

## Los Cerritos Wetlands Authority

**Date:** May 5, 2016

**To:** Governing Board Members

**From:** Mark Stanley, Executive Officer

**Subject:** Item 8: The LCWA directs the Executive Officer to commit staff resources on negotiations with Ascon to develop a Memorandum of Agreement to accept funds for the Zedler Marsh Restoration to provide southern tarplant mitigation for their remediation project of the Ascon Landfill Site (LCWA16006).

**RECOMMENDATION:** The LCWA directs the Executive Officer to commit staff resources on negotiations with Ascon to develop a Memorandum of Agreement to accept funds for the Zedler Marsh Restoration to provide southern tarplant mitigation for their remediation project of the Ascon Landfill Site (LCWA16006).

**BACKGROUND:** The LCWA was approached by Ascon Landfill for the purpose of providing services from the LCWA Stewardship Program for their Southern Tarplant Mitigation Plan (STMP), please see Exhibit A for a complete project description. The STMP provides the concepts and direction for implementation and maintenance of the mitigation intended to compensate for impacts to southern tarplant (*Centromadia parryi* var. *australis*) associated with the Ascon Landfill Interim Removal Measure Project located in the City of Huntington Beach in the County of Orange. LCWA Staff provided Ascon Landfill Representatives a tour of the LCWA's property and both parties expressed great interest of utilizing areas within Zedler Marsh for implementation of the STMP. LCWA Staff has reviewed the STMP and has assessed the required mitigation measures by the Department of Toxic Substances Control (DTSC) based on impacts to sensitive habitat including southern tarplant and coastal salt marsh habitat and is recommending initiating negotiations with Ascon Landfill to develop a Memorandum of Agreement for receiving funds to fulfill the STMP mitigation requirements.

The 38-acre Ascon Landfill was operated as a waste disposal facility from approximately 1938 through 1984. In the early years of operation, much of the waste came from oil drilling operations and included drilling muds, wastewater brines, and other drilling wastes. Prior to implementation of the Interim Removal Measure Project, approximately 660,476 individuals of southern tarplant were growing within the Ascon Landfill; and, at the completion of the Interim Removal Measure Project approximately 189,774 southern tarplant individuals were removed. Therefore, Ascon Landfill is required to replace, impacts to southern tarplant at a 1:1 mitigation-to-impact ratio of individuals impacted to mitigate. Impacts to southern tarplant on the Ascon Landfill site will be mitigated by growing at least 189,774 new southern tarplants within Fairview Park, an alternate location or a combination of the two, as necessary.

Following are details of the mitigation requirements and potential sites where the STMP can be implemented.

### Southern Tarplant Mitigation

Ascon Landfill implemented the STMP in August 2012 at Fairview Park in Costa Mesa but since then the mitigation ratios have not been met and therefore, Ascon Landfill determined that additional sites would be required to meet STMP performance standards.

Ascon Landfill as stated previously is required to grow a total of 189,774 southern tarplant individuals and sustain that population for a period of two years. The mitigation will be deemed successful when the following general standards are met:

1. A total of 189,774 new southern tarplant individuals are established and because of the densities may vary, the number of individual plants shall be determined by plot sampling. It should be noted that variability in population densities may occur from year to year due to a variety of factors (e.g., amount of rainfall, temperature, weather, etc.).
2. The non-native vegetation does not present a threat to the sustainability of the southern tarplants, as determined by the Biologist/Restoration Specialist.
3. The mitigation area(s) is self-sustaining. Self-sustaining is defined as the site requiring no irrigation or supplemental planting for two consecutive years and the site resisting invasion by non-native species with no significant weeding being necessary for two consecutive years.

It is estimated that, between the sites at Fairview Park and the potential sites at Los Cerritos Wetlands Zedler Marsh, it will take three growing seasons to meet the STMP performance standards. Implementation of the STMP will first require the identification of suitable sites that are agreed upon by all parties and stakeholders. Once the locations of the restorative actions have been determined, the restoration sites will require preparation which may include soil surface contouring, erosion control measures, perimeter fencing, signage installation, temporary irrigation system installation, soil amendments, non-native weed control, tarplant seed collection and tarplant seed dispersal. The identification of the sites will be summarized and reported to the DTSC within 90 days after seed dispersal.

Once initiated, the restoration project will require regular management, maintenance, and monitoring. Management will include regular site visits by the restoration ecologist and/or project manager as well as communications about the project's needs, timelines, and achievements. Maintenance will include seasonal irrigation until established, weed control measures, general tarplant care and any repairs to facilities. Monitoring shall be conducted on a quarterly basis during the first and second year and semi-annual monitoring thereafter within the southern tarplant blooming period (i.e., May to November) to inspect for signs of plant stress, disease, insect infestation, and other problems.

Annual Monitoring Reports summarizing monitoring results shall be submitted to the DTSC beginning one year after completion of installation of the mitigation and continuing throughout the monitoring period. Monitoring reports shall discuss maintenance activities performed; the results of the monitoring; an assessment of the progress made towards achievement of the success criteria; and recommendations of any remedial actions or adaptive management measures that may be necessary. Reports shall also include photographs of the mitigation areas.

As it becomes apparent that all performance standards can be met, an endowment will be created to support the long-term management and maintenance of the mitigation sites. The mitigation will not be deemed "successful" until a conservation easement, deed restriction, or comparable legal instrument is recorded and a long-term management entity has been identified. Ascon Landfill Responsible Parties shall also be responsible for providing the conservation area with the appropriate contractual arrangements to ensure the mitigation area is managed and preserved.



**Figure 1. Potential locations for southern tarplant mitigation.**

Figure 1 identifies a total of 1.33 acres of land that is suitable for establishing southern tarplant but LCWA Staff continues to discuss other areas within Signal Hill Petroleum (SHP) exclusive and non-exclusive areas. Area 1 (0.61 acres) clearly falls within the LCWA Zedler Marsh restoration project area and is an ideal location for growing southern tarplant due to its existing hydrology. Area 2 (0.31 acres) currently has no value to the oil operations and will offer a seamless extension to the LCWA's current restoration areas. Area 3 (0.41 acres) was excluded from SHP's vegetation management area in 2010 due to the presence of tarplant and since then it has become densely vegetated, but opportunities exist to thin the vegetation and promote tarplant expansion.

#### Coastal Salt Marsh Mitigation

Ascon Landfill is also required to provide for the restoration of 0.2 acres of coastal salt marsh habitat. This can be achieved through an in-lieu fee program. The LCWA has already set aside a portion of salt marsh habitat within Zedler Marsh to serve these types of compensatory mitigation efforts. Furthermore, the LCWA is currently implementing a 0.16 acre in-lieu fee project for Southern California Edison, so precedent exists for such an endeavor.

Ascon Landfill requirements will be met once they provide a one-time payment to the LCWA that will fund the restoration of 0.2 acres of coastal salt marsh habitat (Figure 2). No performance standards or reporting requirements exist at this time. Ample space exists to accommodate this project.



**Figure 2. Potential costal salt marsh in-lieu fee project area**

The LCWA Stewardship Program's success at receiving competitive grant program funding has resulted in a narrowing of applicable funding opportunities that have not already been awarded previously. Therefore, the program coordinator's creativity has been challenged in order to find funding to support programming to operate sustainably and afford trained restoration ecologists and educators, critical restoration tools, local native plant materials, and environmental education supplies. In-lieu fee program funding has been identified as an excellent funding source, and the LCWA Stewardship Program management team has previously attracted and successfully implemented mitigation projects for the LCWA which utilizes Zedler Marsh including Southern California Edison and Orange County Public Works.

#### Approval Process and Timeline

- 1) Coordinate with Signal Hill Petroleum regarding project locations and impact to their exclusive easement and vegetation maintenance areas
- 2) Determine project area and prepare cost estimates
- 3) Submit request to Coastal Conservancy staff to allow for property to be used for mitigation
- 4) Prepare staff report and recommendation for approval of the Memorandum of Agreement for the August Board Meeting
- 5) Amend current land management contract to include administration of this mitigation project
- 6) Determine if necessary to obtain a Coastal Development before beginning restoration of sites

The LCWA has successfully implemented and demonstrated to regulatory agencies the capacity to receive funds through similar projects, such as the Signal Hill Petroleum Coastal Development Permit E-10-011, Los Angeles County Department of Public Works Coastal Development Permit 5-10-204, Southern California Edison Memorandum of Agreement and Orange County Public Works Contract.

In addition, since the LCWA has received several grants from the Coastal Conservancy which includes, Grant Agreement #00-221 Bryant/Phase 1 Acquisition, Grant Agreement #07-043 OTD Parcel Feasibility Study, and Grant Agreement #11-028 LCWA Conceptual Restoration Plan; these funds received from the Coastal Conservancy stipulates the LCWA shall not use or allow the use of any portion of the real property for mitigation without the written permission of the Coastal Conservancy. LCWA staff is working with the Coastal Conservancy staff to request approval to receive these one-time mitigation funds in order to continue the LCWA's mission to provide for a comprehensive program of acquisition, protection, conservation, restoration, maintenance, operation and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of habitat protection and restoration, flood protection, and improved water supply, water quality, groundwater recharge and water conservation. Once the LCWA receives approval from the Coastal Conservancy to receive these mitigation funds then Staff will begin development of the Memorandum of Agreement with implement Ascon Landfill.

**FISCAL:** Ascon Landfill desires to satisfy these mitigation requirements through an annual fees and possibly endowments to the LCWA covering the pro-rata cost of restoration plan preparation, implementation, monitoring and reporting for five years, or until plant establishment has occurred in accordance with the Southern Tarplant Mitigation Plan requirements. Ascon Landfill, in partnership with the LCWA, has determined the best option would be to provide the LCWA with annual fee/endowment to continue restoration work at Zedler Marsh. The Ascon Landfill Memorandum of Agreement will be developed for a period of five years with a plant establishment period of two years for a continued source of funding of five years. The LCWA has the capacity to receive the funds, fully develop the restoration plan, successfully implement the restoration, and the capacity to fully comply with on-going monitoring and reporting as specified accordance with the Southern Tarplant Mitigation Plan requirements. In addition, the LCWA FY15/16 Budget will be amended as necessary.



## **Exhibit A**

### **SOUTHERN TARPLANT MITIGATION PLAN**

*Ascon Landfill Interim Removal Measure Project  
City of Huntington Beach, Orange County, California*

Prepared for:

**Department of Toxic Substances Control**  
Southern California Clean-Up Operations Branch  
5796 Corporate Avenue  
Cypress, California 90630  
(714) 484-5478  
Contact:  
Safouh Sayed

Prepared by:

**PCR Services Corporation**  
One Venture, Suite 150  
Irvine, CA 92618  
(949) 753-7001  
Contacts:  
Maile Tanaka, Senior Biologist I  
Jenni Snibbe, Restoration/Vegetation Ecologist

August 2012





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## EXECUTIVE SUMMARY

This Southern Tarplant Mitigation Plan (STMP) provides concepts and direction for implementation and maintenance of mitigation intended to compensate for impacts to southern tarplant (*Centromadia parryi* var. *australis*) associated with the Ascon Interim Removal Measure (IRM) Project located in the City of Huntington Beach, Orange County, California. This STMP is required as part of the Mitigation, Monitoring and Reporting Program (MMRP) adopted as part of the Final Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the IRM pursuant to the requirements of the California Environmental Quality Act (CEQA).

Because there are no opportunities for mitigation to take place on the Ascon project site, mitigation will take place off-site. The off-site Fairview Park mitigation site (“mitigation site”) is located approximately 2.25 miles to the northeast of the Ascon project site within Fairview Park in the City of Costa Mesa, Orange County, California. Fairview Park was chosen as the mitigation site for several reasons, including the park’s proximity to the Ascon project site’s southern tarplant population; the known occurrences of southern tarplant within Fairview Park and the vicinity (CDFG 2011; LSA 2007); Fairview Park’s contiguity with existing habitat conservation areas (e.g., Talbert Nature Preserve) and existing restoration lands within Fairview Park (e.g., Dana Point Headlands Restoration Project, U.S. Army Corps of Engineers Wetlands and Riparian Habitat Restoration Project); and the goals and objectives of the City of Costa Mesa to continue to implement the Wetlands and Riparian Habitat Restoration Project over an additional 23 acres within Fairview Park. In addition, the removal of invasive species from the mitigation site and planting of native southern tarplant will not only provide for the replacement and preservation of a sensitive plant species, but also serve to provide an ecotone with the larger adjacent preservation/restoration areas supporting sensitive species and habitats, and promote enhanced ecosystem services and water quality functions to the system as a whole.

As reported in the MND, the IRM project resulted in permanent impacts to approximately 153,180 southern tarplants over approximately 1.9 acres. Per the MMRP in the Final MND, impacts to southern tarplant shall be mitigated at a 1:1 mitigation-to-impact ratio of individuals impacted to mitigated (PCR 2010). PCR recommends that the mitigation site for southern tarplant planting be equivalent or greater in acreage than the area of existing southern tarplant that was impacted on the Ascon project site; however, if a southern tarplant population of at least 153,180 individuals is accomplished on an acreage of less than 1.9 acres, a qualified Biologist/Restoration Specialist will determine whether the acreage will adequately provide long-term, sustainable conditions for the southern tarplant. Mitigation at Fairview Park will initially be implemented within Mitigation Areas 1 and 2 (totaling 0.8 acre) beginning in early 2012. In an effort not to delay the initial mitigation efforts, other mitigation areas beyond 0.8 acre have yet to be formally authorized by the City of Costa Mesa within Fairview Park. However, additional mitigation area(s), potentially within Fairview Park or other off-site locations determined suitable by a qualified Biologist/Restoration Specialist, that may be suitable for supporting southern tarplant may be available as additional mitigation area for the IRM impacted southern tarplant, if needed. For example, additional areas may include Area 3 (1.7 acres) along the western portion of the Fairview Park mitigation site. Should it be determined that the current mitigation areas (i.e., Mitigation Areas 1 and 2) in Fairview Park do not support enough area to satisfy the 1:1 ratio of southern tarplants impacted during the IRM, alternate locations will need to be identified (i.e., other area(s) within Fairview Park or as otherwise determined appropriate) subject to the approval of a qualified Biologist/Restoration Specialist and the lead agency [Department of Toxic Substances Control (DTSC)] and documented in an STMP addendum letter.

As determined necessary by a qualified Biologist/Restoration Specialist, the Fairview Park mitigation areas will include soil amendments and preparation followed by an appropriate number of grow/kill applications of an herbicide (e.g., Aquamaster, Rodeo®, or Roundup Pro®) to remove weed species. Southern tarplant seed, previously collected from the Ascon project site prior to implementation of the IRM<sup>1</sup> and processed and stored at the Rancho Santa Ana Botanical Garden, as well as additional seeds collected by Chambers Group in 2011, shall be planted in the mitigation areas soon after the grow/kill cycle(s) are complete. The mitigation areas will be temporarily irrigated as determined appropriate by the Monitoring Biologist/Restoration Specialist. Once irrigation is shut off, the planted areas will be self-sustaining (i.e., not irrigated) for a minimum of two years prior to release from oversight by the lead agency. Mitigation success will be assessed through performance standards specific to the mitigation areas for the establishment of southern tarplant. Total monitoring requirements shall be for an anticipated three years, or until performance standards are met. Following completion of performance standards, the mitigation areas shall be conserved through a conservation easement, deed restriction, or similar legal instrument. Long-term management of the mitigation area shall be provided for by Orange Coast River Park, or similar management entity approved and/or recommended by the appropriate reviewing agency (i.e., California Department of Fish and Game).

An As-Built Report and Annual Monitoring Report shall be provided. This STMP describes the mitigation site preparation, seed material, installation methods, and maintenance and monitoring required until the performance standards are met.

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<sup>1</sup> *From the area of impact, as much seed as possible was salvaged from the southern tarplant plants; however, no more than 10 percent of the seed was collected from the remainder of the population (which was not impacted) to ensure that collecting seed would not deplete the local population of the southern tarplant on-site.*

## 1.0 INTRODUCTION

This Southern Tarplant Mitigation Plan (STMP) provides the concepts and direction for implementation and maintenance of the mitigation intended to compensate for impacts to southern tarplant (*Centromadia parryi* var. *australis*) associated with the Ascon Interim Removal Measure (IRM) Project located in the City of Huntington Beach, Orange County, California. This STMP is in addition to the Mitigation, Monitoring and Reporting Program (MMRP) adopted as part of the Final Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the IRM pursuant to the requirements of the California Environmental Quality Act (CEQA).

Because there are no opportunities to implement mitigation on the Ascon project site ("Ascon project site"), mitigation for impacts to southern tarplant will be conducted at an off-site location within Fairview Park, City of Costa Mesa, Orange County, California, as shown in **Figure 1, Regional Map**, or at a site determined appropriate subject to the approval of a qualified Biologist/Restoration Specialist and the lead agency and documented in an STMP addendum letter. Details of the Ascon project site and the Fairview Park mitigation areas are described below.

### 1.1 Project Location

#### 1.1.1 Ascon Project Site

The 38-acre Ascon project site is located in the City of Huntington Beach at the southwest corner of Hamilton Avenue and Magnolia Street. The Ascon project site is located within the United States Geological Survey (USGS) 7.5' Newport Beach Quadrangle Map, Section 13, T. 6 S., R. 11 W., as shown in **Figure 2, Vicinity Map**.

#### 1.1.2 Fairview Park Mitigation Site

The off-site Fairview Park mitigation site ("mitigation site") is located approximately 2.25 miles to the northeast of the Ascon project site within Fairview Park (Figure 1). Fairview Park is bound by Placentia Avenue and the Costa Mesa Golf Course to the east, the Santa Ana River/Greenville-Banning Channel and Talbert Nature Preserve to the west, Fairview Channel to the north, and Estancia High School to the south. The mitigation site is located within the USGS 7.5' Newport Beach Quadrangle Map, in Section 8, T. 6 S., R. 10 W. as shown in Figure 2. If the Fairview Park mitigation site does not ultimately support the required amount of southern tarplant individuals, alternate locations will need to be identified that may include other area(s) within Fairview Park or as otherwise determined appropriate subject to the approval of a qualified Biologist/Restoration Specialist and the lead agency and documented in an STMP addendum letter.

### 1.2 Project Description

#### 1.2.1 Ascon Project Site

The Ascon project site operated as a waste disposal facility from approximately 1938 through 1984. In the early years of operation, much of the waste came from oil drilling operations and included drilling muds, wastewater brines, and other drilling wastes. Records show that from 1957 to 1971, chromic acid, sulfuric acid, aluminum slag, fuel oils, styrene, and other wastes were also disposed on the Ascon project site. From 1971 to 1984, solid wastes such as abandoned vehicles, asphalt, concrete, metal, soil, and wood were disposed of on the Ascon project site. The Ascon project site stopped receiving waste commercially in 1984.

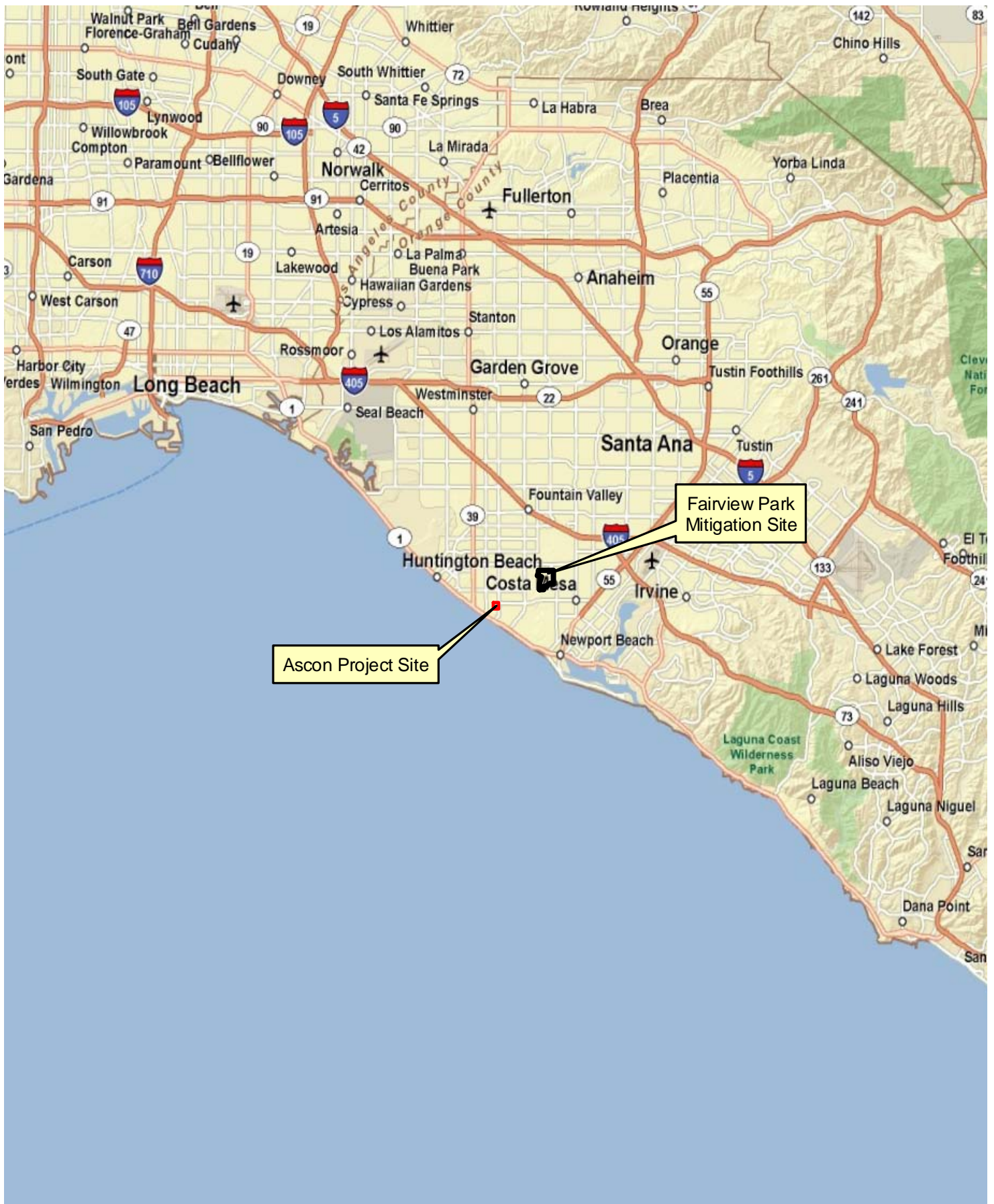
Most of the waste materials received on the Ascon project site were deposited in “lagoons.” The lagoons were used mainly for disposal of oil production wastes, such as drilling mud, brines, and petroleum-contaminated soil.

The Ascon IRM project included an assessment of the materials underneath the tarry materials from two of the lagoons (Lagoons 1 and 2), as well as removal of some of the material in Lagoon 3 in order to increase the stability of the earthen berm between Lagoons 2 and 3 prior to the future final remedy and to better ensure the containment of Lagoon 3 materials during the period between completion of the IRM and implementation of the final remedy. The materials beneath the tarry materials in Lagoons 1 and 2 were of unknown composition and geotechnical quality and had not been assessed with the tarry materials present due to worker safety concerns. As such, a workplan and addenda were prepared to collect and remove the tarry material from the lagoons, which included:

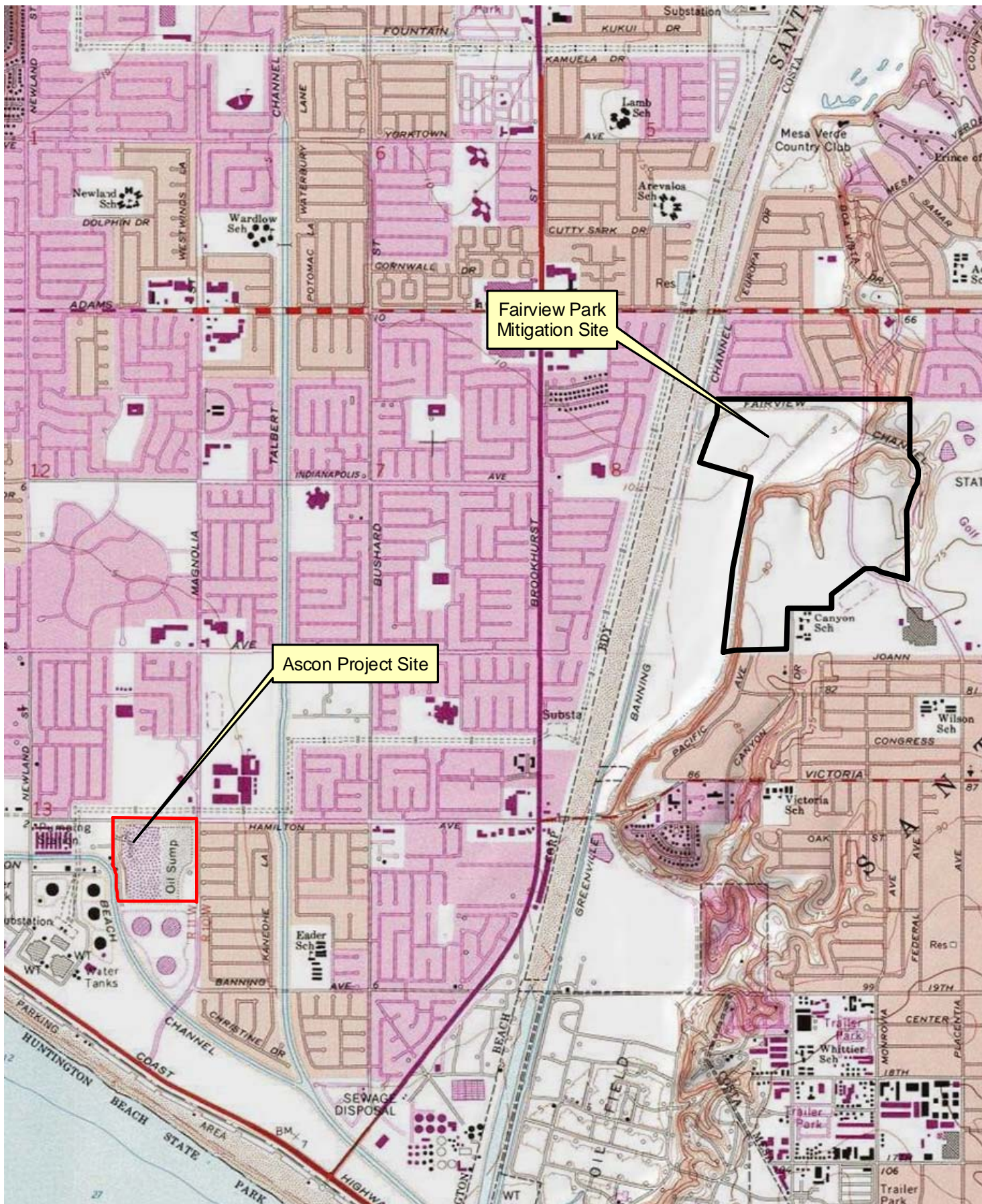
- Site preparation;
- Collection from Lagoons 1 and 2 tarry materials;
- Removal of materials from Lagoon 3 to ensure the stability of the existing berm between Lagoons 2 and 3;
- Excavation of tarry materials;
- Loading, transportation, and disposal of tarry materials; and
- Removal of the existing berm between Lagoons 1 and 2.

### 1.2.2 Fairview Park Mitigation Site

As outlined in the revised 2008 Fairview Park Master Plan (Kehr et al. 2008), Fairview Park is approximately 208 acres and is a master planned park that includes a dynamic array of passive uses focused around archaeological and biological resources. Facilities are provided for individual and small group activities focused on walking, biking, picnicking, quiet contemplation, interpretation of the archaeological and biological resources, and hobbies (e.g., kite flying, model glider airplane flying, and riding the model railroad). The development of passive uses within the park was driven by the need to protect the unique archaeological and biological resources within the park. As such, much of the park is planned to be restored to native habitat including grassland, coastal bluff scrub, coastal strand, vernal pools, alluvial scrub, and a riparian zone along the existing Placentia Drain. In addition, areas of the park have already been utilized as off-site mitigation for third parties seeking compensation for impacts to biological resources in other areas of Orange County (e.g., Dana Point Headlands Restoration Project). The restoration of habitat will not only improve conditions for the birds and small mammals, which have occupied the park in the past, but will provide rich opportunities for passive human use. These natural areas are to be reached by defined pedestrian and bike trails which will provide recreation, interpretive opportunities, and rest areas for enjoyment of the setting and the expansive views.









## 2.0 EXISTING CONDITIONS

### 2.1 Ascon Project Site

Because of historical uses of the Ascon project site as a waste disposal facility, most of the Ascon project site's surficial soils are fill materials and do not generally support native plant communities. The majority of the Ascon project site is dominated by ornamental (approximately 6.3 acres) and ruderal (i.e., weedy) vegetation (approximately 12.7 acres). Two native plant communities occur within the Ascon project site, ruderal/baccharis scrub (approximately 0.8 acre) and disturbed coastal salt marsh (approximately 0.2 acre). An additional approximate 9.2 acres of oil disposal ponds ("lagoons") and 7.3 acres of disturbed areas were also mapped within the Ascon project site. The Ascon project site does not support "waters of the U.S."/"waters of the State" as regulated under the jurisdiction of the United States Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), and Regional Water Quality Control Board (RWQCB).

Prior to implementation of the IRM Project, approximately 660,476 individuals of southern tarplant were growing within the Ascon project site (**Figure 3, Ascon Southern Tarplant Locations**). Under natural conditions, this shrubby annual with bright yellow flowers is typically observed in alkaline floodplains, coastal salt marsh margins, and vernal mesic grasslands, often in very dense stands. Southern tarplant is a sensitive plant species and is listed as a California Rare Plant Rank [CRPR, formerly California Native Plant Society (CNPS) List] 1B.1 species ["seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)"]. No other plant or wildlife species of concern were documented as occurring within the Ascon project site.

Because southern tarplant occurs on-site, under the City of Huntington Beach's General Plan Coastal Element (LUP-LCP) definition of an "Environmentally Sensitive Habitat Area" (ESHA) (which is consistent with the Coastal Act §30107.5<sup>2</sup>), the southern tarplant may meet the definition of an ESHA.

### 2.2 Fairview Park Mitigation Site

A constraints and opportunities study completed by LSA (2007) identified 18 plant communities or areas within Fairview Park, including southern coastal bluff scrub, purple sage scrub, buckwheat scrub, coyote brush scrub, mixed scrub, floodplain sage scrub, chenopod scrub, annual grasslands, ruderal, vernal pools, vernal marsh, willow riparian scrub, mule fat scrub, walnut scrub, developed, giant reed, ornamental, and disturbed or barren.

Several sensitive plant and wildlife species were also documented as occurring within Fairview Park, most notably southern tarplant, small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), Southern California black walnut (*Juglans californica* var. *californica*), chaparral sand-verbena (*Abronia villosa* var. *aurita*), prostrate navarretia (*Navarretia prostrata*), vernal barley (*Hordeum intercedens*), burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), and yellow-breasted chat (*Icteria virens*).

<sup>2</sup> Coastal Act §30107.5 defines ESHA as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities or development."

The southern tarplant was observed in ruderal, disturbed areas, such as disced areas and along the edges of dirt roads and trails, within Fairview Park. Approximately 50 plants were mapped in 2005 (**Figure 4, Fairview Park Southern Tarplant Locations**); however, those southern tarplant which were previously mapped have since been removed with implementation of the City of Costa Mesa's Fairview Park Master Plan.

### 3.0 IMPACTS

Of the approximately 660,476 southern tarplant individuals that were counted within the Ascon project site prior to implementation of the IRM, approximately 153,180 southern tarplant individuals within approximately 1.9 acres were removed as a result of Ascon IRM activities (**Figure 5, Impacts to Ascon Southern Tarplant**).

### 4.0 MITIGATION

#### 4.1 Goals of Mitigation

The ultimate goal of the southern tarplant mitigation effort is to replace, on a plant for plant basis, as opposed to area for area basis, the number of southern tarplants impacted by the IRM. Impacts to southern tarplant on the Ascon project site shall therefore be mitigated by growing at least 153,180 new southern tarplants within Fairview Park, an alternate location or a combination of the two, as necessary. The mitigation process and result shall be approved by a qualified Biologist/Restoration Specialist and the lead agency. Each mitigation area would be conserved through a conservation easement, deed restriction, or similar legal instrument. In addition, the mitigation site is to be managed long-term by a management entity approved and/or recommended by the appropriate reviewing agency (i.e., California Department of Fish and Game). Specific goals of this STMP include:

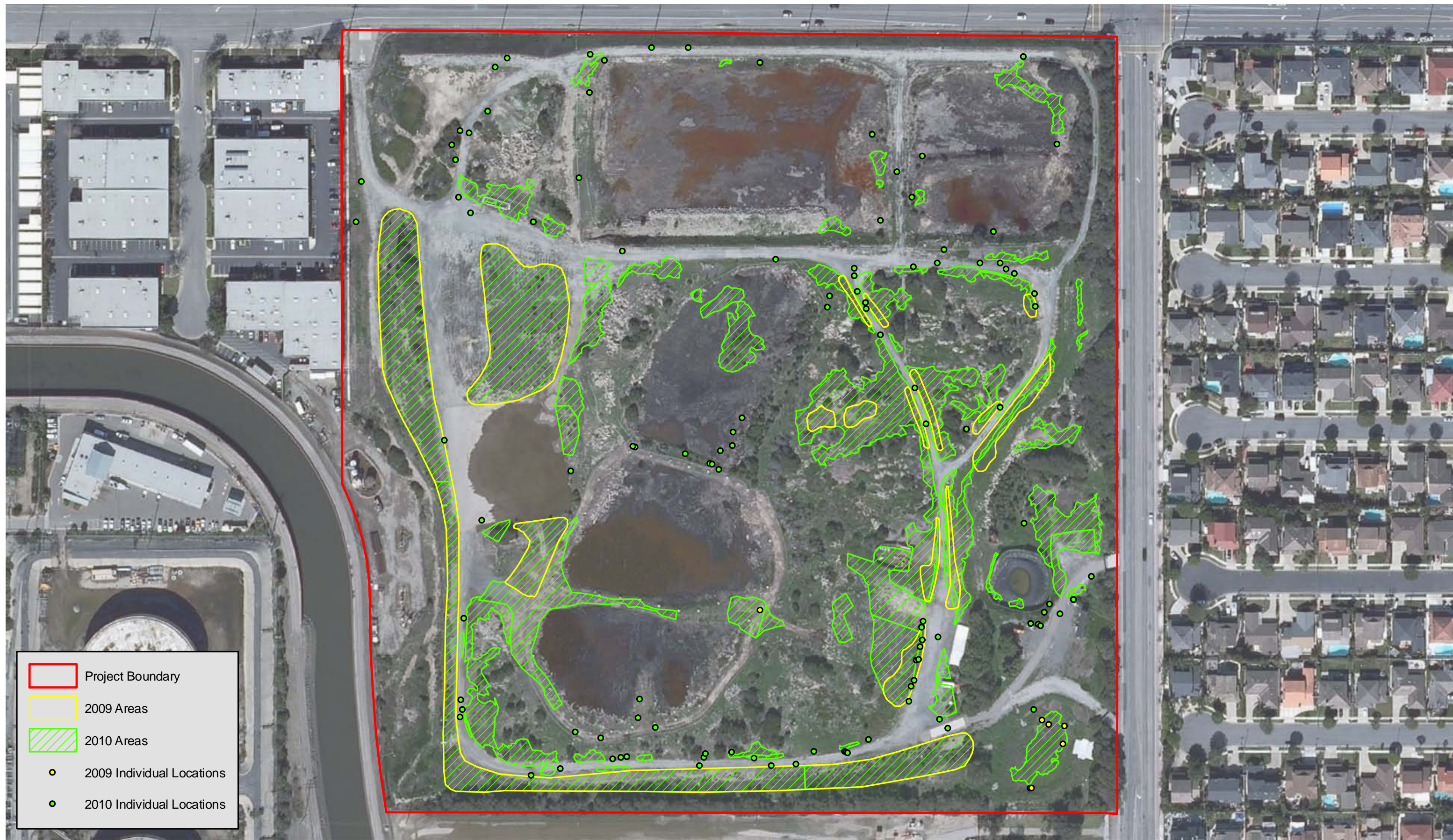
- Preserve a species considered seriously endangered in California by the CNPS (CRPR 1B.1); and
- Provide mitigation areas that shall be self-sustaining to the degree reasonably practical and contribute to regional biodiversity.

#### 4.2 Proposed Mitigation

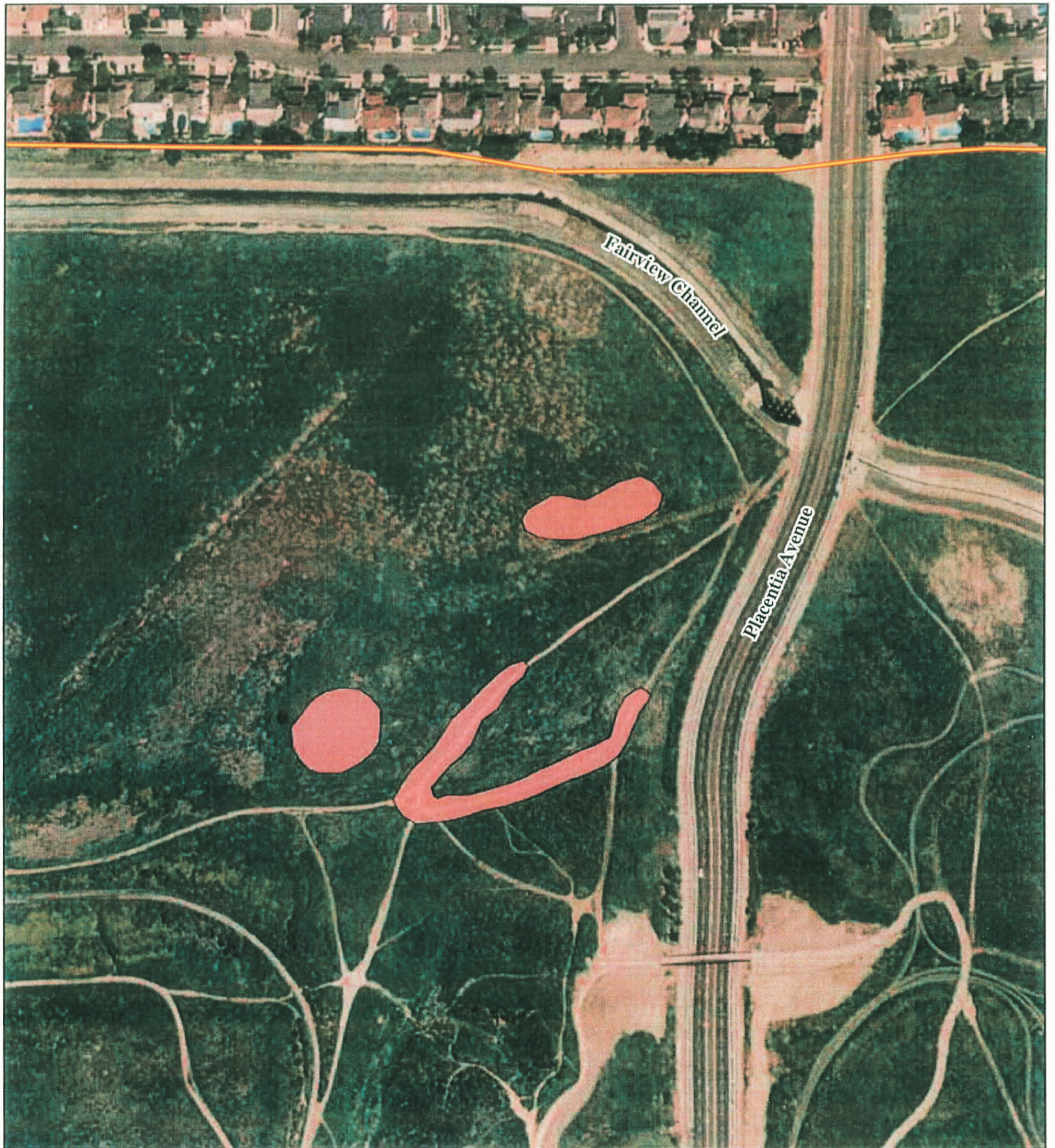
##### 4.2.1 Mitigation Areas

The implementation of mitigation for 153,180 southern tarplants will be initiated within Mitigation Areas 1 and 2 in Fairview Park, as shown in **Figure 6, Southern Tarplant Mitigation Areas (Fairview Park)**. Mitigation Areas 1 and 2, which are currently available for use, encompasses approximately 0.8 acre, is located near Fairview Park's northern boundary between the pedestrian trail and Fairview Channel. In addition, Mitigation Area 3 (1.7 acres) and/or additional mitigation area(s) potentially within Fairview Park or other off-site location determined suitable by a qualified Biologist/Restoration Specialist, may also be used as an additional mitigation area for the IRM impacted southern tarplant, if needed. PCR recommends that the mitigation site for southern tarplant planting be equivalent or greater in acreage than the area of existing southern tarplant which was impacted on the Ascon project site. However, if a southern tarplant population of at least 153,180 individuals is accomplished on an acreage of less than 1.9 acres, a qualified Biologist/Restoration Specialist will determine if the acreage will adequately provide long-term, sustainable









-  Project Boundary
-  Southern Tarplant (*Centromadia parryi* ssp. *australis*)











conditions for the southern tarplant. Additional mitigation area(s), potentially within Fairview Park or other off-site location determine suitable by a qualified Biologist/Restoration Specialist, that may be suitable for supporting southern tarplant may be available as additional mitigation area for the IRM impacted southern tarplant, if needed. Should it be determined that the current mitigation areas in Fairview Park do not support enough area to satisfy the 1:1 ratio of southern tarplants impacted during the IRM, alternate locations will need to be identified (i.e., other area(s) within Fairview Park or as otherwise determined appropriate) subject to the approval of a qualified Biologist/Restoration Specialist and the lead agency and documented in an STMP addendum letter.

#### **4.2.2 Mitigation Area Selection**

The mitigation areas were selected through coordination with the City of Costa Mesa and the third-party land stewards, Orange Coast River Park. The mitigation site was chosen due to Fairview Park's location in proximity to the Ascon project site's southern tarplant population; the known occurrences of southern tarplant within Fairview Park and the vicinity (CDFG 2011; LSA 2007); Fairview Park's contiguity with existing habitat conservation areas (e.g., Talbert Nature Preserve) and existing restoration lands within the Park (e.g., Dana Point Headlands Restoration Project, USACE Wetlands and Riparian Habitat Restoration Project); and the goals and objectives of the City of Costa Mesa to continue to implement the Wetlands and Riparian Habitat Restoration Project over an additional 23 acres within Fairview Park.

#### **4.2.3 Present and Proposed Uses of Adjacent Areas**

As presently configured, the mitigation areas will be immediately adjacent to existing and proposed wetland and habitat restoration areas that support passive use trails. Currently, the northwestern portion of Fairview Park supports the 11-acre Dana Point Headlands Restoration project. As mitigation for development of the Headlands in Dana Point, this off-site area was used to restore coastal sage scrub habitat in 2006. In 2008, the City of Costa Mesa partnered with the USACE who funded Phase I of the City of Costa Mesa's Wetland and Riparian Habitat Restoration Project. This project included restoration of 17 acres of wetlands and riparian habitat in the northern portions of the Park. Once complete, the Wetland and Riparian Restoration Project will total 40 acres and also include a water delivery system that will treat urban run-off from the Greenville-Banning Channel and supply water to the Park's wetland and riparian habitat restoration areas.

In addition to the restoration areas, Fairview and Greenville-Banning Channels/Santa Ana River are also located along the northern and western boundaries of the Park, respectively. Other areas, further to the south, include the Upper Mesa of Fairview Park, which includes vernal pool protection along with other passive use areas, and Talbert Nature Preserve, which is located to the southwest of Fairview Park and supports several native habitats and sensitive species. Urban uses within the vicinity include residential homes north of the Fairview Channel and Placentia Avenue and the Costa Mesa Golf Course. These areas, including the City of Costa Mesa's plan to complete Phases II and III of the Wetland and Riparian Habitat Restoration Project, comprise the existing and planned uses adjacent to the mitigation areas.

#### **4.2.4 Expected Functional Gains**

Impacts to southern tarplant on the Ascon project site resulted in the loss of a sensitive plant species and some limited associated habitat functions. However, because the Ascon project site served as a waste disposal facility, and southern tarplant on the Ascon project site was found within areas exhibiting varying degrees of disturbance, the habitat in which this sensitive plant species occurred was marginal in quality.

Currently, Fairview Park is heavily dominated by non-native invasive species, which provides limited use by native wildlife species. Non-native invasive plant species utilize water and space that would otherwise be taken up by native plant species and habitats which have the potential to support native wildlife.

The proposed southern tarplant mitigation will compensate for impacts to southern tarplant on the Ascon project site associated with the IRM by replacing these plants at a 1:1, impacted, individual plant to mitigated, individual plant ratio. This mitigation measure will also preserve this sensitive plant species which was not previously protected on the Ascon project site. The protection of southern tarplant is ecologically significant in light of the rapidly urbanizing environment in coastal southern California and the sensitivity status of this species.

Additionally, the limited habitat functions which southern tarplant provided on the Ascon project site would be replaced and enhanced at the Fairview Park mitigation site, as the proposed mitigation will establish a native vegetation community within areas otherwise devoid of native vegetation and dominated by non-native invasive species. .

#### **4.2.5 Rationale for Success**

The mitigation areas are expected to succeed due to Fairview Park's location in proximity to the Ascon project site's southern tarplant population; the known occurrences of southern tarplant within Fairview Park (Figure 4) and the vicinity (CDFG 2011; LSA 2007); the presence of suitable soils (Soil & Plant Laboratory, Inc. 2010, 2011); and Fairview Park's location in proximity to existing habitat conservation areas and within an area that focuses on the restoration and preservation of native biological resources. The water delivery system from the Greenville-Banning Channel supporting the Dana Point Headlands and the USACE restoration areas is also anticipated to be a water source for the mitigation areas to provide sufficient long-term hydrology to allow the southern tarplant to establish and become self-sustaining.

### **4.3 Time Lapse Between Impacts and Establishment of Mitigation**

Implementation of the mitigation measures will be initiated within two years of impacts to southern tarplant associated with implementation of the Ascon IRM. It is anticipated that the mitigation will be complete within three years following mitigation implementation.

### **4.4 Ownership and Responsibilities**

The Ascon Responsible Parties will be responsible for the implementation and initial monitoring of all mitigation areas until the success criteria stipulated in this report is achieved. The Responsible Parties can be contacted at the address below.

Project Navigator, LTD.  
Attn: Tamara Zeier, P.E.  
1 Pointe Drive, Suite 320  
Brea, CA 92821  
Telephone: (714) 863-0017



The Department of Toxic Substances Control, as the lead agency, will be responsible for ensuring that the Responsible Parties fully mitigate impacts to the southern tarplant in accordance with this Plan [i.e., the STMP]. The Department of Toxic Substances Control can be contacted at the address below.

Department of Toxic Substances Control  
Southern California Clean-Up Operations Branch  
Attn: Safouh Sayed  
5796 Corporate Avenue  
Cypress, California 90630  
Telephone: (714) 484-5478

## **4.5 Long-Term Protection and Management**

The success and implementation of the mitigation measures for impacts to the southern tarplant identified in the Final MND for the IRM Project will be the responsibility of the Ascon Responsible Parties, and mitigation will not be deemed “successful” until a conservation easement, deed restriction, or comparable legal instrument is recorded and a long-term management entity has been identified. The Ascon Responsible Parties shall also be responsible for providing the conservation area with the appropriate contractual arrangements to ensure the mitigation area is managed and preserved. Long-term management of the mitigation areas will be provided for by Orange Coast River Park, or similar management entity approved and/or recommended by the appropriate reviewing agency (i.e., California Department of Fish and Game).

## **5.0 IMPLEMENTATION**

### **5.1 Biological Supervision**

A Monitoring Biologist/Restoration Specialist shall be hired by the Ascon Responsible Parties to coordinate implementation of this STMP. This Monitoring Biologist/Restoration Specialist shall serve as a liaison between the property owner, installation and maintenance personnel, the land stewards (Orange Coast River Park), and the CDFG, if necessary. It will be the responsibility of the Monitoring Biologist/Restoration Specialist to ensure that the STMP is implemented in a manner that is consistent with the requirements of the MMRP and that will maximize the likelihood of success of the mitigation. The Monitoring Biologist/Restoration Specialist will be empowered to make minor modifications (i.e., remedial actions) to the implementation of the STMP based on field conditions and unforeseen circumstances. All deviations from this plan shall be reported to the Ascon Responsible Parties and the DTSC.

### **5.2 Schedule**

The following schedule applies only to Mitigation Areas 1 and 2 within the Fairview Park mitigation site. If other mitigation sites are identified within Fairview Park or alternate locations, the below listed schedule will need to be confirmed or updated, as necessary, by the Monitoring Biologist/Restoration Specialist in an STMP addendum letter or through communications to the DTSC Project Manager.

- Preparation of the Fairview Park mitigation areas shall include removal of non-native invasive species, and soil amendments and preparation, if determined necessary by the qualified Biologist/Restoration Specialist.

- Erosion control measures and irrigation systems shall be installed prior to seeding if possible. Otherwise temporary irrigation will be supplied to seeded areas as needed, and per recommendation from the qualified Biologist/Restoration Specialist.
- Grow/kill applications of an EPA-approved glyphosate herbicide (e.g., Aquamaster, Rodeo®, or Roundup Pro®) shall be implemented to remove weed species, as needed and per recommendation from the qualified Biologist/Restoration Specialist. Grow/kill cycles shall be implemented following the initial removal of non-native invasive species, but prior to seeding.
- Following completion of the grow/kill cycles and irrigation installation, seeding shall be completed.
- The mitigation areas shall be temporarily irrigated as determined appropriate by the Monitoring Biologist/Restoration Specialist. Once irrigation is shut off, the planted areas will be self-sustaining (i.e., not irrigated) for a minimum of two years prior to release from oversight by the lead agency.
- A Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity, who will be hired by the Ascon Responsible Parties, shall maintain the mitigation area until the performance standards are achieved (estimated to be three years).
- The temporary irrigation system shall be removed by the Landscape Contractor once the performance standards have been achieved (estimated to be three years), or as determined appropriate by the Monitoring Biologist/Restoration Specialist. Quarterly monitoring for the first and second years and semi-annual monitoring thereafter (until achievement of the mitigation performance standards) shall be conducted, and annual reports shall be prepared by the Monitoring Biologist, Restoration Specialist, or other appropriate entity until achievement of the mitigation performance standards.

### 5.3 Seed Collection

Prior to implementation of the Ascon IRM, seed from the southern tarplant was collected from the Ascon project site by qualified PCR biologists/restoration specialists in 2009 and 2010, and again by Chambers Group biologists in 2011. Collected southern tarplant seed collected by PCR was sent to Rancho Santa Ana Botanic Gardens for processing and storage. Because the Ascon project site served as a waste disposal facility and soils may be contaminated, no duff was collected.

### 5.4 Preparation of Mitigation Areas

The following discussion applies only to Mitigation Areas 1 and 2 within the Fairview Park mitigation site. If other mitigation sites are identified within Fairview Park or alternate locations, the below listed preparation activities will need to be confirmed or updated, as necessary, by the Monitoring Biologist/Restoration Specialist in an STMP addendum letter or through communications to the DTSC Project Manager.

#### 5.4.1 Non-Native Invasive Species Removal

Preparation of the mitigation areas will entail the removal of all non-native invasive species. The following preparation activities shall be required:

- All non-native vegetation shall be removed by hand or via herbicide application, as recommended by the Monitoring Biologist/Restoration Specialist. Mechanical removal of large areas of weeds may be possible, at the discretion of the Monitoring Biologist/Restoration Specialist.

- If necessary, fine grading and soil decompaction of the site shall follow initial removal of the non-native invasive species at the discretion of the Monitoring Biologist/Restoration Specialist.

#### **5.4.2 Soil Preparation/Erosion Control**

Soil preparation and soil amendments shall be conducted by the Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity under the direction of the Monitoring Biologist/Restoration Specialist to ensure the soils within the mitigation areas are suitable for southern tarplant. Soil amendments, if needed, may include, but are not limited to, the addition of mycorrhizal inoculum, a nitrogen-stabilized mulch and mulch binder, gypsum, sand, and/or wood ash, which is an organic amendment that is high in both pH and salt.

Given the current and the anticipated topography on-site (for Mitigation Areas 1 and 2 only), no erosion control measures are anticipated; however, if erosion control measures are deemed necessary by the Monitoring Biologist/Restoration Specialist, they shall be implemented according to the following specifications:

- In the case of heavy rainfall conditions, non-vegetative erosion control measures (e.g., certified weed-free rice straw wattles) may need to be installed within the mitigation areas.
- Erosion control measures shall be installed following the completion of fine grading and before the installation of the seed.
- The Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity shall be responsible for all erosion control during implementation of the mitigation measure. Erosion control measures may include, but not be limited to: (1) continuation of non-vegetative erosion control, as necessary; and (2) repair of damaged plants, rutting, and washouts.
- The Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity shall work toward the success of the restored plant community; therefore, it is to the RPs' advantage to use as many erosion control measures as necessary to prevent erosion damage. This will include repair of any significant erosion within the mitigation areas. All straw wattles shall be installed along slope contours in accordance with the manufacturer's specifications.

#### **5.4.3 Temporary Irrigation**

The mitigation areas will require temporary irrigation to establish the young southern tarplants. The irrigation system shall be installed, in coordination with the City of Costa Mesa, to maximize infiltration and avoid runoff. The irrigated planting area should retain the water and should allow very little runoff. The temporary irrigation will supplement the annual rainfall during dry periods in the rainy season. After establishment, the system shall be programmed for the minimal irrigation sequence required for healthy plant growth of the planted material. All irrigation shall be removed after plants have established, and at least two years prior to completion of mitigation monitoring, as the planted areas need to be self-sustaining for a minimum of two years prior to release from oversight by the lead agency. Temporary irrigation shall be installed according to the following specifications:

- To expedite the growth of non-native vegetation during the grow/kill cycles, prevent loss of the plantings during periods of dry conditions, and help establish the newly installed southern tarplant seed, a temporary irrigation system (subject to approval by the Monitoring Biologist/Restoration

Specialist) shall be installed within the mitigation areas by the Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity.

- Established native vegetation does not require irrigation under normal conditions, so supplemental irrigation shall be applied sparingly and used primarily to establish the southern tarplant. A Landscape Contractor, Monitoring Biologist, Restoration Specialist, or other qualified entity shall be responsible for inspection, maintenance and appropriate adjustment of the irrigation system.

#### 5.4.4 Grow/Kill Program

Following installation of the irrigation system and as determined necessary by a qualified Biologist/Restoration Specialist, an appropriate number of grow/kill cycles shall be performed by the Landscape Contractor per the following recommendations. The qualified Biologist/Restoration Specialist will determine the frequency and schedule of grow/kill cycle(s) needed and the commencement and completion deadlines for grow/kill cycles throughout the year prior to seeding the southern tarplant. Grow/kill is a process of exhausting the non-native seed bank in the soil by promoting the growth of plants (through irrigation if rainfall is not sufficient) and then killing the unwanted seedlings with herbicide before they set seed. This method will serve to stimulate growth of non-native, invasive species from root or rhizome fragments that remain in the soil. Unless there is adequate natural rainfall (as determined by the Monitoring Biologist/Restoration Specialist), the Landscape Contractor shall begin a grow/kill cycle by irrigating the entire mitigation area. The mitigation areas shall be irrigated with sufficient water to initiate and promote vegetative growth. Once the vegetative growth generally reaches a height of approximately 3 inches, all vegetation within the mitigation areas shall be treated with herbicide. Any non-native plants that germinate within the mitigation area during this phase shall be treated before they produce flowers, set seed, or reach a height of 6 inches, whichever occurs first. Grow/kill cycles shall be conducted continuously prior to installation of the seed. The Monitoring Biologist/Restoration Specialist shall visit the areas periodically to determine when grow/kill events should occur and will notify the Landscape Contractor when/if irrigation or herbicide treatments are necessary. Although the Monitoring Biologist/Restoration Specialist will make recommendations regarding the timing of herbicide application and irrigation, throughout this period it shall be the responsibility of the Contractor to monitor the progress of the weeds on-site and to remove or spray weeds before they set seed.

#### 5.4.5 Seeding Technique

It is recommended that seeding is to occur prior to the rainy season (i.e., typically October/November) to avoid dispersal of seed or erosion of the seeded area. Planting shall occur within three years of seed collection, as the viability of the seed may decrease after two years.<sup>3</sup>

Prior to seeding and planting, if it is determined by the qualified Biologist/Restoration Specialist that soils are too compacted and that it is necessary to correct compacted surface soil conditions to assure that the plant seedlings can readily penetrate more than a few inches into the ground, soils will be decompacted and/or ripped. This shall be done using a small dozer or equivalent, or as otherwise recommended by the qualified Biologist/Restoration Specialist.

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<sup>3</sup> Due to the processing and freezing methods used by Rancho Santa Ana Botanic Gardens, the viability of the southern tarplant seeds may last much longer than two years.

Seed shall be planted in one or more of the following ways:

- Seeds may be scarified and soaked prior to planting, as directed by the Monitoring Biologist/Restoration Specialist;
- Seeds shall be hand broadcast and raked, or mechanically broadcast to ensure the seed is properly tracked into the soil; and/or
- Drill seeding is preferable in areas where seed-to-soil contact is especially important, and where the soil should be minimally disturbed. Drill seeding is a technique recommended to maximize the efficiency of seed growth. Seed is deposited directly into the ground and weed competition is reduced. The Truax Flex II Grass Drill, pulled behind a tractor, is one model used for this work. The drill combines seed falling from seed boxes and discs, which open the ground, to seed areas covered by the drill. The recommended technique is to divide seed mix portion into two equal parts. Half of the seed is distributed across the entire area, moving in one direction. Then, moving perpendicular to the original direction, seed across the entire area with the other half of the seed. The drill seeder can be used on slopes up to 3:1. Drill seeding native seed in southern California is optimally done in October through January, the wet season, to make use of the natural precipitation.

Following seed application, good fusion with the soil will be ensured per techniques recommended by the Monitoring Biologist/Restoration Specialist, such as pressing the seeds into soil, one pass with a bulldozer or sheepsfoot roller made across the material, or as otherwise determined appropriate by the Monitoring Biologist/Restoration Specialist. Once the seeds are planted, the mitigation area shall be lightly watered afterward to promote seed germination.

## **6.0 MAINTENANCE AND MONITORING**

### **6.1 As-Built Report**

Following the completion of all grading, preparation, and seeding, an As-Built report will be submitted to the lead agency within 90 days. This report will include the following: photograph stations; sampling plot locations; and a description of the mitigation implementation which was completed, including the southern tarplant acreage and approximate number of seeds planted.

### **6.2 Inspections**

Pre-installation and post-installation inspections by the Monitoring Biologist/Restoration Specialist shall be done to ensure that all work is completed in compliance with these specifications. Inspections shall be requested at least 72 work hours prior to the time inspection is required. Inspection by the Monitoring Biologist/Restoration Specialist shall be required for each phase of work listed below. In addition, the Monitoring Biologist/Restoration Specialist shall inspect the mitigation area more frequently, if necessary, to ensure that the mitigation area is continuously in compliance with these specifications. Inspection shall be required for the following phases of work:

- During the removal of non-native invasive species prior to installation, fine grading and topsoil decompaction, if necessary. Following installation of erosion control, if necessary,
- Following installation of the irrigation system, if necessary,

- Throughout the grow/kill cycle process;
- During seeding; and
- During monitoring (i.e., quarterly throughout the first and second year following installation and semi-annually thereafter within the southern tarplant blooming period).

### 6.3 Maintenance

Maintenance after implementation and throughout the three years of monitoring will be essential to the success of the mitigation areas. Invasion of invasive, non-native weeds is one of the greatest threats to the success of the mitigation areas. Weed species quickly colonize open areas and out-compete native species. Once established, the competitive exclusion of light, water, and nutrients by weeds makes it difficult for native species to re-establish and grow. A weed eradication program shall be implemented to minimize the adverse effects of weed invasion.

It should be anticipated that frequent (e.g., monthly during spring, quarterly thereafter) weeding of the mitigation areas by a Landscape Contractor, Biologist, Restoration Specialist, or other entity shall be required for weed management in the first and second years, and quarterly thereafter, or as determined by the Monitoring Biologist/Restoration Specialist. Monitoring shall be effective for early identification of seedling weed species and to schedule control methods according to the phenology (i.e., life cycles as influenced by seasonal and climatic variations) of each weed species. Specified weeds must be controlled before they produce viable seed. Methods of control will depend on the species and the density of weeds. Hand removal is the preferred method for control of weed species. Limited use of selected herbicides is specified when no other effective alternative is available to remove and control certain invasive weed species. At the direction of the Monitoring Biologist/Restoration Specialist, a grass selective, post-emergent herbicide may be used to reduce non-native grasses where they are dense. All non-native plants and their associated flower-bearing thatch shall be disposed of at an appropriate location.

Additionally, during each maintenance visit, the mitigation areas shall be inspected for trash, vandalism, disease, and pest infestation that may threaten the long-term health of the mitigation areas. Trash shall be removed, vandalism shall be reported, and appropriate pest control techniques shall be employed as necessary and consistent with park usage. In addition, any signs of distress or mortality exhibited by the tarplants shall be noted and rectified if the cause is apparent.

### 6.4 Monitoring

A monitoring program is necessary to document performance of the mitigation areas relative to the performance standards and to identify any shortcomings or problems in the mitigation areas. Early detection of problems or other unforeseen issues allows for adaptive management and mid-course adjustments to the mitigation program that will maximize the likelihood of success.

Plant growth shall be monitored, as described below, for three years during the blooming season (May through November, or the appropriate time period) and counted in June, or the appropriate time period, to determine when the plants have met the required success criteria. Data collected shall utilize plot sampling per the methodology used to estimate cover for the existing tarplant locations on the Ascon project site (i.e., the tarplants within numerous samples of randomly selected 1 meter by 1 meter quadrats were counted, and

total populations were extrapolated based on total area from which the quadrats were counted). Monitoring shall begin at the end of the first major planting period and shall continue until either: (1) the mitigation areas have met the success criteria and the lead agency determines that monitoring is no longer required; or (2) alternative mitigation sites, strategies, or contingency measures are adopted (and approved by the lead agency). Monitoring shall be conducted on a quarterly basis during the first and second year and semi-annual monitoring thereafter within the southern tarplant blooming period (i.e., May to November) to inspect for signs of plant stress, disease, insect infestation, weeds and other problems. Any necessary maintenance or adaptive management measures shall be determined during each monitoring visit, and the Monitoring Biologist/Restoration Specialist shall notify the Ascon Responsible Parties and lead agency and work with the Landscape Contractor to rectify identified problems. Required maintenance or adaptive management measures shall be initiated within two weeks, if possible, or as directed by the Biologist/Restoration Specialist, of identification of any damage or needs.

The percentage of non-native species shall be estimated within the mitigation area to ensure non-native weedy species are kept to a minimum. This data shall be used to assess the success of the mitigation areas and to identify any necessary remedial actions.

Site photographs shall be taken during scheduled monitoring visits. There shall be sufficient photographs to clearly show the progress of the southern tarplant establishment.

## 6.5 Monitoring Reports

Annual Monitoring Reports summarizing monitoring results shall be submitted to the lead agency beginning one year after completion of installation of the mitigation and continuing throughout the monitoring period. Monitoring reports shall discuss maintenance activities performed; the results of the monitoring; an assessment of the progress made towards achievement of the success criteria; and recommendations of any remedial actions or adaptive management measures that may be necessary. Reports shall also include photographs of the mitigation areas.

The Annual Monitoring Reports shall be submitted to the lead agency by November 30 of each year and will include the following:

- A summary of the quarterly site inspections for the first and second year, and a summary of the semi-annual site inspections for each year thereafter;
- A description of the existing condition of the mitigation areas, including descriptions of vegetation composition, weed species, and any erosion problems;
- A description of the maintenance activities (including revegetation and weed removal) and when they were conducted;
- A summary of the qualitative assessment and the quantitative data collected;
- Photo documentation; and
- A discussion of any problems encountered and any remedial measures taken (e.g., weed control) that were implemented to correct problems or deficiencies.

## 7.0 PERFORMANCE STANDARDS

The goal of the STMP is for the mitigation population of southern tarplant to be self-perpetuating, i.e., no outside input is required for recruitment and propagation of the mitigation population. Progress toward achieving the success criteria shall be the basis for recommendations for remedial actions and adaptive management. The success criteria shall be used as the basis for certification of mitigation success and/or the need for contingency measures. Mitigation monitoring shall continue until either: (1) the mitigation areas have met the success criteria; or (2) alternative mitigation sites, strategies, or contingency measures are adopted (and approved by the lead agency).

### 7.1 Success Criteria

The mitigation will be deemed successful when the following general standards are met:

- A total of 153,180 new southern tarplant individuals are established. Because densities may vary, the number of individual plants shall be determined by plot sampling as described in Section 6.4 above. It should be noted that variability in population densities may occur from year to year due to a variety of factors (e.g., amount of rainfall, temperature, weather, etc.).
- The non-native vegetation does not present a threat to the sustainability of the southern tarplants, as determined by the Biologist/Restoration Specialist.
- The mitigation area(s) is self-sustaining. Self-sustaining is defined as the site requiring no irrigation or supplemental planting for two consecutive years and the site resisting invasion by non-native species with no significant weeding being necessary for two consecutive years.

### 7.2 Remedial Actions and Contingency Measures

An integral part of a successful mitigation program is the ability to detect problems with the mitigation program early in the process, determine the cause of the problem, and accommodate emerging issues or situations. Minor problems, such as trash, vandalism, isolated instances of plant mortality, and/or small-scale weed or pest infestations shall be rectified by contacting the Landscape Contractor, Biologist, Restoration Specialist, or other entity as they are discovered during routine site monitoring.

Adaptive management measures shall be triggered if there are large-scale instances of mortality, weed infestation, or disease; if the mitigation areas are not making progress toward attainment of the success criteria after the end of the second year or at some time during the three- year monitoring program; or if the success criteria have not been met at the end of three years. Based on consultation with the lead agency, and a response within a reasonable amount of time, the Monitoring Biologist/Restoration Specialist shall recommend appropriate contingency measures. The Ascon Responsible Parties are ultimately responsible to ensure the recommended mitigation measures are implemented appropriately by the Landscape Contractor as recommended by the Monitoring Biologist/Restoration Specialist, or other appropriate entity.

These measures may include, but are not limited to, supplemental planting of additional seed collected from local seed stock; collecting the plant material (duff) when the plants go to seed and spreading the duff out through the mitigation area(s), then lightly raking in; and/or southern tarplants may be grown from the local seed stock and transplanted, if recommended by the Biologist/Restoration Specialist. If the mitigation area cannot be remediated, alternate mitigation sites may be located and replacement plans shall be generated as necessary to meet the mitigation requirements [e.g., alternate locations may include other area(s) within



Fairview Park or off-site (i.e., not within the Ascon project site or the Fairview Park mitigation site) subject to the approval of a qualified Biologist/Restoration Specialist and the lead agency and documented in an STMP addendum letter]. Alternatively, if mitigation within the Fairview Park mitigation site or alternate approved off-site location is deemed inappropriate or infeasible, mitigation may be accomplished through the off-site purchase and preservation (with the possibility of restoration) of land supporting southern tarplant, subject to the approval of the lead agency. If remedial actions or contingency measures are necessary, the monitoring period may be extended for an appropriate length of time to ensure mitigation success. All remedial actions, contingency measures, or modifications to the mitigation program shall be subject to the approval by the lead agency.

### 7.3 Certification of Success

When the mitigation areas have achieved the success criteria stipulated in this document and a long-term management entity has been identified, success of the mitigation area shall be considered complete, and the lead agency shall be notified in writing. The notification shall be accompanied by the most recent annual monitoring report and any supplemental information necessary to document attainment of the success criteria. The lead agency shall then provide a letter to the Ascon Responsible Parties indicating that the mitigation measures for impacts to the southern tarplant identified in the Final MND for the IRM project have been fully implemented and no further effort is necessary in this capacity.

## 8.0 REFERENCES

- California Department of Fish and Game (CDFG). 2011. Natural Diversity Database. RareFind. Version 3.1.0. Biogeographic Data Branch.
- California Native Plant Society (CNPS). 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, California. 388pp.
- California Department of Fish and Game. September 2003. The Vegetation Classification and Mapping Program. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. Wildlife and Habitat Analysis Branch.
- Hickman, J. C. 1993. The Jepson Manual: Higher Plants of California. Berkeley: University of California Press.
- Kehr, Katzmaier Newell, et al. 2008. City of Costa Mesa Fairview Park Master Plan. Prepared for City of Costa Mesa. March 1998, Revised February 2001 and November 2002, Updated November 2008.
- LSA Associates (LSA). 2007. Ascon Landfill Interim Removal Measure Project Mitigation Monitoring and Reporting Program, City of Huntington Beach, Orange County, California. Prepared for Department of Toxic Substances Control.
- DTSC/PCR Services Corporation. 2009. IRM MND and MMRP

PCR Services Corporation (PCR). 2010. Update to the Biological Constraints and Information for the Fairview Park Master Plan, City of Costa Mesa, County of Orange, California. Prepared for City of Costa Mesa.

Soil & Plant Laboratory, Inc. September 22, 2010. ASCON.

Soil & Plant Laboratory, Inc. December 30, 2011. ASCON – Fairview Park.

May 5, 2016 – Item 8

RESOLUTION 2016 – 10

RESOLUTION OF THE LOS CERRITOS WETLANDS AUTHORITY  
AUTHORIZES THE EXECUTIVE OFFICER TO COMMIT STAFF  
RESOURCES ON NEGOTIATIONS WITH ASCON TO DEVELOP A  
MEMORANDUM OF AGREEMENT TO ACCEPT FUNDS FOR THE  
ZEDLER MARSH RESTORATION TO PROVIDE SOUTHERN  
TARPLANT MITIGATION FOR THEIR REMEDIATION PROJECT OF  
THE ASCON LANDFILL SITE (LCWA16006).

WHEREAS, the Los Cerritos Wetlands Authority has been established between the Coastal Conservancy, the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, the City of Seal Beach and the City of Long Beach to facilitate the acquisition, protection, conservation, restoration, maintenance and operation an environmental enhancement of the Los Cerritos Wetlands; and

WHEREAS, the LCWA has further been established to focus on projects which will provide open space, habitat restoration, and watershed improvement projects within the Los Cerritos Wetlands; and

WHEREAS, this action will authorize the Executive Officer to commit staff resources on negotiations with Ascon to develop a Memorandum of Agreement to accept funds for the Zedler Marsh Restoration to provide southern tarplant mitigation for their remediation project of the Ascon Landfill Site (LCWA16006); and

WHEREAS, the proposed action is exempt from the provisions of the California Environmental Quality Act; NOW

*Therefore be it resolved that* the LCWA hereby:

1. FINDS that the actions contemplated by this resolution are exempt from the environmental impact report requirements of the California Environmental Quality Act.
2. FINDS that this action is consistent with the purposes and objectives of the LCWA.
3. Authorizes the Executive Officer to commit staff resources on negotiations with Ascon to develop a Memorandum of Agreement to accept funds for the Zedler Marsh Restoration to provide southern tarplant mitigation for their remediation project of the Ascon Landfill Site (LCWA16006).
4. ADOPTS the staff report dated May 5, 2016.

~ End of Resolution ~

Passed and Adopted by the Board of the LOS CERRITOS WETLANDS AUTHORITY ON May 5, 2016.

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Sam Schuchat, Chair

ATTEST:

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Terry Fujimoto  
Deputy Attorney General