impacts related to noise requires that criteria be established for determining acceptable levels of noise for different land uses. Certain land uses are considered "sensitive receptors," meaning they are more prone to the adverse effects of high noise levels than others. These include residential areas, schools, childcare centers, hospitals, churches, libraries, and nursing homes, among others. Future land use decisions should protect these uses from high levels of noise. At the same time, when land uses such as housing and schools are developed in the future, it is important that they are

located and designed in a way that protects occupants from potential impacts from existing noise sources.

Ground Vibration

Ground-borne vibration can be detrimental to structures and can cause annoyance to persons within those structures. The level of vibration is influenced by a number of factors, including soil characteristics, groundwater depth, and geologic conditions. In the past, the greatest vibration-related concerns in Newark have been freight traffic along the Union Pacific Railroad, trucks along major thoroughfares, and heavy construction activity such as pile drivers, vibratory rollers, and jackhammers. Vibration levels usually dissipate rapidly with distance, so the area of concern is typically close to the source(s).

Regulatory Setting

Local

Newark General Plan

Policy EH-6.2 Truck Noise. Establish, maintain, and enforce designated truck routes within the city to reduce noise from truck traffic near residential areas.

Policy EH-6.6 Construction Noise – Regulating Construction Hours. Reduce noise associated with construction activities by prohibiting construction in residential neighborhoods between the hours of 7 PM and 7 AM Monday through Friday and at all times on Saturdays, Sundays, and State/federal holidays.

Policy EH-6.7 Construction Noise – Addressing Sources of Construction Noise. Reduce noise associated with construction activities by requiring properly maintained mufflers on construction vehicles, requiring the placement of stationary construction equipment as far as possible from developed areas, and requiring temporary acoustical barriers/ shielding to minimize construction noise impacts at adjacent receptors. Special attention should be paid to noise-sensitive receptors (including residential, hospital, school, and religious land uses).

Policies for noise abatement and land use compatibility are found in Environmental Hazards Chapter of the General Plan. These policies are designed to protect residents of the City from harmful noise levels. The City has developed interior and exterior noise compatibility guidelines for different land uses (Table 2). The noise guidelines are based on defining the level of noise compatibility for each land use:

- "Normally Acceptable" means that the specified land use is satisfactory based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

- "Conditionally Acceptable" means that new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and necessary noise mitigation measures are included in the design.

- "Normally Unacceptable" means that new construction or development of the particular land use should be discouraged. If new construction or development proceeds, a detailed noise analysis must be performed.

- "Clearly Unacceptable" means that new construction or development should generally not be undertaken.

Table 2. Normally Acceptable Noise Levels for Specific Land Uses

Land Uses	Interior CNEL or L_{dn} (dBA)	Normally Acceptable Exterior Noise Exposure CNEL or L_{dn} (dBA)
Residential-Low Density Single-Family, Duplex, Mobile Homes	45	60
Residential-Multiple Family	45	65
Transient Lodging, Motels, Hotels	45	65
Schools, Libraries, Churches, Hospitals, Nursing Homes	--	70
Auditoriums, Concert Halls, Amphitheaters	--	--
Sports Arena, Outdoor Spectator Sports	--	--
Playgrounds, Neighborhood Parks	--	70
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50	75
Office Buildings, Businesses, Commercial and Professional	--	70
Industrial, Manufacturing, Utilities, Agricultural	--	75

Discussion of Impacts

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact. The proposed project is located within the City of Newark, which has established noise guidelines listed in the Newark General Plan. The City of Newark General Plan also includes noise policies, including one that prohibits construction in residential neighborhoods between the hours of 7 PM and 7 AM Monday through Friday and at all times on Saturdays, Sundays, and State/federal holidays to prevent noise related impacts. Project construction would occur during allowable hours (8:00 AM - 7:00 PM) Monday through Friday consistent with the City's allowable hours. The truck trips associated with construction of the project would be minimal and the construction phase would be temporary and use equipment designed to minimize noise to the extent feasible.

The City of Newark General Plan describes the ambient noise levels normally acceptable within each land use (Table 2). The project site is within the vicinity of the proposed residential development and project construction is anticipated to occur before these residences are occupied. The U.S. EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment (Table 3). However, the residential development is located approximately 1,500 –

2,000 feet away from the proposed bridge site. The noise levels attributed to the construction on-site would diminish rapidly at a rate of approximately 6 dBA per doubling of distance. Given the temporary nature of the construction phase and no sensitive receptors in the immediate vicinity of the site, construction noise impacts would be less than significant. Operational noise impacts would be similar to existing conditions and less than significant.

Table 3. Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dBA L_{eq} at 50 Feet [a]
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

Notes:
[a] *Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.*
Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Construction activities can generate groundborne vibration that is feelable (causes annoyance) and in extreme cases, causes physical damage to nearby buildings. Groundborne vibration is typically associated with blasting operations, the use of pile drivers, and large-scale demolition activities, none of which are anticipated for the construction or operation of the proposed project. As such, no excessive groundborne vibrations would be generated by the proposed project and these impacts would be less than significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. The proposed project would not include major permanent noise generating facilities. Operation of the proposed bridge and improved roadway would not generate substantial noise. The new alternative access route would divert project traffic away from the residential development currently

under construction, which would result in the decrease of noise adjacent to potential future residents and sensitive receptors A less than significant impact would occur.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. Noise impacts from project construction activities are a function of the level of noise generated by individual pieces of construction equipment, the amount of equipment operating at any given time, the distance and sensitivities of nearby land uses, the presence of noise barriers or other structures that provide acoustical shielding, and the timing and duration of the noise-generating characteristics of specific types of construction equipment (Table 3). As discussed above in Section 4.12 (a) noise levels would diminish rapidly with distance from the construction site at a rate of 6 dBA per doubling of distance, and impacts would be less than significant.

e) 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 of public use airport, would the project expose people residing or working in the Project Area to excessive noise levels?

No Impact. The proposed project is not located within an airport land use plan not is it within two miles of a public airport or public use airport. Therefore, project implementation would not expose people working in the area to excessive noise levels. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Project Area to excessive noise levels?

No Impact. The proposed project is not located within the vicinity of a private airstrip and would therefore not expose people working on the project site to excessive noise levels. No impact would result from project implementation.

4.13 Population and Housing

POPULATION AND HOUSING — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Induce substantial 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)?	☐	☐	☐	☒	1
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1

Environmental Setting

The project site is located within Newark City limits. The City's population was 43,342 as of January 1, 2013. The City's population has been relatively stable for the last 15 years, with an average annual growth rate of less than 1 percent. Surrounding land uses near the project site include residential, agricultural, and open space uses.

Discussion of Impacts

a) Would the project induce substantial 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)?

No Impact. The proposed project would install a bridge and limited levee roadway improvements in order to create an alternate access route for Cargill vehicles that avoids the new residential development. No new residential structures or new permanent employment opportunities would be created as a result of project implementation. Therefore, the project would not result in an increase in population growth and no impact would occur.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not involve the removal of any residential housing developments or structures, as none are located on-site. Therefore, no housing would need to be replaced and no impact would occur.

c) Would the project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would increase the access along the salt

production ponds. No displacement of residents would occur as no existing buildings or homes would be removed. As a result, no impacts related to displacement of residents would occur.

4.14 Public Services

PUBLIC SERVICES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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:					
i) Fire protection?	☐	☐	☒	☐	1
ii) Police protection?	☐	☐	☒	☐	1
iii) Schools?	☐	☐	☐	☒	1
iv) Parks?	☐	☐	☐	☒	1
v) Other public facilities?	☐	☐	☐	☒	1

Environmental Setting

Fire

The Alameda County Fire Department (ACFD) provides fire protection services to approximately 508 square miles in Alameda County, including Dublin, Newark, San Leandro, Union City, and the unincorporated areas. ACFD responds to structure fires, wildland fires, auto fires and extrications, medical emergencies, special rescues, and natural disasters. The Department also provides public education and disaster preparedness training. ACFD is organized into three major divisions: Operations, Administration, and Fire, Life, and Environmental Protection (FLEP). Station 28, located at 7550 Cherry Street Station is approximately 2 miles from the project site.

Police

The Newark Police Department (NPD) provides law enforcement services to the City of Newark from its headquarters in the Civic Center complex at 37101 Newark Boulevard. In 2017, the City had authorized 57 sworn staff, including one Police Chief, two Commanders, two Lieutenants, nine Sergeants, and 45 Police Officers. Additionally, the NPD staff includes 22 Non-sworn civilian positions. The NPD runs three Divisions: Administrative Services, Field Operations and Support Services. The Administrative Services Division is responsible for Records, Communications, Detectives, Property and Evidence, Internal Affairs, and Personnel and Training. Field Operations is the largest of the three divisions. It includes Patrol, K9, Traffic,

Animal Control, and Vehicle Abatement. The Support Services Division oversees the Special Enforcement Team, School Resource Officer, Southern Alameda County Major Crimes Task Force Detectives, Honor Guard, SWAT, Hostage Negotiation, and Emergency Preparedness.

Schools

The Newark Unified School District (NUSD) provides educational services to Newark students. The NUSD operates eight elementary schools (kindergarten through grade 5), two alternative high schools, one junior high, on comprehensive high school, one adult school, and one preschool. Newark is part of the Ohlone Community College District, which serves 18,000 students at its campuses in Newark and Fremont, with the main campus located in the Mission San Jose District of Fremont.

Parks

The Newark Recreation and Community Services Department operates and maintains 131 acres of City parks and several recreational facilities, as listed in Table PR-1. Of this total, 121 acres are owned by the City and 10 acres are leased from the Newark Unified School District. There are 13 parks in the city, including eight neighborhood parks, three community parks, and two special use parks.

Discussion of Impact

a) 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-i) Fire Protection

Less than Significant Impact. The proposed project would not involve any additional housing or businesses that would increase the existing residents and/or employees in the area. As the proposed project would include the installation of a bridge and installation of limited levee roadway improvements, the proposed project would not significantly increase the demand for public services from the fire department or require the construction of new fire facilities. Impacts related to fire emergency services would be less than significant.

a-ii) Police Protection

Less than Significant Impact. Implementation of the proposed project would result in the installation of a new bridge over Plummer Slough and limited improvements to an existing levee access road. No new businesses or residences would be built resulting in new employees or residents to protect. As the proposed project would not significantly increase the demand for public services from the police department or require the construction of new fire facilities, impacts related to police services would be less than significant.

a-iii) Schools

No Impact. Implementation of the proposed project, as stated in Section 4.13 Population and Housing, would not induce any population growth that could affect the number of students attending public schools. No homes would be built and no permanent employment opportunities created. Therefore, the project would have no impact related to schools.

a-iv) Parks

No Impact. The proposed project is located on private property owned and operated by Cargill. The implementation of the project would not affect any existing neighborhood, community, or regional parks or recreational facilities. The project would therefore have no impact related to parks.

a-v) Other Public Facilities

No Impact. The proposed project does not include any residential development and would not increase the existing population of Newark. Therefore, an increase in demand for other public facilities is not anticipated and no impact would occur.

4.15 Recreation

RECREATION — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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?	☐	☐	☐	☒	1
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	1

Environmental Setting

The City of Newark's Recreation and Community Services Department operates and maintains 131 acres of City parks and several recreational facilities. Of this total, 121 acres are owned by the City and 10 acres are leased from the NUSD. There are 13 parks in the City, including eight neighborhood parks, three community parks, and two special use parks. Newark's community parks provide an array of facilities. Sportsfield Park includes the Silliman Activity and Family Aquatic Center, with an indoor water park and pool, gymnasium, teen area, fitness center, dance studio, childcare center, and meeting rooms.

Discussion of Impacts

a) 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?

No Impact. The proposed project would install a bridge and include limited levee roadway improvements. Once completed the project would continue to allow Cargill to operate the salt ponds. No residential or business developments are included in the scope of the project that may increase the use of existing parks or recreational facilities. No impacts related to increasing the use or rate of deterioration on parks or recreational facilities would occur.

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project would not include any recreational facilities nor would it require the construction or expansion of recreational facilities. The project would not involve any additional housing or businesses that could increase residents and/or employees on the project site which may necessitate the increase of recreational facilities. Therefore, no impact would occur.

4.16 Transportation/Traffic

TRANSPORTATION/TRAFFIC — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	1,2
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	1,2
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	1
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐	1
e) Result in inadequate emergency access?	☐	☐	☒	☐	1
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒	1

Environmental Setting

The City consists of a hierarchy of arterial, collector, and local streets. In addition, regional access to the City is provided by freeways (I-880 and State Route 84). The project site is currently accessed via an access road just south of the intersection of the arterial roadway Central Avenue and the collector street Willow Street. During construction access to the eastern portion of the site would be gained via the above streets and access to the western portion of the site would be gained by continuing west on Central Avenue, continuing onto Hickory Street, and then entering the western access road.

Regulatory Setting

City of Newark General Plan

Policy T-6.7 Truck Routes. Maintain a network of truck routes in Newark to ensure that truck traffic is directed away from residential areas and other sensitive uses, and to avoid congestion at major intersections. Truck traffic should be managed in a way that minimizes the distance that must be traveled between industrial areas and freeway interchanges while keeping commercial vehicles off of local streets and avoiding the potential for trucks to divert off of I-880 and SR 84 to "cut-through" Newark.

Policy T-6.10 Construction Traffic. Require that major new construction projects provide traffic control measures which limit major truck trips during peak hours and ensure that the impact of trucks and other heavy vehicles on local streets is minimized and mitigated.

Discussion of Impacts

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant Impact. The proposed project would include the installation of a bridge and completion of limited levee roadway improvements in order to create an alternative access route for Cargill vehicles. Construction traffic (equipment and materials transport and daily worker traffic) may result in a minor increase in traffic on local roads during the construction phase; however, the project is not anticipated to generate a substantial amount of vehicle trips nor would it impact pedestrian or bicycle paths. Additionally, no detour would be required in order for project implementation to take place. The current access route uses City streets, including Willow Street and Central Avenue, which, pass through and around the residential development that is currently under construction. During operational phase, the Cargill's vehicle trips associated with operating the salt production ponds would be predominantly redirected from the City streets to the new access route across Cargill's facility. The reduction in vehicular traffic on the City streets could in turn result in a beneficial impact to the LOS for the currently utilized streets. Impacts would be less than significant.

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than Significant Impact. As described above, the project would not permanently increase traffic on local roads or highways to a level that would negatively affect the local circulation system. Furthermore, post-construction vehicle traffic would be reduced from existing conditions due to the availability of the new (alternative) access route that avoids City streets. The temporary increase of

vehicles associated with the project during construction would not conflict with a congestion management plan and impacts would be less than significant.

c) **Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

No Impact. The project site does not contain any aviation-related uses, and the proposed project would not include the development of any aviation-related uses. Therefore, the proposed project would not affect air traffic patterns and would have no effect on air traffic levels or safety

d) **Would the project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Less than Significant Impact. A significant impact may occur if the proposed project were to include a new roadway design, introduce a new land use or permanent project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project access or other features were designed in such a way as to create hazardous conditions. The proposed project would install a bridge and implement limited levee roadway improvements to provide an alternative access route for Cargill vehicles. No changes to existing City roadways would occur and the access roads and bridge would be constructed according to local, state, and Federal standards. Therefore, impacts would be less than significant.

e) **Would the project result in inadequate emergency access?**

Less than Significant Impact. Although project traffic would be minimally increased during construction, the vehicles would yield to any emergency vehicles that they encounter. It is not anticipated that the use of the roadways to transport materials would affect emergency access and no modification to emergency access routes would occur. Therefore, emergency access impacts would be less than significant.

f) **Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

No Impact. The proposed project would not significantly conflict with any adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks). There are no existing transit or bicycle facilities within the site and staging would take place entirely within the project site off local roadways. Operation of the proposed project would result in an alternative access route for Cargill vehicles to access the salt ponds. No public roads or alternative transportation routes would be impacted. Therefore, no impact would occur.

4.17 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) 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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒	1,10
ii) 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.	☐	☐	☐	☒	1,10

Environmental Setting

In September 2014, the California Legislature passed Assembly Bill ("AB") 52, which added provisions to the Public Resources Code ("PRC") concerning the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze a project's impacts on "tribal cultural resources," separately from archaeological resources (PRC Section 21074; 21083.09). Under AB 52, "tribal cultural resources" include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are either (1) listed, or determined to be eligible for listing, on the state or local register of historic resources; or (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource (PRC Section 21074). AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3). If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss (1) whether the proposed project has a significant impact on an identified tribal cultural resource and (2) whether feasible alternatives or mitigation measures avoid or substantially less the impact on

the identified tribal cultural resource (PRC Section 21082.3(b)). Finally, AB 52 required the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09).

California Register of Historical Resources

Criteria for important historical resources on the California Register or historic properties on the National Register are as follows:

1 Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California.

2 Is associated with the lives of persons important to local, California history.

3 Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possess high artistic values.

4 Has yielded, or may be likely to yield, information important to the pre-history or history of the local area or California.

Discussion of Impacts

a-i) Would the project cause a significant adverse change in tribal cultural resources that is listed or eligible for listing in the California Register of Historical Resources as defined in Public Resources Code section 5020.1(k)?

No Impact. No tribes have notified the City that they be consulted in compliance with AB 52 regarding projects proposed within City limits. Furthermore, based on the discussion in Section 4.5 (Cultural Resources), no historical resources listed or eligible for listing in the California Register of Historical Resources are present within the project site. Therefore, the proposed project would have no impact on tribal cultural resources listed or eligible for listing on the California Register of Historical Resources or in a local register.

a-ii) Would the project cause a significant adverse change in tribal cultural resources that is 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.

No Impact. No tribes have requested to be consulted regarding projects within the City of Newark. Furthermore, the lead agency has not identified any tribal cultural resources to be present within the confines of the project site. Therefore, no significant adverse change in tribal cultural resources would result from project implementation. No impact would occur.

4.18 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	1
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	1
e) Result in a 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?	☐	☐	☐	☒	1
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	1
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	1

Environmental Setting

Water and Wastewater Services

Water is supplied and distributed to Newark customers by the Alameda County Water District (ACWD). ACWD serves over 330,000 residents in a 104.8 square mile area that includes Fremont, Newark, and Union City. ACWD's primary water sources include the State Water Project (SWP), the San Francisco Regional Water System (RWS), and local sources. The SWP provides approximately 40 percent of ACWD's supply through a statewide water storage and delivery system that includes 28 reservoirs and 660 miles of aqueducts across Northern and

Central California. The RWS provides approximately 20 percent of the supply, primarily from the Sierra Nevada via the Hetch Hetchy Aqueduct. ACWD has a 25-year agreement with the San Francisco Public Utilities Commission to access this supply. The remaining 40 percent of the District's water comes from local sources, including groundwater from the Niles Cone Groundwater Basin, desalinated brackish groundwater, and surface water from Del Valle Reservoir.

The Union Sanitary District (USD) provides wastewater collection, treatment, and disposal services to residents and businesses in Newark, Fremont, and Union City. The USD serves an area of approximately 60.2 square miles, with a population of approximately 331,000. The District is a member of East Bay Dischargers Authority (EBDA), a Joint Powers Agency, which also includes the cities of Hayward and San Leandro, and the Oro Loma and Castro Valley Sanitary Districts. EBDA was formed to collectively manage wastewater treatment and disposal from these five agencies.

Solid Waste

The City of Newark oversees a franchise agreement that provides for solid waste and recycling services. In June 2013, the City shifted these services from Waste Management of Alameda County to Allied Waste, a division of Republic Services. Newark customers are provided with color-coded bins for garbage, yard waste, and recyclables. Under the agreement with Republic, waste from these bins is transported to the Fremont Recycling and Transfer station on Boyce Road. Non-recyclable waste is transported to the 2,300-acre Altamont Landfill east of Livermore for disposal.

Discussion of Impacts

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. A significant impact would occur if the project would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. The proposed project would install a bridge and include limited levee roadway improvements. The project itself would not generate any wastewater once implemented, nor would wastewater be generated during construction. No impact would occur regarding the exceedance of wastewater treatment requirements.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. The proposed project consists of the installation of a new bridge and limited levee roadway improvements. The draw on water for construction would be negligible. During operation, it is not anticipated that the project would demand and water and no wastewater would be generated. Therefore, the project would not require the construction or expansion of water or wastewater treatment facilities and a less than significant impact would occur.

c) **Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less than Significant Impact. Under existing conditions stormwater on the project site drains to Plummer Slough. The proposed project would not substantially alter stormwater drainage, as once the bridge is installed, the project site would continue to drain into Plummer Slough similar to existing conditions. Therefore, the proposed project would not require the expansion or construction of stormwater facilities.

d) **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Less than Significant Impact. The proposed project would install a bridge and implement limited levee roadway improvements to provide an alternative haul route for Cargill vehicles. Water required for construction would be trucked in and be used for dust abatement. The water use required for construction would be minimal as construction would only occur for 6 months and use would be intermittent. Furthermore, the proposed project would not require any water during operation. No residential units or buildings would be constructed that would require additional water supply. Therefore, the proposed project would not create a significant increase in demand for water supplies or require new or expanded entitlements. Impacts related to water supply would be less than significant.

e) **Would the project result in a 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?**

No Impact. As the proposed project includes installation of a bridge and implementation of limited levee roadway improvements, it would not create any wastewater once implemented, nor would it create any during construction. Therefore, the existing wastewater treatment provider would have adequate capacity, as no increase in wastewater volume would result from project implementation. No impact would occur.

f) **Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less than Significant Impact. The proposed project may generate a small quantity of solid waste during the construction phase, but all waste would be properly disposed or recycled in an approved landfill or disposal facility with capacity to receive the waste. The solid waste would be disposed of Altamont Landfill east of Livermore for disposal. Impacts would be less than significant.

g) **Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

Less than Significant Impact. Any materials used during construction would be properly disposed of in accordance with federal, state, and local regulations. Impacts on solid waste facilities would be less than significant.

4.19 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a) Does the project have 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?	☐	☐	☒	☐	1,2,7,9
b) 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 viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐	1
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	1

Discussion

a) Does the project have 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?

Less than Significant Impact. As stated above, the project would unlikely impact federally or state-listed species and although shading may affect a small portion of tidal salt marsh, impacts would be less than significant with mitigation incorporated. The project site does have the potential to support special-status birds. Impacts from project implementation would be less than significant with implementation of Mitigation Measure BIO-1. Furthermore, the project would not affect known historical resources or tribal cultural resources in the vicinity of the project site and has a low potential to affect previously undiscovered buried cultural deposits or human remains. Impacts on cultural resources would be less than significant after implementation of Mitigation Measures CULT-1 and CULT-2.

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

Less than Significant with Mitigation Incorporated. The proposed project includes mitigation measures to minimize the temporary impacts of construction activities and no long-term adverse impacts are anticipated. As presented in the analysis for Air Quality, Biological Resources, Cultural Resources, and Geology and Soils, any potentially significant impacts would be less than significant with mitigation incorporated.

Section 15130 of the CEQA Guidelines requires an evaluation of potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The project includes mitigation measure to minimize temporary impacts of construction activities, and no long-term adverse impacts are anticipated. With these measures, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts in conjunction with the implementation of other projects in the area such as the residential development project currently under construction. Due to the nature of the project, impacts would remain project-specific and would be less than significant with the incorporation of the mitigation measures included in this Initial Study.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation Incorporated. Construction related impacts to Air Quality and Geology and Soils have the potential to cause substantial adverse impacts to human beings. With implementation of the various construction measures, BMPs, and mitigation measures included in this Initial Study, the proposed project would not result in substantial adverse effects to human beings, either directly or indirectly.

5.0 REFERENCES

Checklist Information Sources

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10. City of Newark, General Plan EIR
11. Geotechnical Study Report, 2017
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CARGILL PLUMMER SLOUGH BRIDGE PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to CEQA Guidelines (California Code of Regulations, Title 14), which state the following:

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*
>
> *The public agency may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both.*

Table 1 lists the potentially significant impacts and proposed mitigation measures identified in the Cargill Plummer Slough Bridge Project Initial Study/Mitigated Negative Declaration (IS/MND). Table 1 describes the timing of implementation of the mitigation measures (i.e., when the measure will implemented) and the City of Newark Community Development Department staff or individual responsible for ensuring implementation of the measures. Finally, Table 1 describes the City of Newark Community Development Department staff member or individual responsible for monitoring the mitigation measures.

Table 1. Mitigation Monitoring and Reporting Program

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
AIR QUALITY				
Impact AIR-b,c,d: Air Quality Standards, Criteria Pollutants, and Sensitive Receptors	***Mitigation Measure AIR-1*** During the construction phase the applicant shall ensure that the project contractor implements measures to control dust and exhaust. The contractor shall implement the following best management practices that are required of all projects: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). 5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's	***Implementation Responsibility:*** Contractor ***Monitoring Frequency:*** As needed during construction	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 7. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.			

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
BIOLOGICAL RESOURCES				
Impact BIO-a: Sensitive Species	***Mitigation Measure BIO-1*** Avoidance measures shall be used to prevent significant impacts to special-status wildlife species including the installation of exclusion fencing along the upslope edge of the project site to prevent small mammals from entering the work area, and a nesting bird survey prior to ground disturbance to prevent nest destruction or abandonment. The exclusion fencing will also act as erosion control for the slough and salt marsh vegetation, and shall be installed in a manner consistent with the Conservation Measures described in the Biological Opinion for the Proposed Cargill Salt Division Solar Salt System Activities.	***Implementation Responsibility:*** City-approved Consulting Biologist ***Monitoring Frequency:*** Prior to ground disturbance	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____
Impact BIO-b: Riparian Habitat	***Mitigation Measure BIO-2*** The applicant shall obtain a Non-Material Amendment to the existing BCDC Permit which shall mitigate for the loss of 391 square feet (0.009 acre) of salt marsh wetlands via in-kind replacement at a 1:1 ratio or other methods deemed acceptable by BCDC.	***Implementation Responsibility:*** Project applicant ***Monitoring Frequency:*** Prior to ground disturbance	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____
CULTURAL RESOURCES				

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Impact CULT-b,c: Archaeological and Paleontological Resources	***Mitigation Measure CULT–1*** In the event previously unidentified cultural resources are encountered during project implementation, construction crew members and other project staff shall avoid altering the materials and their context. A qualified professional archaeologist shall be contacted immediately to evaluate the situation. Project personnel shall not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.	***Implementation Responsibility:*** City-approved Archaeologist/ Paleontologist ***Monitoring Frequency:*** During construction	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____
Impact CULT-d: Human Remains	***Mitigation Measure CULT–2*** Although unlikely, if human remains are encountered, all work shall stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist shall be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission shall be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.	***Implementation Responsibility:*** City-approved Archaeologist ***Monitoring Frequency:*** During construction	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____
GEOLOGY AND SOILS				
Impact GEO-aii,c,d: Seismic Ground Shaking, Unstable Soil, Expansive Soil	***Mitigation Measure GEO-1*** • Surface vegetation present at the time of grading shall be stripped or removed together with the organic-laden topsoil from areas to receive fill. Similarly, remaining salt deposits blanketing areas to be filled shall be	***Implementation Responsibility:*** Contractor, City of Newark Project Manager	***Monitoring Responsibility:*** City of Newark Community Development Department	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	cleared of the salt. • Following the stripping and clearing operations, the exposed subgrade in areas to receive fill shall be evaluated by the Geotechnical Engineer and the grading contractor to determine if the exposed subgrade is sufficiently stable to support grading equipment and the placement of fill directly on the subgrade or if stabilization measures are required due to the presence of soft subgrade. Soft subgrade is anticipated within the brine ditch. A soft to medium stiff layer of Young Bay Mud, about two feet thick, was encountered in Boring B-2, in the vicinity of the planned western abutment. The depth to the Bay Mud places it at about the level of the bottom of the brine ditch. Removing this soft soil down to the underlying stiffer clay soil may aid in grading of this portion of the site. The subgrade along the western side of the levee may be stiffer and capable of supporting lighter rubber-tired or track-mounted construction equipment as a result of the use of the area as a salt evaporation pond. • Where the exposed subgrade will not support construction equipment of any type, the subgrade shall be covered with a woven geotextile fabric, such as Mirafi 600X, followed by the placement of an 18-inch thick section of crushed gravel to create a base on which to place the remaining required fill. The gravel shall be nominally 3" x 1" in size. The gravel shall be placed on the fabric by pushing it out using a bulldozer, with the dozer working on top of the gravel as the gravel fill is built out. The completed gravel layer should be full wrapped by the geotextile fabric. Once the fabric-wrapped gravel layer is in place, the remaining fill shall be placed over the fabric. The initial layer of fill shall be pushed out over the fabric and should have a nominal thickness of 12 inches. Once properly compacted and	***Monitoring Frequency:*** During excavation and grading		

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	with demonstrated stability, conventional filling operations shall be able to commence. • Where the exposed subgrade will support construction equipment but is susceptible to breaking down under construction traffic due to high soil moisture content, the initial one to two feet of fill shall be placed by pushing out 12-inch layers of fill using a bulldozer. The initial 12-inch lift shall be track-walked to increase the soil density to prepare it to receive the balance of the fill. The second 12-inch lift may also need to be pushed out and track-walked, followed by compaction with a sheepsfoot compactor. Once properly compacted and with demonstrated stability, conventional filling operations shall be able to commence. • After a minimum of 2 feet of fill has been placed and compacted over stable existing subgrade soils, or over geotextile wrapped gravel where required, and where the fill can be demonstrated to be sufficiently stable to support trucks and grading equipment, conventional filling operations shall commence to complete the required fills. Engineered fill above the initial lifts discussed above shall be placed in thin lifts (normally 6 to 12 inches depending on the compaction equipment). Backfill lift thickness behind retaining walls and at utility trenches may need to be limited to between 4 and 6 inches where jumping jack or vibratory plate compactors are used. Lift thickness is a function of the equipment used as well as the material being compacted. • Fill placed against the existing levee fill shall be tied into the existing fill by cutting benches into the existing fill one to two feet horizontally as the new fill is placed and compacted. Fill shall be compacted to no less than 90 percent relative compaction to with three feet of finished grade. The top two to three feet of fill shall be compacted			

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	to no less than 95 percent relative compaction. Fill soils shall be moisture conditioned to between 2 and 5 percent above the optimum moisture content prior to compaction. • A layer of Class 2 aggregate base (nominally 12 inches thick) shall be considered at the haul road to provide a more durable wearing surface. • Fill for the embankment across the brine ditch and to be placed as backfill at abutment and wing walls shall consist of Caltrans Class 2 aggregate base. Import fill for the levee widening and improvement project shall contain no deleterious matter, debris, visible organics or rocks greater than 4 inches in largest dimension. Clayey soils with a Plasticity Index of 25 or less are recommended for use as fill to allow for side slopes at inclinations up to 2 horizontal to 1 vertical (2H:1V). If granular or low to nonplasticity soils are used as fill, flatter side slopes at inclinations not to exceed 3H:1V shall be required. Fill materials shall be subject to the evaluation of the Geotechnical Engineer prior to their use. • Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density determined by ASTM D1557 compaction test method. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density. • Observations and soil density tests shall be carried out by a representative of the Geotechnical Engineer during grading and backfill operations to assist the contractor in obtaining the required degree of compaction and proper moisture content, and to document that the work as completed is in compliance with project requirements. Where the compaction and/or soil moisture content are			

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	outside the range required, additional compaction effort and/or adjustment of moisture content shall be made until the specified compaction and moisture conditioning are achieved. • The Geotechnical Engineer shall be notified at least 48 hours prior to any grading operations. The procedure and methods of grading shall then be discussed between the contractor and the Geotechnical Engineer. • The retaining wall shall be approximately 6.7 feet in height and the wall backface shall be place a foot or further away from traffic. • Backfill shall be well-graded gravel extending back from the wall a distance equal to wall height.			

RESPONSE TO COMMENTS ON THE DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION CARGILL PLUMMER SLOUGH BRIDGE PROJECT

Introduction

On June 12, 2018 the City of Newark Community Development Department (Lead Agency) released for public review a Draft Initial Study/Proposed Mitigated Negative Declaration for the Cargill Plummer Slough Bridge Project. The 30-day public review and comment period on the Draft Initial Study began on June 12, 2018 and closed at 4:30 p.m. on July 12, 2018.

The Draft Initial Study/Proposed Mitigated Negative Declaration and the response to comments on the Draft Initial Study/Proposed Mitigated Negative Declaration are informational documents prepared by the Lead Agency that must be considered by decision-makers before approving the proposed project and that must reflect the Lead Agency's independent judgment and analysis (CEQA Guidelines, Section 15090).

The following summarizes and responds to the comments and questions on the Draft Initial Study/Proposed Mitigated Negative Declaration circulated by the City to public agencies and the public as required by the California Environmental Quality Act (CEQA). As discussed below, the Comments do not identify any new or substantially more severe impacts overlooked in the Draft Initial Study/Proposed Mitigated Negative Declaration and the Response to Comments does not rely on changes to the project that might have a new or substantially more severe impact. Therefore, in accordance with CEQA Guidelines Section 15073.5, recirculation of a Draft Initial Study/Proposed Mitigated Negative Declaration is not required.

This section contains a copy of the comment letter submitted during the public review period on the Draft Initial Study/Proposed Mitigated Negative Declaration, and the individual responses to the comments in the comment letter. The one comment letter is designated with a number in the upper right-hand corner of the letter. Individual comments are labeled with the designated numbers in the margin. Immediately following the comment letter is an individual response to each numbered comment.

Commenters

The following organizations/persons provided written comments on the Draft Initial Study/Proposed Mitigated Negative Declaration to the City:

Comment Letter A: Brian Wines, San Francisco Bay Regional Water Quality Control Board

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

Comment Letter A

July 10, 2017

Sent via electronic mail: No hardcopy to follow

City of Newark, Community Development Department
ATTN: Terrence Grindall (Terrence.grindall@newark.org)
37101 Newark Boulevard
Newark, CA 94560

Subject: San Francisco Bay Regional Water Quality Control Board Comments on the Initial Study / Mitigated Negative Declaration for the Cargill Plummer Slough Bridge Project, City of Newark, Alameda County, California
SCH No. 2018062017

Dear Mr. Grindall:

San Francisco Bay Regional Water Quality Control Board (Water Board) staff appreciates the opportunity to review the *Initial Study / Mitigated Negative Declaration for the Cargill Plummer Slough Bridge Project (ISMND)*. The ISMND evaluates the potential environmental impacts associated with constructing a 60-foot long concrete bridge over Plummer Slough as part of creating a new haul road to Cargill's solar salt production facilities (Project). The current haul road is located immediately adjacent to a new residential development, and the Project purpose is to redirect traffic away from the new development to improve public safety and health. A-1

Summary

As is discussed below, the ISMND does not provide an adequate discussion of potential Project impacts to waters of the State or propose actual mitigation measures for those impacts. In particular, the ISMND does not address potential impacts to habitat quality within the Plummer Creek Mitigation Bank. The ISMND also does not provide sufficient detail with respect to water quality treatment requirements that may be associated with the Project's new impervious surfaces.

Comment 1. The ISMND lacks sufficient detail to establish that implementation of the Project is covered by Cargill's existing Clean Water Act Section 401 Water Quality Certification for Cargill's Maintenance Activities at its Solar Salt Production Facilities.

Text in Section 3.2, *Project – Related Approval, Agreements, and Permits*, of the ISMND contains the following text: A-2

> . . . Cargill has also previously applied and received regulatory permits from the Army Corps of Engineers (Corps) and the Regional Water Quality Control Board (RWQCB)

to operate and maintain the salt ponds surrounding the project site. These permits were issued in 2010 and due to the location of the project site and the nature of the activities, the Corps has determined that potentially jurisdictional aspects of the project, including filling of a portion of a brine channel, are covered under these existing permits.

The CWA Section 401 Certification issued to Cargill covers routine maintenance activities associated with solar salt production. The construction of a new bridge over a water of the State (Plummer Slough) and the placement of fill in a potential water of the State (brine channel) are not maintenance activities. The Water Board's permits for maintenance activities usually do not include the construction of new infrastructure. Based on the information provided in the ISMND, the Water Board is not likely to consider the new bridge and the placement of fill in a brine channel to support a new haul road to be covered activities in the Certification issued to Cargill in 2010 for routine maintenance activities. The Water Board will probably require individual CWA Section 401 Certification and/or Waste Discharge Requirements for the construction of the new bridge and the placement of fill in the brine channel. A-2

Also, although the text of the ISMND states that the Corps considers the bridge project to be covered by the existing maintenance permit, no documentation of this determination is provided.

Comment 2. The ISMND lacks sufficient detail with respect to potential impacts to wetlands or other waters of the State at the Project site and does not describe concrete mitigation measures for those impacts.

The Project description lacks sufficient detail to assess the full extent of potential Project impacts to the environment. Plan view and profile sheets are provided for the proposed bridge, but these design sheets lack crucial details for assessing potential environmental impacts.

The cross-sectional view of the bridge shows a water surface elevation mark. But there is no indication of the elevation that is being referenced (e.g., ordinary high water, 10-year flood elevation, 100-year flood elevation, or high tide line). Without this information, the extent of any new fill to be placed in waters of the State, as well any potential impacts on local flooding, cannot be evaluated.

A-3

The *Design Level Geotechnical Investigation, Proposed Haul Road by BP13 and Plummer Creek Bridge, Cargill Facility – 7220 Central Avenue, Newark California* (Berlogar Stevens & Associates (April 17, 2017), recommends the installation of approach slabs at the abutments. It is not clear form the information provided in the ISMND if the total impervious surface area associated with the new haul road, including the bridge surface, approach slab surfaces, and any other new hardscape, will be large enough to trigger compliance with the stormwater runoff treatment requirements in the Municipal Regional Permit (MRP) (Order No. R2-2015-0049), which was adopted by the Water Board in November of 2015. Projects that create or recreate more than 10,000 square feet of impervious surfaces are required to provide water quality treatment for post-construction stormwater runoff.

The *Design Level Geotechnical Investigation* also refers to a retaining wall that is to be constructed in a brine ditch to support fill that will be placed in the brine ditch for the new haul road. However, the location and extent of fill to be placed in the brine ditch are not clear from the information presented in the ISMND. The status of the brine ditch as a water of the State and/or water of the U.S. should be discussed in more detail, along with the extent of proposed fill

of waters of the State at the brine ditch. The ISMND also lacks a detailed discussion of mitigation for fill in waters of the State associated with the new bridge over Plummer Creek or fill in the brine ditch. In the absence of this information, it is not possible to assess the significance of potential Project impacts to jurisdictional waters of the State.

The ISMDN also does not discuss the proximity of the proposed new haul road to the Plummer Creek Mitigation Bank. The Plummer Creek Mitigation Bank has met its final performance criteria and may be transferred to the Don Edwards National Wildlife Refuge. When the Mitigation Bank was established, the existing haul road was the closest source of potential human disturbances to wildlife that use habitat at the Mitigation Bank. Since the completion of the Mitigation Bank, residential development has encroached closer to the northern and eastern borders of the Mitigation Bank. But the southern and western borders of the Mitigation Bank have not been exposed to regular human disturbances. Establishing the proposed new haul road will surround the Mitigation Bank with access roads. The ISMND should be revised to evaluate potential negative impacts to the habitat value of the Mitigation Bank that may result from surrounding the bank with heavy equipment haul roads. A-3

We recommend that the ISMND be revised to include an alternatives analysis to assess the relative significance of impacts to habitat quality in the Mitigation Bank associated with the existing and proposed haul road alignments. The alternatives analysis should compare the benefits to public health and safety that would be associated with the new haul road alignment to any negative impacts to habitat quality in the Mitigation Bank that may result from the alignment of the proposed haul road. The analysis should also consider abandonment of the existing haul road as a partial mitigation measure for the Project's impacts.

Comment 3. Section 4.4 b) of the ISMND lacks sufficient detail with respect to potential impacts to wetlands or other waters of the State at the Plummer Creek Mitigation Bank, which is adjacent to the Project site.

As is discussed in Comment 2, the creation of the proposed haul road would effectively surround the Plummer Creek Mitigation Bank with heavy equipment haul roads. The ISMND does not assess the indirect impacts these surrounding haul roads would have on the species that use wetland and marsh habitats in the Plummer Creek Mitigation Bank. The new haul road may also contribute to habitat fragmentation between the Plummer Creek Mitigation Bank and San Francisco Bay. Please revised the ISMND to examine potential Project impacts to habitat quality in the Plummer Creek Mitigation Bank and to propose mitigation for any impacts to habitat quality in the Plummer Creek Mitigation Bank. A-4

During the permitting process for the Torian Residential Project, the design for the on-site mitigation wetlands included a hydraulic connection between the new mitigation wetlands and the Plummer Creek Mitigation Bank. The original onsite mitigation plan for the Torian Project included abandoning the portion of the Hickory Street right-of-way adjacent to the Torian Project's mitigation wetlands and excavating the abandoned right-of-way to allow water to flow from the mitigation wetlands to the Plummer Creek Mitigation Bank. If the new haul road makes the Hickory Street component of the existing haul road redundant, the Project proponent is encouraged to consider removing Hickory street and the berm supporting it to establish habitat connectivity between the Torian Project mitigation wetlands and the Plummer Creek Mitigation

Bank. Establishing this connection would be a potential component of the Project's mitigation for impacts to waters of the State. A-4

Comment 4. Section 4.4 b) of the ISMND lacks sufficient detail with respect to mitigation for impacts to waters of the State in the Plummer Creek channel.

Text in the discussion of Section 4.4 b) discusses the conversion of about 391 square feet of salt marsh wetlands to open waters, as a result of shading beneath the new bridge. The ISMND proposes to mitigate for this impact to salt marsh wetlands as part of conformance with a Non-Material Amendment to the existing BCDC Permit. Mitigation is proposed at a 1:1 ratio for in-kind replacement of salt marsh wetlands. However, a mitigation location is not specified, and text in Section 4.4 b) states that other mitigation measures may be proposed to BCDC.

The ISMND should be revised to state that the Water Board may also require mitigation for impacts to salt marsh wetlands. And a proposed mitigation project should be included in the revised ISMND. In a CEQA document, a project's potential impacts and proposed mitigation measures should be presented in sufficient detail for readers of the CEQA document to evaluate the likelihood that the proposed remedy will actually reduce impacts to a less than significant level. CEQA requires that mitigation measures for each significant environmental effect be adequate, timely, and resolved by the lead agency. In an adequate CEQA document, mitigation measures must be feasible and fully enforceable through permit conditions, agreements, or other legally binding instruments (CEQA Guidelines Section 15126.4). Mitigation measures to be identified at some future time are not acceptable. It has been determined by court ruling that such mitigation measures would be improperly exempted from the process of public and governmental scrutiny which is required under the California Environmental Quality Act. The current text of the ISMND does not establish the extent of proposed impacts to wetlands and other jurisdictional waters and it does not demonstrate that it is feasible to mitigate all potentially significant impacts to waters of the State that may result from Project implementation to a less than significant level. Any future impacts to the jurisdictional waters at the Project site, as well as proposed mitigation measures or such impacts, will require review under CEQA before the Water Board can issue permits for those proposed impacts A-5

Comment 5. Section 4.4 c) of the ISMND lacks proposed mitigation for the Project's impacts to waters of the State in the Plummer Creek channel and a brine ditch.

Text in the discussion of Section 4.4 c) repeats the assertion made in Section 3.2, that Project impacts to waters of the State are covered in the existing Certification of Cargill's maintenance activities. As was discussed in Comment 1, Water Board staff do not agree with this assertion. Please revise this section of the ISMND to describe all impacts to waters of the State, as well as specific mitigation measures to compensate for those impacts. A-6

Comment 6. Section 4.9 a) of the ISMND does not discuss whether the Project creates sufficient impervious surfaces to trigger compliance with the MRP.

As was discussed in Comment 2, the ISMND does not contain sufficient detail with respect to the total area of new or recreated impervious surfaces associated with the Project to assess the A-7

need to comply with the treatment requirements in Section C.3 of the Municipal Regional Permit (MRP) (Order No. R2-2015-0049). Please revise the ISMND to provide this information. A-7

Conclusion

The current version of the ISMND does not provide sufficient detail with respect to impacts to jurisdictional waters of the State and also fails to describe adequate mitigation for such impacts. The ISMND should be revised to quantify all impacts to waters of the State on the Project site. Specific mitigation measures should be presented for all impacts to waters of the State. These mitigation measures should be in-kind and on-site mitigation measures to the maximum extent possible. The amount of proposed mitigation should include mitigation for temporal losses of any impacted waters of the State. If mitigation is out-of-kind and/or off-site, then the amount of the proposed mitigation should be increased. Proposed mitigation measures should include designs with sufficient detail to show that any created channels have the proper sinuosity, slope, bankfull channel dimensions, and channel cross-sections to be in equilibrium with the local topography and watershed, and that any created wetlands will have sufficient hydrology to sustain wetland hydrology and vegetation without human intervention. A proposed program for monitoring the success of the mitigation features should also be included with the mitigation proposal(s). In addition, the ISMND should include a discussion of compliance with stormwater requirements in the MRP. A-8

If the MND is adopted without providing more detail related to the project's impacts to jurisdictional waters and to provide more details related to concrete mitigation proposals for those impacts, it is likely that the ISMND will not be adequate to support the issuance of CWA Section 401 certification and/or Waste Discharge Requirements for the Project.

If you have any questions, please contact me at (510) 622-5680, or via e-mail at brian.wines@waterboards.ca.gov.

Sincerely,

Brian Wines

Digitally signed by Brian Wines
Date: 2018.07.10 15:10:26 -07'00'

Brian Wines
Water Resources Control Engineer
South and East Bay Watershed Section

cc: State Clearinghouse (state.clearinghouse@opr.ca.gov)
CDFW, Marcia Grefsrud (mgrefsrud@dfg.ca.gov)
Corps, Katerina Galacatos (Katerina.galacatos@usace.army.mil)

Response to Comment Letter A: Brian Wines, San Francisco Bay Regional Water Quality Control Board

Response to Comment A-1

This comment contains general information about the proposed project and serves as an introduction to the commenter's following comments, including concern that the Draft Initial Study/Proposed Mitigated Negative Declaration does not provide an adequate discussion of potential project impacts to waters of the State and associated mitigation measures. Other concerns raised in these introductory comments include potential impacts to habitat within the Plummer Creek Mitigation Bank and water quality treatment requirements that may be related to the project's new impervious surfaces. Please refer below to Response to Comments A-2 through A-8.

Response to Comment A-2

This comment states that the Draft Initial Study/Proposed Mitigated Negative Declaration lacks sufficient detail to establish that implementation of the project is covered by Cargill's existing Clean Water Act Section 401 Water Quality Certification for Cargill's Maintenance Activities at its Solar Salt Production Facilities.

For clarification, the activities described for this project fall into two categories: (1) maintenance activities covered by the existing permits and (2) new infrastructure. The bridge is new infrastructure, and thus is not covered under the existing maintenance permits. However, it has been designed to completely avoid wetlands and non-wetland waters of the State, and thus it does not require a Section 401 Water Quality Certification. The remaining work, which includes the levee road improvements and fill of the brine channel, were determined by the agencies to fall under the existing maintenance permits. These determinations were made by Greg Brown of the US Army Corps of Engineers (Corps) on a phone call with WRA and follow-up email on November 16, 2017. In that correspondence, the Corps agreed that the bridge over Plummer Creek was outside of Corps jurisdiction, and that the work within the brine channel is authorized under Category 2F of the Corps' maintenance permit. Additionally, Dale Bowyer of the Regional Water Quality Control Board (RWQCB) determined that the bridge design was outside of RWQCB jurisdiction and that the RWQCB had no concerns with the plans, which included filling the brine channel. These determinations were communicated in an email to Cargill dated October 9, 2017 (with a copy sent to Brian Wines of the RWQCB).

Response to Comment A-3

This comment states that the Draft Initial Study/Proposed Mitigated Negative Declaration lacks sufficient detail with respect to potential impacts to wetlands or other waters of the State at the project site and does not describe concrete mitigation measures for those impacts.

The water elevation mark shown in the cross-sectional view of the bridge corresponds to the high tide line (HTL). The HTL was determined in the field by a WRA biologist using indicators of the highest regularly occurring tide level, including a shift in vegetation from tidal to upland vegetation, and a wrack line. The attached Figure 1 shows these lines relative to the bridge abutment.

The bridge at the eastern abutment would be approximately 5 feet above the current elevation of mean higher high water (MHHW) and approximately 3.2 feet above the current 100-year flood elevation occurring concurrently with a MHHW tide level. At the western abutment, the bridge

would be approximately 4 feet above the current elevation of MHHW and approximately 2.2 feet above the current 100-year flood elevation occurring concurrently with a MHHW tide level. These elevations accommodate the existing elevations of the surrounding levees and the bridge approaches and will make the bridge functional under current operational conditions. Conclusions regarding potential impacts due to local flooding were made based on these design elevations.

Impervious surfaces installed by the project include the bridge decking, abutments, wing walls, and piles. The project may include installation of approach slabs on each side of the bridge, each totaling approximately 2,400 square feet. In total, up to 5,567 square feet of impervious surfaces may be created, which remains below the threshold of 10,000 square feet required to provide water quality treatment for post-construction stormwater runoff. Thus, no water quality treatment plan was prepared.

The project plans provided in the Draft Initial Study/Proposed Mitigated Negative Declaration do not propose a retaining wall through the brine ditch. The retaining wall was evaluated as part of the *Design Level Geotechnical Investigation* (Appendix B to the Draft Initial Study/Proposed Mitigated Negative Declaration), but it was removed from the plan prior to completing the Draft Initial Study/Proposed Mitigated Negative Declaration, in favor of filling the area in the brine channel (see attached Figure 2).

As noted above, the RWQCB reviewed the project plans, which included details regarding fill proposed in the brine ditch, in 2017 and determined that the project avoided RWQCB jurisdiction and a permit would not be required. The brine ditch is an operational feature that the agencies have opined are covered under the existing operations and maintenance permits. Therefore, no mitigation is proposed for filling the brine ditch.

The commentator also states that the Draft Initial Study/Proposed Mitigated Negative Declaration "does not discuss the proximity of the proposed new haul road to the Plummer Creek Mitigation Bank," that "the southern and western borders of the Mitigation Bank have not been exposed to regular human disturbances" and that "the proposed new haul road will surround the Mitigation Bank with access roads." In reality, it should also be noted that no new roadways are proposed as part of the project, only improvements to existing operations access roads are proposed. The access roadway to the west of the Plummer Creek Mitigation Bank – and which would approach the proposed, new bridge across Plummer Slough from the west - is currently already in active use in connection with Cargill's solar salt operations and has been used for this purpose for many decades. This roadway is also separated from the Plummer Creek Mitigation Bank by a distance of approximately 100 feet, a distance which includes Cargill's brine ditch, a levee, and a 40-foot-wide stormwater drainage easement. The access roadway south of the Plummer Creek Mitigation Bank – and which would approach the proposed, new bridge across Plummer Slough from the east – is also already in active use in connection with Cargill's solar operations and has also been used as such for many decades. This existing, active access road is not adjacent to the Mitigation Bank, contrary to the commentator's suggestion, but is separated from the Mitigation Bank by Plummer Creek and by fee owned property owned by Cargill and others to the north, ranging from a separation distance of approximately 200 to 600 feet. The purpose of the proposed project is to redistribute truck traffic associated with Cargill's solar salt operations further away from new residential development and within Cargill's existing roadway network. There is no evidence, offered by the commentator or otherwise, that this existing roadway network causes significant impacts to the Plummer Creek Mitigation Bank now or would cause such impacts as a result of the proposed project. CEQA does not require the preparation of an alternatives analysis as part of an Initial Study or Negative Declaration. In addition, the project does not result in a change to the baseline amount of traffic along existing access roads surrounding the Plummer Creek

Mitigation Bank, so preparation of an alternatives analysis is not warranted. Therefore, there are no potential impacts under CEQA that would require mitigation.

Response to Comment A-4

The commenter states that Section 4.4 b) of the Draft Initial Study/Proposed Mitigated Negative Declaration lacks sufficient detail with respect to potential impacts to wetlands or other waters of the State at the Plummer Creek Mitigation Bank, which is adjacent to the project site.

As explained above, no new roadway is proposed by the project and the Plummer Creek Mitigation Bank would not be "surrounded" by a "new haul road." The proposed project would result in the redistribution of existing truck traffic associated with Cargill's solar salt operations, further away from impending residential development and further away from the existing haul route located to the west of the Mitigation Bank. There is no evidence offered by the commentator or otherwise that this redistribution of traffic would cause any impacts to the habitat within the Mitigation Bank in light of the distance separating these existing roadways from the Mitigation Bank. In fact, the proposed project would not increase or decrease net traffic in the vicinity of the Plummer Creek Mitigation Bank – it would simply redistribute traffic around it. Therefore, no new or additional impacts to any habitat or wildlife in the mitigation bank would occur.

The commentator also suggests that the proposed project would "contribute to habitat fragmentation between the Plummer Creek Mitigation Bank and San Francisco Bay." Because no new roadways are proposed as part of the project, but rather, the project would create a more efficient use of existing roadways, no such "fragmentation" would occur as a result of the project.

The commentator also suggests that the project proponent abandon an existing roadway within Hickory Street – currently used in connection with Cargill's present "haul road" operations – "to establish habitat connectivity between the Torian mitigation wetlands and the Plummer Creek Mitigation Bank" as a "potential component of the Project's mitigation for impacts to water of the State." This suggestion is noted, however, because the project would not create impacts to waters of the State, no such abandonment would be necessary as a mitigation measure. Additionally, the construction of the new bridge and resulting redistribution of traffic would not make the existing haul route over Hickory Street redundant. While Cargill would direct heavier equipment and vehicles over the proposed new bridge, and away from residential development it would still continue to use the existing route over Hickory Street for lighter duty vehicles. And, in any event, abandoning Cargill's existing roadway over Hickory Street would not align with the project's objectives.

In sum, no evidence has been offered that the proposed project would adversely impact the hydrology of the mitigation bank, or would adversely impact any wildlife species or habitat within the Mitigation Bank.

Response to Comment A-5

The commenter states that Section 4.4 b) of the Draft Initial Study/Proposed Mitigated Negative Declaration lacks sufficient detail with respect to mitigation for impacts to waters of the State in the Plummer Creek channel.

As described in Response to Comment A-2, the project has been designed to completely avoid wetlands and non-wetland waters of the State, and thus it does not require a Section 401 Water Quality Certification. The agencies have opined the remaining work, which includes the levee

road improvements and fill of the brine channel, fall under the existing maintenance permits. Pages 24 and 25 of the Draft Initial Study/Proposed Mitigated Negative Declaration state that the installation of the bridge over Plummer Slough is anticipated to result in an indirect impact due to shading to the northern coastal salt marsh biological community present within the project site. Studies[12] addressing shading impacts on salt marsh vegetation show that vegetation under structures 4 to 6 feet high had little difference in density and size than the control as the light field was 60 to 90 percent full light, suggesting that any area with a sunlight reduction of more than 40 percent would be reduced in productivity. The bridge would ultimately reduce the solar radiation by between 1 and 100 percent over a 1,651 square foot area consisting of open water, salt marsh, and upland vegetation. Of the area to be shaded, approximately 391 square feet of salt marsh vegetation may experience 40 percent or greater reduction in solar radiation. Thus, approximately 391 square feet (0.009 acre) of salt marsh wetlands are expected to be converted to open water/mudflats due to shading from the proposed bridge. However, although the project may reduce the amount of vegetation within a confined area, the value and function of the area would remain similar to existing conditions. This relatively small amount of conversion of salt marsh wetlands to open waters/mudflats is considered a significant impact that can be mitigated to a less-than-significant level via implementation of Mitigation Measure BIO-2.

Mitigation Measure BIO-2 requires the applicant to obtain a Non-Material Amendment to the existing BCDC Permit which shall mitigate for the loss of 391 square feet (0.009 acre) of salt marsh wetlands via in-kind replacement at a 1:1 ratio or other methods deemed acceptable by BCDC. Based on input from BCDC, potential performance standards include the possible removal of an existing duck shed or other structure in tidal marsh, and allowing the tidal marsh to recruit naturally, to restore in-kind at a 1:1 ratio.

- The total area of marsh vegetation shaded by the project is approximately 390 square feet. As mitigation for those shading impacts, Cargill is proposing to remove a building that is shading approximately 436 square feet of salt marsh vegetation located within Cargill property. Salt marsh is expected to recruit naturally once the structure has been removed, resulting in a gain of approximately 436 square feet of marsh (net gain of 46 square feet, considering impacts). Figure 3 shows the location of the structure to be removed and photographs of the area of structure and surrounding salt marsh. Marsh vegetation in the area of the structure removal is of similar composition to the marsh vegetation (mid/high marsh) being shaded by the proposed bridge.

Response to Comment A-6

The commenter states that Section 4.4 c) of the Draft Initial Study/Proposed Mitigated Negative Declaration lacks proposed mitigation for the project's impacts to waters of the State in the Plummer Creek channel and a brine ditch.

Please refer to Response to Comments A-2 and A-3.

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[1] *SW Broome, CB Craft, SD Struck, M San Clements. 2005. Effects of Shading from Bridges on Estuarine Wetlands. North Carolina State University, College of Agriculture and Life Sciences. Raleigh, North Carolina.*

[2] *Logan, J, S Voss, A Davis, and KH Ford. 2018. An Experimental Evaluation of Dock Shading Impacts on Salt Marsh Vegetation in a New England Estuary. Estuaries and Coasts (2018) Vol 41:1, pp 13 - 24. January.*

Response to Comment A-7

Section 4.9 a) of the Draft Initial Study/Proposed Mitigated Negative Declaration does not discuss whether the project creates sufficient impervious surfaces to trigger compliance with the MRP.

Please refer to Response to Comment A-3.

Response to Comment A-8

The commenter provides conclusory and summary comments of Comments A-1 through A-7 above. Please refer to Responses to Comments A-1 through A-7.

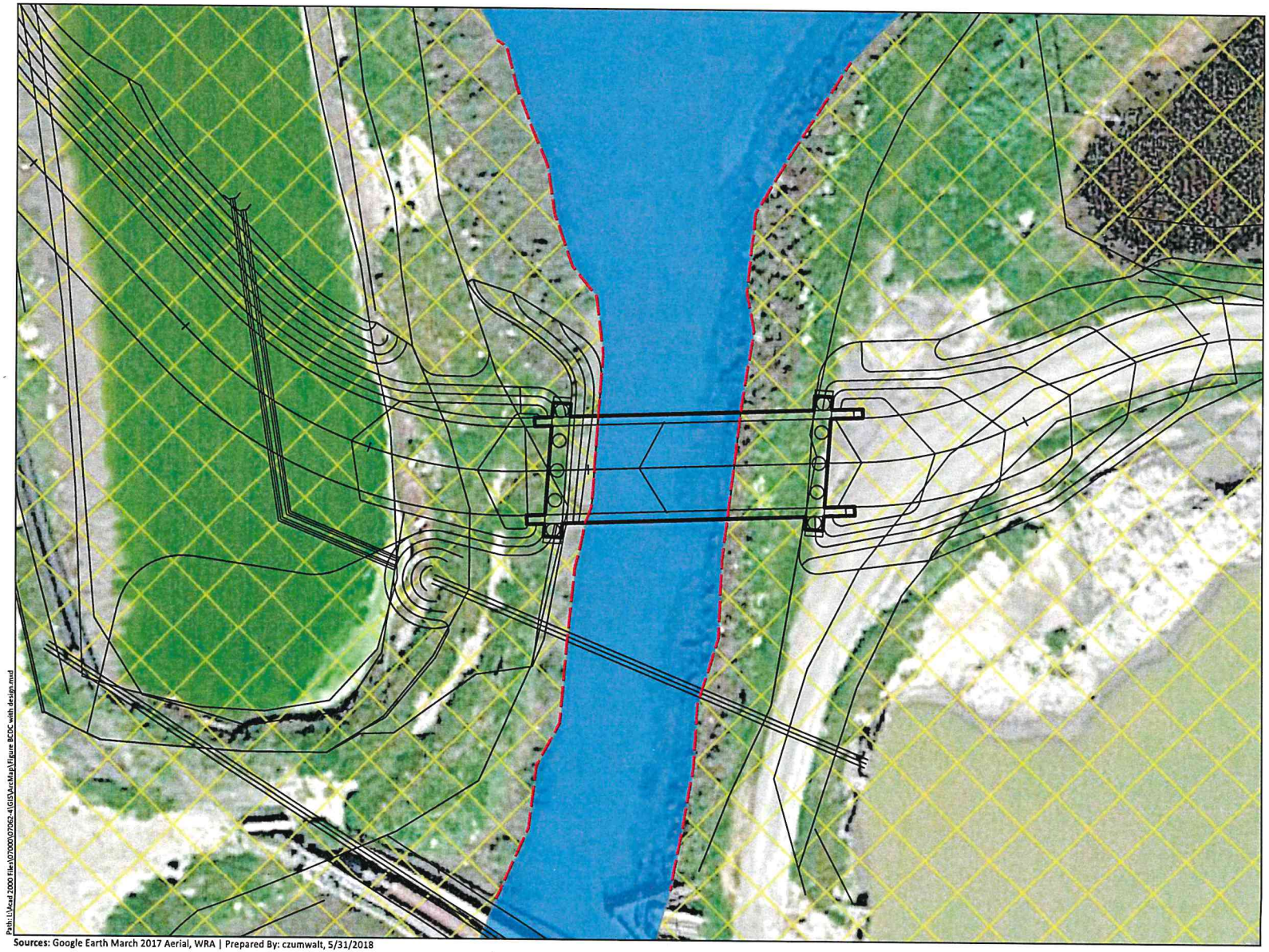

Figure 1.
Waters of the State within the Plummer Slough Bridge Project Area

Plummer Slough Bridge
Alameda County,
California

Path: L:\Acad 2000 Files\070000\07062-4\GIS\ArcMap\Figure BCDC with design.mxd

Sources: Google Earth March 2017 Aerial, WRA | Prepared By: czumwalt, 5/31/2018

wra
ENVIRONMENTAL CONSULTANTS

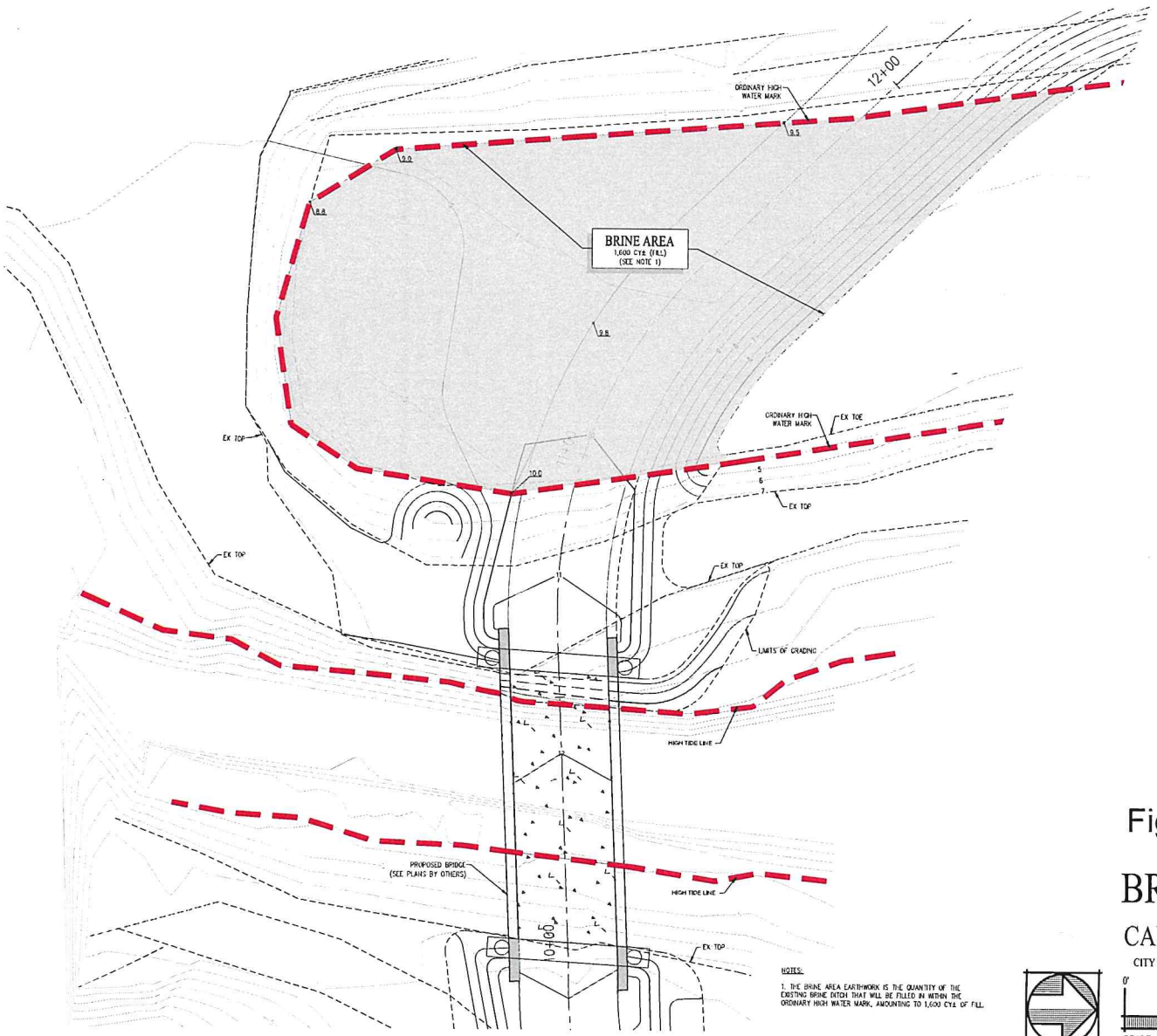

Figure 2

BRINE FILL AREA

CARGILL ACCESS BRIDGE

CITY OF NEWARK ALAMEDA COUNTY CALIFORNIA

0' 10' 30' 40'

SCALE: 1" = 10'

DATE: MARCH 2018

Carlson, Barbee & Gibson, Inc.
CIVIL ENGINEERS • SURVEYORS • PLANNERS
SAN RAMON, CALIFORNIA
SACRAMENTO, CALIFORNIA

Figure 3a Proposed Area of Mitigation for Plummer Slough Bridge

Prepared by: Cargill, Incorporated
Date: June 4, 2018

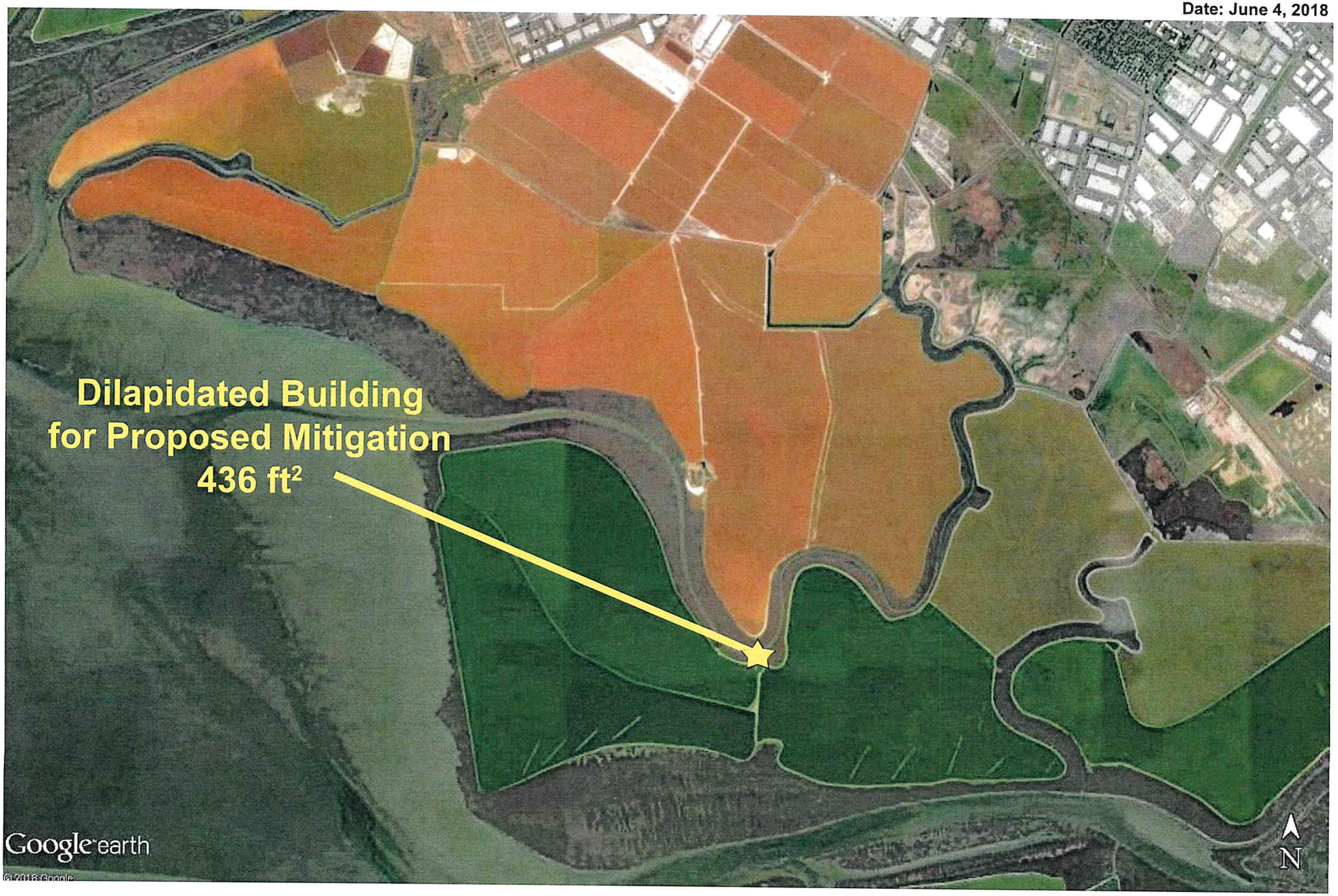

Figure 3b

Proposed Mitigation for Plummer Slough Bridge

Date: March 9, 2018