SPECIAL-STATUS SPECIES BIOLOGY AND LIKELIHOOD OF OCCURRENCE ANALYSIS

The following information provides explanation for conclusions regarding likelihood of occurrence. The brief synopses of biology are provided as limited background only, and no attempt is made to compile or summarize all potentially relevant information on the species.

This appendix addresses all species with applicable special regulatory or management status that includes the Project study area within their general range and for which grossly appropriate habitat is present on or near the Project study area. Conclusions here are limited to biology, with no reflection of regulatory or management issues. For interpretation of this information under applicable laws, regulations and court precedent, see the relevant portion(s) of the report. Judgments regarding likelihood of occurrence are based on evaluation of all available biological information regarding regional and local conditions, species biology, available evaluations of the Project study area and vicinity, and professional experience conducting field investigations across California over many years.

Specific factors substantially affect likelihood of occurrence for individual species on any particular study area. These factors are relevant at multiple scales, including regionally, locally, and within the Project study area. These factors include the presence or absence of many other particular species (e.g., predators, prey), climate, ongoing disturbances, historical land use and other past disturbances such as fire history, surface and subsurface hydrology, soil texture and chemistry, Project study area and habitat size and topology (i.e., shape and fragmentation), past population fluctuations of the species in response to random and nonrandom events, and many other factors, including many not readily visible. Note that some species, including many birds and bats, can occur in multiple roles. Thus, likelihood of occurrence, habitat use, and abundance may vary accordingly. Where multiple codes are given for a species, underlined codes refer to the likelihood of occurrence in potentially constraining roles (e.g., breeding, as opposed to migration or dispersal, for many state Species of Special Concern birds).

TERMS FOR LIKELIHOOD OF OCCURRENCE IN THE PROJECT STUDY AREA

NONE: Based on available information, it is judged that the species does not occur. This determination is based on some combination of these facts: (1) the Project study area is clearly outside the current range based on available information, and/or (2) the Project study area does not contain suitable or extensive enough habitat (including any adjacent off-Project study area habitat) to hold the species or confirmed to be absent based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. Further evaluation should not be required at this time.

VERY LOW: Although remotely possible, the probability of occurrence on the Project study area is almost none, and the likelihood of meaningful use is less than reasonable. The species may include the Project study area within its general range, however, no appropriate or adequately extensive habitat is found (either on or immediately adjacent to the Project study area). Neither the species nor any indication of its presence was detected. In some cases this likelihood may indicate that based on the best available information, the Project study area has a very high probability of being outside of the species' current range. In all of these cases, the species cannot be definitively ruled out, but is strongly expected to be absent based on the best available evidence. In some cases, the species may occur on rare occasions and in very low numbers, but such stray individuals are unlikely to make more than very brief, incidental use of the Project study area. Certainly there are no substantial populations utilizing the Project study area at any time of year. Further evaluation should not normally be required.

LOW: The species is unlikely because of some combination of facts: (1) it was the subject of unsuccessful searches conducted under reasonable circumstances, (2) only marginal or minimal habitat is present, (3) the best available information suggests the species is absent from the Project study area, and/or (4) available information sheds no clear light on the species likelihood on the Project study area, but it is known to be rare at best in the vicinity. No individuals were detected, nor is there any direct indication of them. Although individuals may have been missed, it is unlikely that substantial populations are present. Further evaluation should usually not be required for individual species except, in most cases, for threatened or endangered species. Note however, that where several non-listed species hold this status, a much higher likelihood of occurrence for "one or more" will generally hold. This is due both to the increased number of species, and the fact that an array of possibilities often correlates with greater alpha diversity and lower actual disturbance levels.

MODERATE: The Project study area is within the range of the species, and appears to contain appropriate habitat. No individuals or diagnostic sign were detected, it is nevertheless reasonable that some individuals have been overlooked. The best available information on the species with regard to the Project study area is either very uncertain, or is about equally weighted for and against occurrence. Depending upon local and special legal status, extent of habitat, and the nature and sensitivity of the project, focused surveys for the species may be warranted or presence may be assumed.

HIGH: The Project study area is known to be within the range of the species, and appears to contain habitat with substantial potential for occupancy. Although no individuals or diagnostic sign were detected, it is judged likely that it is present to some degree, given the best available information. Depending upon regulatory status, local rarity, public interest, extent of habitat on the Project study area and the nature of potential project impacts, a substantial basis may exist for either conducting focused surveys for the species or for assuming presence.

VERY HIGH: Based on the best available information, the Project study area is within the current range of the species and sufficient very appropriate or characteristic habitat is present on or contiguous with the Project study area for occupancy. Although individuals and/or diagnostic sign were not definitely detected at the current time, it is judged to be very highly likely to occur. In some cases the species may be known to have occurred on the Project study area historically or in the recent past, with no clear basis to assume extirpation since then. In rare cases, changes off of the Project study area (e.g., fire or other disturbance) may provide a basis to assume current presence as a result. Although focused surveys for this species would be required to absolutely confirm presence or absence, such surveys are judged to have a very high probability of confirming presence. Without such surveys presence should generally be assumed.

CONFIRMED: Confirmed present by a qualified biologist or other highly reliable source and there is no specific evidence that the species is now absent. Depending on the species and other information available, it may or may not be possible to determine what portions of the Project study area are currently in use without further studies.

ABSENT: Confirmed to be absent on the Project study area as a practical matter. Most often, this is a determination based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. In the remaining cases, it may be based on a simple Project study area examination, for species and Project study area contexts where it is easily determined that the species is absent; for example, a tidal marsh insect and a dry mountainside Project study area, or a disturbance-intolerant chaparral shrub where the Project study area is a long-standing, degraded grassland far from chaparral. The relevant field work was also in all cases conducted within a time frame sufficiently recent to conclude that the species remains absent, based on Project study area conditions and the species' known ecology. In most cases a specific, established survey protocol and/or guidelines have been followed.

Table 1. Status Code Explanations

Status code	Explanation
FE	Federally Endangered
FT	Federally Threatened
FPE	Federally proposed Endangered
FPT	Federally proposed Threatened
FC	Federal Candidate species
FW	Federally "warranted for listing, but listing is precluded by higher priority actions"
EPA	Covered under the Federal "Bald and Golden Eagle Protection Act"
SE	State Endangered
ST	State Threatened
SR	State Rare (used for plants only)
SCE	State Candidate for Endangered listing
SCT	State Candidate for Threatened listing
SSC	State Species of Special Concern
CFP	California Fully Protected species
CSP	California Specially Protected species
CNDDB	Tracked by the California Department of Fish and Game "Natural Diversity Data Base", but with no other special regulatory or management status
1A	California Native Plant Society (CPS) List 1A plant ("Plants presumed extinct in California")
1B	CNPS List 1B plant ("Plants rare, threatened or endangered in California and elsewhere")
2	CNPS List 2 plant ("Plants rare, threatened or endangered in California, but more common elsewhere")
P	"pt" or "pd": the taxon has been formally proposed to be down-listed, either from Endangered to Threatened ("pt"), or delisted completely ("pd")

Table 2. Special Status Species Information

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
PLANTS			
Aphanisma (*Aphanisma blitoides*)	1B	None	Annual herb; habitat includes sandy soils in coastal bluff scrub, coastal dunes, coastal scrub at 1 to 305 meters elevation. These types of vegetation communities are absent from the Project study area.
South Coast Saltscale (*Atriplex pacifica*)	1B	None	Annual herb; habitat includes coastal bluff scrub, coastal dunes, coastal scrub, and playas at 0 to 140 meters elevation. These habitats are absent from the Project study area.
Parish's Brittlescale (*Atriplex parishii*)	1B	None	Not recorded in the San Pedro quadrangle; annual herb; associated with chenopod scrub, playas, and vernal pools at 25 to 1900 meters elevation. Such habitats are absent from the Project study area.
Davidson's Saltscale (*Atriplex serenana* var. *davidsonii*)	1B	None	Annual herb; found in alkaline soils within coastal bluff scrub and coastal scrub vegetation communities at 10 to 200 meters elevation. Habitat absent from Project study area.
Lewis's Evening-Primrose (*Camissonia lewisii*)	3	None	Not recorded in the San Pedro quadrangle; annual herb found in sandy and clay soils of coastal bluff scrub, cismontaine woodland, coastal dune, coastal scrub, and valley and foothill grassland at 0 to 300 meters elevation. No such habitats are present within the Project study area.
Southern Tarplant (*Centromadia parryi* ssp. *australis*)	1B	None	Not recorded from the San Pedro quadrangle; an annual herb found at the margins of marshes and swamps, in mesic valley and foothill grasslands, and vernal pools at elevations of 0 to 425 meters. No potentially suitable habitat is present within the Project study area.
Orcutt's Pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)	1B	None	Not recorded in the San Pedro quadrangle; annual herb found in sandy soils associated with coastal bluff scrub and coastal dunes at elevations of 0 to 300 meters. No habitat is present within the Project study area.
Salt Marsh Bird's-Beak (*Cordylanthus maritimus* ssp. *maritimus*)	FE, SE, 1B	None	Not recorded within the San Pedro quadrangle; annual herb that is found in coastal dunes and coastal salt marshes and swamps at 0-30 meters elevation. A small amount of coastal salt marsh is present Cabrillo. Although historically this area was an expansive saltmarsh/mudflat complex prior to World War II, all that remains is the 3.25-acre Cabrillo salt marsh that was constructed in 1982 (Los Angeles Harbor Department and EDAW, Inc. 1982. Cabrillo Salt Marsh Construction, p. 101-

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			102. In M. Josselyn (Ed.), Wetland Restoration and Enhancement in California. Report T-CSGCP-007, California Sea Grant College Program, University of California, La Jolla). Given the historical disturbances to the area, relative isolation, and artificial construction of marsh, no potential for the species is judged present.
Catalina Crossosoma (*Crossosoma californicum*)	1B	None	Not recorded from San Pedro quadrangle; perrential deciduous shrub found in rocky chaparral and coastal scrub at elevations of 0 to 500 meters. No potential habitat is present within the Project study area.
Beach Spectaclepod (*Dithyrea maritima*)	1B	None	Not found w/in San Pedro quadrangle; perennial herb that is associated with coastal dunes and coastal scrub at 3 to 50 meters elevation. No habitat present in Project study area.
Island Green Dudleya (*Dudleya virens* ssp. *insularis*)	1B	None	Not recorded from San Pedro quadrangle; perennial herb found in rocky coastal bluff scrub and coastal scrub at elevations of 5 to 300 meters. Potential habitat absent from Project study area.
Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B	None	Not recorded from San Pedro quadrangle; annual herb that inhabits coastal salt marshes and swamps as well as playas and vernal pools at elevations of 1 to 1220 meters. Only extant salt marsh present w/in the vicinity of the Project study area is at Cabrillo. This marsh was created in 1982 and given the time lapse between historical wetlands to the area (prior to World War II) and the isolated conditions of the created Cabrillo salt marsh, no potential for the species is judged present. Vernal pools and playas are absent from the Project study area.
Santa Catalina Island Desert-Thorn (*Lycium brevipes* var. *hassei*)	1B	None	Not recorded from the San Pedro quadrangle; perennial deciduous shrub found at elevations of 10 to 300 meters w/in coastal bluff scrub and coast scrub. No potential habitat is present w/in the Project study area.
Prostrate Navarretia (*Navarretia prostrata*)	1B	None	Not recorded from San Pedro quadrangle; annual herb found in coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pools; typically associated with alkaline soils and mesic soil conditions at 15 to 700 meters elevation. Single record for species w/in geographical region is dated 1882 and from Wilmington (CDFG 2005). In addition, the freshwater marsh located at the 22nd Street/Old Tank Farm Land open space is far too degraded and disturbed to provide potentially suitable habitat for this species. Soils adjacent to the marsh are compacted and have been "amended" with asphalt, concrete, and gravel.
Coast Woolly-heads (*Nemacaulis denudata* var. *denudata*)	1B	None	Not recorded from San Pedro quadrangle; annual herb found at 0

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			to 100 meters elevation in coastal dunes. Habitat absent from the Project study area.
Lyon's Pentachaeta (*Pentachaeta lyonii*)	FE, SE, 1B	None	Not recorded for San Pedro quadrangle; annual herb associated with chaparral, coastal scrub, and valley and foothill grasslands at 30 to 630 meters elevation. No potential habitat w/in Project study area.
Brand's Phacelia (*Phacelia stellaris*)	1B	None	Not recorded from the San Pedro quadrangle; annual herb found at 1 to 400 meters elevation w/in coastal scrub and dunes. No potential habitat present w/in Project study area.
Estuary Seablite (*Suaeda esteroa*)	1B	None	Not recorded w/in San Pedro quadrangle; perennial herb found in coastal salt marshes and swamps at elevations of 0 to 5 meters. Only extant salt marsh is at Cabrillo. This marsh was created in 1982 and isolated from other salt marshes. Given the conditions by which the marsh was created along with it being isolated, the species is judged absent from the Project study area.
ANIMALS			
Palos Verdes Blue Butterfly (*Glaucopsyche lygdamus palosverdesensis*)	FE	None	Species limited to a single small population at the former Palos Verdes Navy Housing Area located directly north of the Defense Fuel Supply Point in San Pedro. Associate w/ coastal sage scrub. Potential habitat absent from Project study area and species not known from other locations.
Monarch Butterfly (*Danaus plexippus*)	CNDDB	Moderate as migrant only.	Winter roost sites extend along the coast from northern Mendocino to Baja California. Roosts located in wind-protected tree groves (gum trees, Monterey pines, cypress) with nectar and water sources nearby. Small numbers expected to migrate through Project study area in fall. No potential roost sites w/in Project study area.
Tidewater Goby (*Eucuclogobius newberryi*)	FE, SSC	None	Historically, the Los Angeles basin provided shallow, brackish lagoon habitat suitable for the tidewater goby. Currently, however, this area is a gap between the Santa Monica (in western L.A. County) and Alisa Creeks (in Orange County) populations (USFWS 2004 – Andy Wones citation). The Project study area contains no habitat suitable for the species and there is no designated federal Critical Habitat for this species (Federal Register 65(224:69693-69717) in the Project study area.
Green Sea Turtle (*Chelonia mydas*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
Leatherback Sea Turtle (*Dermochelys coriacea*)	FE	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
Loggerhead Sea Turtle (*Caretta caretta*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
Olive Ridley (*Lepidochelys olivacea*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillei*)	SSC,	None	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions; prefers friable, rocky, or shaley sandy soils. Potential habitat absent from Project study area.
Common Loon (*Gavia immer*)	SSC	Confirmed as migrant and winter resident only	Southern California outside species breeding range; species has been documented w/in the Project study area during fall, winter, and spring (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June).
California Brown Pelican (*Pelecanus occidentalis californicus*)	FE, SE, CFP	Confirmed as year-round non-breeder	Species uses the Harbor for foraging and roosting only; breeds on the Channel Islands and islands off the coast of Baja California (LAHD 2004 – Draft EIR for Berth 206-209, Interim Container Terminal Reuse Project. Prepared with assistance from CH2MHILL, Santa Ana, California. May 2004).
Double-crested Cormorant (*Phalacrocorax auritus*)	SSC	Confirmed as year-round non-breeder	This colonial piscivore (fish eater) is an uncommon transient and winter resident in coastal southern California, especially at major rivers and lakes with undisturbed shallows. Species is known to forage and roost w/in the Harbor year-round. Breeds along the coast and on the Channel Islands in undisturbed settings.
Osprey (*Pandion haliaetus*)	SSC	Confirmed as migrant and wintering resident non-breeder	Diet consists almost entirely of fish. It was formerly a common and widespread breeder in southern California (Grinnell and Miller 1944 - Grinnell, J., and A. H. Miller. 1944. The Distribution of the Birds of California. Pacific Coast Avifauna 27.), but no longer breeds regularly in California anywhere south of the northern San Francisco Bay (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). Declines are directly attributed to environmental pollution, with secondary causes including harassment by fishermen, disturbance at nest sites, and loss of habitat quality (including increased turbidity and fish stock declines in some rivers). Species is known to forage in Harbor waters for fish and roosts on tall undisturbed poles, tree snags, etc.
White-tailed Kite (*Elanus leucurus*)	CFP	Low as migrant; non-breeder	A bird of prey that hunts in open country. It is found across most of California. Nests are located low in trees and large shrubs near foraging areas in savannahs and at edges between open habitat and woodland or forest areas; vulnerable to human disturbance, especially during nesting. Species is not recorded for the Harbor and is not likely to occur except as a rare brief

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			migrant.
Bald Eagle (*Haliaeetus leucocephalus*)	FT, EPA, SE, CFP	Very Low as migrant non-breeder	Species eats mainly fish and carrion, and formerly nested locally along the coast of southern California. It is now a very localized winter resident and rare migrant, with only very rare breeding efforts in coastal southern California (e.g., Lake Skinner, Riverside County). Within Los Angeles Harbor an individual may occur in some years during migration and/or winter. Coastally the species is known to nest on Santa Catalina Island.
Sharp-shinned Hawk (*Accipiter striatus*)	SSC	Low as non-breeding migrant	This small raptor specializes in hunting small birds and winters widely and fairly commonly in California including urban settings. It is a rare breeder south of northern San Luis Obispo County, and then only in high elevation forest and riparian habitats. Within the Project study area this species is likely to occur sporadically as a migrant or winter visitor.
Cooper's Hawk (*Accipiter cooperii*)	SSC	Low as non-breeding migrant	This medium sized hawk is a specialist in hunting small birds in closed quarters. It winters widely and fairly commonly in California as birds breeding to the north move in. In southern California Cooper's Hawks breed primarily in woodland habitats, especially riparian zones, but also oak woodland, walnut woodland, gumtrees (*Eucalyptus* spp.), and occasionally in dense, abandoned or otherwise undisturbed orchards. Within the Project study area this species would likely be an uncommon visitor.
Merlin (*Falco columbarius*)	SSC	Low as non-breeding migrant	This is a falcon which breeds only to the north and east of California and winters here sparsely. Like larger falcons such as peregrine falcon, merlins specialize in hunting birds in open country, especially wetlands and extensive grasslands next to trees. Within the Project study area it is reasonable that this species could occur uncommonly as migrant and/or brief winter visitor.
American Peregrine Falcon (*Falco peregrinus anatum*)	SE, CFP	Confirmed	This subspecies of peregrine falcon formerly bred over most of North America. It was listed as a federally endangered species on 13 October 1970, and as state endangered on 27 June 1971. The species is currently undergoing a slow, steady recovery, and again breeds in small numbers through much of non-desert portions of California. Habitat at all seasons is primarily areas with accessible open water and high densities of prey species such as ducks and shorebirds. The American peregrine falcon was formally delisted under the federal Endangered Species Act on 25 August 1999 (USFWS 1999 - U.S. Fish and Wildlife Service. 1999. Endangered and Threatened Wildlife and Plants:

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Final Rule to Remove the American Peregrine Falcon from the List of Federal Endangered and Threatened Wildlife, and to Remove the Similarity of Appearance Provision for Free-flying Peregrines in the Conterminous United States; Final Rule. Fed. Reg. 64:46542-46558. 25 August 1999.), as were individuals of all other subspecies occurring within the range of this subspecies. The species as a whole remains listed as Endangered at the state level, throughout California. This species is known to nest within Los Angeles and Long Beach Harbors. The nearest known nesting location to the Project study area is the Vincent Thomas Bridge and the species may forage any where waterbird and pigeons concentrate and thus, may range widely when foraging.
Light-footed Clapper Rail (*Rallus longirostris levipes*)	FE, SE	None	This subspecies of clapper rail is restricted to the lower elevations of coastal marshes with active tidal flow. No substantial seasonal movements occur, although rare individuals wander away from known breeding locales. The population trend at this time is uncertain, but nearly all remaining populations are vulnerable to extirpation due to nonnative predators, human disturbance, poor water quality (especially due to siltation of marshes from upland runoff), and habitat degradation and loss. Within the Project study area the only possible location for the species is the Cabrillo salt marsh. The marsh vegetation w/in Cabrillo is far too small to support a clapper rail. This species is judged absent from the Project study area.
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT, SSC	Confirmed as non-breeder	Breeding habitat requirements include open, relatively flat areas with little or no vegetation. This includes undisturbed beaches, salt flats, playas, dredge spoils, levees, and even river bars. Food is virtually all aquatic and terrestrial invertebrates, which is typically captured through active observation, running, and then gleaning from the ground surface of tidal mudflats. Causes of decline are loss and, especially, intensive human disturbance of nesting areas, and introduction of nonnative predators. The federal listing of Threatened applies only to populations less than 50 miles from the nearest point of the Pacific Ocean. Along the southern California coastline this species is much more "common" as a migrant and winter visitor than a breeder where it can be found foraging and roosting along undisturbed beaches, lagoons, and estuaries. Within the Harbor this species is an occasional visitor to Pier 400 during the tern breeding season (May through August) (Keane Biological Consulting 2004 –

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) with use of the Project study area expected to be limited to beach and mudflat habitats for foraging and roosting and rare.
Long-billed Curlew (*Numenious americanus*)	SSC	Confirmed as non-breeding migrant/winter visitor	Within southern California, this species occurs as a spring/fall migrant and/or winter visitor along beaches and mudflats. This species is known to occur w/in the Harbor as an infrequent transient.
California Gull (*Larus californicus*)	SSC	Confirmed as non-breeder	This gull breeds in large colonies east of the Sierra Nevada mountains and in San Francisco Bay, and is one of about a dozen species of "seagulls" that winter in and migrate through coastal southern California. Concentrations occur along the coast, major rivers, lakes, open landfills, and at parks with duck ponds. This species is confirmed to occur as a non-breeder within the Project study area with highest numbers during fall/spring and winter. This species is expected to forage and roost within the Study Area.
Black Skimmer *(Rynchops niger*)	SSC	Confirmed as breeder	This species breeds at Pier 400 in small numbers (Keane Biological Consulting - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) and is expected to forage within the Study Area. This bird skims along surface coastal waters for fish and can be seen feeding along quiet protected waters as well as open nearshore waters. Based on MEC (2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June) this species is most common to the Harbor in July and August when post-breeding dispersal from larger breeding colonies occurs along the coast is expected to occur. The lowest number of individuals was recorded in May-June and October-January.
California Least Tern (*Sterna antillarum browni*)	FE, SE, CFP	Confirmed as breeder	This subspecies of least tern historically bred in scattered, mostly small colonies along the coast from Monterey Bay south into Baja California. Today they breed in far fewer colonies, heavily managed to control predators and human disturbance, from San Francisco Bay (Alameda County) south to a few sites along the Pacific Coast of Baja California, Mexico. Most individuals breed at a few relatively large colonies in coastal southern

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			California including Pier 400 in Los Angeles Harbor. They are extremely rare more than a few miles offshore, or inland except for occasional foraging at favorable fresh and brackish water locations. Winter distribution is unknown, but presumed to be open ocean off of Central America or South America; there are no winter records for California. The species feeds by diving for small surface fish from in flight. The U.S. Fish and Wildlife Service designates the breeding window as 15 April through 15 September; occasional individuals are seen as early as the beginning of April. Colonies are located near the ocean shoreline (within 0.5 miles [about 800 meters]), typically on nearly flat, loose sandy substrates with lightly scattered short vegetation and debris, although some colonies have been located on hard-packed surfaces, even unused asphalt. Colony sites must provide access to the shoreline for juveniles, and must be relatively free of predators. Documented predators include an extremely wide range of hawks, falcons, owls, shrikes, and mammals, even including herons and ground squirrels. The species is vulnerable due to their colonial nesting in a conspicuous, frequently disturbed habitat, along with their small size and dependence on small fishes whose populations vary greatly from year to year. Threats include loss and degradation of nesting and foraging habitat, direct disturbance from humans and pets, and increased predation risks due to the introduction of nonnative predators and increasing reliance on a few large colonies rather than many small, less conspicuous sites. With intensive management, recent population trends are upward. In 2004, an estimated 951 pairs of least terns nested at Pier 400 with 1,042 nests documented. In general, breeding success at this colony is above average compared to other colonies within Los Angeles and Orange Counties. Although the breeding colony is technically just outside the Project study area this species is expected to heavily use the aquatic environs w/in the Project study area for foraging from April through August.
Elegant Tern (*Sterna elegans*)	SSC	Confirmed as breeder	This tern forages in coastal and offshore waters including nearshore, bay, and estuarine situations where it feeds strictly on fish by aerial predation. Within the Harbor, elegant's breed at Pier 400 with an estimated 10, 170 nests recorded in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Division. January 2005.). The Harbor in the vicinity of the Project study area is expected to provide important forage for breeding adults and dispersing juvenile. The species is expected to occur between April through October but individuals can be seen in most months.
Tufted Puffin (*Fratercula cirrhata*)	SSC	Confirmed as non-breeder (rare)	This seabird is a rare occurrence within southern California coastal waters but an individual was recorded in 2000 (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June.). Any sighting of this species is expected to be a rare occurrence.
Burrowing Owl (*Athene cunicularia*)	SSC	Confirmed as non-breeder at Pier 400; None w/in Project study area.	This small owl is unusual among birds of prey in utilizing underground burrows. Burrowing owls are widely but thinly scattered through much of the western United States into southern Canada, with a disjunct population in Florida and the Caribbean. Generally they use burrows already dug by fossorial mammals such as ground squirrels, but can also use natural cavities and even man-made structures, such as piles of concrete or openings at the base of structures. Declines have been due to a variety of factors, including direct persecution, habitat loss, and control of both prey species and animals that create burrows. Within the Harbor an individual burrowing owl was relocated from Pier 400 in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting - Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005.). During the current field work for the project, the open lands within the Project study area were carefully checked for potential habitat including ground squirrel burrows. Based on current conditions within the Project study area, potential habitat is absent.
Vaux's Swift (*Chaetura vauxi*)	SSC	High	Swifts spend most of their lives in flight, hunting small insects. Vaux's swifts nest in snags in old growth forests from central California to southeast Alaska (as well as in Mexico southward), and winter from central Mexico to northern South America. They are fairly common as spring and fall migrants in southern California. Within the Project study area this species is expected to occur occasionally in fall and spring when the species is migrating to southern wintering grounds or northern breeding ground.

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
Loggerhead Shrike (*Lanius ludovicianus*)	SSC	Confirmed	This species typically hunts in sparsely vegetated lands with perches for scanning, and fairly dense shrubs/brush for nesting (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). An individual was recorded during the current field work for the project at the 22nd Street/Old Tank Farm Land open space. It is likely that a pair of this species nests within the brush lining the adjacent cliffs and forages in the remaining open lands within the close vicinity.
California Horned Lark (*Eremophila alpestris actia*)	SSC	Confirmed	Species nests in grasslands interrupted by bare ground, dunes, grassy hillsides, mesas, plowed agricultural land, and alkali flats to name a few (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp) and can be seen year-round in similar habitats including beaches. Several individuals were observed at the 22nd Street/Old Tank Farm Land open space during the current field work and it is expected to occur at other open space w/in the Project study area. It is also expected to breed in small numbers in these same areas.
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT, SSC	None	This species is an "obligate" resident of coastal sage scrub. No potential habitat within or adjacent to the Project study area.
Western Yellow Warbler (*Dendroica petechia brewsteri*)	SSC	Moderate as non-breeding migrant	Within the southern California coastal zone, breeding habitat for this warbler is found in riparian woodlands. Although the breeding habitat for this species is riparian, migrant yellow warblers during spring and fall can be found in a wide variety of habitats ranging from arid coastal sage scrub to urban landscaping (e.g., gum trees). Within the Project study area this species is expected to be limited to migrants in spring and summer and only a small number of individuals are expected. No breeding habitat is present.
Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)	SE	Confirmed transient visitor	This subspecies of savannah sparrow is a locally common non-migratory resident of coastal saltmarsh. It is distributed from northwestern Baja California north to Santa Barbara County. This subspecies was formerly numerous and widespread within this restricted range, as noted by Willett (1912): "Abundant resident of the salt marshes along the coast". In some places it extends inland into alkaline marshes as much as 8 miles (about 12.9 kilometers), but all known localities are within 100 feet (about 30.5 meters) elevation above mean sea level. It is an obligate breeder in middle elevation saltmarsh, nearly always characterized by pickleweed (Salicornia spp.), either in tidal situations or non-tidal alkaline flats nearby. Although the

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			majority of its subsistence stems from the saltmarsh and closely adjacent mudflat, individuals, particularly post-breeding birds, can be found foraging in a wide variety of habitats including upper marsh, adjacent ruderal and ornamental vegetation, open beach and mudflat, and even dirt and gravel parking lots. During fall, winter and spring, several other races of Savannah Sparrow occur in the same areas as Belding's, with complete overlap in habitat use (though the migrants remain more common in uplands). Migrants may be present within the range of Belding's from at least late August through early April. With good views of individual birds a knowledgeable and experienced observer may reliably identify Savannah Sparrows as Belding's or non-Belding's under field conditions. Non-Belding's savannah sparrows were recorded during the current field work. The breeding season for Belding's Savannah Sparrow has been estimated as mid-March to mid-July, though some young may fledge and remain dependent into August. Primary threats to the subspecies are loss and degradation of middle elevation coastal saltmarsh, and disturbance and predation. Belding's savannah sparrow is not recorded within the Project study area or Los Angeles Harbor. The last documented sighting occurred in 1984 within Long Beach harbor where an individual was observed (LAHD 2002 -). The small amount of pickleweed present within the Cabrillo marsh is not sufficient to support this subspecies. It is expected that if this species were to occur within the Project study area it would be extremely rare and brief.
Tricolored Blackbird (*Agelaius tricolor*)	SSC	None	This species colonially nests in freshwater marshes with dense stands of cattails and/or bulrushes, and occasionally in other riparian-associated thick brush (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.); foraging during nesting occurs in open lands with sparse vegetation in vicinity to the nesting colony. At other times of the year this species can be found in flocks foraging in open, expansive sparsely vegetated lands. Within the Project study area it is conceivable that the species could occur but it is highly unlikely given the surrounding urban setting and the limited open space present within the Project study area.
California Western Mastiff Bat (*Eumops perotis californicus*)	SSC	Low	In southern California this subspecies of mastiff bat is found throughout the coastal lowlands up to drier mid-elevation mountains. Habitats include dry woodlands, shrublands,

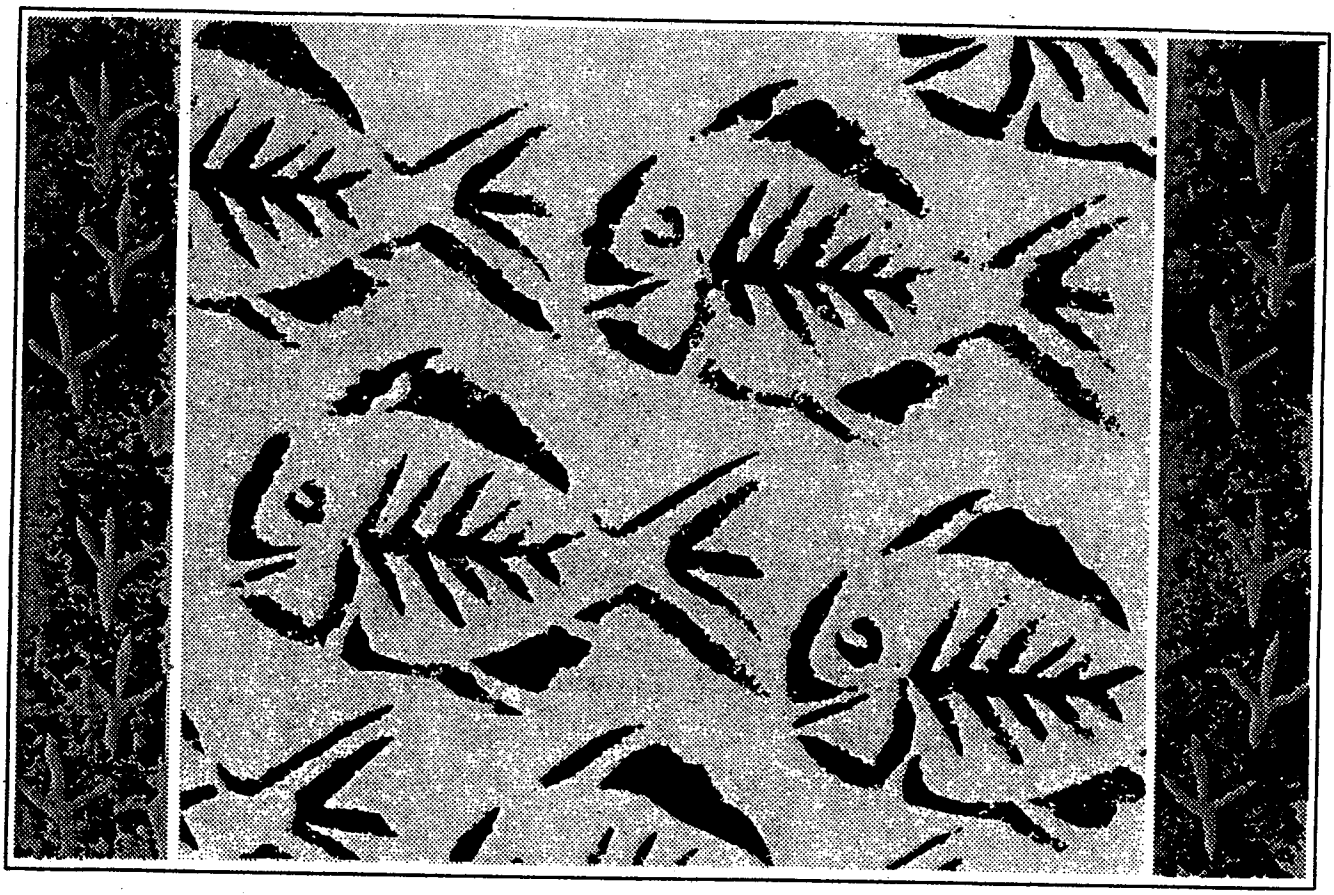
SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			grasslands, and occasionally even developed areas. This big bat forages in flight. They are active at night year round and are documented to travel over 15 miles (24 kilometers) in foraging bouts. Roost sites may be in natural rock or in tall buildings, large trees or elsewhere, but must be at least 2 inches (5 centimeters) wide and 12 inches (30 centimeters) deep, and narrow to at most 1 inch (2.5 cm) at their upper end. Nursery roosts must be deeper yet. All roosts open well up on a cliff or other steep face, at least 6.5 feet (2 meters) vertically above the substrate, to allow flight from the roost. Roosts may be communal (up to 100 individuals) or solitary, and commonly include other species of bats. Within the Project study area this species has not been documented, however it is possible that roosting habitat may include crevices or compartments in buildings or warehouses.
Big Free-tailed Bat (*Nyctinomops (=Tadarida) macrotis*)	SSC	None	This species of bat is nearly restricted to Mexico, with small numbers of incursions recorded into the developed portions of western San Diego County and a few additional records elsewhere in the state. The species roost in high rock crevices and cliffs, and forage primarily on large moths, especially over water. Habitats are arid, with particular preference for rough, rocky country. An individual of this species was collected in Long Beach in 1983. The species is a rarity at best and is not expected to occur within the Project study area.
Pacific Pocket Mouse (*Perognathus longimembris pacificus*)	FE, SSC	None	This subspecies is an obligate resident of fine-grained sandy soils of coastal strand, coastal dunes, river and marine alluvium, and coastal sage scrub in close proximity to the ocean, and has never been collected more than 2 miles (about 3 kilometers) from the coast or above 600 feet (about 180 meters) elevation. No potential habitat for this species is present within the Project study area.
San Diego Desert Woodrat (*Neotoma lepida intermedia*)	SSC, MSHCP	None	This is a medium-sized native rat locally common in a variety of sunny shrub habitats, frequently in rocky and/or steep terrain and upper drainages. Sage scrub communities are frequently occupied, but with other communities also used as suitable microhabitats are available. Potentially suitable habitat for the species is absent from the Project study area.
NATURAL COMMUNITIES			
Coastal and Valley Freshwater Marsh	CNDDB	Confirmed	A 0.3-acre freshwater marsh is located within the Project study area at the 22nd Street/Old Tank Farm Land open space. This marsh is highly degraded and isolated. Refer to Section 3.3.2.1

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			for further details and the jurisdictional delineation performed.
Southern Coastal Salt Marsh	CNDDB	Confirmed	A 3.25-acre coastal salt marsh is present at Cabrillo. It was created in 1982 and is vegetated by nonnative and native vegetation in the uplands and native pickleweeds (*Salicornia virginica*, *S. subterminalis*) and saltgrass (*Distichlis spicata*) along the periphery of the intertidal mudflats. The shallow waters provide spawning and nursery areas for fish and a variety of watersbirds are expected to regularly roost and/or forage w/in the marsh throughout the year.

Inner Harbor

MEMORANDUM OF UNDERSTANDING

AMONG
THE HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES,
THE CALIFORNIA DEPARTMENT OF FISH AND GAME,
THE NATIONAL MARINE FISHERIES SERVICE, AND
THE FISH AND WILDLIFE SERVICE,
TO
ESTABLISH A PROCEDURE FOR ADVANCE COMPENSATION
OF MARINE HABITAT LOSSES
INCURRED BY SELECTED PORT DEVELOPMENT PROJECTS
WITHIN THE HARBOR DISTRICT OF THE CITY OF LOS ANGELES.



MEMORANDUM OF UNDERSTANDING AMONG THE HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES, THE CALIFORNIA DEPARTMENT OF FISH AND GAME, THE NATIONAL MARINE FISHERIES SERVICE, AND THE FISH AND WILDLIFE SERVICE, TO ESTABLISH A PROCEDURE FOR ADVANCE COMPENSATION OF MARINE HABITAT LOSSES INCURRED BY SELECTED PORT DEVELOPMENT PROJECTS WITHIN THE HARBOR DISTRICT OF THE CITY OF LOS ANGELES,

THIS MEMORANDUM OF UNDERSTANDING (MOU) is entered into by the UNITED STATES OF AMERICA, acting by and through the FISH AND WILDLIFE SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR, ("FWS"), and the NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, UNITED STATES DEPARTMENT OF COMMERCE, ("NMFS"), and the STATE OF CALIFORNIA, acting by and through the DEPARTMENT OF FISH AND GAME, RESOURCES AGENCY, ("CDFG"), and the CITY OF LOS ANGELES, acting by and through the BOARD OF HARBOR COMMISSIONERS, ("BOARD").

WHEREAS, the BOARD is mandated to foster the orderly and necessary development of the Port of Los Angeles (see Exhibit A, Part 1), which may include the creation of new land or water areas in the Harbor District of the City of Los Angeles by fill or excavation ("Harbor District" is, for the purposes of this MOU, defined as only those areas which are shown shaded on Exhibit B); and

WHEREAS, the FWS and the CDFG have as their primary mandate, in this matter, the conservation, protection, and enhancement of marine fish and migratory birds and their habitats, including the planning of biological loss avoidance, minimization, and

compensation; and the NMFS has as its primary mandate, the conservation, protection, and enhancement of marine fisheries resources, including the planning of biological loss avoidance, minimization, and compensation, thereof; and

WHEREAS, port development landfills are subject to State regulation pursuant to the California Coastal Act and Federal regulation pursuant to the River and Harbor Act and Clean Water Act; and

WHEREAS, the implementation in June 1975 of the regulatory requirements of Section 404 of the Federal Water Pollution Control Act (later the Clean Water Act), marked the beginning of a national program to restore and maintain the physical, chemical, and biological integrity of the waters and wetlands of the United States, which is applicable to port development projects involving the discharge of dredge or fill material; and

WHEREAS, the BOARD contemplates several small harbor developments within the Harbor District, which will require landfill or create new water area; and

WHEREAS, the contemplated harbor development landfills are expected to be necessary and water-dependent port improvements and the minimum landfill to fulfill the purpose; and

WHEREAS, contemplated Harbor District projects have the potential to create or to eliminate marine habitat of value to public fish and wildlife resources, (Exhibit A, Part 2), which may require mitigation; and

WHEREAS, the parties would like to facilitate permit processing for contemplated small Harbor District projects, landfills which permanently eliminate marine habitat or excavations which create marine habitat, by assuring that habitat loss compensation for the impacts on the marine environment has been provided; and

WHEREAS, the creation of appropriate fish and wildlife habitat within the Harbor District could constitute in advance or concurrent compensation for Harbor District project impacts, as specified by Federal policy; and

WHEREAS, numerous port development projects, which required permits pursuant to Section 404 of the Clean Water Act, have been implemented and have resulted in marine habitat gain, loss, or both; and

WHEREAS, the creation of new water area by excavation of land within the Harbor District which offsets water area losses resulting from fill within the Harbor District can be considered equal in habitat value when the water surface area, measured at the Mean High Water level (plus 4.8 feet Mean Lower Low Water) is equal,

NOW, THEREFORE, IT IS AGREED THAT:

1. The implementation of Federal Water Pollution Control/Clean Water Act Section 404 (FWPCA/CWA Sec 404) permit

requirements in the Harbor District, in June 1975, marked the beginning of a national program which heightened the BOARD's responsibilities to restore and maintain the physical, chemical, and biological integrity of the waters and wetlands within its boundaries.

2. The BOARD has been responsible for the implementation of or has allowed numerous port development projects which altered the marine habitats within the Harbor District boundaries (defined as the shaded area of Exhibit B, incorporated by reference hereby), as measured by the change in water surface area.

3. Marine habitat loss resulting from Harbor District fill, and measured by the water surface area at Mean High Water (plus 4.8 feet Mean Lower Low Water), can be considered offset by the gain of an equal area of water surface created in the Harbor District by excavation or removal of existing fill. That is, water areas of equal surface acreage within the Harbor District (defined as the area within the shaded zone on Exhibit B) are considered to have essentially equal habitat value.

4. The net habitat gain and loss accounting shown on Exhibit C, incorporated by reference hereby, constitutes an equitable and accurate summary of habitat gain and loss within the Harbor District since the inception of FWPCA/CWA Sec 404 permit program. The net gain/loss total established by this MOU is plus 17.7 acres.

5. The BOARD may charge the marine habitat losses resulting from contemplated port development landfills, within the Harbor District that are shown to be necessary, the minimum possible, water dependent and port related, against the then remaining balance of previously created habitat values, with the agreement of all parties. The BOARD may accrue gains in marine habitat values resulting from Harbor District development projects which create water surface area. Such marine habitat values shall be credited on a project-by-project basis and only upon the approval of all parties.

6. Such agreement, specified in item 5. shall be indicated at the earliest appropriate opportunity by all parties in an official and public manner, during completion of the environmental review process required under the California Environmental Quality Act or the National Environmental Policy Act, and the regulatory process required under the California Coastal Act or the River and Harbor Act or the Clean Water Act.

7. Previously created habitat value may not be considered adequate compensation and the contemplated landfills may not be placed until all parties have declared their agreement specified in the above item 6.

8. The contemplated BOARD projects likely to create or eliminate water surface area are listed on Exhibit D, incorporated by reference hereby. Other BOARD landfill projects in the Harbor District may be added or deleted with the written consent of all parties.

9. Projects outside the Harbor District boundaries, as defined in this agreement, are excluded from consideration under this MOU. Contemplated projects with potential for effecting a State or Federal endangered species are also excluded from consideration under this MOU.

10. The BOARD, with the written consent of all parties may allow the use of previously created habitat value as compensation by others proposing a landfill in the Harbor District or accrue habitat value from excavation by others, with the prior approval of the BOARD when the authorized person or entity is an applicant for a Corps of Engineers permit.

11. No contemplated harbor landfill, considered under this MOU, shall exceed in area the then remaining balance of previously created habitat value, as determined in items 3 and 4, and subsequently modified by items 5 and 6 of this MOU.

12. This MOU shall remain valid until the balance of created habitat value has been consumed or until rescinded by written consent of all parties.

13. Nothing contained in this MOU shall be deemed or construed as an agreement by any of the parties that would apply to any port project other than those expressly described in Exhibits B, C, or D, or as agreed to by written consent of all parties, as required by item 6. Nor will any agreement or consent required under this agreement be unreasonably withheld.

THIS MEMORANDUM OF UNDERSTANDING SHALL BE IN FULL FORCE AND EFFECT FROM THE DATE WHICH ALL PARTICIPANTS HAVE SIGNIFIED AGREEMENT BY SIGNATURE OF THE DESIGNATED REPRESENTATIVE.

THE CITY OF LOS ANGELES, acting by and through its Board of Harbor Commissioners

By: _____ 10-17-84
Ernest L. Perry
Executive Director
Date

Attest: _____

THE FISH AND WILDLIFE SERVICE,
U.S. Department of Interior

By: _____ 10.3.84
for Richard J. Myshak
Regional Director, Region I
Date

THE DEPARTMENT OF FISH AND GAME,
The Resources Agency of California

By: _____ 9/27/84
Jack C. Parnell
Director
Date

THE NATIONAL MARINE FISHERIES SERVICE,
NOAA, U.S. Department of Commerce

By: _____ 9-28-84
E.C. Fullerton
Regional Director
Date

EXHIBIT A

Part 1 PURPOSE AND VALUE OF THE PORT OF LOS ANGELES

The Port of Los Angeles and its facilities are a primary economic and coastal resource of the State, and an essential element of the maritime industry, and a vital strategic facility in the national defense system of the United States. Port development has a significant positive effect on both the regional and national economies.

The objectives of the Port, as set forth in its Master Plan, include: 1) to consistently develop, expand, and alter the port in both the short-term period and long-term period for purposes of commerce, navigation, fisheries, port dependent activities, and general public recreation; and 2) to integrate into the port development process, all of the economic, environmental, safety, and engineering skill required to evaluate and quantify the long-term effect on both the natural and economic environment of the port and its surrounding areas, of alternate decisions and tradeoffs, in order to arrive at proper decisions in response to development demands.

Part 2 FISH AND WILDLIFE RESOURCES OF THE PORT OF LOS ANGELES

The Los Angeles Harbor District occupies part of the 6000-acre marine coastal embayment known as San Pedro Bay, which is semi-enclosed by 9 miles of breakwater. Southern California's highly productive, relatively shallow, marine, semi-enclosed, coastal embayments have been modified and greatly diminished in extent during the last century. San Pedro Bay is considered to provide high habitat value for fish and wildlife resources and to be scarce in extent in the region. Within Los Angeles Harbor, a major commercial port, the water depths are mostly greater than twenty feet deep, most shoreline is protected with rock or bulkhead, and land uses are urban/industrial in nature.

The significant groups of public fish and wildlife resources relying on San Pedro Bay, are marine fishes and water-associated migratory birds. Fish populations are diverse and abundant, with 130 species reported and 70 considered common in occurrence. Seven species rank high in abundance and are: white croaker, queenfish, white seaperch, northern anchovy, tonguefish, speckled sanddab, and shiner perch. A ranking by biomass would usually include: jacksmelt, white croaker, bat ray, brown smoothhound, corbina, California halibut, and white seabass. The area also supports a nursery function for a variety of coastal marine fishes. The migratory bird community of San Pedro Bay is also large and diverse, including about 150 species. The most abundant birds are water-associated and include several gull species, brown pelican, surf scoter, cormorant species, grebe species, tern species, scaups, sanderling, and willet.

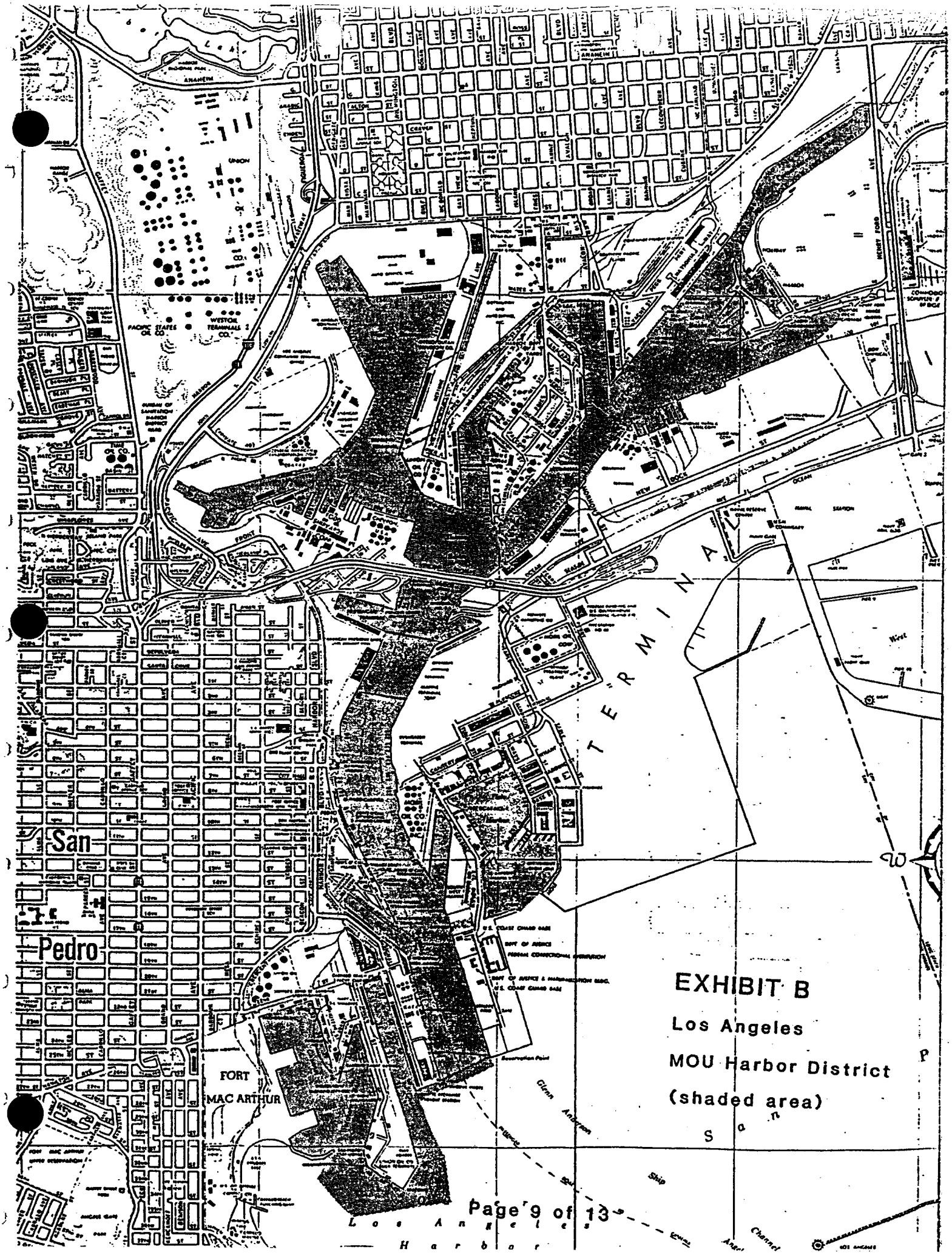


EXHIBIT B
Los Angeles
MOU Harbor District
(shaded area)
San
Pedro
FORT
MAC ARTHUR
TERMINAL
Harbor

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-Five Year Maintenance Dredging Program	75-1	---	---	---	No fill involved. No cumulative condition on ACE permit.
Skipper's 22nd St. Landing	76-125	---	---	---	Addition of two floats. No fill involved.
POLA-Filling of Slip 232	76-170	Mitigated by the creation of the 3.5-acre salt marsh at Cabrillo Beach.			No cumulative condition on ACE permit.
American Society of Military Hist.	77-57	---	---	---	ACE application withdrawn on October 21, 1977.
POLA-Filling of Berth 206	77-82	Mitigated by the creation of the 3.5-acre salt marsh at Cabrillo Beach.			No cumulative condition on ACE permit.
POLA-West Basin Storm Drain at Berth 142	77-92	---	---	---	No fill involved. No cumulative condition on ACE permit.
L.A. County-Launching Ramp	77-200	---	---	---	Groin and float construction. No fill involved.
L.A. County-Mooring Facility	77-206	---	---	---	ACE application withdrawn on December 16, 1982.
POLA-Water Taxi Facility at Berth 28	77-216	---	---	---	ACE application withdrawn on Nov. 23, 1977.
POLA-Princess Louise Relocation	78-180	---	---	---	No fill involved. No cumulative condition on ACE permit.
San Pedro Fish Market	79-149	-0.1	---	-0.1	Minor fill involved. Mitigation done by tenant.
L.A. City-TITP Outfall Extension	79-173	---	---	---	No fill involved.
U.S. Borax - Maintenance Dredging	79-204	---	---	---	U.S. Borax owns its land - POLA is not involved.
POLA-Harbor Deepening Project	80-154	Mitigated by the creation of the shallow water habitat.			No cumulative condition on ACE permit.
POLA-Berths 184-185 Wharf Demolition	80-156	---	---	---	No cumulative condition on ACE permit. Removal of 485 wooden pilings. No fill involved.

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-West Channel/Cabrillo Beach Marina Complex	80-167	-2.6	+22.2	+19.7	3.5 acre salt marsh and kelp bed not included in calculations. No cumulative condition on ACE permit.
POLA-Berths 156-160 Wharf Demolition	80-176	---	---	---	No cumulative condition on ACE permit. Removal of 1,955 wooden pilings. No fill involved.
Skipper's 22nd St. Landing	81-51	---	---	---	Install dolphins, floating walk and finger floats. No fill involved.
POLA-Seaplane Anchorage - Demolition of Docks	81-65	---	---	---	No fill involved. No cumulative condition on ACE permit.
POLA-Berths 121-126 Wharf and Backland Improvements	81-79	-4.0	+2.7	-1.3	Excavation and fill were done.
POLA-Five Year Maintenance Dredging	81-90	---	---	---	No fill involved. No cumulative condition on ACE permit.
POLA-Berths 216-218 Wharf Extension	81-114	-0.7	---	-0.7	Minor fill involved.
Ralph M. Parsons Company Assemble Modules	81-122	---	---	---	Project cancelled.
Todd Shipyards - Shiplift	81-127	-2.1	+2.3	+0.2	Cumulative condition on ACE permit.
San Pedro Fish Market	81-145	---	---	---	Amend from ACE Permit 79-149. No fill involved.
POLA-T.I. Coal Handling Project	81-159	Permit process pending. Separate negotiation on mitigations are ongoing between POLA and wildlife agencies.			
POLA-Berths 188-190 Wharf Modification and Dredging Slip 5	81-208	---	---	---	No fill involved.
POLA-Berth 236 Wharf Extension	82-3	-0.2	+0.1	-0.1	Minor backfill and excavation.
San Pedro Marine - New Floats	82-32	---	---	---	Install dolphins, floats, guide pilings. No fill involved.

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-Berth 200 GAII	82-00	---	---	---	No fill involved.
Todd Shipyards - Pump Station	82-95	---	---	---	Dredge to install seawater pump station.
POLA-Berth 213 Wharf Demolition	82-102	---	---	---	No cumulative condition on ACE permit. Removal of 2,090 wooden pilings. No fill involved.
POLA-Berth 84-85 Ferry Bldg. Boat Landing	82-111	---	---	---	No fill involved.
Todd Shipyards - Shiplift	82-142	---	---	---	Amend ACE Permit 81-127.
USC - Marine Support Facility	82-105	---	---	---	Boat floats installed. No fill involved.
POLA-Consolidated Slip Dredging	82-109	---	---	---	ACE application withdrawn on April 13, 1983.
POLA-Berths 210-211	82-192	---	---	---	No fill involved.
POLA-Berth 115	83-20	-0.2	---	-0.2	Minor fill.
POLA-Peninsh Cabrillo Beach Area	83-22	-0.9	---	-0.9	No cumulative condition on ACE permit.
POLA-Berths 145-146	83-45	---	+1.3	+1.3	Excavation but no fill required.
POLA-Berths 188-190	83-54	---	---	---	Amended from ACE Permit 81-208. No fill involved.
POLA-Berths 218-221 Wharf Improvements	83-112	-0.2	---	-0.2	Minor fill.
POLA-Berths 57-60	83-151	---	---	---	No ACE permit issued, since project is no longer planned.
Skipper's 22nd St. Landing	83-158	---	---	---	Install floats and dolphins. No fill involved.
GRAND TOTAL		-10.9	+28.6	+17.7	

EXHIBIT D

Los Angeles Harbor
Contemplated Harbor District Landfills *

1) Berth 225-229 Wharf and Backland Improvement Project

Gain Ø.Ø acres Loss 6.7 acres NET CHANGE -6.7 ACRES

2) Berth 212-213 Wharf and Backland Improvement Project

Gain Ø.Ø acres Loss 7.Ø acres NET CHANGE -7.Ø ACRES

* Actual project acres will be determined based upon the "as built" condition.