CEQA Addendum/Findings Analysis for the Salton Sea Species Conservation Habitat Project EIS/EIR

Salton Sea Management Plan/ U.S Bureau of Reclamation Vegetation Enhancement Project

Clubhouse, Tule Wash, and Bombay Beach West Sites

SCH # 2010061062

Salton Sea, Imperial County, California

PREPARED FOR

California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, California 95814

PREPARED BY

Tetra Tech
301 E Vanderbilt Way, Suite 400
San Bernardino, California 92408

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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
BLM	U.S. Bureau of Land Management
BMPs	best management practices
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH4	methane
CHRIS	California Historical Resources Information Center
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CVWD	Coachella Valley Water District
dBA	A-weighted decibels
DFG	California Department of Fish and Wildlife (formerly Department of Fish and Game)
DDE	dichlorodiphenyldichloroethylene
DSAP	Dust Suppression Action Plan
DWR	(California) Department of Water Resources
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
GHG	greenhouse gas
GPS	Global Positioning System
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
IPaC	Information for Planning and Consultation
Leq	equivalent sound level
MM	mitigation measure
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NOx	oxides of nitrogen
NRHP	National Register of Historic Places

Acronyms/Abbreviations	Definition
O_3	ozone
OHP	Office of Historic Preservation
PFYC	Potential Fossil Yield Classification
$PM_{2.5}$	particulate matter 2.5 microns in diameter or smaller
PM_{10}	particulate matter 10 microns in diameter or smaller
PRMMP	Paleontological Resources Mitigation and Monitoring Plan
SCH	Species Conservation Habitat
SHPO	State Historic Preservation Office
SOx	sulfur oxides
SSMP	Salton Sea Management Program
SR	State Route
TMDCI	Torres Martinez Desert Cahuilla Indians
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

This environmental document is an Addendum prepared in compliance with the California Environmental Quality Act (CEQA) to the Salton Sea Species Conservation Habitat (SCH) Project Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), certified in August 2013 (Approved Project). An Addendum was prepared for the Approved Project EIS/EIR in September 2017, which updated the EIS/EIR to include the California Natural Resources Agency (CNRA) *Salton Sea Management Program Phase I: 10-Year Plan* (10-Year Plan or SSMP). The purpose of the SSMP is to implement habitat projects and dust suppression projects around the perimeter of the Salton Sea to reduce the effects of the receding Sea.

The projects that are the subject of this Addendum are in areas that are included in the SSMP, and include vegetation establishment and habitat enhancement at three areas totaling 1,707 acres around the Salton Sea at the Clubhouse, Tule Wash, and Bombay Beach West sites (referred to as the Modified Project or Project in this Addendum). CNRA is working with the U.S. Bureau of Reclamation (USBR) because these projects are proposed on USBR lands. These projects are intended to enhance habitat value by vegetating the sites and as a result reduce windblown dust emissions at the three locations. The addition of specific vegetation enhancement project areas would not have any significant environmental impacts beyond those already addressed in the Approved Project EIS/EIR (hereafter referred to as EIS/EIR) or the 2017 CEQA Addendum or cause a substantial increase in the severity of previously identified significant effects. These activities are consistent with the SCH Project. Even though these projects are proposed on federal land, they are subject to CEQA review because the project proponent is CNRA, a state agency. USBR is conducting a separate review of these projects under the National Environmental Policy Act (NEPA).

Under the CEQA Guidelines Section 15164, an addendum to a previously certified EIR is prepared if some changes in the adopted project are proposed and none of the conditions in CEQA Guidelines Section 15162 would occur.

As discussed in Section 1.3 of the EIS/EIR (CEQA Project Goals and Objectives/NEPA Purpose and Need), the SCH Project's goals are two-fold: (1) develop a range of aquatic habitats that will support fish and wildlife species dependent on the Salton Sea; and (2) develop and refine information needed to successfully manage the Approved Project habitat through an adaptive management process. The SCH Project is located at the mouth of the New River and encompasses dry playa that will be converted into aquatic habitat to support bird and fish populations at the Sea, and control dust emission from the playa. Habitat enhancement and dust suppression activities, including vegetation enhancement activities, are consistent with these goals.

2.0 PROJECT DESCRIPTION

This section describes the proposed modifications to the SCH Project addressed in this Addendum. As with the SCH Project, the Modified Project would be in areas that are included in the SSMP, which describes developing and implementing vegetation enhancement and dust suppression projects at various locations on exposed playa around the perimeter of the Salton Sea. The Modified Project analyzed here consists of enhancing vegetation (thereby enhancing habitat) and suppressing dust across 1,707 acres of USBR lands at the Clubhouse, Tule Wash, and Bombay Beach West sites. These activities are consistent with the SCH Project. This section describes the project locations and proposed actions at each site that are evaluated in this Addendum.

2.1 PROJECT LOCATIONS

The proposed vegetation enhancement projects are proposed across three project areas of exposed lakebed around the perimeter of the Salton Sea (Figure 1). These proposed project areas include the Clubhouse, Tule Wash, and Bombay Beach West sites. While there are multiple land owners at the Clubhouse and Tule Wash sites, including USBR, Imperial Irrigation District (IID), and private land, the proposed vegetation enhancement projects are proposed on USBR lands only. The Bombay Beach West site is all USBR land.

2.1.1 Clubhouse

The Clubhouse project site is located near the community of Salton City in Township 9 South, Range 10 East (Sections 30 and 32) and Township 10 South, Range 10 East (Section 04) of the Truckhaven 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle map. The project site includes three USBR parcels, totaling 399 acres. All three parcels are accessed from California State Route 86 (SR-86). The North Parcel is accessed from Camino Drive via Treadwell Boulevard; the Center Parcel from Leto Avenue via Bering Avenue via Treadwell Boulevard; and the South Parcel from Sea Garden Avenue via N Marina Drive. The project location and site access are shown on Figure 2.

2.1.2 Tule Wash

The Tule Wash project site is located near the community of Salton City in Township 10 South, Range 10 East (Sections 14, and 24-25); Township 10 South, Range 11 East (Sections 30-31); and Township 11 South Range 11 East (Section 06) of the Truckhaven, Durmid SE, and Kane Spring NE 7.5-minute USGS topographic quadrangle maps, respectively. The project includes seven USBR parcels, totaling 1,217 acres. These are accessed from SR-86 from Salton Drive via Haven Drive via Marina Drive. The project location and site access are shown on Figure 3.

2.1.3 Bombay Beach West

The Bombay Beach West project site is located near the community of Bombay Beach in Township 9 South, Range 12 East (Section 32) of the Frink and Durmid SE 7.5-minute USGS topographic quadrangle maps. The project includes one US Bureau of Reclamation (USBR) parcel, totaling 91 acres. It is accessed from SR-111 via 5th Street via Avenue A. The project location and site access are shown on Figure 4.

Figure 1. Project Locations Overview

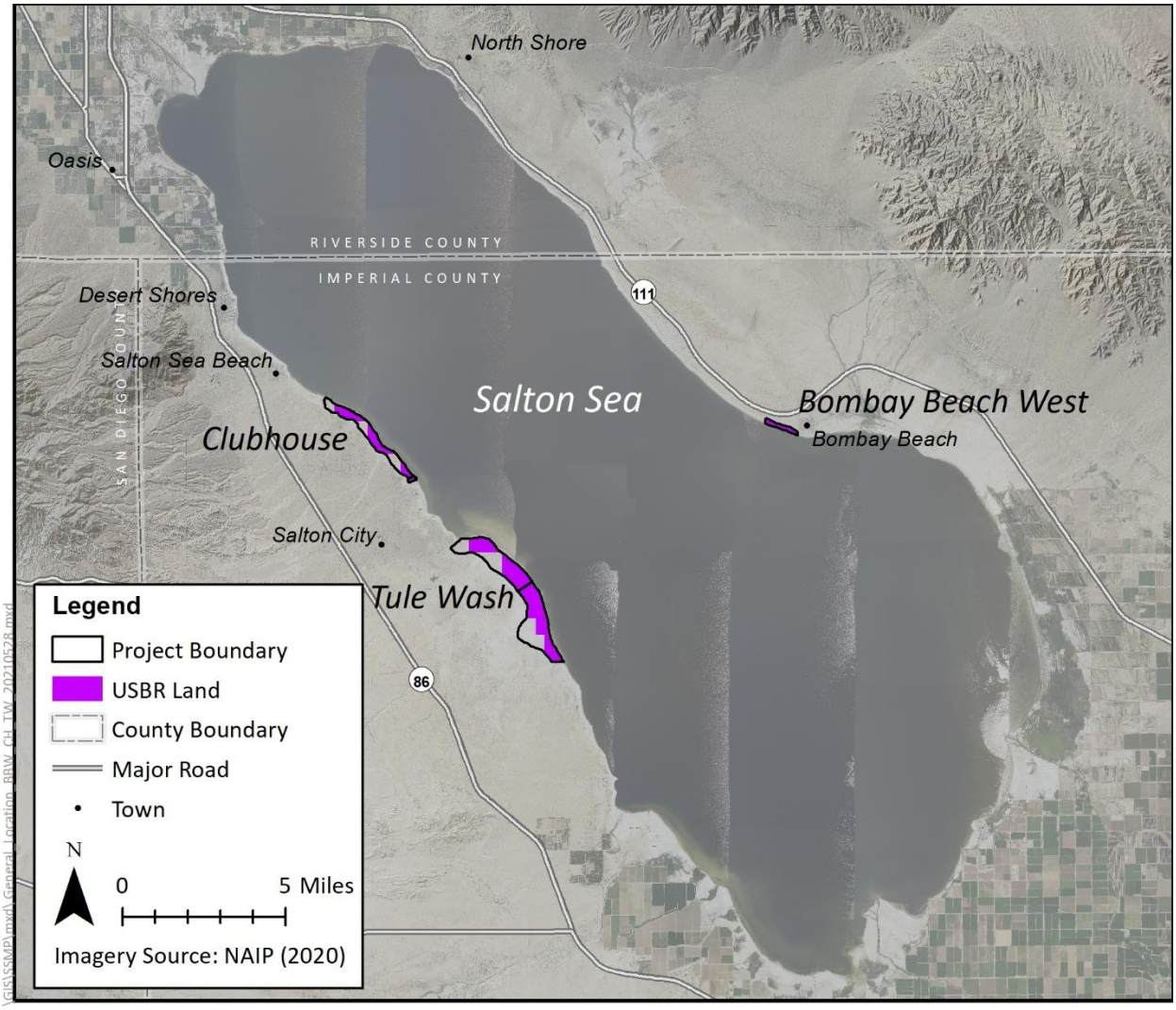


Figure 2. Project Location and Access for Clubhouse Site

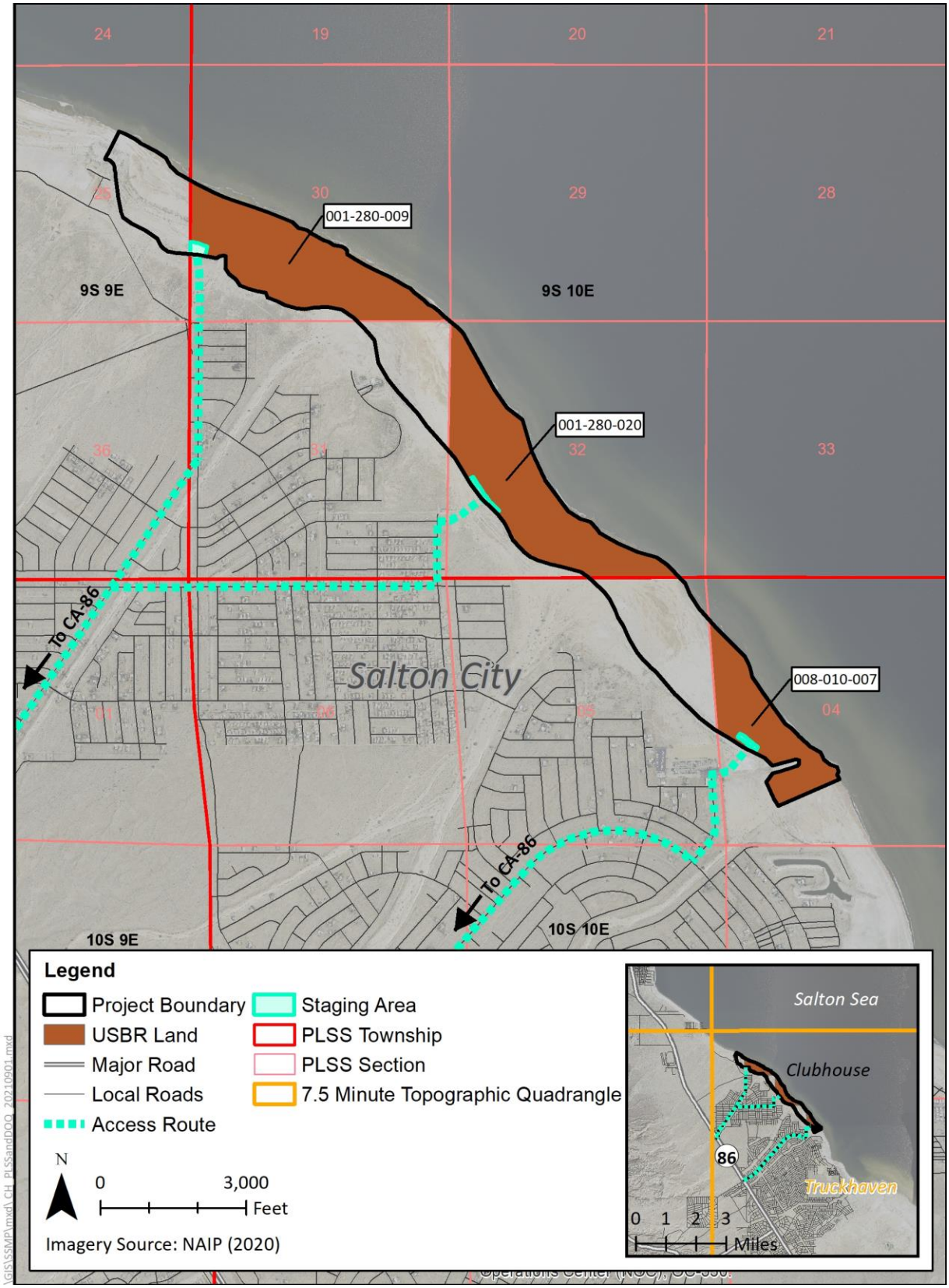


Figure 3. Project Location and Access for Tule Wash Site

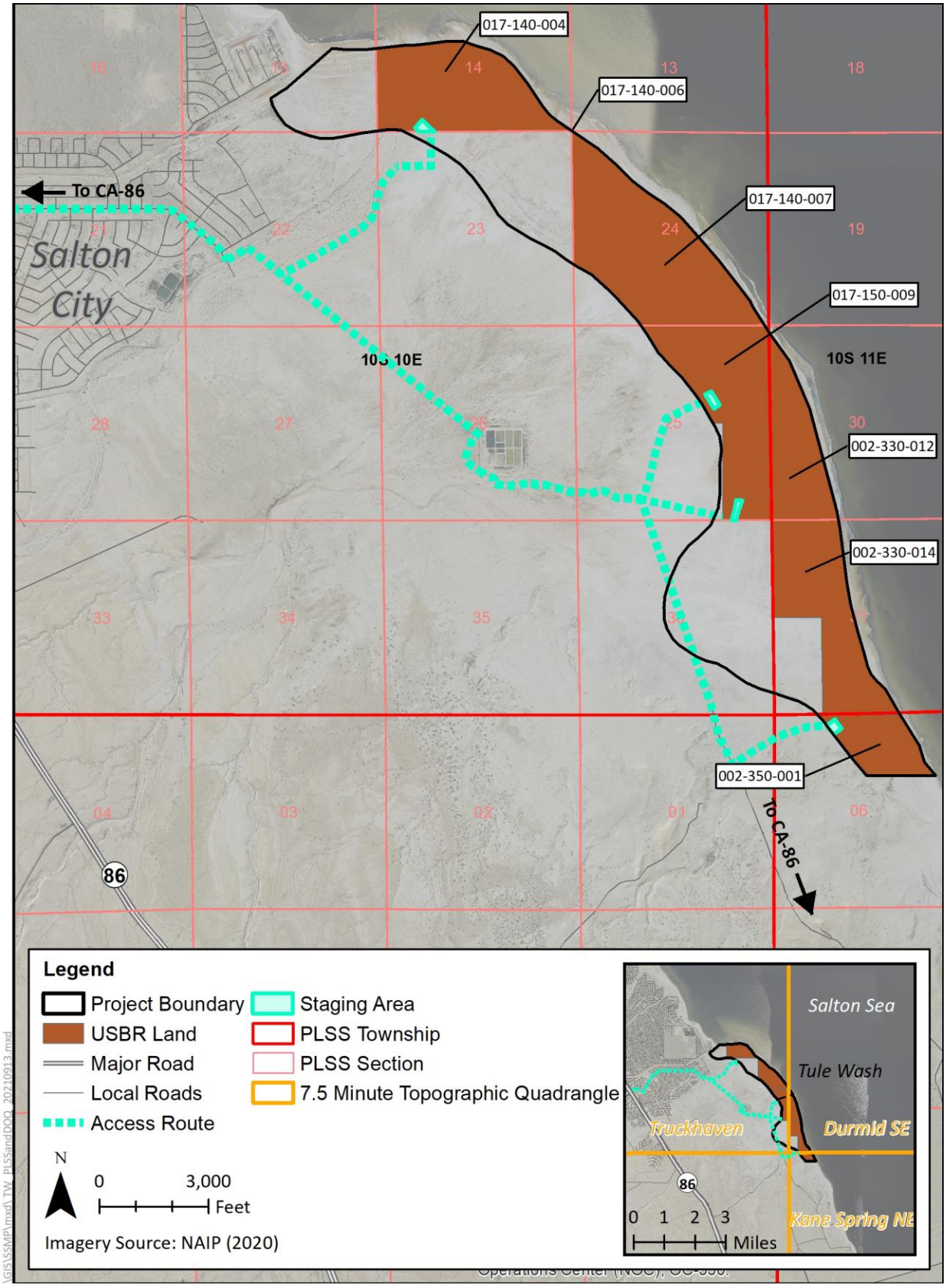
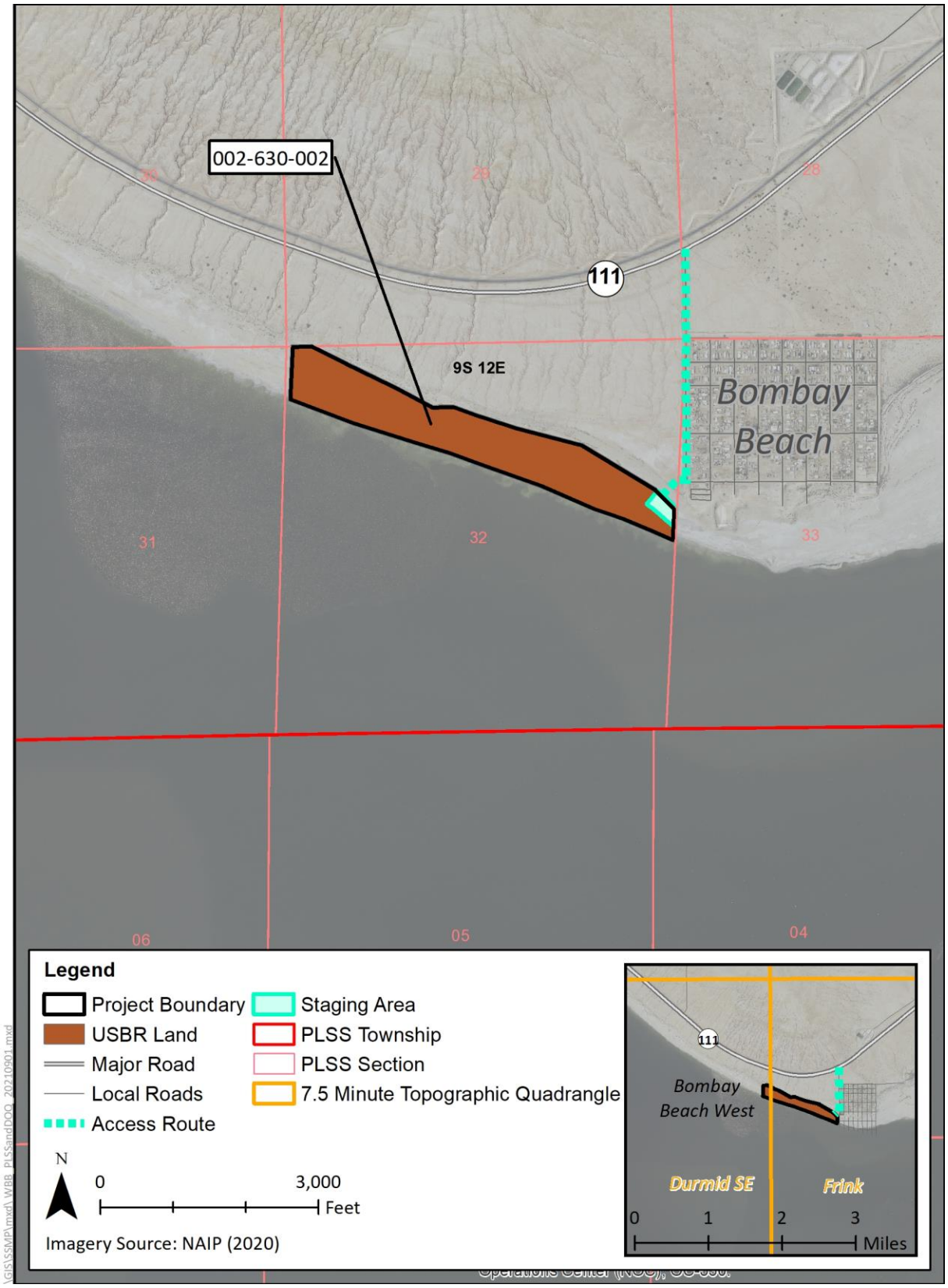


Figure 4. Project Location and Access for Bombay Beach West Site



2.2 PROPOSED ACTIONS

2.2.1 Clubhouse

The Clubhouse Vegetation Enhancement Project (Clubhouse Proposed Action) is being proposed on USBR land located along the western shore of the Salton Sea that has become exposed as the Sea has receded in recent years (Figure 2; parcels identified in Table 1). The Clubhouse Proposed Action includes the following components/activities:

1. Increasing the surface roughness through placement of erodible and non-erodible organic elements
2. Placement of sand fences
3. Creating furrows to promote stormwater spreading
4. Establishing and expanding native vegetation through planting and seeding activities using irrigation, stormwater spreading and groundwater supply
5. Establishing groundwater and surface water supplies
6. Monitoring and assessment of the proposed components

Typically, areas of the site that are already covered by vegetation, water, or salt crusts are minimally emissive, and dust suppression activities would not be needed over these areas. There are approximately 59 acres of existing vegetation and aquatic features on the site. Project activities are proposed to be implemented over approximately 340 acres to minimize dust emissions and expand and enhance vegetation across the entire 399-acre site (Figures 5a, b, and c). Project layouts have been developed based on existing available information. The actual layout of project features may vary depending on specific site conditions. For example, the irrigated planting-seeding areas shown on the figures could be implemented in larger areas or at different locations in the upland areas at a particular site if conditions allow, but may also be less than that. In addition, three staging areas would be established at the edge of the parcels as shown in Figure 2 to accommodate construction materials and equipment. Table 1 identifies the three USBR parcels that make up the Clubhouse project site.

Table 1. USBR Parcels and Acreages at the Clubhouse Site

Parcel Number	Acreage
001-280-009	150.6
001-280-020	166.6
008-010-007	82.0
Total	**399.2**

For the overall project schedule, construction could take about 2 years, with follow-up monitoring and corrective action for about 5 years, and with long-term monitoring over the life of the project which could be as long as 25 years.

Figure 5. Clubhouse Site Project Implementation Plan
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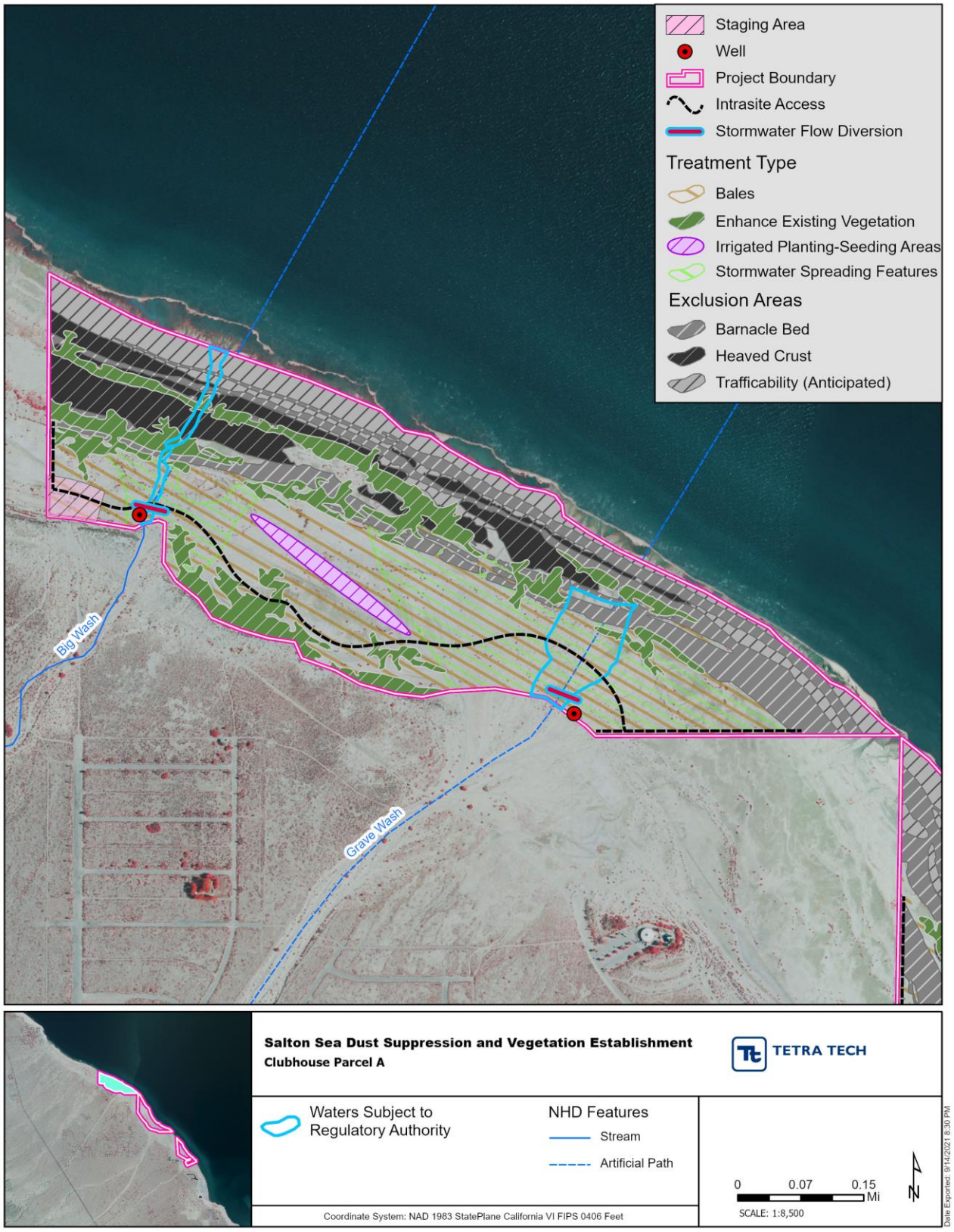

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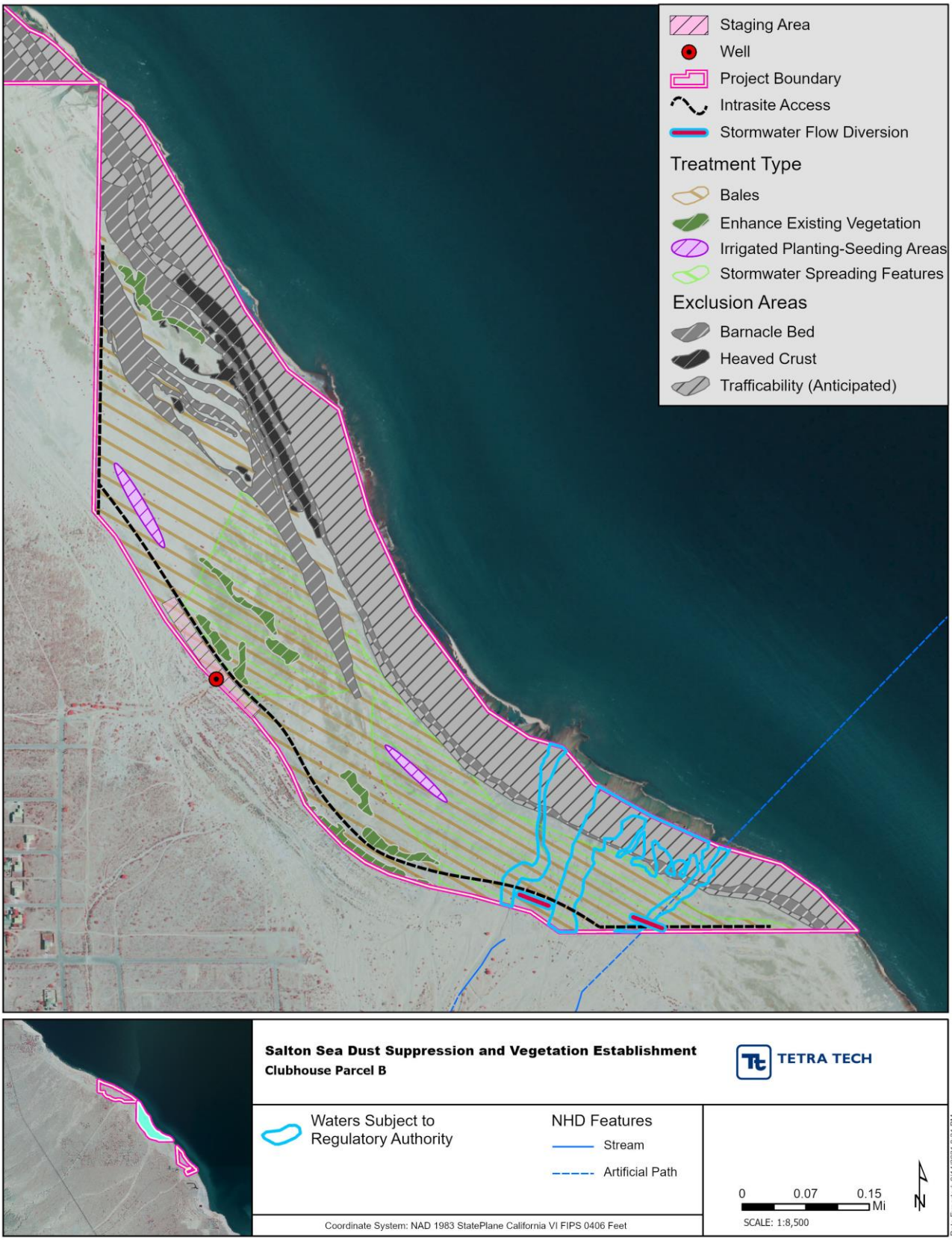

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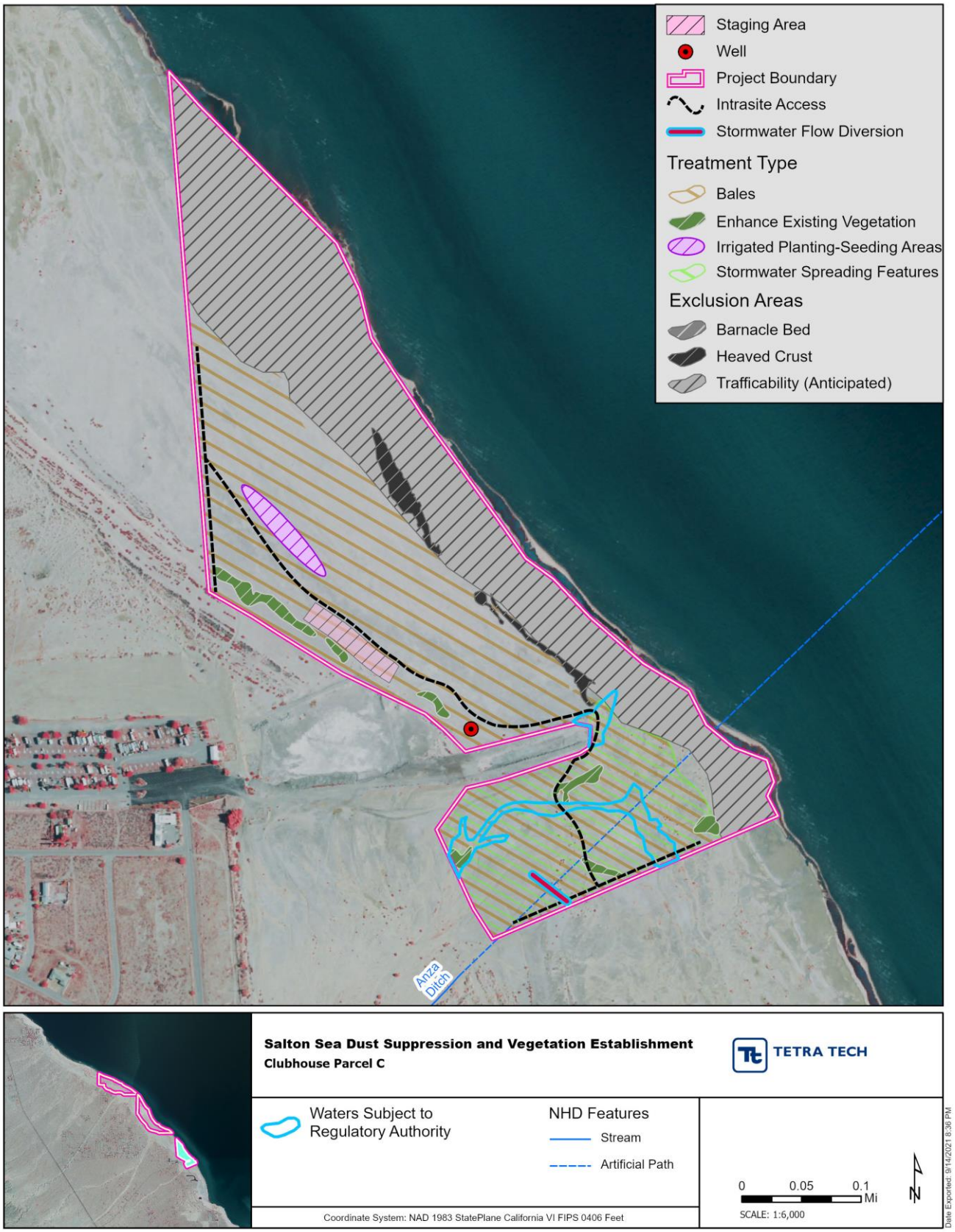

Vegetation Establishment and Dust Suppression Methods

The Proposed Action includes engineered roughness, vegetation enhancement, and stormwater spreading to reduce wind speeds near the surface and thus the emission of dust. The surface soils within the Clubhouse Proposed Action parcels are sand textured. These sand textured soils would be stabilized using engineered roughness, which consists of the staggered placement of non-erodible organic elements (straw bales or bales consisting of assorted organic materials, mulch, compost socks, or other woody debris) to increase the roughness of the surface and protect small plants from wind and windblown sand. Engineered roughness is proposed on up to 340 acres identified on the site, and the final acreage would be refined upon improved site characterization in the field. The organic elements, such as bales, would be delivered by truck to the site staging areas and placed across the site at a center-to-center distance of 8 feet or greater. This distance is based on the calculated efficiency of reduced dust emission. Access routes to the site and the staging areas are shown in Figure 2.

Sand fencing, an alternative approach to slow wind speed at the surface, could be applied in various places around the site in areas without dense vegetation. Sand fences consist of a porous fence material supported by steel posts. Signage would also be deployed at key locations along the perimeter to minimize public access during restoration work.

Engineered roughness, including sand fencing are necessary for the successful establishment of native vegetation and can immediately reduce saltation activity by 90% with minimal lag time. These actions increase the survivability of young halophytic (salt tolerant) desert vegetation by minimizing sand abrasion and burial and slow the flow of water thereby allowing stormwater to be spread over a larger area.

As shown in Figures 5a, b, and c, the washes that would provide the source of stormwater for the project are identified as Big Wash, Grave Wash, Palm Wash, Anza Ditch, and two unnamed washes. The total stormwater flow is estimated to be over 100 acre-feet for a two-year storm. A primary goal of this project is to direct available stormwater over a larger area than currently receives storm flows to encourage vegetation expansion and to support the vegetation that already exists. Various methods of stormwater spreading may be used to meet the water requirements of native vegetation. One method is the excavation of surface furrows up to 2 feet deep, perpendicular to the ephemeral channels and parallel to the Salton Sea shoreline. Other methods include building temporary earthen berms, use of compost socks, deployment of sandbag weirs, and building rock check dams.

Several vegetation establishment methods are proposed: natural recruitment, seeding, planting, and imprinting. Seeding or planting of vegetation in the form of potted plants or plugs would be combined with the above engineered roughness and stormwater spreading methods. Seed would also be spread using an imprinter. Various watering methods are proposed to establish vegetation including initial watering with a watering truck (where feasible), use of stormwater spreading through the methods described above, and micro-irrigation using groundwater extracted as described in the next section. Potential plant species include iodine bush (*Allenrolfea occidentalis*), saltgrass (*Distichlis spicata*), and saltbush species (*Atriplex* spp.). All of these species are in the Iodine Bush Series vegetation type as defined by Sawyer and Keeler-Wolfe (CNPS 1995). In general, ecological (revegetation) techniques that mimic and accelerate natural processes are proposed. These site-specific actions rely on the establishment of greater perennial plant cover. Ground disturbance associated with planting would include the augering of holes by hand no deeper than 1.5 feet and no wider than 0.5 feet in diameter.

Site Characterization and Monitoring

In addition to collection of stormwater, groundwater production wells would be installed at four locations to support the vegetation at the site (Figures 5a, b, and c). The benefit of groundwater is that it can be a larger, more controllable and consistent source of water at the site than the ephemeral stormwater sources. The intent is to use primarily ephemeral stormwater to establish vegetation and enhance existing vegetation at the site. If needed, groundwater would be used to supplement the captured ephemeral stormwater. To maximize the potential expansion of vegetated areas across the entire 399-acre project site, the wells would be placed in areas that are not in proximity to the stormwater sources. The completed depth of the wells would be based on field survey data

on water quality and sustainability of yield and would be 300 feet deep or shallower. Power supply for the wells would be obtained from solar-powered systems, diesel electric generators or electric lines, depending on cost and proximity to the supply. Groundwater supplies would be delivered to vegetation using above ground pipelines connected to a drip irrigation system. There would be no ground disturbance associated with micro-drip irrigation.

Dedicated vegetation plots (Hao et al 2020; USDA-ARS 2009) would be designed to assess combined methods of engineered roughness, stormwater spreading, vegetation establishment and watering methods described above. Plots would cover a combination of one of the roughness methods (erodible or non-erodible organic elements or furrowing) utilized along with the proposed water source (stormwater or irrigation). Plots would also evaluate the various species that grow through several vegetation establishment methods: natural recruitment, seeding, planting, or imprinting. Additional data collection including taking soil samples and methods to describe the physical and topographic site characteristics will inform the techniques used to establish vegetation.

Various seeding methods would be used including drill seeding, broadcast seeding, hydroseeding, imprinting or other similar methods. Methods would be evaluated to determine which are most effective in this setting. Drill seeding and broadcast seeding are mechanical grass seeding methods, though broadcast seeding can also be completed by hand. Hydroseeding is conducted by spraying a slurry of seed and mulch across a site and does not require any vehicular or mechanical installation. Imprinting is a no-till technique that pushes seed into the ground while allowing water to be funneled to the seeds.

Evaluation of the effectiveness of the various methods used would be conducted on combinations of these treatment, watering, and planting methods. Treatment measure combinations to be evaluated would include one of the three vegetation establishment methods plus: a) furrow development and pulse watering from storm flows or ground water, b) furrow development and micro-drip methods of irrigation, c) organic elements and pulse watering, d) organic elements and micro-irrigation combined with one of the vegetation establishment methods, and e) other combinations of these methods. Where feasible, all sites where seeding or planting occurs would initially be watered via water truck. Measuring the change and growth of vegetation over time will provide information on what combination of methods are the most successful to achieve the project goals.

Air quality monitoring equipment would be installed across the site in locations as needed. The equipment is designed to measure saltation (particle transport) activity (frequency and magnitude), ambient concentrations of PM_{10}, wind speed, wind direction, relative humidity, temperature, barometric pressure, and precipitation. These measurements would support evaluation of dust suppression performance across the site. Each site installation would consist of a 6-foot-high tripod over a 10-foot by 10-foot area. The tripod would be secured to the ground using 12-inch concrete footings, and the monitoring location would be secured with a fence to protect it from damage and vandalism.

Long-Term Assessment

A monitoring and adaptive management approach would be developed to include all of the components and monitoring criteria described above. The implementation of the engineering and vegetation establishment methods described above are proposed to meet the Clubhouse Proposed Action's purpose of restoring the USBR parcels through vegetation establishment and enhancement thereby reducing wind-blown dust emissions. Specific vegetation enhancement goals such as percent cover would be further defined and related to the associated monitoring measurements in order to develop a set of success criteria. Measurements taken in the field would then determine if success criteria are being met and/or if adaptive management actions are needed to meet restoration goals and objectives. Projects of a similar nature that include xeric vegetation establishment planning, treatment or planting specification development, and/or monitoring and adaptive management planning are documented in select Tetra Tech reports (2018a,b, 2019, 2020).

2.2.2 Tule Wash

The Tule Wash Vegetation Enhancement Project (Tule Wash Proposed Action) is being proposed on USBR land located along the western shore of the Salton Sea that has become exposed as the Sea has receded in recent years (Figure 3; parcels identified in Table 2). The Tule Wash Proposed Action includes the following components/activities:

1. Increasing the surface roughness through placement of erodible and non-erodible organic elements
2. Placement of sand fences
3. Creating furrows and swales to promote stormwater spreading
4. Establishing and expanding native vegetation through planting and seeding activities using irrigation, stormwater spreading and groundwater supply
5. Establishing groundwater and surface water supplies
6. Monitoring and assessment of the proposed components

Typically, areas of the site that are already covered by vegetation, water, or salt crusts are minimally emissive, and dust suppression activities would not be needed over these areas. There are currently approximately 268 acres of existing vegetation, aquatic features, and salt-encrusted lakebed areas on the site. Project activities are proposed to be implemented over approximately 949 acres to expand and enhance vegetation across the entire 1,217-acre site and minimize dust emissions (Figures 6a, b, c, d, and e). Project layouts have been developed based on existing available information. The actual layout of project features may vary depending on specific site conditions. For example, the irrigated planting-seeding areas shown on the figures could be implemented in larger areas or at different locations in the upland areas at a particular site if conditions allow, but may also be less than that. In addition, staging areas would be established at the edge of the parcels as shown in Figure 3 to accommodate construction materials and equipment. Table 2 identifies the USBR parcels that make up the Tule Wash project site.

***Table 2*.** USBR Parcels and Acreages at the Tule Wash Site

Parcel Number	Acreage
002-330-012	134.1
002-330-014	208.9
002-350-001	79.3
017-140-004	230.6
017-140-007	328.5
017-150-009	235.8
Total	**1,217.2**

For the overall project schedule, construction could take about 2 years, with follow-up monitoring and corrective action for about 5 years, and with long-term monitoring over the life of the project which could be as long as 25 years.

Figure 6. Tule Wash Site Project Implementation Plan
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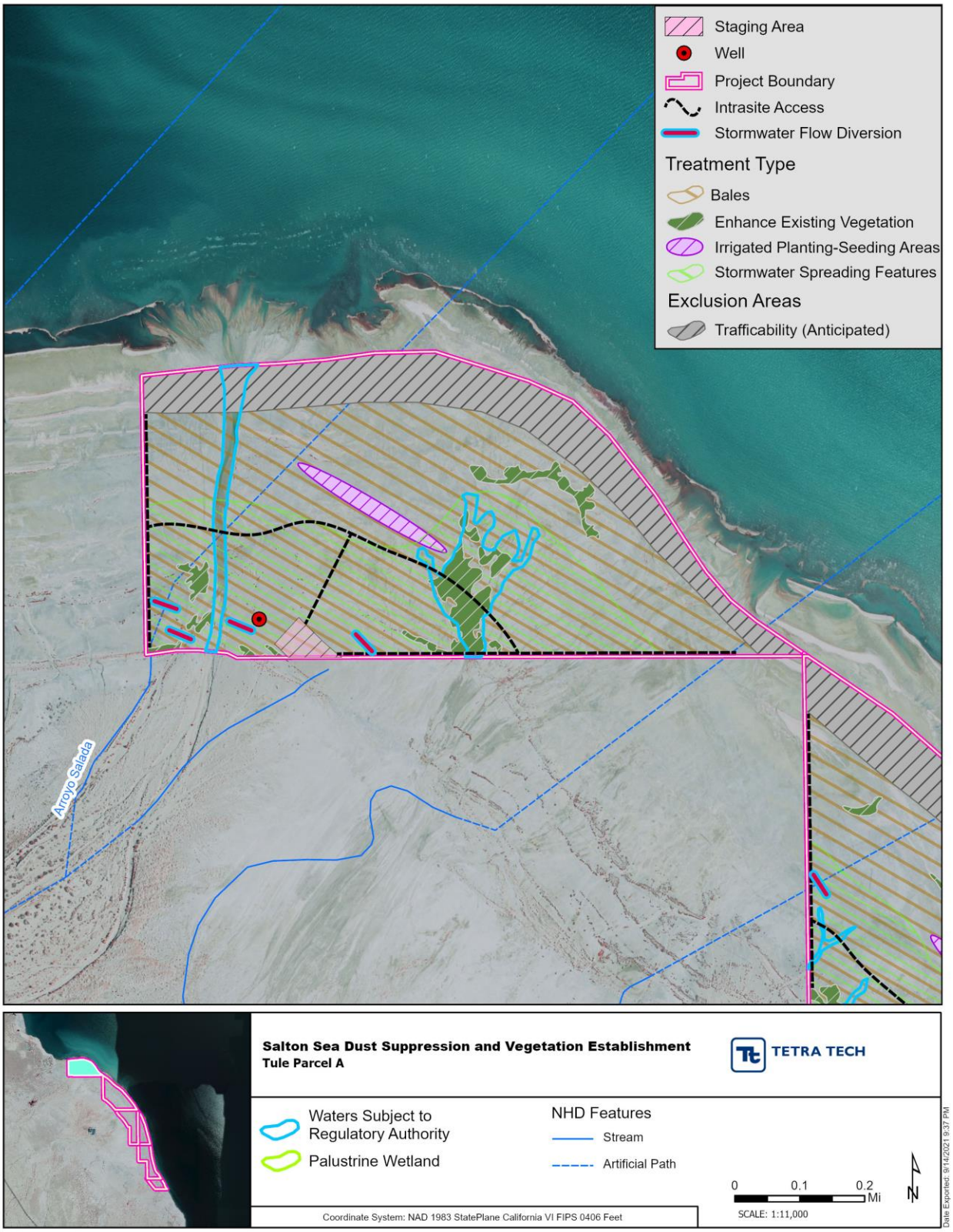

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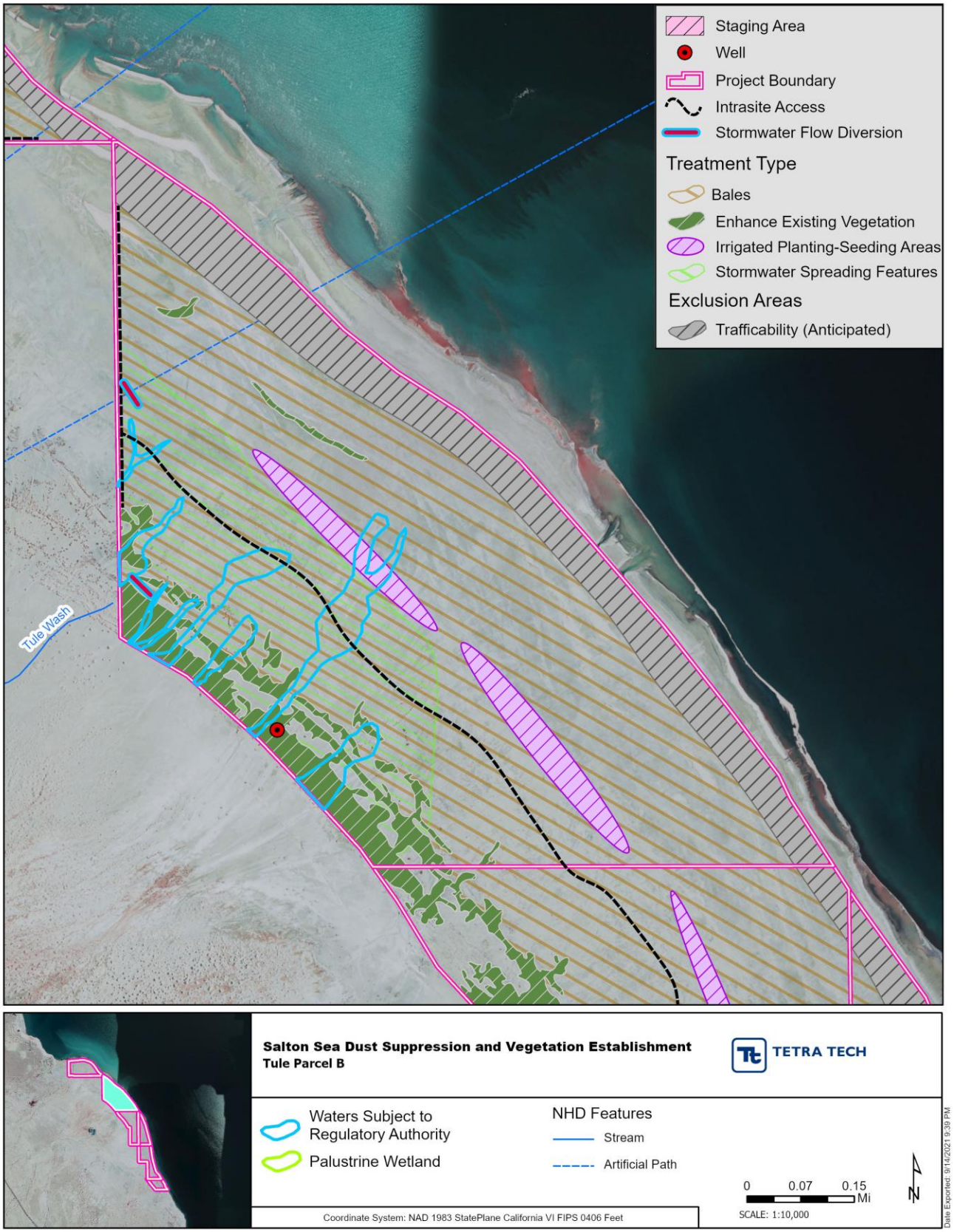

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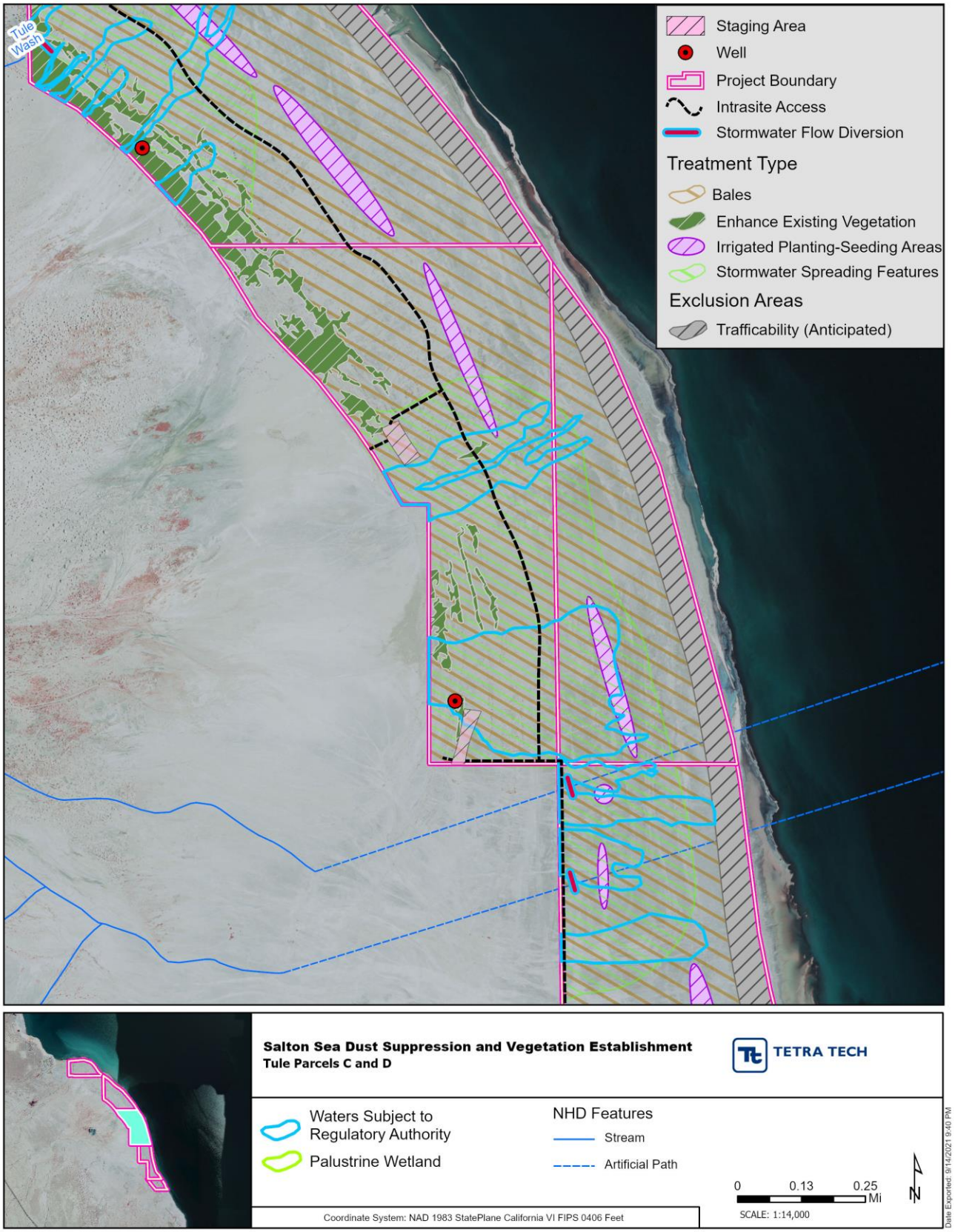

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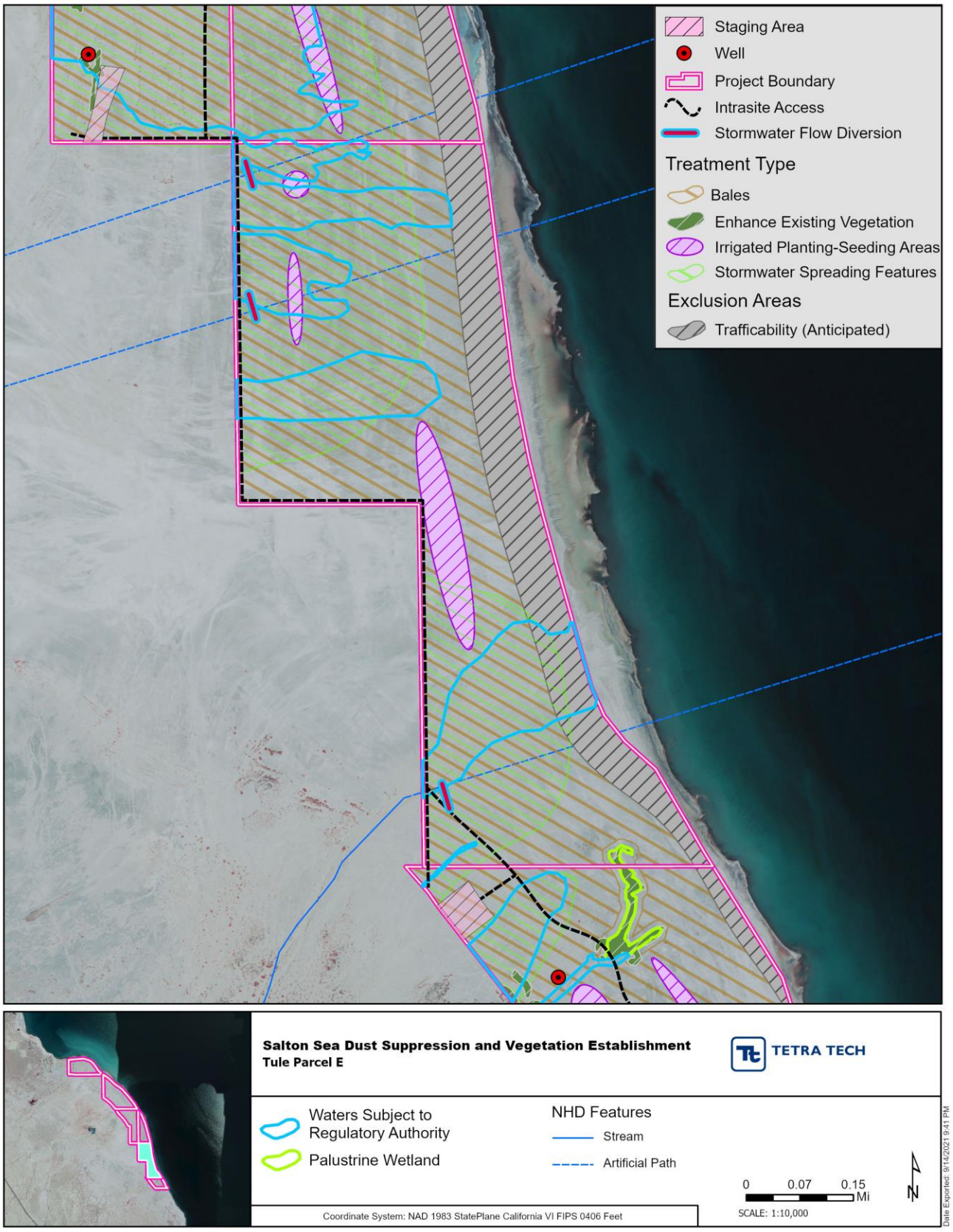

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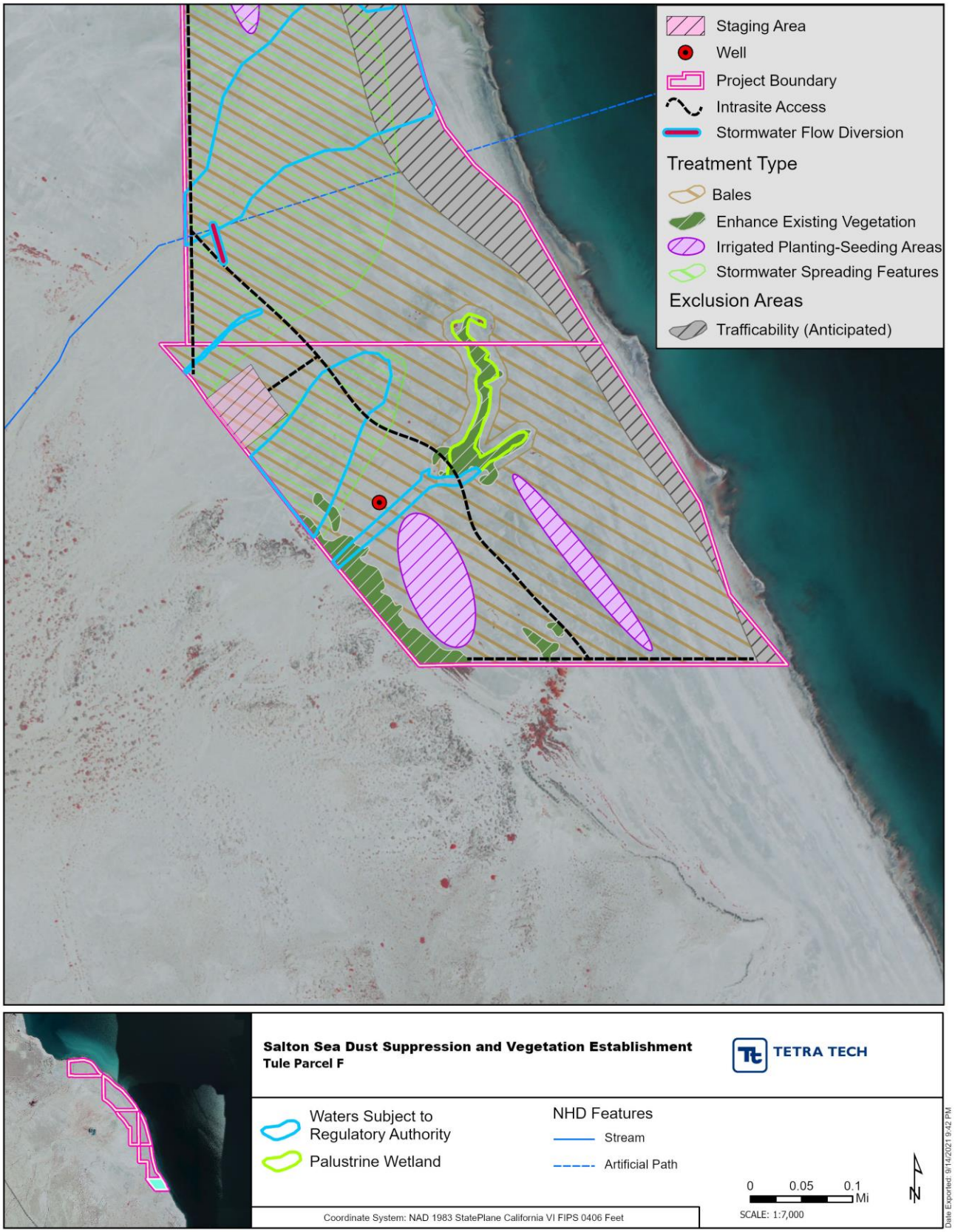


Vegetation Establishment and Dust Suppression Methods

The surface soils within the Tule Wash Proposed Action parcels are primarily sand, loamy sand, and sandy loam textured. These coarse textured soils would be stabilized using vegetation in combination with engineered roughness, which consists of the staggered placement of erodible and non-erodible organic elements to increase the roughness of the surface (straw bales, bales consisting of assorted organic materials, mulch, or other woody debris) and to protect small plants from wind and windblown sand. Engineered roughness is proposed on up to 949 unvegetated acres across USBR parcels on the site (Figure 6); the final acreage would be refined upon improved site characterization in the field. The bales would be delivered by truck to the site staging areas and placed on the ground surface across the site at a center-to-center distance of 8 feet or greater. This distance is based on the calculated efficiency of reduced dust emission. Access to the site and the staging areas are shown in Figure 3.

Sand fencing, an alternative approach to slow wind speed at the surface, could be applied in various places around the site in areas without dense vegetation. Sand fences consist of a porous fence material supported by steel posts. Signage would also be deployed at key locations along the perimeter to minimize public access during restoration work.

Engineered roughness and sand fencing are necessary for the successful establishment of long-term dust-control and can immediately reduce saltation activity by 90% with minimal lag time. These actions increase the survivability of young halophytic desert vegetation by minimizing sand abrasion and burial and slow the flow of water thus allowing stormwater to be spread over a larger area. Existing water flows that support the wetland area at the southern end of the Tule Wash site would be not be altered or diverted.

The Tule Wash Proposed Action also includes the spreading of water from the various washes that are part of the Tule Wash alluvial fan. As shown in Figures 6a, b, c, d, and e, these washes are identified as Arroyo Salado, Tule Wash, and several unnamed washes that emanate from the apex of Tule Wash. The goal of this project is to spread stormwater from these washes over a wider area to encourage vegetation expansion and to support the vegetation that already exists at the site. As described in Section 2.2.1 for the Clubhouse site, various methods of stormwater spreading may be used to meet the water requirements of native vegetation. One method is the excavation of surface furrows up to 2 feet deep, perpendicular to the ephemeral channels and parallel to the Salton Sea shoreline. Other methods include building temporary earthen berms, use of compost socks, deployment of sandbag weirs, and building rock check dams.

Several vegetation establishment methods are proposed: natural recruitment, seeding, planting, and imprinting. Seeding or planting of vegetation in the form of potted plants or plugs would be combined with engineered roughness and stormwater spreading methods. Seed would also be spread using an imprinter. Various watering methods are proposed to establish vegetation including initial watering with a watering truck (where feasible), use of stormwater spreading through the methods described above, and micro-irrigation using groundwater extracted as described in the next section. Potential plant species include iodine bush (*Allenrolfea occidentalis*), saltgrass (*Distichlis spicata*), and saltbush species (*Atriplex* spp.). All of these species are in the Iodine Bush Series vegetation type (CNPS 1995). Other native species detected at the site would also be evaluated for seeding or planting. In general, ecological (revegetation) techniques that mimic and accelerate natural processes are proposed. These site-specific actions rely on the establishment of greater perennial plant cover. Ground disturbance associated with planting would include the auguring of holes by hand no deeper than 1.5 feet and no wider than 0.5 feet in diameter.

Site Characterization and Monitoring

In addition to collection of stormwater, groundwater production wells would be installed at four locations to support the vegetation at the site (Figures 6a, c, d, and e). The benefit of groundwater is that it can be a larger, more consistent, and more controllable source of water at the site than the ephemeral stormwater sources. The intent is to use primarily ephemeral stormwater to establish vegetation and enhance existing vegetation at the site. If

needed, groundwater would be used to supplement the captured ephemeral stormwater. To maximize the potential expansion of vegetated areas across the project site, the wells would be placed in areas that are not in proximity to the stormwater sources. The completed depth of the wells would be based on field survey data on water quality and sustainability of yield and would be 300 feet deep or shallower. Power supply for the wells would be obtained from solar-powered systems, diesel electric generators or electric lines, depending on cost and proximity to the supply. Groundwater supplies would be delivered to vegetation using aboveground pipelines connected to a drip irrigation system. There would be no ground disturbance associated with micro-drip irrigation.

Dedicated vegetation plots (Hao et al 2020; USDA-ARS 2009) would be designed to assess combined methods of engineered roughness, stormwater spreading, vegetation establishment and watering methods described above. Plots would cover a combination of one of the roughness methods (erodible or non-erodible organic elements or furrowing) utilized along with the proposed water source (stormwater or irrigation). Plots would also evaluate the various species that grow using several vegetation establishment methods: natural recruitment, seeding, planting, or imprinting. Additional data collection including taking soil samples and methods to describe the physical and topographic site characteristics will inform the techniques used to establish vegetation.

Various seeding methods would be used including drill seeding, broadcast seeding, hydroseeding, or other similar. Methods would be compared to determine which are most effective in this setting. Drill seeding and broadcast seeding are mechanical grass seeding methods, though broadcast seeding can also be completed by hand. Hydroseeding is conducted by spraying a slurry of seed and mulch across a site and does not require any vehicular or mechanical installation. Imprinting is a no-till technique that pushes seed into the ground while allowing water to be funneled to the seeds.

Evaluation of the effectiveness of the various methods used would be conducted on combinations of these treatment, watering, and planting methods. Treatment measure combinations to be evaluated would include one of the three vegetation establishment methods plus a watering method including: a) furrow development and pulse watering, b) furrow development and micro drip methods of irrigation, c) organic elements and pulse watering, d) organic elements and micro irrigation combined with one of the vegetation establishment methods, and e) other combinations of these methods. Where feasible, all sites where seeding or planting occurs would initially be watered via water truck.

Air quality monitoring equipment would be installed at 12 locations along three defined transects across the site. The equipment is designed to measure saltation activity (frequency and magnitude), ambient concentrations of PM_{10}, wind speed, wind direction, relative humidity, temperature, barometric pressure, and precipitation. These measurements would support evaluation of dust suppression performance across the site. Each site installation would consist of a 6-foot-high tripod over a 10-foot by 10-foot area. The tripod would be secured to the ground using 12-inch concrete footings, and the monitoring location would be secured with a fence to protect it from damage and vandalism.

Long-Term Assessment

A monitoring and adaptive management approach would be developed to include all of the components and monitoring criteria described above. The implementation of the engineering and vegetation establishment methods described above are proposed meet the Tule Wash Proposed Action's purpose of restoring the USBR parcels through vegetation establishment and enhancement thereby reducing wind-blown dust emissions. Specific vegetation enhancement goals such as percent cover would be further defined and related to the associated monitoring measurements in order to develop a set of success criteria. Measurements taken in the field would then determine if success criteria are being met and/or if adaptive management actions are needed to meet restoration goals and objectives. Projects of a similar nature that include xeric vegetation establishment planning, treatment or planting specification development, and/or monitoring and adaptive management planning are documented in select Tetra Tech reports (2018a, b, 2019, 2020).

2.2.3 Bombay Beach West

The Bombay Beach West Vegetation Enhancement and Dust Suppression Project (Bombay Beach West Proposed Action) is being proposed on USBR land located along the eastern shore of the Salton Sea that has become exposed as the Sea has receded in recent years (Figure 4; parcel identified in Table 3). The Bombay Beach West Proposed Action includes the following components/activities:

1. Increasing the surface roughness through placement of erodible and non-erodible organic elements
2. Placement of sand fences
3. Creating furrows along contour lines to promote stormwater spreading and to provide temporary surface roughening
4. Establishing and expanding native vegetation through planting and seeding activities using irrigation, stormwater spreading and groundwater supply
5. Establishing groundwater and surface water supplies
6. Monitoring and assessment of the proposed components

Typically, areas of the site that are already covered by vegetation, water, or salt crusts are minimally emissive, and dust suppression activities would not be needed over these areas. There are currently approximately 14 acres of existing vegetation and aquatic features on the site. Temporary surface roughening, engineered roughness, and establishment of vegetation is proposed to be implemented over approximately 77 acres to minimize dust emissions and expand and enhance vegetation across the entire 91-acre site (Figure 7). Temporary surface roughening and engineered roughness are seen as initial steps to promote vegetation establishment. Project layouts have been developed based on existing available information. The actual layout of project features may vary depending on specific site conditions. For example, the irrigated planting-seeding areas shown on the figures could be implemented in larger areas or at different locations in the upland areas at a particular site if conditions allow, but may also be less than that. In addition, one staging area would be established at the edge of the parcel as shown in Figure 4 to accommodate construction materials and equipment. Table 3 identifies the USBR parcel that makes up the Bombay Beach West project site.

Table 3. USBR Parcel and Acreage at the Bombay Beach West Site

Parcel Number	Acreage
002-630-002	91

For the overall project schedule, construction could take about 2 years, with follow-up monitoring and corrective action for about 5 years, and with long-term monitoring over the life of the project which could be as long as 25 years.

Vegetation Establishment and Dust Suppression Methods

This project involves temporary surface roughening using furrows, placement of straw bales, and vegetation enhancement to reduce wind speeds near the surface and thus the emission of dust. This would also serve to protect small plants from wind and windblown sand. Temporary surface roughening is proposed on up to 77 acres identified on the site, and the final acreage would be refined upon improved site characterization in the field. The furrows would be created using methods applied at other locations around the Salton Sea, notably dust suppression projects within the footprint of the Species Conservation Habitat site. Typically, furrows would be created using a belted tractor with a 3-point hitch pulling a V-Ditcher that creates a furrow no deeper than 2 feet below the ground surface and a ridge 1-foot above. Furrows would be created at least every 12 feet (center on center). Access to the site and the staging areas are shown in Figure 4.

Figure 7. Bombay Beach West Site Project Implementation Plan

Engineered roughness, a complementary approach to slow wind speed at the surface by addition of erodible and non-erodible organic elements (straw bales or bales consisting of assorted organic materials, mulch, compost socks, or other woody debris), would be applied within the surface roughening area to increase the amount of random roughness to achieve dust control targets for winds originating from all directions. This enables the orientation of the surface roughness furrows to be placed along contour which is optimal for stormwater spreading. Effective stormwater spreading would enhance the natural expansion of halophytic desert scrub.

Sand fencing, an alternative approach to slow wind speed at the surface, could be applied along the northern perimeter of the site, south of the historical road that was used to access campsites. The road would not be altered or blocked by project implementation. Sand fences consist of a porous fence material supported by steel posts Signage would also be deployed at key locations along the perimeter to minimize site-wide public access during restoration work.

Temporary surface roughening, engineered roughness, and sand fencing are needed for the successful establishment of long-term dust-control and can immediately reduce saltation activity by 90% with minimal lag time. These actions serve a dual purpose by increasing the survivability of young halophytic desert vegetation within the site by minimizing sand abrasion and burial and slowing the flow of stormwater. Stormwater flows into the site from a few small, unnamed washes. Stormwater would be supplemented by groundwater, as described below.

Several vegetation establishment methods are proposed, including: natural recruitment, seeding, planting, and imprinting. Seeding or planting of vegetation in the form of potted plants or plugs would be combined with engineered roughness and stormwater spreading methods. Seed would also be spread using an imprinter. Various watering methods are proposed to establish vegetation including initial watering with a watering truck (where feasible), use of stormwater spreading through the methods described above, and micro-irrigation using groundwater extracted as described in the next section. Potential plant species include iodine bush (*Allenrolfea occidentalis*), saltgrass (*Distichlis spicata*), and saltbush species (*Atriplex* spp.). All of these species are in the Iodine Bush Series vegetation type as defined by Sawyer and Keeler-Wolfe (CNPS 1995). Other native species detected at the site would also be evaluated for seeding or planting. In general, ecological (revegetation) techniques that mimic and accelerate natural processes are proposed. These site-specific actions rely on the establishment of greater perennial plant cover. Ground disturbance associated with planting would include the auguring of holes by hand no deeper than 1.5 feet and no wider than 0.5 feet in diameter.

Site Characterization and Monitoring

In addition to collection of stormwater, groundwater production wells would be installed at two locations to support the vegetation at the site (Figure 7). The benefit of groundwater is that it can be a larger, more consistent and controllable source of water at the site than the ephemeral stormwater sources. The intent is to use primarily ephemeral stormwater to establish vegetation and enhance existing vegetation at the site. If needed, groundwater would be used to supplement the captured ephemeral stormwater. To maximize the potential expansion of vegetated areas across the entire 91-acre project site, the wells would be placed in areas that are not in proximity to the stormwater sources. The completed depth of the wells would be based on field survey data on water quality and sustainability of yield and would be 300 feet deep or shallower. Power supply for the wells would be obtained from solar-powered systems, diesel electric generators or electric lines, depending on cost and proximity to the supply. Groundwater supplies would be delivered to vegetation using aboveground pipelines connected to a drip irrigation system. There would be no ground disturbance associated with micro-drip irrigation.

Dedicated vegetation plots (Hao et al 2020; USDA-ARS 2009) would be designed to assess combined methods of engineered roughness, stormwater spreading, vegetation establishment and watering methods described above. Plots would cover a combination of one of the roughness methods (erodible or non-erodible organic elements or furrowing) utilized along with the proposed water source (stormwater or irrigation). Plots would also

evaluate the various species that grow using several vegetation establishment methods: natural recruitment, seeding, planting, or imprinting.

Various seeding methods would be used including drill seeding, broadcast seeding, hydroseeding, or other similar methods. Methods would be evaluated to determine which are most effective in this setting. Drill seeding and broadcast seeding are mechanical grass seeding methods, though broadcast seeding can also be completed by hand. Hydroseeding is conducted by spraying a slurry of seed and mulch across a site and does not require any vehicular or mechanical installation. Imprinting is a no-till technique that pushes seed into the ground while allowing water to be funneled to the seeds.

Evaluation of the effectiveness of the various methods used would be conducted on combinations of these treatment, watering and planting methods. Treatment measure combinations to be evaluated would include one of the three vegetation establishment methods plus: a) furrow development and pulse watering, b) furrow development and micro drip methods of irrigation, c) organic elements and pulse watering, d) organic elements and micro irrigation combined with one of the vegetation establishment methods, and e) other combinations of these methods. Where feasible, all sites where seeding or planting occurs would initially be watered via water truck.

Air quality monitoring equipment would be installed at 4 locations along a transect across the site. The equipment is designed to measure saltation activity (frequency and magnitude), ambient concentrations of PM_{10}, wind speed, wind direction, relative humidity, temperature, barometric pressure, and precipitation. These measurements would support evaluation of dust suppression performance across the site. Each site installation would consist of a 6-foot-high tripod over a 10-foot by 10-foot area. The tripod would be secured to the ground using 12-inch concrete footings, and the monitoring location would be secured with a fence to protect it from damage and vandalism.

Long-Term Assessment

A monitoring and adaptive management approach would be developed to include all of the components and monitoring criteria described above. The implementation of the engineering and vegetation establishment methods described above are proposed to meet the Bombay Beach West Proposed Action's purpose of restoring the USBR parcels through dust suppression and vegetation establishment and enhancement thereby reducing wind-blown dust emissions. Specific vegetation enhancement goals such as percent cover would be further defined and related to the associated monitoring measurements in order to develop a set of success criteria. Measurements taken in the field would then determine if success criteria are being met and/or if adaptive management actions are needed to meet restoration goals and objectives. Projects of a similar nature that include xeric vegetation establishment planning, treatment or planting specification development, and/or monitoring and adaptive management planning are documented in select Tetra Tech reports (2018a, b, 2019, 2020).

3.0 FINDINGS

This section describes the environmental impacts of the proposed Modified Project (vegetation enhancement activities on USBR lands at the Clubhouse, Tule Wash, and Bombay Beach West sites) in the context of the Approved Project EIS/EIR, and the SSMP which was addressed in a 2017 CEQA Addendum to the EIS/EIR. The order of discussion follows the environmental analysis categories that were analyzed in the EIS/EIR. The impact numbers and impact names in the following sections (e.g., Impact AES-1) refer to those in the EIS/EIR. The **bold text** identifies the impact from the EIS/EIR, followed by the analysis for the Modified Project (not bold). The impacts have been separated into two categories for each issue area: "Applicable Impacts" and "Not Applicable Impacts" to clarify which impacts from the EIS/EIR are relevant to the Modified Project. An explanation of each impact from the EIS/EIR is provided to support the determination of whether or not the impact is applicable to the Modified Project.

No new significant impacts would occur as a result of the Modified Project, nor would the severity of previously identified significant effects increase substantially. The Modified Project is limited to implementation of vegetation enhancement activities and related dust suppression techniques in the various project areas around the Sea. These activities are consistent with those analyzed in the SCH EIS/EIR and in the 2017 Addendum that included the SSMP. The Modified Project is in areas that are in areas that are included in the SSMP.

Each impact discussion includes applicable mitigation measures (MMs) from the EIS/EIR to avoid or minimize potential environmental impacts. These are identified as "Existing Mitigation Measures" or "Existing Modified Mitigation Measures." New mitigation measures were added for biological resources based on the results of field surveys at each project location. These are identified as "New Mitigation Measures." Each section discussion also notes if specific MMs from the EIS/EIR do not apply to the Modified Project.

3.1 AESTHETICS

Applicable Impacts

Impact AES-1: Project construction could temporarily degrade the scenic quality, character, or scenic vistas of the site and surrounding areas. The Modified Project would not result in any new impacts to aesthetic resources. Implementation of the Modified Project would require similar construction activities and equipment within the Approved Project site analyzed in the EIS/EIR. Overall construction activities associated with proposed vegetation enhancement projects, would temporarily degrade the scenic quality and character of the 1,707 acres needed for these activities, and the surrounding areas. As described in the EIS/EIR, construction impacts on scenic vistas would be temporary and less than significant. The EIS/EIR impact conclusion remains unchanged.

Impact AES-2: The SCH ponds would enhance the scenic quality and character of the site and surrounding areas. The proposed vegetation enhancement activities would not substantially change the visual character of the site. No ponds are proposed. As such, there would be little to no contrast between the Modified Project site, surrounding dirt and agricultural land, and remaining open water of the Salton Sea. Upon completion of construction activities, fugitive dust emissions in the immediate areas of the Modified Project site would be reduced and visibility would improve. As such, the scenic quality and character of the project sites and surrounding areas would be improved. As described in the EIS/EIR, the Modified Project would improve the overall scenic quality of the site, resulting in a beneficial impact. The EIS/EIR impact conclusion remains unchanged.

Impact AES-3: Other SCH facilities would be compatible with the existing character of the surrounding area. Improvements associated with the Modified Project would be limited to dust suppression and vegetation enhancement activities on approximately 1,707 acres of exposed playa. The Modified Project would not require any new facilities that would conflict with the visual character of the surrounding areas. The Modified Project

would be compatible with the existing character of the surrounding undeveloped areas around the Sea, and impacts would be less than significant. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impact

Impact AES-4: Some construction activities may occur at night, requiring lighting. Construction required to implement the Modified Project would only occur during daytime hours. No nighttime construction lighting would be needed. Therefore, no impacts associated with night lighting would occur. The EIS/EIR impact conclusion remains unchanged.

Conclusion

The Modified Project would not result in any new significant impacts to Aesthetic Resources compared to the Approved Project. No mitigation is required.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Inapplicable Impacts

Impact AG-1: Construction of the diversion and conveyance facilities and brackish water pipeline maintenance would temporarily disrupt agricultural production but would not permanently convert Farmland to nonagricultural use. The Modified Project does not include construction of diversion and conveyance facilities or maintenance of a brackish pipeline. As such, Impact AG-1, is not applicable to the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact AG-2: Construction of the sedimentation basin would result in the permanent conversion of a small amount of Farmland to nonagricultural use. The Modified Project does not include construction of a sedimentation basin. As such, Impact AG-2 is not applicable to the Modified Project. The EIS/EIR impact conclusion remains unchanged.

In addition, most acreage in the proposed vegetation enhancement areas were fairly recently inundated by the Salton Sea and, as such, is not farmland. None of the sites include Farmland of Local Importance, which is defined for both Imperial and Riverside Counties as unirrigated and uncultivated lands with Prime and Statewide soils, and none of the areas are within Prime Farmland.

Impact AG-3: Construction of the sedimentation basin potentially would result in the permanent conversion of Williamson Act contract land to nonagricultural use. The Modified Project does not include construction of a sedimentation basin, and does not include any land subject to Williamson Act contracts. As such, Impact AG-3 is not applicable to the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Conclusion

Vegetation enhancement activities associated with the Modified Project would be located on recently exposed playa and would not affect agricultural lands or forest resources. The Modified Project would not result in any new significant impacts to Agricultural Resources or forested areas compared to the Approved Project. MM AG-1 included in the EIS/EIR pertains to Williamson Act contracts and is not applicable to the Modified Project. No mitigation is required.

3.3 AIR QUALITY

Applicable Impacts

Impact AQ-1: Emissions from Project construction and maintenance are accounted for in applicable air quality plans and would not conflict with or obstruct their implementation. Implementation of the vegetation enhancement and dust suppression activities associated with the Modified Project would be completed intermittently as needed to maintain vegetation enhancement. General estimated basin-wide construction-related emissions are included in emission inventories established for the applicable Imperial County Air Pollution Control District (ICAPCD) air quality plan. In addition, all required emissions reduction rules and regulations would be implemented for the Modified Project to ensure construction-related air emissions are minimized. As such, construction and maintenance emissions associated with an additional 1,707 acres of vegetation enhancement and dust suppression for the Modified Project would not prevent attainment or maintenance of state or federal ozone (O_3) or particulate matter standards within the Salton Sea Air Basin. Moreover, the Modified Project would not result in the operation of any stationary emissions sources or long-term operation of area or mobile emission sources. Therefore, the Modified Project would not conflict with or obstruct the implementation of an applicable air quality plan and impacts would be less than significant. The EIS/EIR impact conclusion remains unchanged.

Impact AQ-3a: The Project would contribute incrementally to violations of Federal and State O_3, PM_{10}, and $PM_{2.5}$ standards and exceed ICAPCD's NO_X and PM_{10} thresholds during construction. Construction activities required for the Modified Project would contribute incrementally to violations of Federal and State 0_3, PM_{10}, and $PM_{2.5}$ standards and exceedance of ICAPCD's peak daily NOx and PM_{10} thresholds. These contributions would occur primarily through diesel engine exhaust and fugitive dust emissions from vehicles used (such as water trucks) during dust suppression and vegetation enhancement program installation activities. Implementation of the Modified Project would occur intermittently as needed to maintain vegetation enhancement and with fewer acres affected than the original Project, so the increase in construction emissions would be temporary and would not exceed the daily construction limits as outlined in the EIS/EIR.

To minimize construction emissions, the Modified Project would be required to comply with all minimization measures required for all projects by the ICAPCD. In addition, ***MM AQ-1*** and ***MM AQ-2***, described in the EIS/EIR, would be implemented to further minimize significant impacts associated with NO_X, O_3 and fugitive dust emissions during construction activities. The EIS/EIR impact conclusion remains unchanged.

Impact AQ-4: The Project would contribute incrementally to violations of Federal and state O_3, PM_{10}, and $PM_{2.5}$ standards during operations but would not exceed any regulatory thresholds. The Modified Project would require occasional trips to each site to evaluate the effectiveness of the vegetation enhancement locations and to make changes or modifications to the features of the project, as applicable. Routine maintenance activities required during ongoing operation of the Modified Project would be intermittent and would require a negligible number of vehicles and personnel to implement and, therefore, would not exceed ICAPCD's thresholds. Because the Modified Project would not include stationary sources that would contribute to long-term emission of air contaminants, operation of the Modified Project would result in a reduction in fugitive dust emissions within the project area.

As shown in Table 4, the operational emissions for the previously Approved SCH Project were calculated to be well under the daily operations thresholds established by the ICAPCD. Oxides of Nitrogen would be the highest air emission anticipated during operation of the Approved Project (3,770 acres), totaling approximately 37 percent of ICAPCD's daily operational threshold. The additional negligible air emissions associated with occasional maintenance within the 1,707 acres of the Modified Project area would not contribute a significant amount of air emissions that would result in exceedance of ICAPCD's daily threshold for the Approved Project. As such, the Modified Project would not contribute air emissions within the project area that would exceed regulatory thresholds. The EIS/EIR impact conclusion remains unchanged.

Table 4. Emissions and Significance Thresholds for Operations of Approved Project

Criteria Pollutant	ICAPCD	Approved Project (SCH Alternative 3 from EIS/EIR)
Volatile Organic Compounds (VOCs) as Methane (CH4)	55	2.4
Carbon Monoxide (CO)	550	8.9
Oxides of Nitrogen (NOx as NO2)	55	20.5
Sulfur Dioxide (SOx as SO2)	150	0
Particulates (PM10)	150	0.8
Particulates (PM2.5)	-	0.7
Lead	-	NA

Impact AQ-5: Project construction would result in a cumulatively considerable/significant net increase in emissions. The Modified Project would contribute to a cumulative net increase in air emissions associated with construction activities associated with surface roughening and furrowing that would be part of the Proposed Action. Negligible emissions would occur from installation of sand fences and planting vegetation. As such, emissions from implementation of dust suppression measures would not be cumulatively considerable/significant because they would be intermittent and minor, similar to that discussed in the EIS/EIR. To reduce a significant and unavoidable cumulative impact from construction emissions, similar to the Approved Project, the Modified Project would be required to comply with all minimization measures required for all projects by the ICAPCD. In addition, ***MM AQ-1*** and ***MM AQ-2***, described in the EIS/EIR, would be implemented to further reduce significant cumulative air emissions during construction activities. The EIS/EIR impact conclusion remains unchanged.

Impact AQ-6: Project emissions from construction and maintenance would not expose sensitive receptors to substantial pollutant concentrations. The Modified Project would not expose sensitive receptors to substantial pollutant concentrations. The Modified Project sites are located in sparsely populated agricultural areas. No houses, parks, schools, libraries, senior facilities, day care centers or hospitals are located within 1,000 feet of any of the dust suppression areas. Similarly, the access routes are in agricultural areas with no sensitive receptors nearby. Therefore, due to relatively low mass emissions, dispersion over a wide geographic area, lack of proximate receptors, and intermittent occurrence, impacts from construction and maintenance of the Modified Project would continue to be less than significant. In addition, implementation of the control measures for diesel exhaust described in ***MM AQ-2*** would further reduce any potential impacts associated with diesel particulate matter. The EIS/EIR impact conclusion remains unchanged.

Impact AQ-7: The Project could result in localized odors during construction, operations, and maintenance. The Modified Project could result in localized odors during construction activities associated with diesel-powered equipment. The construction areas for the Modified Project are in sparsely populated areas adjacent to the Salton Sea. No sensitive receptors are located near the construction area or access routes that would be impacted by odors from diesel-powered construction equipment. As such, the Modified Project would result in no new impacts associated with objectionable odors. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impacts

Impact AQ-2: The SCH ponds would cover more playa than would be exposed as a result of the Project, reducing the potential for wind-blown fugitive dust. Currently, more playa is exposed as the Salton Sea recedes. The Modified Project would address and help to offset the increase in wind-blown fugitive dust emissions

associated with the receding Sea. The various vegetation enhancement and dust suppression methods used as part of the Modified Project would provide a reduction in wind-blown fugitive dust emissions within the 1,707 acres associated with the Modified Project. Therefore, the Modified Project would result in a beneficial impact associated with reduction of potential for wind-blown fugitive dust. The EIS/EIR impact conclusion remains unchanged.

Impact AQ-8: The Project would have a minor effect on the microclimate near the Salton Sea. Implementation of proposed dust suppression and vegetation enhancement activities would be short-term and would not impact the shoreline of the Salton Sea. As such, the Modified Project would have no impact on the microclimate of the Salton Sea. The EIS/EIR impact conclusion remains unchanged.

Existing Mitigation Measures

MM AQ-1 **Implement fugitive PM_{10} control measures.** The following measures will be incorporated into the construction contract specifications in order to reduce PM_{10} emissions from fugitive dust, in addition to those measures that are required for all projects by the ICAPCD:

- Water exposed soil with adequate frequency for continued moist soil (at least twice daily and indicated by soil and air conditions).
- Replace ground cover in disturbed areas as quickly as possible.
- Limit vehicle speed for all construction vehicles to 15 miles per hour on any unpaved surface at the construction site.
- Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees.

MM AQ-2 **Implement diesel control measures.** The following measures will be incorporated into the construction contract specifications in order to reduce PM_{10} and NO_X emissions from diesel engines, in addition to those measures that are required for all projects by the ICAPCD:

- A schedule of low-emissions tune-ups will be developed, and such tune-ups will be performed on all equipment, particularly for haul and delivery trucks.
- Low-sulfur (≤ 15 ppm S) fuels will be used in all stationary and mobile equipment.
- Curtail construction during periods of high ambient pollutant concentrations as directed by the ICAPCD.
- Reschedule activities to reduce short-term impacts to the extent feasible.

Conclusion

The Modified Project would contribute to cumulative construction impacts associated with the Approved SCH Project. Implementation of ***MM AQ-1*** and ***MM AQ-2***, included in the EIS/EIR, in addition to all applicable fugitive dust rules set forth by ICAPCD (Regulation VIII), would minimize cumulative construction air emissions. The Modified Project would not result in any new significant impacts to Air Quality not already identified in the EIS/EIR.

3.4 BIOLOGICAL RESOURCES

3.4.1 Biological Resources Information from EIS/EIR

The EIS/EIR relied on the following references for information regarding wildlife, including special-status wildlife, within the Approved Project site and a buffer of 0.5 mile:

- The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) Special Animals List, reviewed in 2010
- Birds of the Salton Sea (Patten et al. 2003) for descriptions of status and habitats on or adjacent to Project site
- Birds of North America Online for range and habitat descriptions from various authors
- Natural History Museum of Los Angeles County
- Sonny Bono National Wildlife Refuge occurrence data
- Studies on patterns of abundance, distribution, annual phenology, and habitat associations (Shuford et al. 2000)
- Observations of wildlife during focused surveys for Federally listed bird species (Dudek 2010)

3.4.2 Updated Biological Resources Information

For each project area, a review of the following databases of sensitive biological resources maintained by the CDFW, California Native Plant Society (CNPS) and the U.S. Fish and Wildlife (USFWS) was conducted:

- CDFW California Natural Diversity Database (CNDDB)
- CNPS Inventory of Rare and Endangered Plants
- USFWS Information for Planning and Consultation (IPaC)

This information was used to help focus field surveys on potentially sensitive species that may occur in or near each area. A table of sensitive resources was compiled for each area. In addition, readily available aerial imagery associated with the site was reviewed to focus the field portion of the survey for habitat that is suitable to support sensitive resources.

A combination of CDFW staff and CDFW-approved biologists conducted field surveys at each project area. An evaluation of each site for habitat to support sensitive biological resources was conducted using vehicles to travel on designated roads as well as off-road pedestrian surveys. The combination of vehicle and pedestrian surveys was used to document field conditions to verify occurrence probability for the presence of previously recorded sensitive resources at the site. As part of the field reconnaissance, the biologists documented the presence or absence of any potential habitat for special-status species (i.e., state or federally listed, proposed listed, or candidate species identified in the database reviews). Wildlife and plants observed during the reconnaissance survey the site were documented by observations of sign (scat, tracks) as well as actual live observations. Any potentially hazardous materials and/or hazardous waste observed during the reconnaissance survey would be noted and the location recorded using a Global Positioning System (GPS) device. Physical hazards (e.g., deep mud areas) were noted and the location recorded with a GPS device. Habitat type was mapped based on both field observations and review of readily available aerial imagery. Results of the surveys are summarized below for each project area.

Clubhouse Area

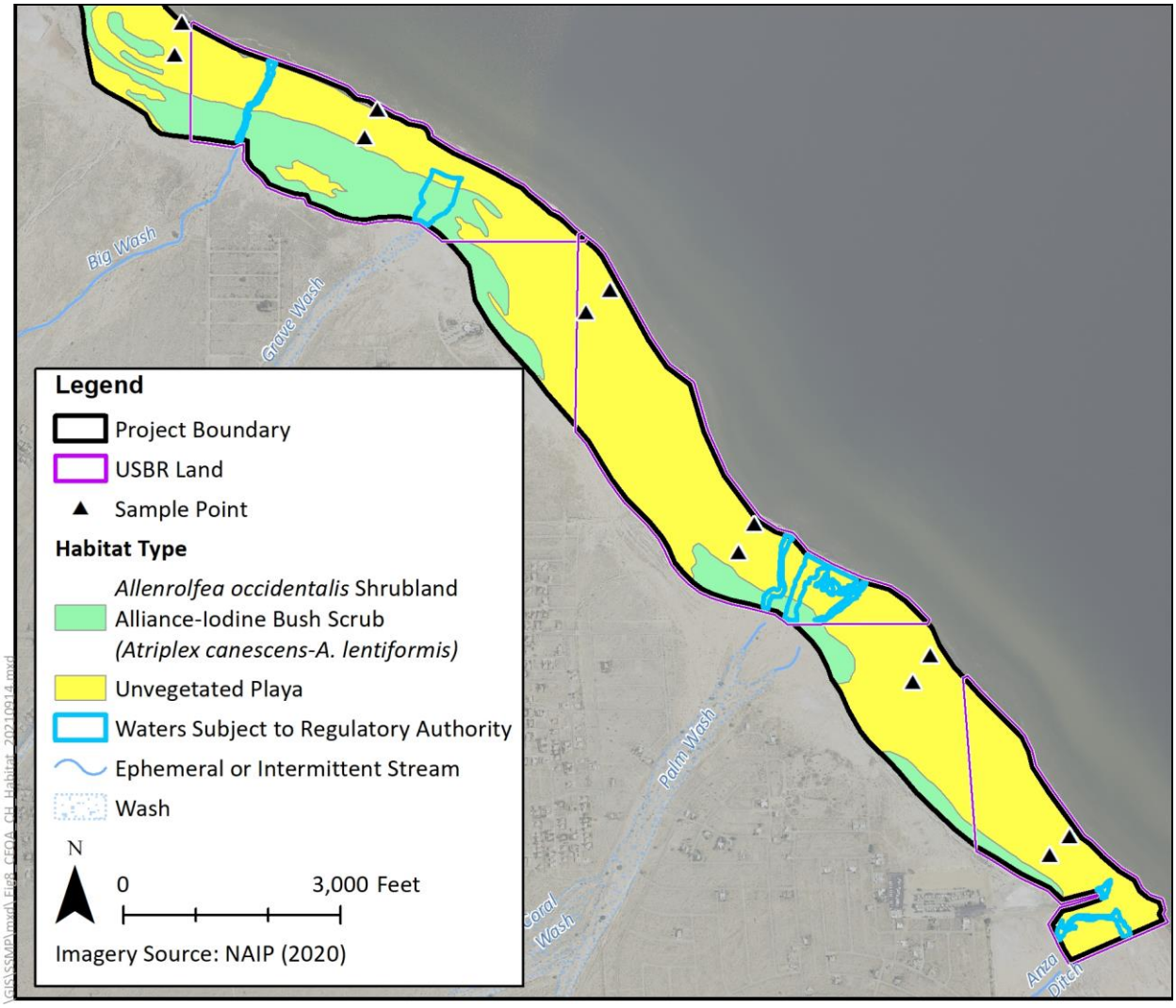
A site reconnaissance field survey and electronic records search for biological resources were completed for the Clubhouse Project Area in October and November 2020. The Clubhouse site is dominated by exposed lakebed (Figure 8). No plants were observed to be growing in areas that appear to be highly saline/alkaline-affected as evidenced by salt-encrusted surfaces. On the western side of the site, iodine bush (*Allenrolfea occidentalis*)

Shrubland Alliance is the dominant habitat type. Four-winged saltbush (*Atriplex canescens*) was commonly observed mixed in with iodine bush. Quailbush (*A. lentiformis*) was seen occasionally mixed in with this habitat type. Based on the databases reviewed for this site and habitat conditions observed during the reconnaissance, the western edges of the site where soils appear to be less salt affected may be potential habitat for Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*); ribbed cryptantha (*Johnstonella costata*), slenderlobed four o'clock (*Mirabilis tenuiloba*), and Mecca aster (*Xylorhiza cognata*). While none are federal or state-listed species, Peirson's pincushion and Mecca aster have been identified as rare plants by the CNPS. In addition, Peirson's pincushion is a Bureau of Land Management (BLM) Sensitive plant.

The exposed lakebed area is potential habitat for western snowy plover (*Charadrius alexandrinus nivosus*) however this is not a protected species at the Salton Sea. Signs of off-road vehicle use were evident across much of the Clubhouse site. This use may preclude the presence of this species within the site. The Salton Sea may have suitable foraging habitat for California brown pelicans (*Pelecanus occidentalis californicus*), a State of California Fully Protected and BLM Sensitive species. No nesting habitat for this sensitive bird was observed. Habitat conditions associated with the iodine bush scrub located in the western portions of the site may be suitable habitat for burrowing owl (*Athene cunicularia*), a California Species of Special Concern. While none were observed during the reconnaissance survey, small rodent burrows were observed that may be possible prey for foraging owls. The fine unconsolidated sands associated with portions of the western side of the site were observed to be potentially suitable habitat for flat-tailed horned lizard (*Phrynosoma mcallii*), a California Species of Special Concern and a BLM Sensitive reptile. Ant mounds, a prey item for flat-tailed horned lizards, were noted in these areas. Measures to minimize impacts to these species are described below.

Stormwater flows across the Clubhouse site from the following named ephemeral drainages: Big Wash, Grave Wash, Palm Wash, and Anza Ditch as well as from other discontinuous ephemeral washes as shown in Figures 5a, b, and c and Figure 8. These riverine drainages total 16.55 acres.

Figure 8. Habitat Map for Clubhouse Site



Tule Wash Areas

A biological site reconnaissance field survey and electronic records search for biological resources were completed for the Tule Wash Project Area in October and November 2020. The surveys were broken out for two areas identified as Tule Wash 1 and Tule Wash 2 (Figure 9). Results of the surveys are summarized below.

Tule Wash 1

The Tule Wash 1 site is dominated by unvegetated lakebed (Figure 9). No plants were observed to be growing in lakebed areas that appear to be highly saline/alkaline-affected as evidenced by the salt-encrusted surface. On the western side of the site, Iodine Bush Scrub vegetation type, as defined by Sawyer and Keeler-Wolfe (CNPS 1995) is the dominant habitat type. Four-winged saltbush (*Atriplex canescens)* and quailbush (*A. lentiformis)* were occasionally observed mixed in with iodine bush. Active sand dune habitat (of low elevation, less than a foot high) was observed to the west of the Tule Wash 1 site and there is the potential for dune habitat to form on the Tule Wash 1 site. Stabilized and partially stabilized dunes were also noted. Sand dunes have the potential for providing habitat for highly specialized plants and wildlife.

The reconnaissance survey was not conducted at the optimal time of the season for observing annual or perennial herbaceous plants. Based on the databases reviewed for this site and habitat conditions observed during the reconnaissance, the western edges of the site where soils appear to be less salt affected may be potential habitat for ribbed cryptantha (*Johnstonella costata),* a CNPS rare plant. No sensitive plants were observed at the Tule Wash 1 site during the reconnaissance survey.

The Tule Wash 1 site has suitable habitat for the following sensitive wildlife.

- Burrowing owl (*Athene cunicularia),* a State Species of Special Concern;
- Gull-billed tern (*Gelochelidon nilotica),* a State Species of Special Concern, and
- California brown pelican (*Pelecanus occidentalis californicus),* a Federal and State Delisted species, a State Fully Protected Species and a BLM Sensitive Species.

No sensitive wildlife was observed at the Tule Wash 1 site during the reconnaissance survey.

Tule Wash 2

Approximately 90-95% of the site is unvegetated (Figure 9). For the purposes of this report, the unvegetated area is defined as having <20% vegetation cover. Seepweed (Suaeda torreyana) is present along the former shoreline of the lake within the dry lakebed. Vegetated areas become more common in the southeastern periphery of the site. Vegetation in these areas primarily may be characterized as Iodine Bush Scrub, as defined by Sawyer and Keeler-Wolfe (CNPS 1995), with scattered tamarisk (Tamarix spp.) present. One large vegetated 20-foot wide wash is present in the southern portion of the site that contains a 20-foot by 30-foot cattail (Typha spp.) wetland with standing water observed (Figure 6). The wetland seems to be supported by a high groundwater table. Vegetation around the wetland and throughout the wash is dominated by iodine bush and tamarisk. A list of plant species observed on site is provided in Table 5.

Figure 9. Habitat Map for Tule Wash Site

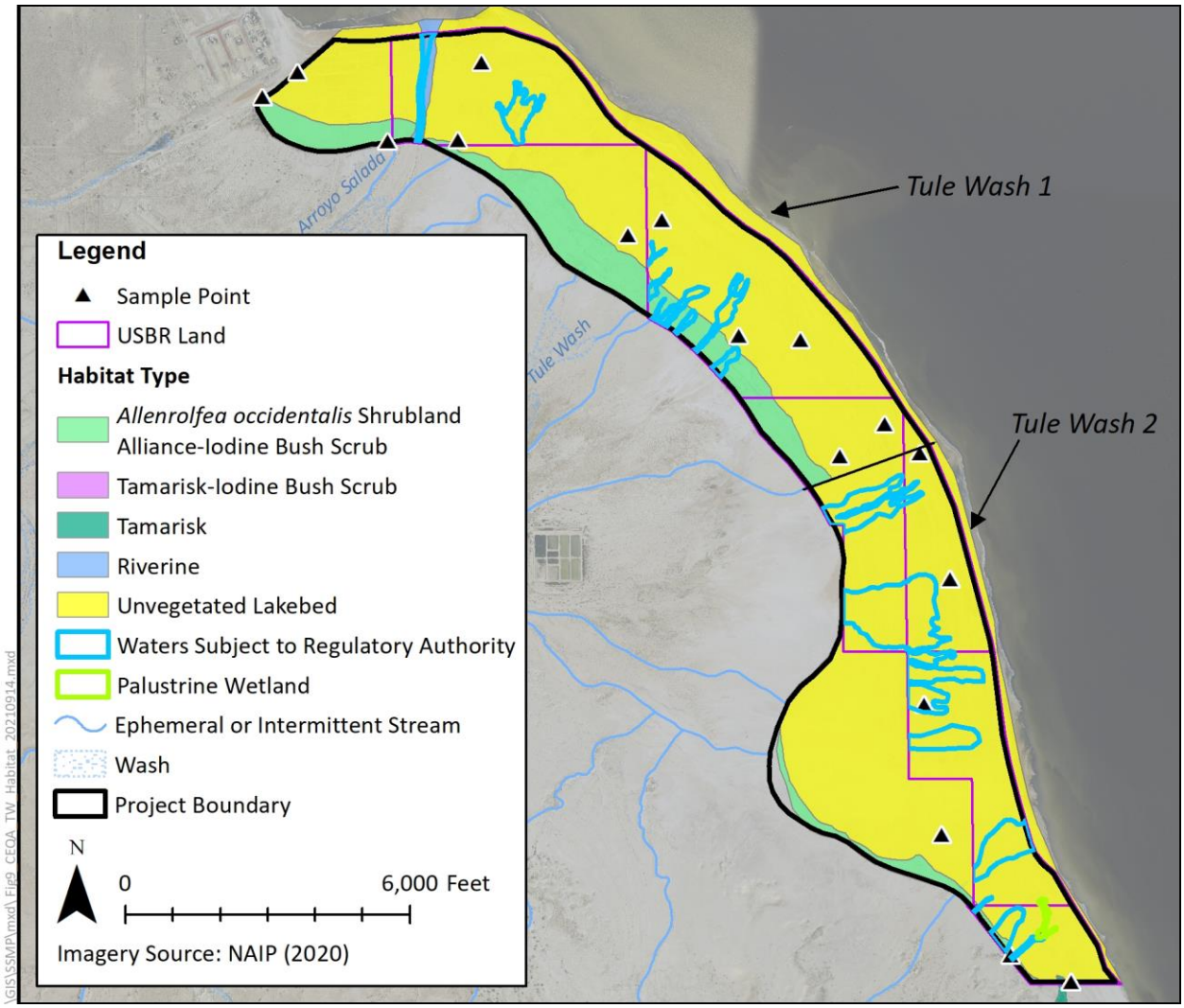


Table 5. Plant Species Observed at Tule Wash 2

Common Name	Scientific Name
Cattail	*Typha* spp.
Desertholly saltbush	*Atriplex hymeneletra*
Iodine bush	*Allenrolfea occidentalis*
Russian thistle	*Salsola tragus*
Seepweed	*Suaeda torreyana*
Saltcedar	*Tamarisk* spp.

Wildlife species and signs observed on site consisted primarily of desert generalist species. However, one special status species, loggerhead shrike (*Lanius ludovicianus*), was observed on site. Otherwise, wildlife observations were sporadic during the site visit and consisted mostly of observation of desert generalist bird species. Tracks were more commonly observed than direct observations of wildlife. Coyote (*Canis latrans*) tracks and scat were observed at multiple locations. A list of species observed on site is provided in Table 6.

Stormwater flows across the Tule Wash site from the following named ephemeral drainages: Arroyo Salado Wash and Tule Wash, as well as from other discontinuous ephemeral washes as shown in Figures 6a, b, c, d, and e and Figure 9. These riverine drainages total 163.84 acres. In addition, there is a 1.95-acre palustrine wetland and 1.16 acres of riverine habitat delineated in the southern end of the Tule Wash 2 site. Therefore, there are a total of 166.95 acres of aquatic resources at the Tule Wash site.

Table 6. Wildlife Species Observed at Tule Wash 2

Common Name	Scientific Name
Reptiles	
Unid. Lizard	Order *Squamata*
Birds	
Black-tailed gnatcatcher	*Polioptila melanura*
Loggerhead shrike	*Lanius ludovicianus*
Say's phoebe	*Sayornis saya*
Mammals	
Pocket mouse[1]	Subfamily *Perognathinae*
Desert cottontail[1]	*Silvilagus audubonii*
Coyote[2]	*Canis Latrans*

[1] Tracks

[2] Tracks and scat

Bombay Beach West Area

A site biological reconnaissance field survey and electronic records search for biological resources were completed for the Bombay Beach West Project Area in December 2020. Results of the biological survey are summarized below.

Approximately 95% of the site is unvegetated (Figure 10). For the purposes of this report, unvegetated area is defined as having <20% vegetation cover. Vegetated areas become more common along the northern edge of the site where recently exposed lakebed is being colonized from the adjacent desert vegetation community. Vegetation is these areas primarily consists of scattered occurrence of iodine bush (*Allenrolfea occidentalis),* seepweed (*Suaeda torreyana),* hollyleaf saltbush (*Atriplex hymeneletra),* quailbush *(Atriplex lentiformis),* Sahara mustard (*Brassica tournefortii),* and Russian thistle (*Salsola tragus).* A complete list of plant species observed on site is provided in Table 7.

Table 7. Plant Species Observed at Bombay Beach West

Common Name	Scientific Name
Desertholly saltbush	*Atriplex hymeneletra*
Iodine bush	*Allenrolfea occidentalis*
Russian thistle	*Salsola tragus*
Seepweed	*Suaeda torreyana*
Sahara mustard	*Brassica tournefortii*
Quailbush	*Atriplex lentiformis*

Figure 10. Habitat Map for Bombay Beach West Site

Wildlife species and sign observed on site consisted primarily of waterfowl, wading birds, and associated species along the shoreline. No special status species were observed on site. However American white pelican (*Pelecanus erythrorhynchos),* a California Species of Special Concern, was observed near the site. A list of species observed on site is provided in Table 8.

Stormwater flows across the Bombay Beach west site from eight unnamed discontinuous ephemeral riverine drainages, as shown in Figure 7 and Figure 10. These riverine drainages total 1.27 acres.

Table 8. Wildlife Species Observed at Bombay Beach West

Common Name	Scientific Name
Birds	
Eared grebe	*Podiceps nigricollis*
American coot	*Fulica americana*
Northern shoveler	*Spatula clypeata*
Pintail	*Anas acuta*
Redhead	*Aythya americana*
Great egret	*Ardea alba*
Snowy egret	*Egretta thula*
California gull	*Larus californicus*
Say's phoebe	*Sayornis saya*

Applicable Impacts

Impact BIO-1a: Project construction and operation would affect habitat and individuals of desert pupfish and several special-status bird species. Implementation of the Modified Project would not affect desert pupfish because activities would not affect inundated areas of the Salton Sea and the associated agricultural drains where they are located. No impacts to pupfish are expected and, therefore, no mitigation is required.

The same special-status birds and mammal species described in the EIS/EIR could be affected by ground disturbance from construction and maintenance activities associated with the dust suppression methods to the extent that construction occurs in the appropriate habitat. No future exposed playa lands would have avian habitat that is not readily available in large quantities around the Salton Sea; therefore, no new impacts on terrestrial birds would result from the implementation of dust suppression activities by the Modified Project. ***MM BIO-2*** would be implemented through compliance with the pre-construction/maintenance survey plan for bird species prepared for the Modified Project to ensure impacts to special-status bird species would be minimized.

Construction activities could generate noise sufficient to affect special status birds. ***MM BIO-3*** would be implemented to minimize construction-related impacts to special status bird species. As such, no new impacts to desert pupfish and special-status bird species would occur as a result of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-1b: Project construction and operation would have minor effects on habitat and individuals of several special-status bird and mammal species. See response for Impact BIO-1a above. With implementation of ***MM BIO-2*** and ***MM BIO-3***, impacts to special-status birds and mammal species as a result of the Modified Project would be less than significant. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-1c: Project operation would provide habitat for desert pupfish and several special-status bird species. The Modified Project does not include ponds but could provide habitat for other sensitive bird species. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-2: Project construction and operation would cause a temporary disturbance or loss of riparian habitat and/or sensitive habitat. Proposed vegetation enhancement and dust suppression activities are not proposed within riparian habitat (including the 1.95-acre palustrine wetland and associated 1.16 acres of riverine habitat at the south end of Tule Wash) or in areas with existing vegetation but temporary impacts would occur in all riverine areas on all project sites as part of stormwater spreading activities. These impacts would be offset by the beneficial use of onsite stormwater (and supplemented by groundwater, if needed) for water spreading to establish and enhance vegetation and suppress dust in upland areas of the project sites. Table 9 provides a summary of the temporary impact acreage at each site as well as the beneficial use acreage proposed at each site. As a result, no new impacts to riparian or other sensitive habitat would occur as a result of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Table 9. Temporary Impacts to Riverine Habitat and Beneficial Water Spreading Area

Site	Temporary Impacts to Waters of the State-Riverine Habitat (Acres)	Beneficial Impacts from Water Spreading in Upland Habitat (Acres)
Clubhouse	16.55	156.6
Tule Wash*	163.84	160.4
Bombay Beach West	1.27	68.7
Total	**181.66**	**385.7**

*Note: does not include 2.0 acres of palustrine wetland and adjacent 1.2 acres of riverine habitat

Impact BIO-3a: Project construction would result in temporary disturbance of Federal Waters of the U.S. and minimal effects on wetlands. Proposed vegetation enhancement and dust suppression activities associated with the Modified Project could temporarily disturb Waters of the U.S. over the three sites but would not affect any wetlands or riparian areas. These areas are included in the acreages for the waters of the state that are discussed for Impact BIO-2 and are comprised of 2.2 acres at Clubhouse, 7.7 acres at Tule Wash, and 0.2 acres at Bombay Beach West, and are shown on Figures 5a, b, and c, Figures 6a, b, c, d, and e, and Figure 7. These temporary impacts are consistent with those discussed for the SCH project and will be offset by the beneficial use of onsite stormwater (and supplemented by groundwater, if needed) for water spreading to establish and enhance vegetation and suppress dust in upland areas of the project sites. Therefore, no new impacts to Waters of the U.S. or wetlands would occur as a result of the Modified Project. The EIS/EIR impact conclusion remains unchanged. To further address potential impacts to Waters of the U.S. and waters of the state, CNRA will obtain the following permits: Streambed and Lake Alteration Agreements with CDFW under Section 1602 of the California Fish and Game Code (one for each site), a certification from RWQCB for a Waste Discharge Requirement (WDR), and a decision from the U.S. Army Corps of Engineers about whether a permit is needed. If needed, a permit will be received prior to work in Waters of the U.S.

Impact BIO-5a: Project construction and operation could affect nesting by some common bird species and introduction of invasive species. See response to Impact BIO-1a above. With implementation of ***MM BIO-2*** and ***MM BIO-3***, impacts to nesting birds as a result of the Modified Project would be less than significant. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-5b: Project construction and operation would have minor effects on common fish (native and nonnative), wildlife species, and native plant communities. Implementation of vegetation enhancement and dust control measures would not affect most fish or native plant communities because they would be located on unvegetated dry playa. However, following the biological reconnaissance surveys conducted for the sites in October, November, and December 2020, biologists determined that rare plants may occur at all three sites, and that potential habitat for flat-tailed horned lizard (*Phrynosoma mcallii*) may occur at the Tule Wash and Bombay Beach West sites. In addition, construction and maintenance of these measures could result in temporary disturbances to terrestrial wildlife habitats through ground disturbance and noise; however, as described in the EIS/EIR, as a result of increased human activity and noise, most species would move out of the disturbance area and away from construction equipment so that few individuals would be directly affected by construction activities. Implementation of ***MM BIO-5***, as well as new measures ***MM BIO-7***, ***MM BIO-8***, ***MM BIO-9***, and ***MM BIO-10***, would ensure that impacts to terrestrial wildlife within or adjacent to the Modified Project site are avoided. As such, no new impacts to wildlife species would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-5c: Project construction and operation would benefit common fish (native and nonnative) and wildlife species. The Modified Project does not include construction of ponds for fish, but would enhance habitat for other wildlife species. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impacts

Impact BIO-3b: Project operation would increase the amount of Federal Waters of the U.S. Proposed dust suppression activities associated with the Modified Project would not affect Federal Waters of the U.S. The Modified Project includes dust suppression activities, including habitat enhancement, that would reduce fugitive dust emissions. No new federal Waters of the U.S. would be created. The Modified Project would not affect the amount of Federal Waters of the U.S. associated with construction and operation of SCH ponds under the Approved Project. As such, Impact BIO-3b is not applicable to the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact BIO-4: Project construction and operation would not interfere with movement of fish and wildlife species, but construction could remove snags for colonial nesting birds. Movement of aquatic species would not be impacted by the Modified Project, as no activities would occur in ponds or open water. In addition, no tree snags are expected to be removed for the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Mitigation Measures

The implementation of ***MM BIO-2***, ***MM BIO-3*** *and* ***MM BIO-5*** would ensure potential impacts to special-status bird species are avoided. Implementation of ***MM BIO-6*** would reduce residual impacts of invasive species to less than significant by minimizing the potential for introduction of such species. New measures ***MM BIO-7***, ***MM BIO-8***, ***MM BIO-9***, and ***MM BIO-10***, would further reduce potential impacts to sensitive plants and the flat-tailed horned lizard. MM BIO-1 (preparation of a pupfish protection and relocation plan) and MM BIO-4 (design of interception ditches) included in the EIS/EIR are not applicable to the Modified Project.

Existing or Modified Mitigation Measures

MM BIO-2 **Prepare and implement a preconstruction/maintenance survey plan for bird species.** The plan will include preparation of suitable habitat maps that are updated periodically to focus survey locations as well as survey methods consistent with current science and regulations. Adaptive management measures will also be included in the plan. The following describes the surveys and their timing for various bird species.

Burrowing Owl. To avoid impacts on nesting or wintering burrowing owls within the Project impact area, conduct preconstruction (or pre-maintenance) surveys within suitable burrowing owl

habitat that could be affected by Project activities. Surveys will be conducted using the latest protocol methods and with concurrence from CDFW; currently, methods described by the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (DFG 2012) will be used. If burrowing owls are detected nesting or wintering within the Project impact area, a buffer will be established around the active burrow so that direct impacts on the burrow will be avoided. For construction during the breeding season (February through August), a buffer of 250 feet around the active nesting burrow will be maintained until breeding is complete and the young have fledged (can fly). For nonbreeding birds, the buffer will be 160 feet. If burrowing owls are detected occupying a burrow within the Project impact area at any time of year, the owls will be removed using passive methods during the nonbreeding season. Passive removal involves excluding owls from their occupied burrows and creating alternate natural or artificial burrows for them that are at least 160 feet from the impact area and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair (DFG 1995). Passive relocation may be implemented during the breeding season if a qualified biologist can verify through noninvasive methods, such as scoping, that breeding has not begun, or juveniles are foraging independently and able to fly. The unoccupied burrows would be collapsed in accordance with CDFW-approved guidelines (DFG 1995).

California Black Rail and Yuma Clapper Rail (now known as Yuma Ridgway's Rail). Conduct preconstruction (or premaintenance) focused surveys for California black rail and Yuma Ridgway's rail where Project features are within or immediately adjacent to suitable habitat. If California black rails or Yuma Ridgway's rails are detected within 500 feet of planned construction/maintenance activity locations, work within that distance of the birds will be avoided or rescheduled for after the birds complete nesting.

Nesting Birds. Conduct preconstruction (or premaintenance) surveys for all Project features within suitable habitat if construction or maintenance activities will take place during the breeding season. Breeding birds are protected under the Migratory Treaty Bird Act as described in Impact BIO-5a. Surveys will be conducted using methods approved by CDFW. If breeding birds are detected within the Project impact area, a protective buffer (100 to 500 feet, depending on species) will be provided until it is confirmed that breeding is complete.

Western Snowy Plover. Conduct preconstruction (or pre-maintenance) focused surveys for western snowy plovers within suitable habitat that could be affected. Surveys will be conducted using current USFWS methods and/or methods approved by CDFW. If western snowy plovers are detected within the Project impact area, construction or maintenance activities will be conducted under a qualified biologist's supervision so that direct impacts are avoided. If breeding snowy plovers are detected within the Project impact area, construction or maintenance will be postponed and a protective buffer provided until it is confirmed that breeding is complete.

Updated requirements (clarifications) as of July 2021:

- A Bird Nesting Plan will be submitted and implemented at each site prior to construction.
- Within 30-days and again within 24-hours prior to ground disturbing activities, a nesting bird survey should be conducted by a qualified biologist to determine if western snowy plover, burrowing owl or other nesting birds are present. If present, buffer zones based on the sensitivity of the nesting bird will be established to avoid direct and indirect impacts.
- For all sites, a protocol burrowing owl survey will be conducted by a qualified biologist to determine if burrowing owls are present within the project area or in a buffer zone adjacent to the project area. This can be done within 30 days of the start of construction,

as described in the previous measure. If present, buffer zones based on the sensitivity of the nesting bird should be established to avoid direct and indirect impacts.

MM BIO-3 **Conduct noise calculations/measurements and implement noise attenuation measures, if needed.** Based on equipment specifications, calculate or measure the distance from equipment where noise would be greater than or equal to 60 dBA equivalent sound level (Leq). This would also include multiple noise sources, if applicable. Then, use that distance to determine where noise could exceed 60 dBA Leq within known or potential nesting habitat adjacent to the Project footprint. If any such overlaps occur, schedule work to avoid the breeding season in those areas. If construction must occur during the breeding season at those sites, monitor nesting activity to determine if any effects are occurring. If effects are observed, implement noise attenuation measures such as noise walls and hay bales. Monitor the noise and bird behavior to verify that attenuation measures are successful. Develop and implement additional protection measures if monitoring shows that impacts are still occurring. If noise would be less than 60 dBA Leq, no additional measures are required. (Note: The threshold of 60 dBA Leq used here to protect bird nesting is a conservative estimate of the level above which adverse effects could occur. The actual threshold varies by species and type of noise.)

MM BIO-5 **Prepare and implement a Habitat Protection, Mitigation, and Restoration Program.** Plan preparation will be complete prior to commencement of construction. The restoration program will address the following considerations:

1. Avoidance of sensitive and riparian habitats to the greatest extent feasible, including avoidance of disturbances in or near these habitats during the bird breeding season.
2. Quantifying maximum area of naturally occurring plant communities that could be temporarily and permanently removed for construction of Project facilities, by plant community.
3. Restoration at a minimum rate of 1:1 for nonnative plant communities (i.e., tamarisk woodland or scrub) and 3:1 for native plant communities temporarily removed during Project construction, or as required in Project permits. Habitats restored at 1:1 will be preferentially restored where they were removed, unless it is infeasible or a more desirable off-site location is identified. Species to be used in restoration may include either those that were removed or native species are used to replace nonnative species, mitigation ratios can be reduced. For restoration of tamarisk temporarily removed, natural colonization of the disturbed area is likely to occur and no planting may be needed. The area would still be monitored to document restoration. Permanently removed riparian habitat within the pond area would be replaced by aquatic habitat of equal surface area with a similar or greater ecological value.
4. Identification of locations for on- and off-site restoration, including funding for land purchases and/or easements and agreements with property owners to complete the restoration.
5. Use of only local native seed (or propagule) sources for native species used in restoration.
6. Details on propagation, planting/seeding, irrigation, maintenance (including weed control for species that could interfere with restoration), site access, remedial measures, monitoring, reporting, and photo-documentation. These details will be specific to each site if more than one planting area or type is addressed in the plan.
7. Performance criteria to be met for each habitat type being restored.
8. Monitoring, with a funding source, until performance criteria are met, which may be for a minimum of 5 years.

MM BIO-6 **Clean equipment prior to site delivery.** Specifications for ensuring that all equipment, personal gear, and materials brought to the site are clean and free of invasive plants (including seeds) and animals will be included in all construction and maintenance contracts. Equipment, gear, and other materials will be inspected to verify that it is clean.

New Mitigation Measures

Following completion of the biological reconnaissance surveys for the Modified Project areas and reviewing the results of the surveys, the following additional measures will be implemented to further protect biological resources at the Project sites:

MM BIO-7 **Rare plant surveys.** For all sites, the plant surveys shall be performed not less than 30 days prior to the initiation of project activities. Survey results shall be considered valid for up to one year. To the extent possible, surveys shall be performed during the flowering period for plants with a high probability of occurrence on site. Impacts to special status plant species shall be avoided and minimized by marking the special status plant location(s) with GPS, fencing plant(s) with sand-permeable fencing, and avoiding impacts to plant(s) by establishing a 20-foot buffer (no work) area around plant(s). If impacts to special status plant species cannot be avoided, USBR, CDFW, and USFWS shall be consulted to develop a strategy to transplant or replace plants (seeding or containerized plants). Specific plant surveys shall be conducted at the three sites:

- For the Clubhouse site, a rare plant survey will be conducted for Peirson's pincushion (*Chaenactis carphoclinia var. peirsonii*); ribbed cryptantha (*Johnstonella costata*), slenderlobed four o'clock (*Mirabilis tenuiloba*), and Mecca aster (*Xylorhiza cognata*) by a qualified biologist.
- For the Tule Wash site, a rare plant survey will be conducted during an optimal time of the year based on flowering periods will be conducted for ribbed cryptantha (*Johnstonella costata*), Torrey's box thorn (*Lycium torreyi*) and Salton milk-vetch (*Astragalus crotalariae*) by a qualified botanist.
- For the Bombay Beach West site, a rare plant survey will be conducted at the appropriate time of year for narrow-leaf sandpaper plant (*Petalonyx linearis*), Orocopia sage (*Salvia greatae*), and Chocolate Mountains tiquillia (*Tiquillia canescens* var. *pulchella*).

MM BIO-8 **Lizard survey at Tule Wash**. For the Tule Wash site, conduct a focused survey for the flat tailed horned lizard (*Phrynosoma mcallii*) of active dunes as well as stabilized and partially stabilized dunes and identify potential habitat areas to be avoided during project implementation.

MM BIO-9 **Lizard survey at Bombay Beach West.** For the Bombay Beach West site, conduct a focused survey for flat-tailed horned lizard (*Phrynosoma mcallii*).

MM BIO-10 **Worker sensitivity training.** Construction worker sensitivity training will be conducted prior to the start of construction. Topics covered will include an overview of biological sensitivity, resource avoidance protocols, stop-work procedures in the event of unanticipated discoveries, and agency notification procedures.

Conclusion

The Modified Project, including the implementation of existing or modified mitigation measures and new mitigation measures, would not result in any new significant impacts to Biological Resources compared to the Approved Project. Modified Project improvements would be limited to areas of exposed, dry playa adjacent to the Salton Sea.

3.5 CULTURAL RESOURCES

3.5.1 Cultural Resources Information from the EIS/EIR

The cultural resources section in the EIS/EIR relied on a records search from the South Coastal Information Center of the California Historic Records Information System which showed that part of the project study area had been surveyed and that two prehistoric sites and seven historic site were in or immediately adjacent to the area. In addition, a sacred lands search from the Native American Heritage Commission (NAHC) did not identify any sensitive Native American cultural resources in the study area. Impacts on cultural resources were analyzed through consideration of the proximity of ground-disturbing project activities to known cultural resources, as well as the potential for impacts on undiscovered resources given the sensitivity of the study area.

3.5.2 Updated Cultural Resources Information

Updated records searches and sacred lands searches were conducted for all project areas. In addition, cultural resources surveys were conducted in June 2021 at all project areas by qualified cultural resources staff. In particular, a California Historical Resources Information Center (CHRIS) records search of the three project sites in September 2020. The record search incudes a 1-mile buffer beyond the defined Project area and was been completed through the South Coastal Information Center, San Diego State University, San Diego, California, and the Eastern Information Center, Department of Anthropology, University of Riverside, Riverside, California. As part of this records search, the CHRIS database of survey reports and overviews, as well as documented cultural resources, cultural landscapes, and ethnic resources were reviewed. Additionally, the search included a review of the following publications and lists: California Office of Historic Preservation (OHP) Historic Properties Directory, National Register of Historic Places (NRHP), OHP Archaeological Determinations of Eligibility, California Register of Historic Resources, California Points of Historical Interest, and California Historical Landmarks.

As part of the records search effort for the Dust Suppression Action Plan (DSAP) [the DSAP was prepared as a component of the SSMP], a Native American Heritage Commission (NAHC) Sacred Land File search was requested from the NAHC on September 1, 2020. The NAHC replied on September 14, 2020, that the Sacred Land File results were positive for the Project and provided a list of local Native American contacts with ancestral ties to the region. Consequently, Tribal consultation is ongoing between CNRA and interested tribes. As of June 2021, no tribes have responded with a consultation request as part of the initial outreach for the DSAP. The State continues to coordinate outreach to tribes and will provide opportunities for collaboration.

In addition, USBR is conducting SHPO consultation for cultural resources as part of the NEPA compliance for this project.

The following sections provide a brief overview of the cultural resources identified at each Project area.

Clubhouse Area

A cultural resource records search was conducted in September of 2020, and a Cultural Resource Class III field inventory of USBR land for the Clubhouse Project area was conducted in June 2021. The cultural report was submitted to USBR under confidential cover and a brief summary of results is provided here.

The Clubhouse cultural resource inventory resulted in the identification of two previously recorded sites P-13-014930 (boat launch ramp) and P-13-014930 (concrete foundation) and two newly recorded sites temporary number DSAP -01 (abandoned metal pipes) and DSAP-02 (abandoned metal pipes and light industrial refuse). The resources were updated or recorded, and all were recommended not eligible to the NRHP, pending USBR and State Historic Preservation Office (SHPO) concurrence.

Tule Wash Areas

A cultural resource records search was conducted in September of 2020, and a Cultural Resource Class III field inventory of USBR land for the Tule Wash 1 and 2 Project Areas was conducted in June 2021. The cultural report was submitted to USBR under confidential cover and a brief summary of results is provided here.

Tule Wash 1

The Tule Wash 1 cultural resource inventory resulted in the identification of one previously recorded isolate, P-13-017473 (milled lumber) and one newly recorded isolate, DSAP-ISO-01 (glass bottle). The resources were updated or recorded and are not considered eligible for the NRHP, pending USBR and SHPO concurrence. Isolates are typically considered not eligible for listing in the NRHP due to the limited amount of information they can provide and lack of associated context. Measures to minimize impacts to cultural resources are described below.

Tule Wash 2

The Tule Wash 2 cultural resource inventory resulted in the identification of two previously recorded isolates (P-13-017474: milled lumber and P-13-017475: milled lumber), four newly recorded isolates (DSAP-ISO-02: glass bottle; DSAP-ISO-03: glass bottle; DSAP-ISO-04: glass bottle; and DSAP-ISO-05: wood post), and one previously recorded site (P-13-007776: military). The resources were updated or recorded, as appropriate. Site P-13-007776 is previously recorded as the remnants of the defunct Salton Sea Test Base/Naval Auxiliary Air Station, Salton Sea consisting of seven buildings, military related roads, building foundations and debris, landscaping, landing strips, and a refuse scatter consisting of military type debris. The site was previously recommended as not eligible for listing to the NRHP. Based on field observations, Tetra Tech concurs with this determination. The isolates are not considered eligible for the NRHP, pending USBR and SHPO concurrence. Isolates are typically considered not eligible for listing in the NRHP due to the limited amount of information they can provide and lack of associated context.

Bombay Beach West

A cultural resource records search was conducted in September of 2020, and a Cultural Resource Class III field inventory of USBR land for the Bombay Beach West Project Areas was conducted in June 2021. The cultural report was submitted to USBR under confidential cover and a brief summary of results is provided below.

The Bombay Beach West cultural resource inventory resulted in the identification of one newly recorded isolate, DSAP-ISO-06 (glass bottle). Isolates are not considered eligible for the NRHP, pending USBR and SHPO concurrence. Isolates are typically considered not eligible for listing in the NRHP due to the limited amount of information they can provide and lack of associated context.

Applicable Impact

Impact CR-1: Ground-disturbing activities could change the significance of historical resources, damage unique archaeological resources, disturb human remains, eliminate important examples of the major periods of California history or prehistory, and adversely affect historic properties. In general, the Salton Sea and surrounding area is considered an “archeologically sensitive” area. The NRHP-eligible Southwest Lake Cahuilla Recessional Shoreline Archaeological District is near Tule Wash 1 and 2 (but is not within the Project boundary). One previously recorded historic site (P-13-007776: Cold War Era: Naval Auxiliary Air Station/Salton Sea Test Base) was identified within the southernmost portion of Tule Wash 2 and is listed as not eligible for listing to the NRHP (Lilburn 1995). As previously described, some historic resources (sites and isolates) were identified and inventoried at the three Project areas but none were considered eligible to the NRHP (pending final concurrence from USBR). However, the Project areas are located within an archaeologically sensitive area and, therefore, construction activities could inadvertently encounter previously unknown cultural resources or human remains associated with the area's historical occupation by both Native Americans and Euro Americans. Implementation of ***MM CR-1*** would ensure that any potential inadvertent discoveries of cultural resources are

properly treated. As such, no new impacts to cultural resources would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Existing Modified Mitigation Measure

Implementation of a construction survey, monitoring and inadvertent discovery plan would ensure the potential inadvertent discovery of cultural resources are properly treated, as required in MM-CR-1 from the EIS/EIR. This mitigation measure has been modified and updated, as described here.

MM CR-1: **Prepare and implement a survey plan and an inadvertent discovery plan.** A plan for the survey of Project areas not previously surveyed would be prepared to facilitate identification of cultural resources prior to initiation of ground-disturbing activities. A plan for the inadvertent discovery of cultural resources and human remains also would be prepared and would provide protocols for addressing the discovery of cultural resources and human remains including, but not limited to, monitoring; immediately halting all construction in the vicinity of a discovery; investigation of the discovery by an archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in order to evaluate the eligibility of the resources pursuant to CRHR and NRHP criteria; and implementation of California Health and Safety Code section 7050.5, CCR section 15064.5(d) and (e), and, if applicable, 36 CFR part 800.13. Resources considered significant would be avoided or subject to a data recovery program. The data recovery program would be designed in consultation with appropriate state (i.e., Office of Historic Preservation) and Federal agencies and include excavation of an archaeological site to recover any buried artifacts or other data.

A Construction Survey, Monitoring, and Inadvertent Discovery Plan (IDP) for DSAP projects has been developed (Tetra Tech 2021). In addition to the requirements identified as part of MM CR-1, the IDP includes the following measures to be implemented:

- Construction worker sensitivity training will be held prior to the start of construction. Topics covered will include an overview archaeological sensitivity in the Area of Potential Effect (APE), resource avoidance protocols, stop-work procedures in the event of unanticipated discoveries, and agency notification procedures.
- Avoidance of all cultural resources identified, if any, during the Class III survey, including a 100-foot buffer. If work will occur within the vicinity of identified resources (e.g., within 200 feet), the 100-foot buffer around the resources will be flagged as Environmentally Sensitive Areas (ESA) to ensure avoidance.
- Full-time cultural resources monitoring of all ground disturbing activities.

Conclusion

The Modified Project, including the implementation of the modified mitigation measure from the EIS/EIR, would not result in any new significant impacts to Cultural Resources compared to the Approved Project.

3.6 ENERGY

Applicable Impact

Impact EN-1: Pumping would require power for the duration of the Project. The Modified Project would not include installation and operation of a seawater pump, but would include installation and operation of groundwater production wells to support the vegetation at the sites. Power supply for the wells would be obtained from solar-powered systems, diesel electric generators, or electric lines, depending on cost and proximity to the supply. In addition, energy would be required for construction and maintenance of the Modified Project and would be limited to petroleum and/or diesel fuel to power construction equipment and worker vehicles. Energy consumption would cease upon completion of construction activities and occasional maintenance activities. As such, Impact EN-1 is applicable to the Modified Project. However, overall energy use would not result in inefficient, wasteful, or unnecessary consumption of energy and would not be significant. The EIS/EIR impact conclusion remains unchanged.

Conclusion

The Modified Project would not result in any new significant impacts to Energy Resources compared to the Approved Project.

3.7 GEOLOGY AND SOILS

Applicable Impacts

Impact GEO-1: A seismic event could cause the berms to fail and damage the water diversion/conveyance structures. The Modified Project would not include installation of berms or that could fail during a seismic event, but would include water conveyance structures (irrigation systems) that could be disrupted during a large seismic event. However, the irrigation systems would be installed above ground, largely of plastic (PVC), and would not be conveying large amounts of water such that irreparable damage to the system would occur. A less than significant impact would occur. As such, Impact GEO-1 is applicable to the Modified Project and the impacts would be less than significant. The EIS/EIR impact conclusion would remain unchanged.

Impact GEO-2: Best management practices would be used to prevent soil erosion and the loss of topsoil during construction. The proposed dust suppression activities would prevent erosion of the exposed playa. In addition, best management practices (BMPs) would be implemented during construction activities to minimize the potential for erosion and sedimentation. They would be part of the Stormwater Management Pollution Prevention Plan (SWPPP) and would include such measures as preservation of existing vegetation to the extent feasible, installation of silt fences, use of wind erosion control (e.g., geotextile or plastic covers on stockpiled soil), and stabilization of site ingress/egress locations to minimize erosion. As such, the Modified Project would result in a beneficial impact related to soil erosion.

Inapplicable Impacts

Impact GEO-3: The Project would be located on unstable soils, potentially affecting the stability of the berms. The Modified Project would not include construction of berms or other facilities associated with the SCH ponds. As such, Impact GEO-3 is not applicable to the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact GEO-4: Construction would require the use of rock as riprap or pond substrate. The Modified Project would not include construction of any SCH ponds. As such, Impact GEO-4 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

The Modified Project would not result in any new significant impacts to Geology and Soils compared to the Approved Project.

3.8 GREENHOUSE GAS EMISSIONS

Applicable Impacts

Impact GHG-1: The Project would generate minor amounts of GHG emissions during construction and operations, both directly and indirectly, that would not have a significant impact on the environment. The Modified Project would generate minor amounts of GHG emissions during construction activities and occasional maintenance activities. As discussed in the EIS/EIR, construction of the Approved Project would generate up to approximately 6,650 metric tons of carbon dioxide equivalents (CO2e) over the course of 2 years, which is well below the 25,000 metric tons of CO2e threshold for which major facilities are required to report emissions. These emissions would be temporary and would cease upon completion of work. The Modified Project would generate substantially less GHG emissions than the Approved Project and, therefore, would not be significant. In addition, the vegetation enhancement projects would have a small positive effect on GHG emissions by producing an uptake of GHGs as the vegetation flourishes.

As such, temporary GHG emissions resulting from construction and maintenance activities would result in a minimal, short-term increase in GHG emissions, which would remain well below the 25,000 metric tons of CO2e emissions that major facilities are required to report emissions. This EIS/EIR impact conclusion remains unchanged.

Impact GHG-2: The Project would generate GHG emissions during construction and operations, but would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. The Modified Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions for the reasons described in the EIS/EIR, and impacts would remain less than significant.

Conclusion

GHG Emissions generated during construction and maintenance of the Modified Project would be temporary and cease upon completion of construction activities and occasional maintenance activities. The Modified Project would not result in any new significant impacts to GHG Emissions compared to the Approved Project.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Applicable Impacts

Impact HAZ-1: Hazardous materials used during construction could be released into the environment. Similar types of hazardous materials would be used during implementation of the Modified Project as analyzed in the EIS/EIR, and BMPs would be implemented consistent with the required SWPPP. As such, no new impacts associated with accidental release of hazardous materials during construction would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact HAZ-2: Project construction could encounter contaminated soils during soil excavation. There is potential for worker exposure to known pesticide residues present in sediments within the project area. Compliance with the ICAPCD's Regulation VIII (Appendix G), which is mandatory, would reduce the potential for fugitive dust emissions at the construction site. This would also reduce the potential for worker exposure. As such, no new impacts associated with contaminated soils during construction would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact HAZ-4: Increased traffic and construction near roadways would not impair the implementation of an adopted emergency response or evacuation plan. As described in the EIR/EIR, construction would take place in sparsely populated rural areas. Similar types of typical roadway safety precautions would be taken for the Modified Project as the EIS/EIR to ensure that traffic and construction near roadways would not impair the implementation of an adopted emergency response or evacuation plan. As such, no new impacts associated with

implementation of an emergency response plan would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact HAZ-5: Project construction could increase the risk of wildland fire. Operation of construction equipment associated with the Modified Project could temporarily increase the risk of wildfire in the project area. There are no "Very High Fire Hazard Severity Zone" or "Wildland Area that may Contain Substantial Forest Fire Risk and Hazard" designations within the project area. In addition, the project areas associated with the Modified Project site contain little to no vegetation that could act as fuel for a wildland fire. Nonetheless, all regulations requiring fire suppression equipment would be followed for the Modified Project during construction and maintenance activities as required under the EIS/EIR. As such, no new impacts associated with risk of wildland fire would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact HAZ-6: Project construction could release air and dust-borne disease-causing viruses. Construction of the Modified Project would require ground-disturbing activities that could release air and dust-borne diseases such as valley fever into the air that could result in worker exposure. Compliance with the ICAPCD's Regulation VIII (Appendix G), potential impacts would be localized and not expected to affect the general public. To ensure safety of workers during construction, implementation of ***MM HAZ-1*** would require worker training, which would include tips for recognizing symptoms and use of personal protective equipment. As such, no new impacts associated with risk of release of air and dust-borne disease would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impacts

Impact HAZ-3: The ponds would attract birds in proximity to low-level military training routes. The Modified Project would not include installation of SCH ponds that would attract birds into low-level military training routes. As such, Impact HAZ-3 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Impact HAZ-7: Project operation could increase breeding habitat for mosquito vectors but implementation of the Mosquito Control Plan would present threats to public health. The Modified Project would not include construction of SCH ponds that could increase breeding habitat for mosquito vectors. As such, Impact HAZ-7 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Impact HAZ-8: Selenium and dichlorodiphenyldichloroethylene (DDE) levels in the SCH ponds could cause increased selenium and DDE levels in sport fish and waterfowl using the ponds. The Modified Project would not include construction of SCH ponds that could cause increased levels of selenium and DDE in sport fish and waterfowl. As such, Impact HAZ-8 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Existing Mitigation Measure

Implementation of ***MM HAZ-1*** would improve worker safety regarding air and dust-borne disease.

MM HAZ-1 Worker training will be provided to workers who may be exposed to air-borne diseases during excavation activities. Training will include recognizing symptoms and use of personal protective equipment.

Conclusion

The Modified Project, including implementation of the new mitigation measure, would not result in any new significant impacts associated with Hazards or Hazardous Materials compared to the Approved Project.

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Hydrology Update

As discussed in the SCH EIS/EIR, the Salton Sea is a terminal water body that receives water from the New, Alamo, and Whitewater rivers, along with numerous small streams, precipitation, and groundwater. Most of the runoff flows are irregular, only responding to large storm events. The only outflow from the Sea is through evaporation and seepage. The Salton Sea is supported primarily by agricultural return flows, which have decreased in recent time due to water transfers and water conservation measures. As the Sea recedes, finding water to support vegetation enhancement and dust suppression activities becomes more difficult.

As part of the planning for vegetation establishment at the Clubhouse, Tule Wash, and Bombay Beach West sites, Tetra Tech (under DWR's direction) conducted a preliminary analysis of the hydrology at the three sites. The analysis included a review of precipitation data, hydrologic estimates, and basic consideration of furrow hydraulics. The precipitation data used for all three sites is the same. Key findings from this review include (1) the average storm duration is 24 hours or longer, (2) approximately 75% of the precipitation falls between October and late February, (3) from 2004-2019, the average annual maximum precipitation depth from a single storm was 1.2 inches. Because there is only a 50% chance that a 1.2-inch storm would occur during the first year of the project, a smaller storm (0.9 inches) was also considered. If much less than 0.9 inches of rain falls in a single storm, then appreciable runoff seems unlikely.

For the larger Clubhouse site (beyond just the USBR parcels), seven watersheds were identified that contribute water to the site. Of these seven, four could be designed to contribute all or some of their runoff to the three USBR parcels (Big Wash, Grave Wash, Coral/Palm Wash, and Anza Ditch). For the larger Tule Wash site, identifying watersheds was made more difficult by coarse resolution of the terrain mapping used by the model and the presence of several small watersheds contributing directly to the project site. But four contributing watersheds were identified: Iberia Wash, Arroyo Salado, Tule Wash, and an unnamed wash. The Bombay Beach West site had one unnamed wash within the local watershed area. At all sites, smaller drainage features were identified, as discussed in Section 3.4.2, Updated Biological Resources Information and as shown on Figures 5a, b, and c, Figures 6a, b, c, d, and e, and Figure 7.

For all sites, a rainfall-runoff analysis was performed to quantify the water available for vegetation establishment. To accomplish this, calculations were made of average flow and estimated runoff volumes for a 0.9-inch storm event and a 2-year 24-hour (1.2 inches) storm. The 2-year event produces runoff volumes that are approximately an order of magnitude higher than the 0.9-inch storm event. If supplemental water sources are available or multiple years are available for germination, designing for the 2-year event would result in a substantially larger volume of water. If supplemental sources of water are not available, a multi-phase construction/vegetation establishment plan was recommended.

For all sites, the hydrology studies concluded that given that infiltration is likely much higher than plant evapotranspiration or germination water requirements, two alternatives are recommended for consideration: (1) design of an impermeable layer under the plants root zone to limit infiltration volumes and (2) installation of a perforated pipe (e.g., infiltration gallery) that can deliver excess infiltration to a closed cistern allowing for irrigation of a larger area or storage of supplemental water to support vegetation establishment during drier periods. It also may be easy to construct features to control the direction of flow across fan surfaces and onto the project site. The results of the hydrology studies was used in the design of the vegetation establishment layouts that are provided on Figures 5a, b, and c, Figures 6a, b, c, d, and e, and Figure 7.

Monitoring and production wells could be installed to support the vegetation enhancement project. Monitoring wells could be placed to monitor how groundwater flows towards the Sea, water quality and water levels. Production wells could be installed to support irrigation of the vegetation and are proposed in the locations on

Figures 5 through 7. As discussed in Section 2.0 Project Description, groundwater would be used to supplement the captured ephemeral surface flow to irrigate vegetation.

In addition, an Aquatic Resources Delineation (ARD) was conducted at all three sites in June 2021, for the purpose of identifying areas of wetlands and other Waters of the U.S. occurring on the exposed Salton Sea playa which may be subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act. In general, the playa areas lack the hydrologic influences of larger rivers, agricultural canals, and drains more commonly found in the southern and northern portions of the Salton Sea that often allow for vegetation establishment and maintenance in portions of the playa. Instead, hydrology is supplied through discontinuous ephemeral washes and the waning influence of the continually receding Salton Sea. Precipitation is not a significant source of hydrology at the sites. In addition, aerial images of the sites were reviewed, and ephemeral drainages were identified. Aquatic resources for each site are presented on Figures 5a, b, c (Clubhouse), Figures 6a, b, c, d, e (Tule Wash), and Figure 7 (Bombay Beach).

3.10.2 Water Quality Conditions

As discussed in the SCH EIS/EIR, the Salton Sea is an impaired water body as defined by the federal Clean Water Act, in which water quality continues to deteriorate and salinity continues to increase as the Sea shrinks.

Applicable Impacts

Impact HYD-1: Project implementation would cause a reduction in the Salton Sea's water surface elevation. The Modified Project would not include installation of SCH ponds that would increase evaporation from the Salton Sea but would divert surface water for the purpose of establishing vegetation and suppressing dust at each of the project sites. This may result in an incremental decrease in surface water reaching the Sea but would not alter the inevitable receding of the Sea and would be a less-than-significant impact. Use of this water for the Modified Project would be beneficial to the natural resources and air quality in the area. As such, the EIS/EIR impact conclusion remains unchanged.

Impact HYD-2: Project implementation would increase the Salton Sea's salinity. The Modified Project would not include installation of SCH ponds that could increase salinity of the Salton Sea due to increased evaporation but would divert surface water for the purpose of establishing vegetation and suppressing dust at each of the project sites. This may result in an incremental increase in the salinity of the Sea but would not alter increasing salinity of the Sea and would be a less-than-significant impact. Use of this water for the Modified Project would be beneficial to the natural resources and air quality in the area. As such, the EIS/EIR impact conclusion remains unchanged.

Impact HYD-3: Project operations would cause changes in Salton Sea water quality but would not violate established standards. While collection of surface runoff for the purposes of vegetation enhancement and dust suppression at the three sites would occur under the Modified Project, it would not violate established water quality standards because the water would be used directly as it comes from the onsite drainages and any water not used for beneficial uses would be allowed to drain to the Sea as it does under current conditions. This would be less-than-significant impact. In addition, groundwater from the onsite wells would be used to supplement the surface water needed for the Modified Project and, as such, would not be required in quantities large enough to affect local groundwater supplies. This would be a less-than-significant impact. the EIS/EIR impact conclusion remains unchanged.

Inapplicable Impacts

Impact HYD-4: Construction of the SCH ponds would temporarily degrade water quality at the Salton Sea. The Modified Project would not include installation of SCH ponds or impact water quality within the Salton Sea or affect water quality. As such, Impact HYD-3 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Impact HYD-5: Berm failure could increase erosion and sedimentation of the adjacent river and the Salton Sea. The Modified Project would not include construction of berms. As such, Impact HYD-5 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

Vegetation enhancement and dust suppression proposed under the Modified Project would stabilize soils within exposed playa adjacent to the Salton Sea. No new significant impacts on hydrology and water quality would occur as a result of the proposed modifications to the Approved Project.

3.11 LAND USE AND PLANNING

Applicable Impacts

Impact LU-1: Given the implementation of mitigation measures identified in other sections of this Environmental Impact Statement/Environmental Impact Report, the SCH Project would be compatible with the Imperial County General Plan and other applicable land use plans or policies. The Modified Project would include similar improvements as outlined in the EIS/EIR. The dust suppression and vegetation enhancement activities would be developed in coordination with USBR, ICAPCD, and others, which would ensure that they are consistent with the plans and policies of these agencies. In addition, the Modified Project would comply with all applicable mitigation measures included in the EIS/EIR. As a result, no new impacts associated with land use compatibility would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Impact LU-2: Restoration of habitat for birds that are dependent on the Salton Sea would not result in substantive conflicts with existing adjacent land uses. The Modified Project would be constructed within exposed playa adjacent to the Salton Sea. No developed land uses are located in the proximity of the Modified Project locations and the locations would not be adequate for future development. As such, the Modified Project would not conflict with any existing or planned land uses. The EIS/EIR impact conclusion remains unchanged.

Impact LU-3: The Project would be designed to minimize conflicts with future planned land uses. Dust suppression and vegetation enhancement activities would not interfere with the implementation of the future improvements associated with the Approved Project. As such, the Modified Project would not conflict with any planned land uses. The EIS/EIR impact conclusion remains unchanged.

Conclusion

Dust suppression and vegetation enhancement activities proposed under the Modified Project would stabilize soils within exposed playa adjacent to the Salton Sea. No new significant land use impacts would occur as a result of the proposed modifications to the Approved Project.

3.12 NOISE

Applicable Impacts

Impact NOI-1: Daytime construction and maintenance activities would cause a temporary increase in noise levels near the Project sites. Similar construction equipment would be required as analyzed in the EIS/EIR for implementation of the various dust suppression and vegetation enhancement activities that are part of the Approved Project site. Activities associated with the various dust suppression activities that comprise the Modified Project would occur in sparsely populated agricultural areas. No houses, parks, schools, libraries, senior facilities, day care centers or hospitals are located within 1,000 feet of any of the dust suppression areas. Similarly, the access routes are in agricultural areas with no sensitive receptors nearby. The EIS/EIR impact conclusion remains unchanged.

Construction activities could generate noise sufficient to affect special status birds. This is discussed in Section 3.4, Biological Resources, and is addressed in ***MM BIO-3***.

Impact NOI-3: Construction truck traffic at some locations on local roads would cause a temporary increase in noise near residents. There are no residents near the project areas that comprise the Modified Project. As such, no new impacts associated with temporary noise increases from construction traffic would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impacts

Impact NOI-2: Dredging could extend beyond the hours typically allowed by Imperial County. The Modified Project would not require dredging. As such, Impact NOI-2 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Impact NOI-4: Noise from installation of the seawater pipeline and associated pump could exceed Imperial County's construction thresholds. The Modified Project would not require installation of seawater pipeline. As such, Impact NOI-4 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Impact NOI-5: Noise from operation of the seawater pump could exceed Imperial County's thresholds at Red Hill Park. The Modified Project would not involve operation of the seawater pump or be located near Imperial County's Red Hill Park. As such, Impact NOI-5 is not applicable to the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

The various dust suppression and vegetation enhancement activities that would be required for implementation of the Modified Project would be constructed within exposed playa areas of the Salton Sea. No new significant noise impacts would occur as a result of the proposed modifications to the Approved Project.

3.13 PALEONTOLOGICAL RESOURCES

Impact PALEO-1: Ground-disturbing activities could expose and damage undiscovered paleontological resources. Some of the project areas that comprise the Modified Project would be constructed in areas underlain by geologic formations with high sensitivity for presence of paleontological resources. As such, ***MM PALEO-1*****,** ***MM PALEO-2*** and ***MM-PALEO 3*** would be implemented to ensure inadvertent finds of paleontological resources during ground disturbance are properly treated. No new impacts associated with paleontological resources would occur with implementation of the Modified Project compared to the Approved Project. The EIS/EIR impact conclusion remains unchanged.

Existing or Modified Mitigation Measures

In accordance with **MM PALEO-1,** a *Paleontological Resources Mitigation and Monitoring Plan (PRMMP) for Salton Sea Dust Suppression Action Plan Projects* (Paleo Solutions 2020) has been prepared, with language regarding PRMMP requirements updated as shown in italics below. Implementation of the PRMMP would ensure potential impacts to inadvertent discovery of paleontological resources during construction activities are treated properly. **MM PALEO-2** remains the same from the Approved Project. **MM PALEO-3** has been updated for the Modified Project as shown in *italics* below.

MM PALEO-1 **Prepare and implement a survey plan and a paleontological monitoring plan.** A plan for the survey of Project areas will be prepared to facilitate identification of paleontological resources prior to initiation of ground-disturbing activities. Additionally, prior to construction, a certified paleontologist retained by the lead agencies will supervise monitoring of construction excavations and produce a *PRMMP*. Paleontological monitoring will include inspection of exposed rock units and microscopic examination of matrix to determine if fossils are present. The monitor will have

authority to temporarily divert grading away from exposed fossils to recover the fossil specimens. Monitoring will take place on a full-time basis when construction *excavations occur in geologic units with moderate and high paleontological potential (Potential Fossil Yield Classification [PFYC] 3 and 4). For geologic units with low paleontological potential at the surface (PFYC 2), monitoring will take place on a full-time basis when construction* occurs at depths greater than 5 feet *below ground surface*, part-time (4 hours a day) when excavations exceed 2 feet *below ground surface*, and on a spot-check basis on excavations less than 2 feet *below ground surface*. The paleontologist will document interim results of the construction monitoring program with monthly progress reports. Additionally, at each fossil locality, field data forms will record that locality, stratigraphic columns will be measured, and appropriate scientific samples will be submitted for analysis.

MM PALEO-2 **Conduct worker training.** Construction supervisors and crew will receive training by a certified paleontologist in the procedures for identifying and protecting paleontological resources, as well as procedures to be implemented in the event fossil remains are encountered during ground-disturbing activities.

MM PALEO-3 **Prepare and implement a paleontological resource data recovery plan.** If fossils are encountered during construction, construction activities will be temporarily diverted from the discovery, and the monitor will notify all concerned parties and collect matrix for testing and processing as directed by the Project paleontologist. To expedite removal of fossil-bearing matrix, the monitor will be empowered to request heavy machinery to assist in moving large quantities of matrix out of the path of construction to designated stockpile areas. Construction will resume at the discovery location once all the necessary matrix is stockpiled, as determined by the paleontological monitor. Testing of stockpiles will consist of screen washing small samples to determine if important fossils are present. If such fossils are present, the additional matrix from the stockpiles will be water screened to ensure recovery of a scientifically significant sample. Samples collected will be limited to a maximum of 6,000 pounds per locality. *The Project paleontologist will direct identification laboratory processing, cataloguing, analysis, and documentation of fossil collections. When appropriate, portions of rock or sediment samples will be submitted to commercial laboratories for microfossil, pollen, and/or radiometric dating analysis. Prior to construction, the lead agencies will enter into a formal agreement with a recognized museum repository. Further, they will create the fossil collections, appropriate field and laboratory documentation, and the final Paleontological Resource Recovery Report in a timely manner following construction. A final technical report will be prepared in accordance with the Society of Vertebrate Paleontology (SVP) guidelines and lead agency requirements. The final report will be submitted to the lead agency and the curation repository.*

Conclusion

The Modified Project, including implementing new mitigation measures, would not result in any new significant impacts to Paleontological Resources compared to the Approved Project.

3.14 POPULATION AND HOUSING

Applicable Impact

Impact POP-1: Out-of-town construction workers would cause a temporary, slight increase in Imperial County population. Workers may come from outside Imperial or Riverside counties to conduct the work, although the work is temporary, and the number of jobs limited. Therefore, no permanent impacts associated with a population increase would occur with implementation of the Modified Project. The EIS/EIR impact conclusion remains unchanged.

Inapplicable Impact

Impact POP-2: Project operation would increase opportunities for passive recreational activity and research due at the SCH ponds, which could result in increased visitor days. The Modified Project would not include construction of any SCH ponds that could increase opportunities for passive recreation and research. As such, Impact POP-2 is not applicable for the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

Construction activities associated with the Modified Project would be completed intermittently as need to maintain vegetation enhancement. No long-term relocation of workers or their families would be required. No new significant impacts on population and housing would occur as a result of implementation of the Modified Project.

3.15 PUBLIC SERVICES

Applicable Impact

Impact PS-1: Construction and maintenance activities could result in increased demand for emergency services (police, fire, and trauma centers), as could increase use of the Project site by recreational visitors. Dust suppression activities could result in a small temporary increase in demand for emergency services (police, fire, and trauma centers) during construction. The Modified Project does not include any unusually dangerous activities, and the increased demand associated with dust suppression activities would be within the capacity of local emergency service providers. The temporary increased demand would not be expected to affect the ability of providers to maintain their current level of service or require new or altered facilities. The Modified Project would not increase the demand for emergency or other services during construction in comparison to the Approved Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

Dust suppression activities associated with the Modified Project have potential to temporarily increase demand for public services such as fire and police services, but that demand would return to normal levels once construction or a specific maintenance activity is complete. No new significant impacts on Public Services would occur as a result implementation of the Approved Project.

3.16 RECREATION

Inapplicable Impact

Impact REC-1: The SCH Project would create recreational opportunities at the pond sites. The Modified Project would not include construction of any SCH ponds that could increase potential for recreational opportunities. As such, the Modified Project would not result in an increase in recreational opportunities compared to the Approved Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

The Modified Project would not introduce a new source of recreation or affect an existing recreational use. No new significant impacts on Recreation would occur as a result of the proposed modifications to the Approved Project.

3.17 TRANSPORTATION

Applicable Impacts

Impact TRAN-1: The SCH Project would increase traffic during construction and operations, but would not reduce the level of service of any roadways below the County of Imperial's standard (LOS C). The Modified Project could increase traffic on local roadways during construction, although construction equipment may be left out on site for several days at a time until a particular area has been completed. Dust suppression and vegetation enhancement activities would be completed intermittently as need to maintain vegetation enhancement. The minimal, short-term increase in traffic due to construction activities would not reduce the level of service of any roadways below Imperial or Riverside County standards. Minimal personnel would be needed to complete occasional maintenance activities over time to ensure the adequate dust suppression on the site. Therefore, the Modified Project would not result in a substantial increase in traffic. This EIS/EIR impact conclusion remains unchanged.

Impact TRAN-2: Construction/maintenance equipment and tractor trailers could be present in areas used by farm equipment, but would not pose a substantial safety hazard. Construction vehicles would use existing roadways to access the various project areas. All construction staging would be contained within each project area. As such, construction vehicles required for the Modified Project would not pose a safety hazard within proximity of agricultural lands. This EIS/EIR impact conclusion remains unchanged.

Impact TRAN-3: Emergency vehicles would retain their ability to access the Project area during construction and operations despite increased traffic and construction near roadways. Construction vehicles would use existing roadways to access the various project areas. All construction staging would be contained within each project area. As such, all existing roadways would remain open and accessible to emergency vehicles during construction of the Modified Project. This EIS/EIR impact conclusion remains unchanged.

Conclusion

Construction and maintenance activities associated with the Modified Project has potential to temporarily increase traffic on local roads, but traffic levels would return to normal once construction or a specific maintenance activity is complete. No new significant impacts on Transportation would occur as a result of the proposed modifications to the Approved Project.

3.18 UTILITIES AND SERVICE SYSTEMS

Applicable Impacts

Impact UT-1: Dust suppression water would be required, but would not exceed supplies. The Modified Project would involve implementing vegetation enhancement and dust suppression activities including habitat enhancement, on approximately 1,707 acres thereby reducing dust emissions in the project areas. These activities would require water, but the water would come from stormwater runoff and supplemented by groundwater. Some construction activities, such as surface roughening, may require water to be applied on the surface as described in ***MM AQ-1***, but this would be a temporary impact. Habitat enhancement projects are proposed in areas that have access to either surface or groundwater. As such, the Modified Project would not impact existing water supplies.

Impact UT-2: Construction and operations would generate solid waste requiring disposal in landfills. Solid waste associated with the Modified Project would be limited to trash generated by workers and removal of existing debris within the project site that would need to be disposed of properly. As such, no new impacts would occur regarding solid waste generation compared to the EIS/EIR.

Conclusion

The Modified Project would not result in new impacts to existing utilities and service systems. No new significant impacts on Utilities and Service Systems would occur as a result of the proposed modifications to the Approved Project.

3.19 CUMULATIVE IMPACT

The Modified Project would not result in new significant cumulative impacts or increase the severity of cumulative impacts identified in the EIS/EIR. Cumulative impacts would be similar to those of the Approved Project and impacts associated with the Modified Project would be short-term and limited to intermittent work over a two-year construction period. Long-term impacts as a result of dust suppression and vegetation enhancement would be beneficial to regional air quality and would not contribute to adverse environmental impacts in combination with other projects.

4.0 CONCLUSIONS

Section 15164 of the CEQA Guidelines describes the conditions under which an addendum to an EIR should be prepared as follows:

> (a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

Section 15162 of the CEQA Guidelines calls for preparation of a subsequent EIR in limited circumstances, including "the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects…."

As discussed in Section 3, implementing the Modified Project, would result in impacts similar to those already analyzed in the SCH Project EIS/EIR and 2017 Addendum for the SMMP, and no new impacts would occur to trigger the need for preparing a subsequent EIR or a supplement to the EIR because:

- There are no substantial changes that would cause new significant environmental effects or a substantial increase in the severity of previously identified significant effects, nor have substantial changes occurred to the circumstances under which the Project would be constructed.
- No new information of substantial importance has been identified that would result in significant effects not discussed in the previous EIR or a substantial increase in the severity of significant effects.
- No new mitigation measures or alterations to mitigation measures are required.

Thus, this addendum meets the requirements under CEQA.

5.0 LIST OF PREPARERS

California Department of Water Resources

Melinda Dorin, Program Manager

Steven Garcia, Senior Engineer Water Resources

Tetra Tech, Inc.

Molly Henderson, Program Manager

Mary McKinnon, Principal Environmental Analyst

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