

**JURISDICTIONAL WETLAND  
DELINEATION REPORT  
FOR WESTERN SALT POND 20  
IMPERIAL BEACH, CALIFORNIA**

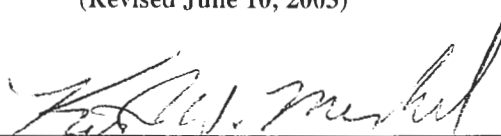
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**March 20, 2000**  
**(Revised June 10, 2003)**



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**JURISDICTIONAL WETLAND DELINEATION  
FOR POND 20  
IMPERIAL BEACH, CALIFORNIA**

*Merkel & Associates, Inc.*  
March 20, 2000 (Revised June 10, 2003)

**SUMMARY**

Merkel & Associates, Inc. has completed a revised a jurisdictional determination and wetland delineation of the Western Salt Pond 20 study area at the south end of San Diego Bay. The site lies south of the Otay River channel, north of Palm Avenue, and east of 13<sup>th</sup> Street in Imperial Beach. The Pond 20 site is confined by a dike that includes three smaller pond cells (herein termed Ponds 20A, 20B, and 20C). Western Salt Company and its predecessors formerly utilized the area for commercial salt harvesting. Over the past century, various internal berms have been constructed, repaired, and removed by operational changes and flooding. These changes have resulted in changing topographic conditions that make a continued discussion of the three pond cells worthwhile in the context of jurisdiction under federal and state wetland regulatory programs.

Initial fieldwork at the Pond 20 site was performed on March 2 and March 3, 2000. At the request of the San Diego Unified Port District (Port), additional wetland delineation surveys were completed on April 28 and May 27, 2003. Wetland delineations were conducted in accordance with the 1987 U.S. Army Corps of Engineers' (Corps) Wetland Delineation Manual (Environmental Laboratory 1987). Additional jurisdictional non-wetland waters were mapped using physical evidence of normal high water conditions.

No wetland habitat was located within Pond 20. However, 21.4 acres of jurisdictional non-wetland waters of the U.S. were found on-site. Most of this latter area is situated within the southerly and westerly portions of Pond 20A. These waters are principally the result of long-term storm water ponding due to low permeability soils and high groundwater tables that limit drainage from the abandoned salt evaporator pond. While the ponds receive water from direct rainfall, they also receive some amount of street run-off from a portion of the urbanized Palm Avenue areas of Imperial Beach.

The western portion of Pond 20A may have historically supported salt marsh habitat in the 1800s, prior to its conversion near the turn of the last century for salt production. Historic aerial photographs of the area in the 1940s show some vestigial salt marsh south of Pond 20A immediately south of Palm Avenue in areas that have since been filled. The eastern portion of Pond 20A, immediately north of an off-site mobile home park, includes an area that retains long-ago isolated braided stream patterns associated with the historic mouth of Nestor Creek. These are not considered jurisdictional due to the historic diversion of Nestor Creek to the north and the lack of any recent evidence of ponding in these elevated locations.

Pond 20B encompasses portions of a sandy outflow alluvial fan presumably laid down during the 1916 flooding by the Otay River. This portion of the pond is somewhat higher than the elevations within Pond 20A. Pond 20B is still surrounded by linear bands of standing water at the inner base of the dike. These low areas are excavated channels from which dike fill material was taken to reconstruct the dikes after the 1916 floods. Pond 20B has ceased to be used for salt pond operations since at least 1944. All subsequent photographs show no evidence of submersion over the broad interior area. This location is presently cloaked in a poorly developed, limited diversity Diegan Coastal Sage Scrub. However, due to a high rodent population, raptor use is substantial and diverse.

A third relatively small area located to the extreme northeast portion of the study area, Pond 20C, has been separated from Pond 20B by berms for most of the last century. Like Pond 20B, this area is defined by a limited amount of non-wetland waters located at the base of constructed dikes.

## INTRODUCTION

### PURPOSE

In March 2000, Merkel & Associates, Inc. (M&A) performed a jurisdictional determination and wetland delineation for the Western Salt Pond 20 site, at the request of Ninyo & Moore working under contract to the San Diego Unified Port District (Port). The Pond 20 study area encompasses approximately 111.7 acres of land. The purpose of this investigation was to determine the extent of jurisdictional waters of the U.S. including wetlands and non-wetland waters regulated under section 404 of the Clean Water Act. A prior delineation found that Pond 20 was not jurisdictional pursuant to section 10 of the Rivers and Harbors Act (RHA) and section 404 of the Clean Water Act (CWA) (Dudek 1997). The Army Corps of Engineers (Corps) reviewed this determination and concurred with the determination that Pond 20 is not within Corps section 10 RHA jurisdiction, but disagreed with the conclusions that the site lacked section 404 CWA jurisdiction (Corps of Engineers, LA District, Durham, February 22, 2000 letter to Eileen Maher). The Corps cited physical evidence of flooding and ponding, occurrence of hydrophytic vegetation, and use by migratory waterfowl as reasons for believing that portions of the site may be defined as waters of the U.S. pursuant to 33 CFR 328.1. The 2000 wetland delineation was completed to comply with the Corps request for an updated delineation for the site.

In April and May 2003, M&A completed an update of the previous 2000 wetland delineation at the request of the Port. The purpose of this update was to determine if additional wetlands were located on-site following annual winter rains in 2003. An additional goal was to ensure that the wetland delineation met the requirements of the California Coastal Commission (CCC), and to determine whether any portions of the site could be considered Environmentally Sensitive Habitat Areas (ESHA). This document is designed to transmit the results of this new delineation and to provide a comparison of 2000 and 2003 survey results.

### SITE HISTORY

The Western Salt Company has maintained an ongoing salt evaporation and extraction operation that has been in almost continuous operation on San Diego Bay since the Civil War. The Western Salt operations on southernmost San Diego Bay extend at least back into the first decade of the 1900s when approximately 1000 tons of salt per year were being extracted from an area of the Bay that included Pond 20. The company was purchased by Graham Babcock, who expanded operations over the next few years until the plant produced approximately 5000 tons of salt per year by 1910. According to Mr. Gene Mullenix, the Operations Manager of South Bay Salt Works, the only significant disruption to the form of the system occurred in 1916, when Savage Dam broke releasing Lower Otay Lake down the Otay River. The flood washed away the community of Otay as well as destroying dikes through much of the salt works and depositing substantial sediment in various ponds. Restoration work was undertaken and operations were reestablished soon thereafter. Western Salt was purchased by the H. G. Fenton Company. Fenton continued to expand the salt harvesting facilities until about 1957.

The Salt Works presently include 36 evaporation ponds with varying states of water level and salinity. Generally there are four categories of ponds (primary, secondary, pickling, and crystalizers). Typically three feet of standing water occurs in each pond, and the evaporation process is approximately 12-18 months (Dudek 1997). Pond 20, has been removed from production use for over 30 years due to economic and logistical constraints. The relatively high elevation of the pond floor and isolation of Pond 20 on the south side of the Otay River made it commercially infeasible to

continue to utilize this pond as a cell in the evaporation process due to problems and costs of siphoning increasingly saline brine from pond to pond. During the 1960s, Western Salt attempted to re-incorporate Pond 20 as part of the Salt Works using pumps, but economic inefficiency and technical problems resulted in an abandonment of this effort.

Pond 20 is isolated from fresh or saltwater surface input and experiences occasional storm runoff from the internal pond basin and Palm Avenue. Seasonally water levels in the pond fluctuate significantly and waters are strongly saline due both to the pond's history as a salt concentrator and the continued closed system evaporative processes occurring in the pond today. Years of drought and heavy rainfall influence the levels of standing water in the pond and the rates of fluctuation of water surface levels. At present, standing water is found along the lower-lying "channels" that parallel the dike. These deeper channels are believed to be borrow areas for the construction of the pond containment dikes.

### **AGENCY JURISDICTIONS OVER WETLANDS AND WATERWAYS**

Deposition of dredged or fill materials into wetlands and jurisdictional waters is regulated under Section 404 of the Clean Water Act. The California Department of Fish and Game regulates modifications to lakes and streambeds under Sections 1600 *et seq.* of the California Fish & Game Code. In addition, the California Coastal Commission (CCC) regulates activities that would impact wetlands occurring throughout the coastal zone under the California Coastal Act. The defining jurisdictional limits of each of these entities over wetted areas is further outlined below.

#### ***U.S. Army Corps of Engineers Jurisdiction***

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers has regulatory authority over the discharge of dredged or fill materials into the waters of the United States (1344 USC). The term "waters of the United States" is defined in 33 CFR Part 328(a) and includes: (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters such as intrastate lakes, rivers, streams, (including intermittent streams), mudflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; (4) all impoundments of water mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and, (7) all wetlands adjacent to waters mentioned above.

Wetlands are defined at 33 CFR 328.3(b) as "*those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support ... a prevalence of vegetation typically adapted for life in saturated soil conditions.*" To be considered a jurisdictional wetland under the ACOE, all three parameters (hydrophytic vegetation, hydric soils, and hydrology) must be met.

In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e) as:

*... that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

In a letter from the Corps dated February 22, 2000, the Corps clarified its position on Pond 20. This letter noted that Pond 20 is not subject to Section 10 of the Rivers and Harbors Act (RHA) of 1899. This determination was based upon the historic meander line, "as presented on a reproduction of an 1870 U.S. Land Office map, entitled Fractional Township NO. 18 South, Range 2 West, San Bernardino Meridian, prepared by the Bureau of Land Management (BLM). The meander (or mean high water, MHW) line is plotted by survey datum points from 1869 by the BLM. This exhibit illustrated that the subject property in its unobstructed, natural state was located above MHW and is not defined as navigable waters, per 33 C.F.R. 329.1." The same letter requested that a new survey be undertaken to address an additional issue of whether portions of the site were subject to Section 404 of the Clean Water Act (CWA). Standing water was noted in September 1996 during a site visit by Corps staff, and migratory waterfowl were observed within the boundaries of the Pond. The Corps did not concur with the findings of the previous determination (Dudek 1997) that there were no lands subject to Section 404 of the CWA, and requested that a new wetland delineation be completed.

Subsequent to the Corps letter, the U.S. Supreme Court narrowed the historic reading of jurisdiction under 33CFR 328(a)(3) through its decision on the case of Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers (January 2001). The Supreme Court ruled that the Corps' use of the "migratory bird rule" to extend jurisdiction of Section 404 of the CWA over isolated waters exceeded the authority granted by that section (Meltz and Copeland 2001). However, in the two years following the ruling, SWANCC has been read very narrowly and has been used primarily to reject Corps jurisdiction over isolated waters that are not adjacent to wetlands and to disallow the use of habitat by migratory birds as a means for the Corps to assert authority. In several other cases, such as United States vs. Riverside Bayview Homes (1985) and Headwaters, Inc. vs. Talent Irrigation District (2001), courts have ruled that waters adjacent to navigable wetlands are considered "waters of the United States" and fall under the Corps jurisdiction through Section 404 of the CWA (Hennessy and Diffenderfer 2003). Based on these rulings, the Corps can no longer invoke the "migratory bird rule" to imply jurisdiction as they did in the February 2000 letter regarding Pond 20. However, because Pond 20 is directly adjacent to San Diego Bay and is separated by a dike from navigable waters, any waters located within the pond would be considered jurisdictional non-wetland waters of the U.S.

### ***California Department of Fish and Game Jurisdiction***

The California Department of Fish & Game (CDFG) regulates alterations of "streambeds" through the development of a Streambed Alteration Agreement pursuant to Division 2, Chapter 6, Sections 1600-1603 of the Fish and Game Code. An Agreement is required whenever a project would "divert, obstruct or change the natural flow or bed, channel or bank of any river, stream or lake designated by the Department."

The breadth of areas subject to regulation by CDFG under Section 1600 are less clearly defined than those regulated by Corps; however, in general, the policies are fairly consistent. It is clear that the California statutes cover all rivers, streams, lakes and streambeds that may exhibit intermittent flows of water. However, Section 1600 *et seq.* does not extend to isolated wetlands and waters such as small ponds not located on a drainage course, wet meadows, vernal pools, or tenajas as does federal jurisdiction. Furthermore, department jurisdiction does not extend over tidal waters. However, Section 1600 *et seq.* jurisdiction extends over all riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

Pond 20 does not contain a streambed and is isolated from adjacent tidal wetlands. Therefore, Pond 20 is not subject to CDFG jurisdiction.

### **California Coastal Commission**

The California Coastal Commission regulates wetlands occurring throughout the California coastal zone through the development of a coastal zone permit. The Coastal Act defines “wetland” in Section 30121 of the Coastal Act as follows:

*Wetland means lands within the coastal zone that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens.*

The CCC Administrative Regulations (Section 13577(b) further expand upon this definition as follows:

*Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity, or high concentrations of salt or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within or adjacent to vegetated wetlands or deepwater habitats.*

The CCC uses the same three criteria for defining wetlands as the Corps, however only one of the three criteria need to be present for an area to be classified as a wetland. Unlike the CDFG, the CCC extends beyond streambeds to include all tidal areas and isolated wetlands; however, jurisdiction is limited to areas within the coastal zone. The entire Pond 20 site falls within the coastal zone.

### **Environmentally Sensitive Habitat Areas (ESHA)**

The California Coastal Act (Section 30107.5) defines Environmentally Sensitive Habitat Areas as:

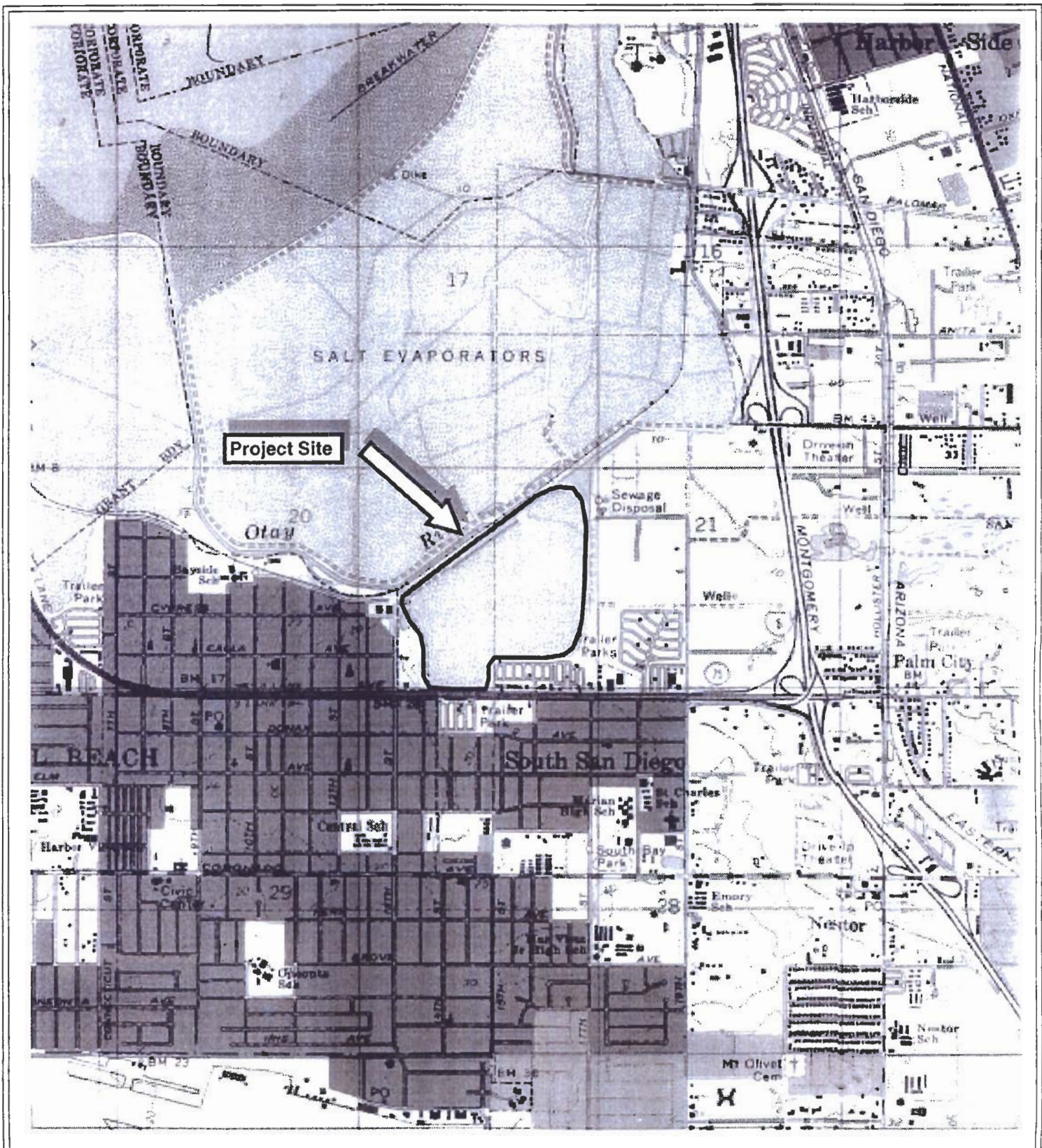
*any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments*


In the context of this study, an ESHA may include wetland habitats and areas of nesting waterfowl or shorebirds.

## **SITE LOCATION**

The property is located in San Diego County, on the northern boundary of Imperial Beach. Pond 20 is located north of Palm Avenue (Hwy. 75, Imperial Beach) and directly east of 13<sup>th</sup> Street (Figure 1). It is situated in Section 20 of Township 18 South, Range 2 West, of the San Bernardino Base and Meridian; USGS Imperial Beach 7.5' Quadrangle. A dike separates Pond 20 from a channelized tidal portion of the Otay River near its mouth with San Diego Bay. The site is generally fenced but a gated access exists near the southwestern corner of the property.





  
 Scale: 1" = 2000'

**Imperial Beach Pond 20 Project Vicinity Map**  
 Source: USGS 7.5' Imperial Beach, CA  
 Quadrangle

Figure  
 1

The Otay River runs parallel to the northern portion of the dike, while Nestor Creek is now re-aligned along the eastern boundary. A tidally influenced drainage swale occurs along the western boundary of the Pond 20 dike near 13<sup>th</sup> Street, immediately outside the study area.

## GENERAL PHYSIOGRAPHY

The Pond 20 site is confined by a dike that includes three smaller pond cells termed Ponds 20A, 20B, and 20C for the purpose of this report (Figure 2). Over the past century, various internal berms have been constructed, repaired, and removed by operational changes and flooding. These changes have resulted in changing topographic conditions within the pond basin that make discussing the site in the context of the three pond cells useful.

On-site topography consists of a relatively shallow basin that is surrounded by a raised earthen dike (the term berm(s) is utilized in this report for interior raised features within the higher dike). The elevation of the basin floor ranges from approximately 2.92 feet to 10.01 feet (MSL) (Dudek 1997). The western half of the Pond 20A “floor” is generally lower than the adjacent Pond 20B and is covered with a veneer of salt, calcium sulfate, and other crystallized salt water derivatives varying in thickness from approximately 0.5 to 5 inches. This veneer is the result of historic salt production operations as part of the salt works operations located to the north. The eastern portion of the Pond 20A supports an elevated alluvial deposit composed of primarily dark to pale sandy loams and relatively pure sand. This feature appears to be the historic outflow delta of Nestor Creek as evidenced by the coarse mineral deposits and the remnant channel forms existing in the fan.

To the north, Pond 20B is no longer separated by a berm from Pond 20A, but it is visually distinctive from the lower lying Pond 20A. Pond 20B is vegetated by low quality sage scrub. Pond 20B has not been inundated by water since at least 1944. Moreover, it does not have the veneer of salt and saltwater evaporative by-products that are found over the western section of Pond 20A or low lying areas of Pond 20C. Aerial photographs from 1928 show Pond 20B with water, however, this was the only photograph located which showed evidence of full inundation. Linear ponds of standing water exist around most of the periphery of the site, at the foot of the surrounding berm. Most of the “breaks” along this linear channel are due to historical changes in the pond (*e.g.*, roads into the pond areas).

Pond 20C is comparable to Pond 20B except that it supports a proportionally greater amount of ponding areas and an extensive area of unvegetated sand which, from photographs, resembles the crystalline crusts of Pond 20A, but actually is significantly different in its composition.

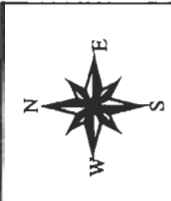
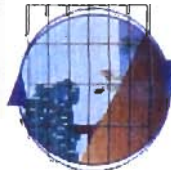
The site’s soils are mapped as Huerhuero urban land complex along the southern periphery of Pond 20A, Grangeville fine sandy loam in Pond 20B and 20C, and open water within Pond 20A on the USDA Soil Conservation Service maps of San Diego County (based on 1967-1968 aerial photography and field reviews; Bowman 1973).





**LEGEND**

- Viewpoint 2003
- Wetland Data Point 2001
- Wetland Data Point 2003
- Study Boundary
- Uplands
- Non-wetland Waters of the U.S.
- Black-necked Stilt Nesting Site



**POND 20 Jurisdictional Determination and Wetland Delineation Map**  
 April-May 2003  
 Imperial Beach, CA

Merkel & Associates, Inc.

**Figure 2**



## METHODS

For survey methods of the 2000 wetland delineation, refer to Merkel & Associates 2000. Wetland delineation and jurisdictional determination work was completed by M&A biologists Holly D. Henderson and Vanessa A. Lee on April 28 and May 27, 2003.

**Table 1.** Summary of the survey dates, times, conditions, and staff.

Date	Time	Conditions	Biologists
4/28/03	1000-1600	Weather: Sunny Wind (Beaufort) = <1 Temperature: 60°-65° F	Holly D. Henderson, Vanessa A. Lee
5/27/03	0900-1300	Weather: Overcast Wind (Beaufort) = <1 Temperature: 60° F	Holly D. Henderson, Vanessa A. Lee

The wetland delineations of the site were performed using the routine on-site determination methods outlined in the 1987 Army Corps of Engineers' Wetland Delineation Manual (ACoE 1987). In addition, the delineation efforts were expanded to identify jurisdictional non-wetland waters using published regulations, regulatory guidance and precedent, as well as judicial reviews. Wetlands and other jurisdictional waterways on-site were delineated on a georectified high resolution photograph flown on 18 October 1998 by the U.S. Navy (U.S. Navy SW DIV NAVFAC ENCOM, Nat. Res. Branch 1998). Evidence supporting jurisdictional determinations were recorded on wetland field data forms and depicted in photographs of the project site (Appendices 1 and 2, respectively).

The following text describes the three parameters used to determine the presence/absence of wetlands and non-wetland waters found within the survey area. Additional information on the overall delineation process and regulatory jurisdictions may be found in the federal delineation manual (ACoE 1987), enacting legislation, or through guidance provided by judicial interpretation, solicitors' opinions, and regulatory guidance issued to District Corps' offices.

### VEGETATION

Vegetation communities which met the criteria of wetland-associated vegetation were dominated by a preponderance (>50%) of species classified as obligate wetland plants (OBL), facultative wetland plants (FACW), or facultative plants (FAC) based on the **National List of Plant Species that Occur in Wetlands** (U.S. Fish & Wildlife Service 1991). Obligate wetland plants are defined as occurring almost always in wetlands (estimated probability >99%) under natural conditions. Facultative wetland plants are defined as occurring usually in wetlands (estimated probability 67% to 99%). Facultative plants are defined as having a similar likelihood of occurring in both wetlands and non-wetlands (estimated probability 33% to 67%). Areas defined as Non-wetland Waters of the U.S. typically lacked vegetation, but exhibited wetland hydric soils characteristics.

### HYDROLOGY

Hydrologic wetland indicators included both surficial characteristics (*e.g.*, visual observation of surface flow, drainage patterns, watermarks, and drift lines) and sub-surficial characteristics (*e.g.*, presence of free water in the test pit). Hydrologic indicators were also used to define non-wetland waters of the United States. This information consisted of drainage patterns and waterborne debris

accumulated at the base of existing vegetation, indicators of standing water along shorelines including scarping by wind wave scour, algal or suspended sediment rings, or areas of dissolved mineral crusts, and changes in the character of soils from strongly hydric to partially oxidized or non-hydric conditions.

The abundance of salt crystals within the top five inches of soil allowed for a unique means to identify hydrology within the pond. Historically, salt water was pumped into the salt ponds and allowed to evaporate. Newly formed salt crystals from evaporation of water typically have a rough, irregular crystalline structure. During salt mining operations, this allowed new salt to be easily separated from the floor of salt ponds (South Bay Salt Works 2002). Within Pond 20, in addition to areas of ponded water, there are numerous low depressions and drainage channels. While these areas were not wet at the time of the current surveys, they were filled with irregularly shaped salt flakes, indicating relatively recent inundation and evaporation (Appendix 2). By contrast, soils within adjacent, higher areas (the majority of Pond 20B and 20C) consisted of dull, rounded salt crystals, indicating a lack of recent flooding and evaporation. The structure of salt crystals within the pond was considered along with more typical hydrologic indicators to define non-wetland waters of the U.S.

## SOILS

To confirm the presence of hydric soils, soil test pits were excavated using a shovel. Soils taken from depths ranging from 0 to 18 inches were examined for physical and chemical evidence of hydric conditions. Excavated soils were evaluated using the chroma indices from the **Munsell Soil Color Charts** (Munsell Color 2000). Additional indicators of hydric soils, such as vertical streaking, high organic matter content in the surface horizon, mottling, and sulfidic odor, were evaluated during the delineation.

## HISTORIC REVIEW OF SITE CONDITIONS

While the Corps of Engineers, Coastal Commission, and California Department of Fish and Game regulate wetlands and waters on the basis of existing conditions at the time of permitting, the history of Pond 20 is useful to understanding the development of site characteristics and the limits of jurisdictional waters occurring at the site. The question of site history is especially important in the current situation given that Pond 20 was constructed prior to the Clean Water Act, potentially in dry lands, and was subsequently operated as a part of a long-term industrial process. In such a circumstance, the pond would not likely be considered a water of the U.S. by the Los Angeles District, Corps Regulatory Branch unless activities for which the pond was created are deemed to have been abandoned. Such artificial ponds are discussed in the Corps Regulatory Programs Final Rule preamble as a clarification to definitions of waters of the U.S. at 33 CFR Part 328. Past regulatory actions of the L.A. District have been to not regulate waterbodies such as sand mining pits, storage reservoirs, stock ponds, or sewage treatment ponds that were created in uplands or prior to the phase in dates of the Clean Water Act regulatory programs unless the activities for which features were created have been deemed abandoned.

Six separate resources were reviewed to research the inundation and use history of Pond 20:

- A 1928 aerial photo series at the San Diego County Department of Planning and Land Use;
- Historical magazine articles from the turn of the 19<sup>th</sup> century; as well as newspaper clippings regarding the Salt Works, located at the City of San Diego's main downtown library;

- Aerial Fotobank's archive of aerial photographs that cover the site during numerous years spanning the era from 1945 to 1996;
- U.S. Geological Survey Ortho-photographs from December 1996;
- Dudek & Associates August 1997 wetland delineation for Mag Ponds and Pond 20 reporting October 1996 survey data, and;
- U.S. Navy High Resolution Ortho-photographs from October 1998.

## RESULTS AND DISCUSSION

### HISTORIC REVIEW

Over the last century Pond 20 has undergone several alterations, resulting at varying times in substantial changes in the proportion of the Pond which were inundated with standing water.

#### *1900-1910 Era*

The Western Magazine (Volume 1, #3) includes a 1904 generalized relief map of the south end of San Diego Bay which indicates the tidal portion of the Bay may not have included the area now known as Pond 20. The Bay ends abruptly rather than extending farther southward towards Palm Avenue. It is not known at what date this map was drawn. It does show a sandy area beyond the southern Bay that extends southward into the approximate area of Pond 20; which may indicate mud flats and/or a tidal slough were present. The veracity of this map is not known; however the configuration of the remainder of the Bay is generally similar in outline to what is known to be the Bay's dimensions.

The Western Magazine from October 1906 shows another relief drawing of the south end of the Bay. This includes a "proposed" Wharf to the immediate west of the northwestern corner of Pond 20, as well as an existing rectangular basin approximately where the western half of Pond 20 is situated. The basin is contiguous with the Bay. Within this basin are two parallel sets of six smaller rectangles; each set is separated by a narrow expanse of water. These small rectangular areas may account for the exposed wooden post bases and wooden footings that are still present in linear arrangements in the western portion of Pond 20A. It is not known how these wooden walkways were utilized; only traces of their foundations remain.

#### *1928 Aerial Photograph*

The 1928 photograph of the Pond 20 area (Sheet 77C4) shows the site divided into two ponds. A first pond (Pond 20A), lower in elevation, occupies the south and the west; while a higher elevational pond (Pond 20B) of roughly comparable size is situated in the northeast. In the extreme north is a small area (Pond 20C). Both Ponds 20B and 20C show signs of the 1916 flood, with vestiges of channels coursing across the extreme corner of the property; and originating from off-site to the east as well as terminal bar formation in a flood delta pattern. In subsequent aerial photographs over the next six decades the small northernmost area, Pond 20C, is separated by a large berm from the two large southern impoundments (this berm was absent by the 2000 survey). The historic berm is situated approximately where the historical river channel can be discerned. From the aerial photographs this appears to be a braided channel of the Otay River that is a remnant from the 1916 flood. In 1928 the dike running entirely around Pond 20, isolates the area completely from all sides, including the channelized Otay River that now runs parallel to the northern portion of the dike.

Unlike all subsequent aerial photographs, both Pond 20A and 20B are flooded in the 1928 photograph. A small irregular portion of Pond 20B in the extreme northeast was above water.

### ***1945 Aerial Photograph***

In this aerial photograph, Pond 20A is submersed and Ponds 20B and 20C are above water. Pond 20A was underwater in 1945 and all subsequent photographs into the early 1990s. In almost all of the twenty-three photographs from different dates examined from 1953-1991, a portion of Pond 20A in the eastern arm/extension was above the inundation level. The acreage of these exposed areas varies from photograph to photograph; however, the general shape remains the same.

In all subsequent photographs Pond 20B was exposed except for a narrow channel that runs along the periphery of this area at the foot of the dike. This channel was the borrow area for materials used to construct the Pond 20 containment dike. Similar conditions were observed for Pond 20C.

### ***1953 Aerial Photograph***

Conditions observed in 1953 photographs were similar to that noted in 1945 photographs.

### ***1960s Aerial Photographs***

Photographs of the site were examined from February 4, 1964 (an oblique); September 20, 1966; September 6, 1968; April 17, 1969; December 12, 1969; and December 29, 1969. All photographs exhibit similar conditions as the photos reviewed from 1945 and 1953.

During this period, Western Salt reported having attempted the re-establishment of production use of Pond 20, however efforts were not successful and no further attempts were made to use this site as a part of the salt works production area.

### ***1970s Aerial Photographs***

Photographs of the site were examined from November 8, 1970; June 16, 1971; August 5, 1972; July 2, 1974; November 30, 1976; August 3, 1977; and July 19, 1978. During this period conditions remain roughly the same as in recent previous decades.

### ***1980s Aerial Photographs***

Photographs of the site were examined from July 1, 1982; October 9, 1982; March 4, 1983; November 26, 1983 (oblique); and September 7, 1985. During this period conditions remain roughly the same as in recent previous decades.

### ***1990s Aerial Photographs***

A photograph from March 3, 1991 shows more of the northeastern portion of Pond 20A exposed than was typical in prior photographs. However, it also shows that Pond 20C which had been primarily dry since the 1945 aerials was now inundated in both the east (approximately 1/3 of this small area) and west (also approximately 1/3 of this small area). These changes suggest that a portion of the berms separating the various sub-ponds may have failed between 1985 and 1991 allowing some of the water from Pond 20A to be redistributed to Pond 20C. It is not known for sure that berms failed since a similar situation was also observed in the March 4, 1983 photograph. However, other photos

generally show two very small linear areas of standing water only, along the southern boundary of Pond 20C, and thus, the extensive flooding in Pond 20C is not considered to be ordinary in the context of ponding conditions.

Within the 1995 Aerial Foto-map Book, Pond 20A is approximately 70-80% exposed. Pond 20B has changed little since 1945. Pond 20C retains slightly more water than observed during most prior years. In the USGS 1996 photograph, inundation conditions were comparable to those observed in the early 1990s. Less extensive inundation was observed in the 1998 Navy photograph.

During the recent 2000 and 2003 surveys, only a narrow corridor around much of Pond 20A was inundated. The majority of the salt crust was exposed. Pond 20B and 20C appear similar to most photos of the 1945-1990 period. These areas retain sage scrub components and show only limited inundation with sporadic and relatively minor evidence of salt crystallization in low lying areas around the periphery of the pond.

### ***Analysis of Historical Photos and Uses***

Based on the review of site photo documentation and reports of past production uses of Pond 20, it can be concluded that the industrial process uses of Pond 20 at the Western Salt facility have been abandoned for over thirty years and are abandoned in a regulatory sense. The historic application of abandonment assessments by the Los Angeles District has revolved around timeframes of 1 to 2 years of inactivity on a site. In a recent instance, the Corps concluded that a sand mining operation had not been abandoned, even though no mining had been done for several years. However, this situation is distinguished by the fact that the operation had been ordered by the Courts to cease and desist and had not quit mining willfully. Further the record indicated that the operator had continued to seek to reclaim the site for several years and had even obtained permits and approvals but was slowed by regulatory processes and on-going conflicts beyond the operators individual control. In the present situation, the record suggests that no such complications existed in the cessation of use of Pond 20 by Western Salt; rather, it became economically disadvantageous considering the operation costs and logistical constraints to continue to use this pond in the facilities operation.

The photo record also suggests that much of the southern basin (Pond 20A) has been inundated on a regular and relatively consistent basis up to and including periods into the early and middle 1990's. Given the long-period since this site was last used for production of salt, it is believed the varying periods of high and low inundation levels are indicative of normal, interannual variability in rainfall and evaporation rates. The pond is dependent both on local precipitation in the pond and run-off from Palm Avenue. Absent changes in storm drainage patterns, it is anticipated that the pond conditions would remain relatively constant well into the future.

## **DETERMINATION OF THE DISTRIBUTION OF WATERS OF THE U.S.**

### ***Wetlands***

Wetlands within Pond 20 are those areas which meet all requirements of the three parameter definition of the Corps of Engineers wetland delineation manual (ACoE 1987) under normal circumstances. The Corps clarified the term normal circumstances in a regulatory guidance letter issued in 1986 (RGL 86-9) and, in part indicated that the Corps does not intend to regulate areas that are not aquatic, but experience an abnormal presence of aquatic vegetation. The Corps pointed out that some aquatic species are able to persist in upland situations simply because the high salt content of the soil precluded the occurrence of upland vegetation. The RGL further indicated that the Corps



does not intend to regulate prior converted wetlands that have been transformed into dry lands, but rather those that exist at present.

During the 2003 surveys, no jurisdictional wetland was found to occur on-site. During the 2000 surveys, one small patch of Southern Coastal Salt Marsh was located in the southwestern portion of Pond 20A. This patch consisted of 0.51 acre of Halberd-leaf Saltbush (*Atriplex triangularis*), a facultative wetland species, Slender-leaved Iceplant (*Mesembryanthemum nodiflorum*), a facultative upland species, and Five-horn Smotherweed (*Bassia hyssopifolia*), a facultative species (Appendix 2, Photo 1B). During 2003, the same wetland data point was re-located. However, only two of the three plant species were re-located (*Bassia hyssopifolia* was not re-sampled) (Appendix 2, Photo 1A). Soil was moist but not saturated and soils were not hydric. Salt crystals in the vicinity were rounded indicating a lack of recent inundation and evaporation and no other hydrologic indicators were present. Based on this analysis, the area was not considered a jurisdictional wetland.

Vegetation within the pond at the time of the 2003 surveys was dominated by Slender-leaved Iceplant, which formed a mat over a large portion of Pond 20A and 20B. In 2000, low levels of rainfall resulted in decreased coverage of vegetation throughout Pond 20. Existing vegetation then was dry and brown and the southern portion of Pond 20A was bare (Appendix 2, Photos 1B, 4B). While vegetation coverage was increased during the 2003 survey, few areas within the pond supported hydrophytic plants during either survey. The areas in which hydrophytic species were found generally failed to meet the requirements of being predominated by hydrophytic species and were determined to fail the vegetation criterion for being considered wetlands (Appendix 1). These areas generally failed one or both of the other two defining parameters as well.

#### ***Other Waters of the U.S.***

During 2000, a substantial portion of the study site was determined to be non-wetland waters of the U.S. The determination of the extent of non-wetland waters was based on a combination of identification of hydric soils in test pits, hydrologic indicators (drainage patterns, etc.) observed in the field, and hydrologic indicators observed on recent aerial photographs. However, the drought conditions at the time of the survey made it difficult to achieve an accurate estimate of the extent of non-wetland waters within the pond.

During 2003, 21.4 acres of non-wetland waters were located within Pond 20 (Figure 2). The majority of these were located in Pond 20A. The same measures used in 2000 (soils in test pits, hydrologic indicators observed in the field and on aerial photographs) were utilized to estimate the extent of non-wetland waters. Test pits were dug in a linear pattern across Pond 20A to clearly delineate areas with hydric soils (Figure 2). In addition, another hydrologic indicator, irregularly formed salt crystals, was used to delineate the boundaries of areas that were more recently inundated (see discussion in Methods). In the majority of instances, test pits with hydric soils and/or saturated soils also had irregularly shaped salt crystals on the surface. Recent rains also more clearly revealed drainage patterns within the pond, and a larger area adjacent to the berm still held ponded water. Scarps and terraces along the shore, debris lines, and portions of dissolved salt crust helped to define the high water line in these areas. For these reasons, the recent survey is believed to be a better indication of the extent of non-wetland waters within Pond 20A.

Elsewhere within the pond, standing water occurred around the periphery of Pond 20B, and in the eastern portion of Pond 20A (i.e., north of the mobile home park shown on Figure 2). Test pits dug in these areas in 2000 showed wet sands but no hydric soils. All historical photos dating back to

1928 show these “channel” areas adjacent to the dike as inundated. No photos depict these “channel” areas dry.

### ***Non-jurisdictional Uplands***

The remaining 90.3 acres of the Pond 20 site support non-jurisdictional upland habitats. The majority of this area falls within Pond 20B and 20C, which consist of upland vegetation (View Point C). The test pit sampled in 2003 (Data Point 14) along with two pits sampled in 2000 (Data Points 9 and 10) did not reveal hydric soils or hydrologic indicators. Vegetation in Pond 20B was dominated by upland species such as Goldenbush (*Isocoma menziesii* var *menziesii*) and Coast Cholla (*Opuntia prolifera*), along with a dense groundcover of Crystalline Iceplant (*Mesembryanthemum crystallinum*), and isolated patches of Common Glasswort (*Salicornia subterminalis*). Within Pond 20A, Data Points 3 and 8 sampled in 2000 revealed uplands that showed no current evidence of hydrology, have non-hydric soils, and do not have a predominance of hydrophytic vegetation. A lone juvenile willow remains at Data Point 3, but at the time of the 2000 and 2003 surveys, the dominant species in the vicinity did not consist of wetland plants (as per the USFWS National List of Plant Species that Occur in Wetlands: California; 1988). Data Points 2, 4, and 5 sampled in 2000 represented isolated and topographically higher “islands” of non-hydric soils within the western portion of Pond 20A. These higher areas were apparent in 2003 and were not determined to be wetlands under the parameters of this study. These locations are typically associated with vestigial pilings/footings utilized in the Salt Works, and may have historically been subject to higher levels of site disturbance. Additional Data Points sampled in 2003 (Data Points 15, 17, and 24) confirm that the central portion of Pond 20A is not considered a wetland.

### **INDIVIDUAL AGENCY JURISDICTIONS AS REGULATED WATERBODIES**

The U.S. Army Corps of Engineers regulates 21.4 acres of the Pond 20 site as non-wetland waters of the U.S. No wetlands were located within the pond.

The California Department of Fish and Game, lacks specific wetland regulatory jurisdiction within Pond 20 because the site is neither a lake, nor streambed and thus falls outside of the provisions of section 1600 *et seq.* of the California Fish and Game Code.

The California Coastal Commission would be expected to regulate the same 21.4 acres under Corps jurisdiction.

### **WETLANDS FUNCTIONS AND VALUES**

The western portion of Pond 20A has historically seen substantial migrant waterfowl use (*i.e.*, spring and fall), and occasional wintering waterfowl use when waters were still more widely distributed in the westernmost basin (C. Reiser personal observations, former Audubon Christmas Bird Count participant/sector leader within an area of Imperial Beach that included Pond 20A during the late 1980s and early 1990s). In recent years less open water for ducks and shorebirds has been observed and the available habitat for avian loafing has been decreased and degraded. The area has been utilized as a migrant stopover point along the Pacific Flyway, as a component of the broader wetlands habitat available in southern San Diego Bay, however, the pond has historically received less use than many of the more northerly ponds within the Western Salt facility. Presently the area is used by open terrain bird species such as Killdeer (*Charadrius vociferus*) and flocks of Horned Larks (*Eremophila alpestris*). Several Belding’s Savannah Sparrows (*Passerculus sandwichensis beldingi*) were flushed from the southern portion of Pond 20A in 2000. No Belding’s Savannah Sparrows

were observed within any portion of Pond 20 during the 2003 surveys. This state-listed endangered bird is more commonly associated with the higher quality coastal salt marsh habitat found on the outer embankments of the dike facing the Otay River Channel.

Pond 20B and Pond 20C are dominated by poor diversity sage scrub lands and include substantial observed raptor use. Osprey (*Pandion haliaetus*), Northern Harrier (*Circus cyaneus*), Red-tailed Hawk (*Buteo jamaicensis*), Peregrine Falcon (*Falco peregrinus*), and American Kestrel (*Falco sparverius*) were all observed during March 2000 hunting this field, or as regular flyovers. The limited water resources here (*i.e.*, the narrow “channels” of standing water) were likely not a focus of raptor activity; much better wetlands habitat is found in the adjacent bay lands. However, high rodent activity appears to be the principal draw for these predators. Also observed in the fields were several burrows of the form typically associated with the American Badger (*Taxidea taxus*), a species which is extremely uncommon in coastal San Diego County but which is known upstream along the Otay River only seven miles away. At least one larger burrow in the area is likely associated with Gray Fox (*Urocyon cinereoargenteus*) or Coyote (*Canis latrans*).

At present aquatic habitat functions and values are considered degraded in Pond 20 due to the limited surface water and the lack of developed habitat features. High water salinities make the aquatic environment extremely harsh. However, several brine shrimp were spotted in ponded water along the dike separating Pond 20A and 20B. Recent rainfall may have lowered water salinities slightly. During the 2003 survey, approximately 12 Black-neck Stilts (*Himantopus mexicanus*) were observed adjacent to the ponded water at the western boundary of Pond 20A. Closer inspection revealed that the individuals were nesting in the vicinity of the ponded water (Figure 2). No other shorebird species were observed and use of ponded areas by other avian species is anticipated to be mostly opportunistic and irregular.

Pond 20 provides no physical or chemical function and values that would typically be provided by a functional wetland system. Limited salt marsh habitat is present, however it is not expected to continue to expand at a rapid rate and it will likely remain of low quality for many decades given the lack of tidal conditions.

No features exist within the Pond 20 site that are considered to be important from a sediment, flood flow, or water quality standpoint since the site has no outlets, a very limited watershed, and is effectively an isolated water, even though poor drainage conditions may be related to high groundwater conditions associated with the adjacent tidal waters and fully saturated subsoils.

#### **ENVIRONMENTAL SENSITIVE HABITAT AREAS**

The 21.4 acres of non-wetland waters within Pond 20 are considered wetland habitat and an ESHA by the California Coastal Commission. In addition, Black-necked Stilts were observed nesting along the western portion of Pond 20A (Figure 2). Two nests with eggs were located and approximately 12 individuals were observed showing courting behavior. In order to minimize disturbance, no attempt was made to locate additional nests. The nesting area is considered an ESHA.

### LITERATURE CITED

- Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual: Appendix C, Section 1; Region 0 - California. Technical Report Y-87-1. U.S. Army Engineers Waterways Experiment Station, Vicksburg, Mississippi.
- Bowman, Roy H. 1973. Soil Survey of the San Diego Area, California, Part I. U.S. Department of Agriculture, Soil Conservation Service and U.S. Forest Service. December, 1973.
- Dudek & Associates. 1997. Wetland Delineation for Mag Ponds and Pond 20 at Western Salt Company.
- Hennessy, K. and M. Diffenderfer. 2003. SWANCC: Two Years Later. <http://www.llw-law.com/article9845.cfm>.
- Hickman, James C., ed. 1993. The Jepson Manual, Higher Plants of California. University of California Press, Berkeley. 1400 pp.
- Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game.
- Meltz, R. and C. Copeland. 2001. The Supreme Court Addresses Corps of Engineers Jurisdiction Over "Isolated Waters": The SWANCC Decision. <http://www.ncseonline.org/NLW/CRSReports>
- Merkel & Associates, Inc. 2000. Jurisdictional Wetland Delineation Report for Western Salt Pond 20, Imperial Beach, CA. Prepared for Ninyo and Moore and San Diego Unified Port District. 16 pp.
- Munsell Color. 1974. Munsell Soil Color Charts. Macbeth, a Division of Kollmorgen Corporation, Baltimore, Maryland.
- Oberbauer, Thomas. 1991. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. Unpublished list.
- Rogers, Thomas H. 1965. Geologic Map of California, Santa Ana Sheet (fifth printing 1985). State of California, The Resources Agency Department of Conservation, Division of Mines and Geology.
- U.S. Fish and Wildlife Service. 1991. Wetland Delineation Manual, Appendix C, Section 1: National List of Plant Species that Occur in Wetlands, Region 0 – California.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP1, PP1</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Atriplex triangularis</i>	S	FACW	9.		
2. <i>Mesembryanthemum nodiflorum</i>	H	UPL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Disturbed salt marsh-like vegetation; however, area does not meet hydrophytic vegetation criteria. Significant amount of bare ground in the area. Only plants present consist of those listed above. Data Point #7 from 2001 survey was located in this same area.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>----</u> (in.) Depth to free Water in Pit <u>----</u> (in.) Depth of Saturated Soil: <u>----</u> (in.)	
Remarks: Soil is moist but not saturated. There is an approximate 3-inch layer of salt on the surface. The salt granules in this area are rounded, suggesting that this area does not get regular or enough moisture to restructure crystalline form.	

**SOILS**

Data Point #1

Map Unit Name  
(Series and Phase): Mapped as "water"      Drainage Class: \_\_\_\_\_  
Field Observations \_\_\_\_\_  
Taxonomy (Subgroup): \_\_\_\_\_      Confirm Mapped Type?     Yes     No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3		---			Sand/ salt crust
3-16		10YR 3/2			Clay loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: No hydric soil indicators present.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	

Remarks: Non-jurisdictional. Vegetation contains components of Southern Coastal Salt Marsh but does not meet hydrophytic vegetation criteria.

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP2, PP2</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Atriplex triangularis</i>	S	FACW	9.		
2. <i>Mesembryanthemum nodiflorum</i>	H	UPL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Same plants as Data Point #1, but sparser. This Data Point is located approximately 30 feet south of Data Point #1.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: _____ (in.) Depth to free Water in Pit _____ (in.) Depth of Saturated Soil: _____ (in.)	
Remarks: Soil is moist but not saturated. The salt granules in this area are rounded, suggesting that this area does not get regular or enough moisture to restructure crystalline form.	

**SOILS**

Data Point #2

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-2		---			salt
2-20		10YR 3/2			Clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators present.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Remarks: Non-jurisdictional. Vegetation contains components of Southern Coastal Salt Marsh but does not meet hydrophytic vegetation criteria.					

Approved by HQUSACE 3/92



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP3, PP3</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Atriplex triangularis</i>	S	FACW	9.		
2. <i>Mesembryanthemum nodiflorum</i>	H	UPL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Same plants as Data Points #1 and #2. This Data Point is located approximately 20 feet south of Data Point #2.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to free Water in Pit _____ (in.) Depth of Saturated Soil: _____ (in.)	
Remarks: Soil is moist but not saturated. The salt granules in this area are a mix of rounded and and more irregular flakes, suggesting a transition to an area of more recent inundation.	

**SOILS**

Data Point #3

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3		---			salt
3-6		2.5Y 3/1			Clay loam
6-7		Gley 1 2.5/N			Clay
7-20		10YR 3/3			Clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 28 April 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: Salt Panne Transect ID: Plot ID: DP4, PP4

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation present in this area consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: ----- (in.) Depth to free Water in Pit: ----- (in.) Depth of Saturated Soil: 9 (in.)	

Remarks: Saturation in the upper 12 inches indicates hydrology. The salt granules in this area are more angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.

**SOILS**

Data Point #4

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-6		2.5Y 3/1			Clay
6-8		Gley 1 2.5/N			Clay
8-16		10YR 3/2			Clay loam
<b>Hydric Soil Indicators:</b>					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP5, PP5</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>-----</u> (in.) Depth to free Water in Pit <u>-----</u> (in.) Depth of Saturated Soil: <u>9</u> (in.)	
Remarks: Saturation in the upper 12 inches indicates hydrology. The salt granules in this area are angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.	

**SOILS**

Data Point #5

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-5		---			salt
5-8		10YR 3/1			Clay loam
8-9		gley 1 2.5/N			Clay
9-20		10YR 3/1			Clay loam
<b>Hydric Soil Indicators:</b>					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP6, PP6</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: Practically no vegetation in this area. Very sparse *Mesembryanthemum nodiflorum* within 3-feet of pit.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>-----</u> (in.) Depth to free Water in Pit <u>-----</u> (in.) Depth of Saturated Soil: <u>10</u> (in.)	
Remarks: Saturation in the upper 12 inches indicates hydrology. The salt granules in this area are angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.	

**SOILS**

Data Point #6

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-5		---			salt
5-8		10YR 3/1			Clay loam
8-9		Gley 1 2.5/N			Clay
9-20		10YR 3/1			Clay loam
<b>Hydric Soil Indicators:</b>					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP7, PP7</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>----</u> (in.) Depth to free Water in Pit: <u>14</u> (in.) Depth of Saturated Soil: <u>10</u> (in.)	
Remarks: Saturation in the upper 12 inches indicates hydrology. Dug pit to a depth of 20 inches, and water seeped in within 10 minutes. The salt granules in this area are angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.	

**SOILS**

Data Point #7

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-6		---			salt
6-7		10YR 4/1	7.5YR 3/4	Many, lrg, distinct	Clay silt
			Gley1 2.5/N	Many, lrg, distinct	
7-10		Gley 1 2.5/N			Clay
10-20		10YR 3/2			loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input checked="" type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils with mottles.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP8, PP8</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation. Salty crust on soil.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>----</u> (in.) Depth to free Water in Pit: <u>18</u> (in.) Depth of Saturated Soil: <u>9</u> (in.)	
Remarks: Saturation in the upper 12 inches indicates hydrology. The salt granules in this area are angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.	

**SOILS**

Data Point #8

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-5		---			salt
5-7		2.5YR 3/1			Clay
7-10		Gley 1 2.5/N			Clay
10-22		2.5Y 3/2			Clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input checked="" type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP9, PP9</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation. Salty crust on soil.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>----</u> (in.) Depth to free Water in Pit: <u>----</u> (in.) Depth of Saturated Soil: <u>8</u> (in.)	
Remarks: Saturation in the upper 12 inches indicates hydrology. The salt granules in this area are angular, which suggests that this area receives more moisture, enough for the salt to re-crystallize.	

**SOILS**

Data Point #9

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-7		Gley 1 2.5/10Y			Clay
7-30		2.5Y 2.5/1			Clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>OW</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP10, PP10</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation. Data Point is located in ponded water.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>4</u> (in.) Depth to free Water in Pit: <u>0</u> (in.) Depth of Saturated Soil: <u>0</u> (in.)	
Remarks: Hydrology is present. Data Point takes place in Open Water.	

**SOILS**

Data Point #11

Map Unit Name  
(Series and Phase): Mapped as water

Drainage Class: \_\_\_\_\_

Taxonomy (Subgroup): \_\_\_\_\_

Field Observations  
Confirm Mapped Type?  Yes  No

**Profile Description:**

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottie Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3		---			salt
3-7		10YR 3/2	10YR 4/3	Many, large, faint	Clay loam
7-20		2.5Y 2.5/1			Clay

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Gleyed and low-chroma colored soils. The salt granules on the surface are a mix of rounded and angular flakes.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.

Approved by HQUSACE 3/92



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP12, PP12</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation present at Data Point.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands
<b>Field Observations:</b> Depth of Surface Water: <u>      </u> (in.) Depth to free Water in Pit <u>      </u> (in.) Depth of Saturated Soil: <u>      </u> (in.)	<b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: Data Point is located in swale-like feature that runs through the middle of the site.	

**SOILS**

Data Point #12

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-2		---			salt
2-3		10YR 4/1			Clay w/ salt rocks
3-4		Gley1 2.5/N			Silt
4-5		2.5Y 3/3			Silt with layer of salt rock
5-20		Gley1 2.5/10Y			silt
<b>Hydric Soil Indicators:</b>					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed and low-chroma colored soils. Multiple, compact layers in soil. Salt granules at surface are angular crystals.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: This feature looks like a drainage swale. ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP13, PP13</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>-----</u> (in.) Depth to free Water in Pit <u>-----</u> (in.) Depth of Saturated Soil: <u>-----</u> (in.)	
Remarks: Soil is moist but not saturated. No hydrology indicators.	



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP14, PP14</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum crystallinum</i>	H	UPL	9.		
2. <i>Salicornia subterminalis</i>	H	OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 67%

Remarks: Weedy and ruderal with some components of Coastal Salt Marsh vegetation.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>-----</u> (in.) Depth to free Water in Pit <u>-----</u> (in.) Depth of Saturated Soil: <u>-----</u> (in.)	
Remarks: No hydrology indicators.	

**SOILS**

Data Point #14

Map Unit Name (Series and Phase): Grangeville fine sandy loam		Drainage Class: <u>Somewhat poorly drained</u>			
Taxonomy (Subgroup): Aquic Haploxerolls		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-20		---			sand
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	
Remarks: No ACoE or Coastal Commission jurisdiction.				

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP15, PP15</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum crystallinum</i>	H	UPL	9.		
2. <i>Mesembryanthemum nodiflorum</i>	H	UPL	10.		
3. <i>Atriplex triangularis</i>	H	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 33%

Remarks: Area does not meet hydrophytic vegetation criteria. Disturbed vegetation with some components of Southern Coastal Salt Marsh.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: _____ (in.) Depth to free Water in Pit _____ (in.) Depth of Saturated Soil: _____ (in.)	
Remarks: Soils moist but not saturated. No hydrology indicators.	





**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP16, PP16</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>None</i>			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation present.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>      </u> (in.) Depth to free Water in Pit <u>      </u> (in.) Depth of Saturated Soil: <u>      </u> (in.)	
Remarks: Data point is located in a shallow depression. Salt granules on surface have a crystalline structure.	

**SOILS**

Data Point #16

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3					Salt
3-9		10YR 3/2			Sandy loam
9-18		Gley1 2.5/10Y			Clay
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Gleyed soils indicate hydric soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 28 April 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: Ruderal Transect ID: Plot ID: DP17, PP17

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2. <i>Atriplex triangularis</i>	H	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Area does not satisfy hydrophytic vegetation criteria.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available  Field Observations: Depth of Surface Water: ----- (in.) Depth to free Water in Pit ----- (in.) Depth of Saturated Soil: ----- (in.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: Soil is moist but not saturated. No indicators of hydrology.	

**SOILS**

Data Point #17

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3					Salt
3-18		10YR 3/3			Sandy loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Remarks: No ACoE or Coastal Commission jurisdiction.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 28 April 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Salt Panne
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: DP18, PP18

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: Area does not satisfy hydrophytic vegetation criteria.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: ----- (in.) Depth to free Water in Pit: ----- (in.) Depth of Saturated Soil: 9 (in.)	
Remarks: Hydrology is indicated by saturation in the upper 12 inches.	

**SOILS**

Data Point #18

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4					Salt
4-5		2.5YR 4/1			Clay
5-18		10YR 3/2			loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in surface layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soil indicates hydric soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 28 April 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Salt Panne
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: DP19, PP19

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: Area does not satisfy hydrophytic vegetation criteria.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: ----- (in.) Depth to free Water in Pit: ----- (in.) Depth of Saturated Soil: 10 (in.)	
Remarks: Hydrology is indicated by saturation in the upper 12 inches. Salt granules on surface are a combination of rounded and angular flakes.	

**SOILS**

Data Point #19

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4					Salt
4-7		Gley1 3/N			Clay loam
7-18		10YR 3/2			Loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soil indicates hydric soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>28 April 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Ruderal</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP20, PP20</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2. <i>Atriplex triangularis</i>	H	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Ruderal with some components of Southern Coastal Salt Marsh. Area does not satisfy hydrophytic vegetation criteria.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>      </u> (in.) Depth to free Water in Pit <u>      </u> (in.) Depth of Saturated Soil: <u>      7      </u> (in.)	
Remarks: Hydrology is indicated by saturation in the upper 12 inches.	

**SOILS**

Data Point #20

Map Unit Name (Series and Phase): Mapped as "water"		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3					Salt
3-18		10YR 3/2			loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20		Date: 27 May 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore		County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee		State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Community ID: OW
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)		Plot ID: DP21, PP10

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks:

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: ----- (in.) Depth to free Water in Pit ----- (in.) Depth of Saturated Soil: 6 (in.)	
Remarks: Hydrology is present. Data Point takes place at edge of Open Water.	

**SOILS**

Data Point #21

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3		---			salt
3-4		10YR 3/2			silty clay
4-16		10YR 3/1			clay
<b>Hydric Soil Indicators:</b>					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soils. Large pieces of salt rock in soils make it gritty. Salt rocks dissolve in freshwater, which indicate that the water present is saturated.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>27 May 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: <u>DP22, PP11</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water:      -----      (in.) Depth to free Water in Pit      -----      (in.) Depth of Saturated Soil:      -----      (in.)	
Remarks: No hydrology indicators present.	



**SOILS**

Data Point #22

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-3		---			salt
3-4		10YR 3/2			Loamy sand
4-15		10YR 4/3			Loamy sand
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators. Salt appears rounded rather than flaky.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
No ACoE or Coastal Commission jurisdiction.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>27 May 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP23, PP12</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: No vegetation.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: _____ (in.) Depth to free Water in Pit: _____ (in.) Depth of Saturated Soil: <u>6</u> (in.)	
Remarks: Hydrology is present. Data Point is located in a shallow depression. Salt granules on surface have a crystalline structure.	

**SOILS**

Data Point #23

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-8		10YR 3/1			silty clay
8-15		10YR 3/2			clay
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soils indicate hydric soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 27 May 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Salt Panne
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: DP24, PP13

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: ----- (in.) Depth to free Water in Pit: ----- (in.) Depth of Saturated Soil: ----- (in.)	
Remarks: No hydrology indicators present.	

**SOILS**

Data Point #24

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-5		10YR 5/3			loamy sand
5-15		10YR 3/2			Sandy clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators. Salt appears rounded with only a few crystalline flakes mixed in.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
No ACoE or Coastal Commission jurisdiction.					

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 27 May 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: OW
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: DP25, PP14

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks:

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: ----- (in.) Depth to free Water in Pit: ----- (in.) Depth of Saturated Soil: 10 (in.)	
Remarks: Hydrology is present. Data Point takes place at edge of Open Water.	

**SOILS**

Data Point #25

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-5		10YR 3/2			Sandy loam
5-8		10YR 3/2	Gley1 2.5/N 5YR 4/6	Large, distinct, many Faint, few, small	Clay loam
8-15		10YR 3/2			Clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input checked="" type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soils. Soil has distinct dark mottles. Salt crystals are rounded with crystalline flakes mixed in.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92



**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pond 20</u>	Date: <u>27 May 2003</u>
Applicant/Owner: <u>Port of San Diego/ Ninyo &amp; Moore</u>	County: <u>San Diego</u>
Investigator: <u>Holly D. Henderson &amp; Vanessa A. Lee</u>	State: <u>California</u>
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Salt Panne</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>DP26, PP15</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: All vegetation consists of this species. Vegetation is sparse.

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>-----</u> (in.) Depth to free Water in Pit <u>-----</u> (in.) Depth of Saturated Soil: <u>-----</u> (in.)	
Remarks: No hydrology indicators present.	

**SOILS**

Data Point #26

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-5		---			salt
5-15		10YR 3/2			clay
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: No hydric soil indicators. Salt appears rounded with only a few crystalline flakes mixed in.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/>	
No ACoE or Coastal Commission jurisdiction.				

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: Pond 20	Date: 27 May 2003
Applicant/Owner: Port of San Diego/ Ninyo & Moore	County: San Diego
Investigator: Holly D. Henderson & Vanessa A. Lee	State: California
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Salt Panne
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: DP27, PP16

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Mesembryanthemum nodiflorum</i>	H	UPL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percentage of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks:

**HYDROLOGY**

<input checked="" type="checkbox"/> Recorded Data (Described in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: _____ (in.) Depth to free Water in Pit: _____ (in.) Depth of Saturated Soil: <u>8</u> (in.)	
Remarks: Hydrology is indicated by saturated soils.	

**SOILS**

Data Point #27

Map Unit Name (Series and Phase): Mapped as water		Drainage Class: _____			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Profile Description:</b>					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
0-4		---			salt
4-15		7.5YR 3/1			clay
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in surface layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: Low-chroma colored soils. Salt granules are angular.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
					Is this Sampling Point Within a Wetland?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: ACoE jurisdictional non-wetland water of the U.S., jurisdictional under the Coastal Commission.					

Approved by HQUSACE 3/92

APPENDIX 2. PHOTO POINTS

Pond 20 – Revised Wetland Delineation

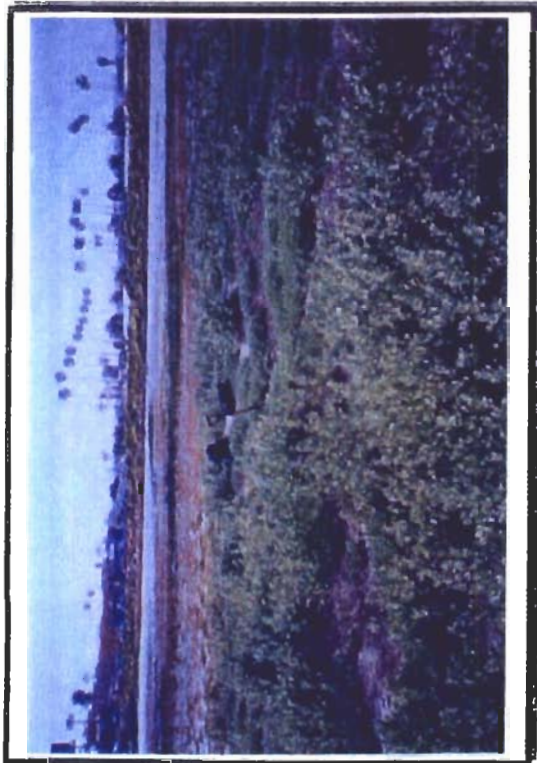


Photo Point 1A. Southward view of Data Point 1, taken on April 2003.

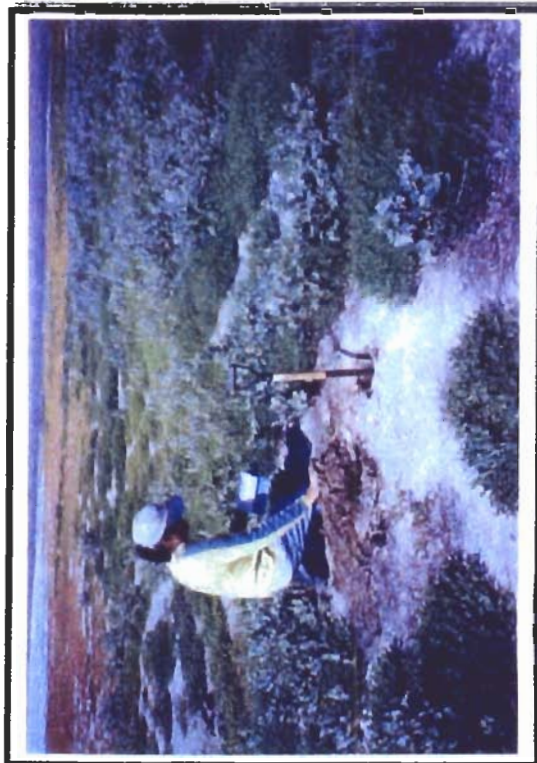


Photo Point 2. View of Data Point 2.



Photo Point 1B. Same southward view of Data Point 7 from March 2000 wetland delineation.

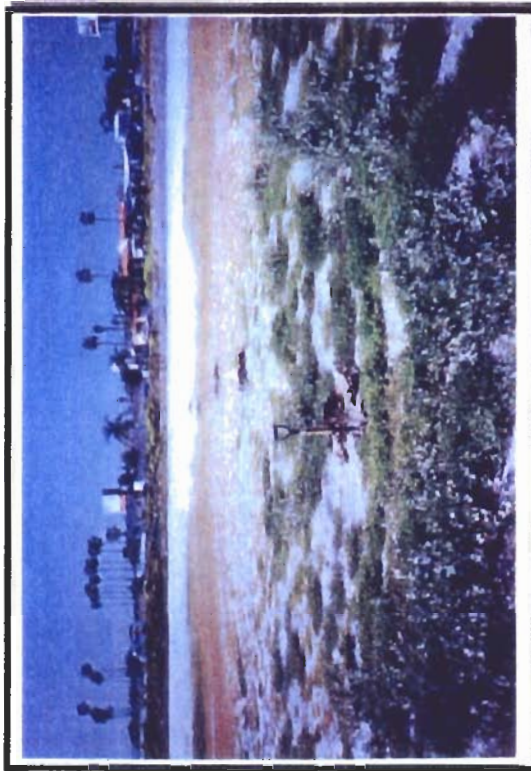
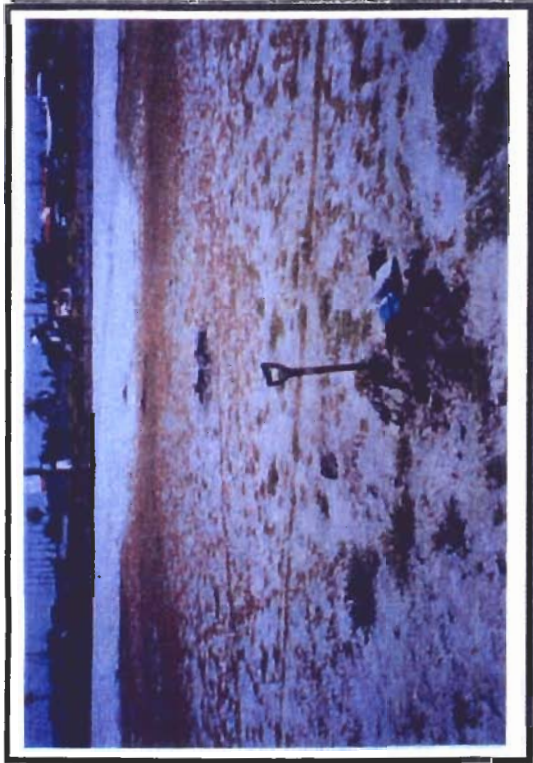
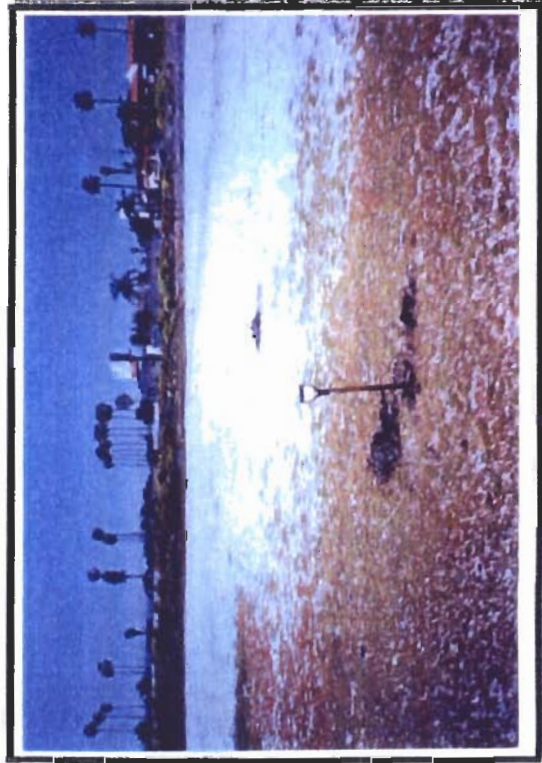


Photo Point 3. Southward view of Data Point 3.





**Photo Point 4A.** Southward view of Data Point 4. Area contains much more vegetation than during previous delineation in March 2000.



**Photo Point 5.** Southward view of Data Point 5.



**Photo Point 4B.** View of Data Point 6 from March 2000 wetland delineation. Much less vegetation was present at that time.



**Photo Point 6.** Southward view of Data Point 6.





Photo Point 7. Southward view of Data Point 7.



Photo Point 8. Southward view of Data Point 8.



Photo Point 9. Southeastward view of Data Point 9.



Photo Point 10. Westward view of Data Point 10, which was located in Open Water.





Photo Point 11. Southeastward view of Data Point 11.



Photo Point 12A. Westward view of Data Point 12, which is located within a swale.



Photo Point 12B. Eastward view of Data Point 12.



Photo Point 13. Northeastward view of Data Point 13, which is located just outside of a swale.





Photo Point 14. Close-up view of Data Point 14, which is located in Pond 20B.

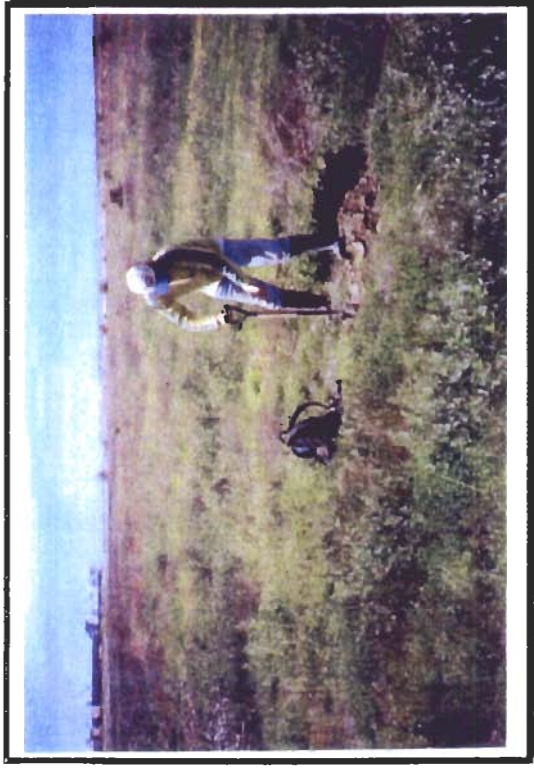


Photo Point 15. Northwest view of Data Point 15 located in upland vegetation.

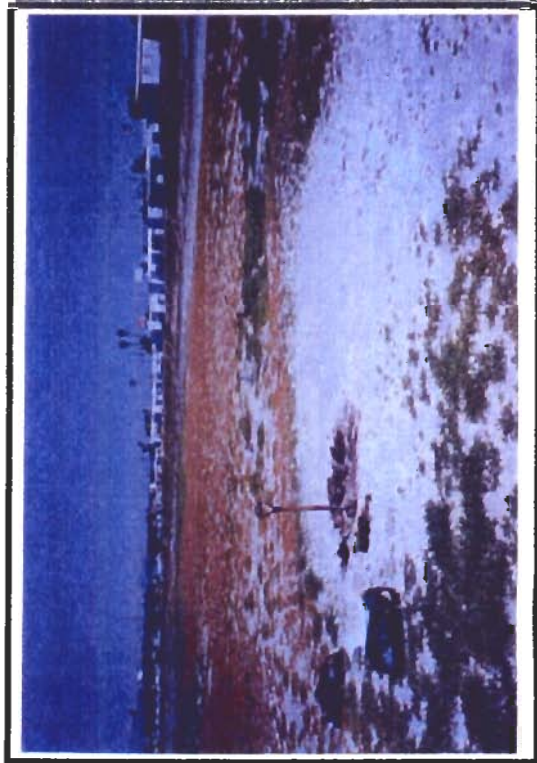


Photo Point 16. Eastward view of Data Point 16 located in shallow depression.

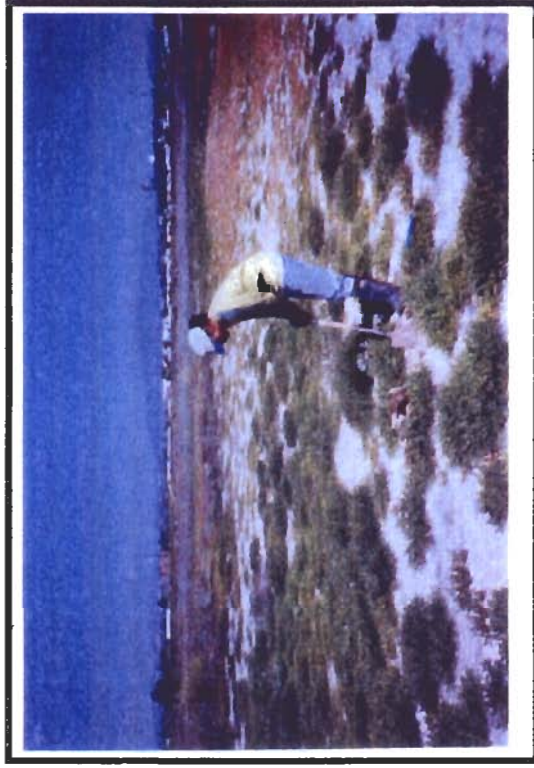


Photo Point 17. Northward view of Data Point 17 located just outside of depression area.



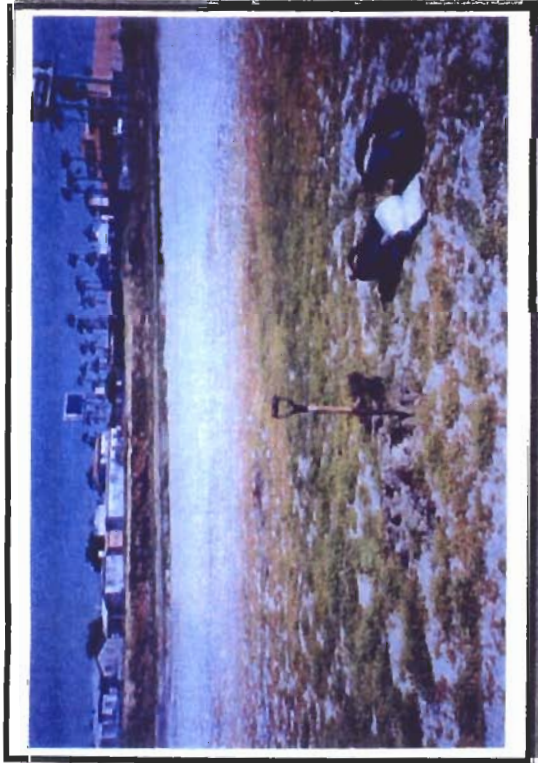


Photo Point 18. Eastward view of Data Point 18..

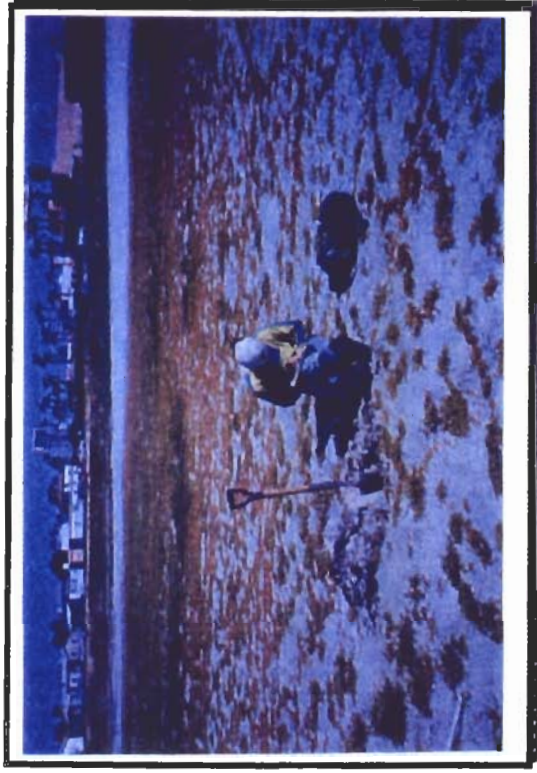
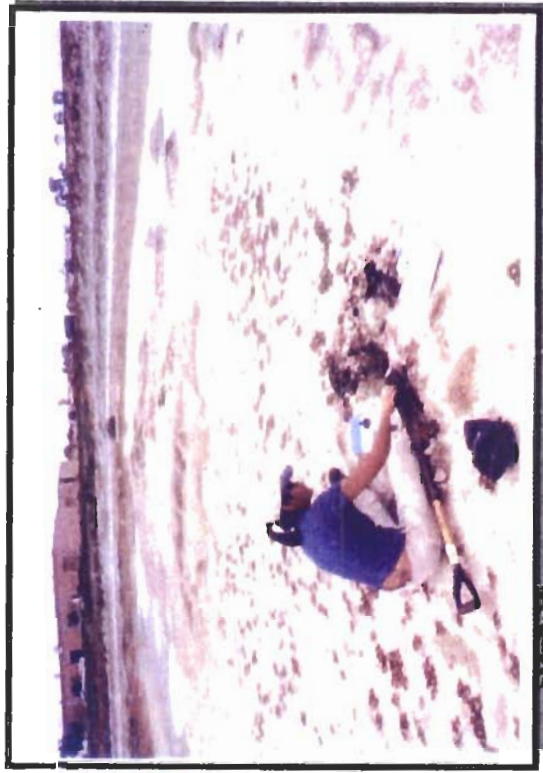


Photo Point 19. Eastward view of Data Point 19.



Photo Point 20. Southeastward view of Data Point 20.



View Point 21. Westward view of Data Point 21.



*Pond 20 – Revised Wetland Delineation*

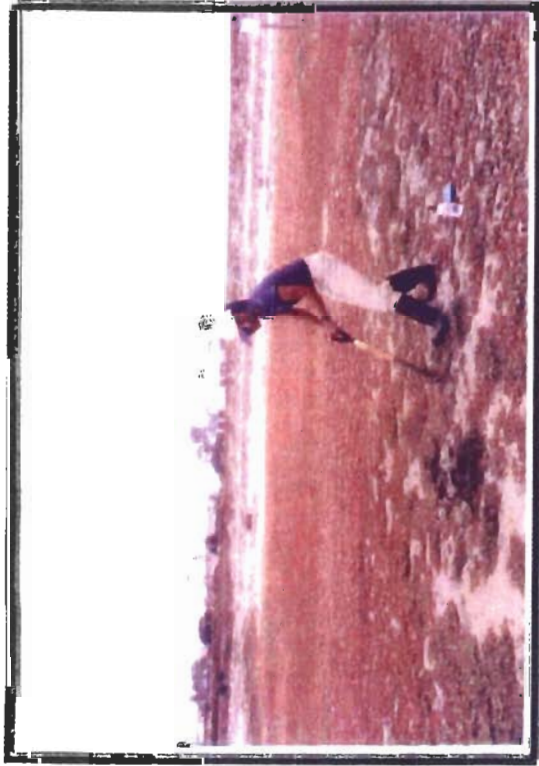


Photo Point 22. Westward view of Data Point 22.

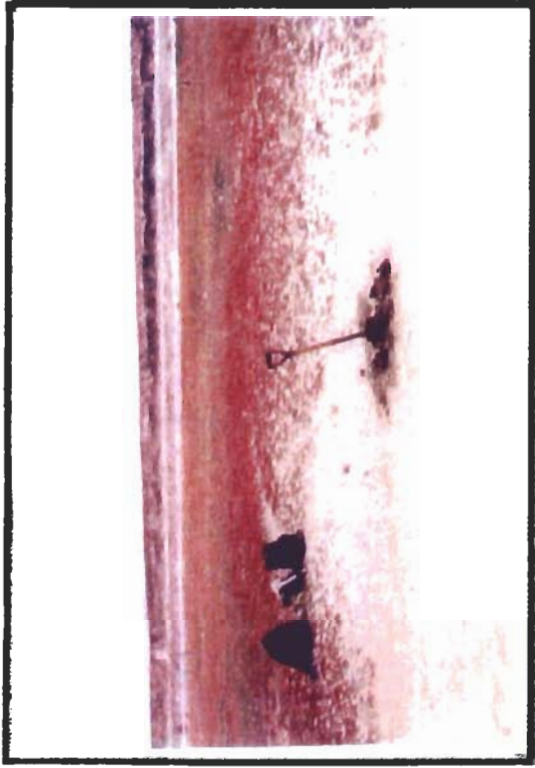


Photo Point 23. Northwest view of Data Point 23.

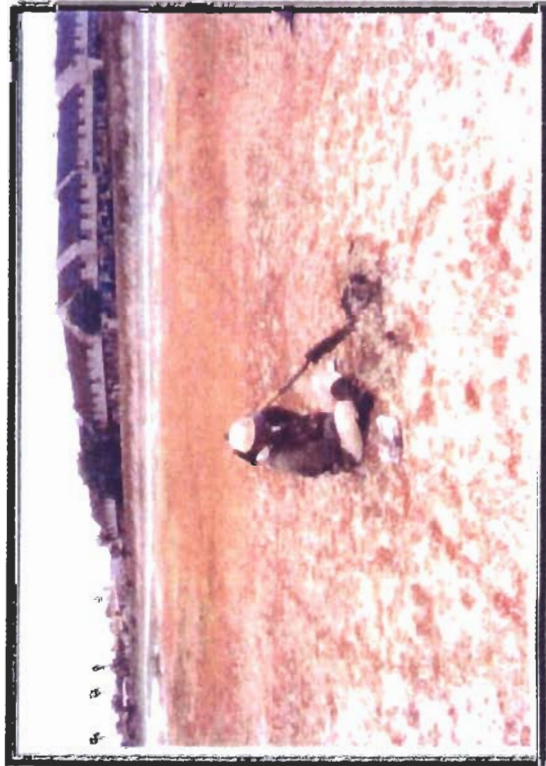


Photo Point 24. Westward view of Data Point 24.

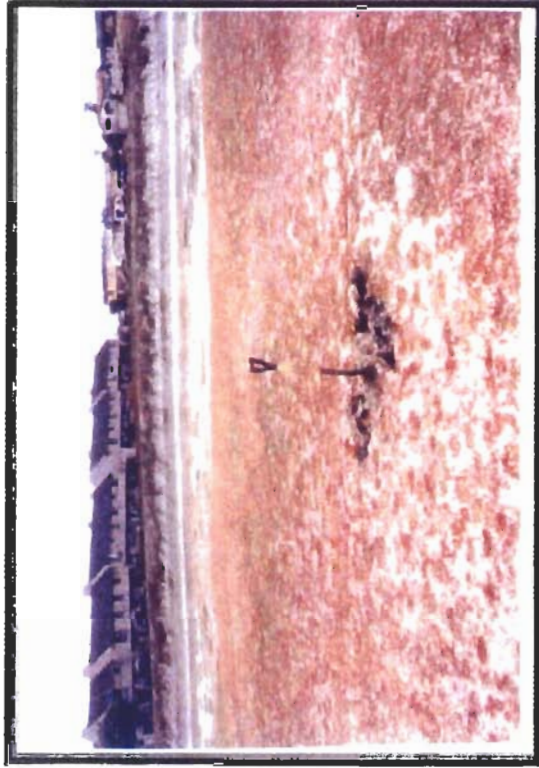


Photo Point 25. Westward view of Data Point 25.

*Pond 20 – Revised Wetland Delineation*



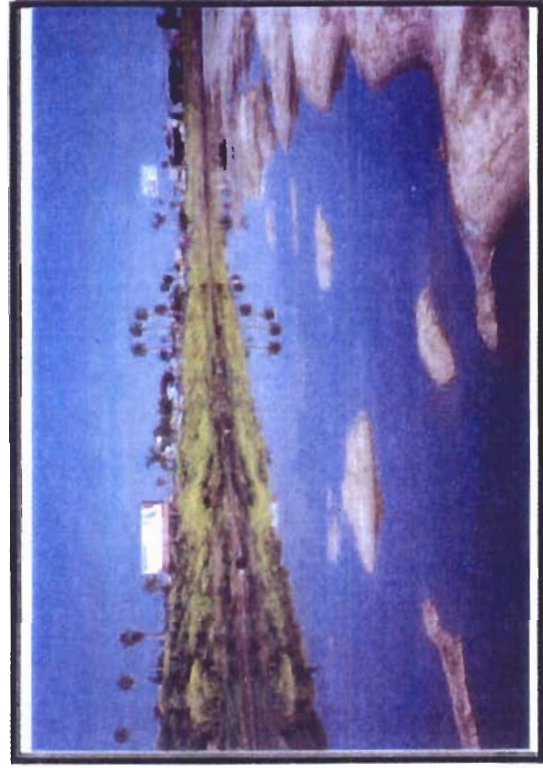
Photo Point 26. Southwest view of Data Point 26.



Photo Point 27. Westward view of Data Point 27.



Example of salt crystals within Pond 20. Irregularly shaped flakes are located on the right while more rounded crystals are located in the middle and left of the photo.



View Point A. Westward view of the southern channel of Pond 20A.



*Pond 20 – Revised Wetland Delineation*



**View Point B.** Southward view of channel that borders Pond 20B.



**View Point C.** Westward view across central portion of Pond 20B.



**View Point D** Westward view of southeastern portion of Pond 20A.