



San Diego Unified Port District

DRAFT

***San Diego Bay Native Oyster Living
Shoreline Pilot Project
Port Master Plan Amendment***

Existing/Proposed Plan Text

November 2020

*Note: Text to be deleted shown ***stricken*** and text to be added shown in ***underline***.*

*Text added on 11/24/2020 is shown in ***double underline***.*

proposed alongside the new roadways. A shoreline pedestrian trail is proposed in the Otay District, and its design will ensure protection of the adjacent sensitive habitat areas. Like the Harbor District subarea, the eastern portion of this subarea within existing right-of-way/easement areas are planned for landscaping and pedestrian/bicycle trails that will connect to the shoreline pedestrian and bike trail in the Otay District. This district will also contain parking areas. The pedestrian/bicycle trail in the Otay District will be part of the greenbelt system that will link the CVBMP area together, and link it to the rest of the City greenbelt.

Boat Channel

The water area directly west of the Chula Vista Bayfront is occupied by the main boat channel providing access to the harbor, which is designated Boat Navigation Corridor on the Precise Plan. Areas outside the channel will remain in the Estuary category.

The CVBMP proposes to realign and straighten the existing navigation channel in order to increase accessibility to the harbor. The realignment will utilize an existing abandoned access channel and remove the “dog leg” portion of the current channel, thereby enhancing boat access between the Chula Vista Harbor and the northern portions of San Diego Bay. In addition, the new channel will be located farther away from sensitive resources located along the shoreline west of the Sweetwater District.

Outer South Bay

The remaining water area in Chula Vista is scheduled to stay designated as Estuary. Limited surface water use for boating and fishing, for example, will be permitted but other uses will be discouraged.

Wildlife Reserve

South of the Chula Vista Harbor lies ~~a large tidal mud flat, the San Diego Gas and Electric Company (SDG&E) dike, and the South Bay~~ Chula Vista Wildlife Reserve, which includes a 55-acre island which was built from dredged material and where native habitat has been established. The Master Plan has three designations for this subarea: Wetlands, Estuary, and Habitat Replacement.

The Wetlands-designated area (refer to the Master Plan Interpretation section on Wetlands), includes the area known as the J Street Marsh and is roughly the mud flat and marsh area exposed to air during low tide. It is undeveloped, except for a small channel that was used as a water intake trough for the ~~SDG&E~~ thermal power plant that was demolished in 2013. Other than potential habitat restoration activities, no alterations to the existing intake/discharge channel area are proposed; however, it is the intent of this plan to preserve the surrounding wetlands in their natural state. Proposed development in the Wetlands designation in this subarea would be for a living shoreline pilot project, which would involve the placement of oyster reef ball elements that consist of “baycrete” or concrete mixed with local sand and shell aggregate, as well as a five-year biological monitoring program with data collection. This pilot project would be located in the Wetlands-designated area north of the access route to the Chula Vista Wildlife Reserve island. The purpose of this pilot project is to study the ability of the reef ball elements to protect the shoreline from erosion, while also providing habitat for native oysters. The pilot project is advised by a Technical Advisory Committee (TAC) that includes representatives from natural resource agencies such as California Coastal Commission, National Marine Fisheries Service, and the California Coastal Conservancy, among others. While the proposed structures are not considered an allowable use in the Wetlands-designated area, in this case, the project has been sited to avoid impacts to eelgrass beds, includes design features and controls to avoid the recruitment of non-native oysters, and will provide valuable research into techniques for minimizing shoreline erosion that do not involve seawalls or rip-rap armoring. Following installation, the five-year biological monitoring program will be used to assess the pilot project’s success, which will be measured against established success criteria that have been approved by the TAC and are included below. The results will be tracked and discussed by the TAC at least annually and adaptive management measures would be considered if deemed necessary for success criteria that are not being met. The pilot project’s reef ball elements will be removed if, at the conclusion of the five-year monitoring period, adaptive management measures are not successful or feasible and the project meets one or

more of the removal criteria that have been also approved by the TAC and are included below. Only reef ball elements, or portions of reef ball elements, that meet one of the removal criteria must be considered for removal. Upon conclusion of the five-year monitoring period, if the pilot project does not meet any of the removal criteria, the reef ball elements would be expected to be left in place as habitat.

The pilot project is subject to the following TAC-approved success and removal criteria:

SUCCESS CRITERIA:

1. Native Olympia oysters (*O. lurida*) recruit with mean densities per square meter of substrate on constructed oyster reef elements at statistically significantly higher densities than comparable sites in San Diego Bay. Comparable sites will be hard substrate in similar configurations, such as cobble and rip-rap, at similar elevations.
2. The ratio of native to non-native species* (including invertebrates & algae) areal coverage on constructed oyster reef elements is statistically significantly higher than comparable sites in San Diego Bay.
3. The ratio of non-native Pacific oyster (*C. gigas*) areal coverage to native Olympia oyster (*O. lurida*) that occupy constructed oyster reef elements are equivalent to or lower than ratios at comparable sites in San Diego Bay.
4. The percent change in native species richness of fish and mobile invertebrates captured within oyster reef arrays over the five year post-construction monitoring period is equivalent to or higher than the percent change in native species richness of these organisms at adjacent mudflat/eelgrass controls and comparable sites within San Diego Bay.
5. Presence of oyster reef arrays result in significant accretion or lower erosion of sediment shoreward of the arrays, as compared to control plots.

REMOVAL CRITERIA:

1. Native Olympia oysters (*O. lurida*) recruit with mean densities on constructed oyster reef elements at statistically significantly lower densities than comparable sites in San Diego Bay.
2. Constructed oyster reef elements are more dominated by non-native* species with

statistically significantly higher aerial coverages of non-natives than comparable sites.

3. Shoreline erosion occurs shoreward of constructed oyster reef elements at rates statistically significantly higher than comparable sites.

*Some non-native species may not be included in analysis. The Project will follow TAC guidance on cryptogenic and unspecified species. San Diego Bay's cryptogenic species can be found in the U.S. Navy's TECHNICAL REPORT 2038 (March 2013)

___To provide for the long-term protection and management of the J Street Marsh sensitive habitat area, the Port will enter into a cooperative agreement with the US Fish and Wildlife Service that will address the placement of educational and enforcement signage, long-term maintenance, and additional protection measures such as increased monitoring and enforcement. The cooperative agreement will be executed prior to the redevelopment of the Otay District.

Estuary refers to the shallow water outward of the wetlands which is not exposed at low tide. This area will not be developed; however, limited surface water activities such as boating and fishing would be permitted. Efforts should be made to avoid or reduce potential environmental damage.

The Habitat Replacement concept involves engineering, dredging, planting and developing a valuable supratidal salt marsh habitat as part of a master-planned complex. Unauthorized access by humans and predators will be greatly discouraged by fencing ~~the SDG&E dike~~, although controlled access will be provided for nature instruction and research. Its location reduces conflicts between development and preservation activities, and its size enables other shoreline projects to be completed by substituting the inferior habitats at the project sites for a carefully nurtured and highly productive habitat.

The Port District provides continual protection and management, as part of a comprehensive South Bay wildlife preserve program.

A narrow strip of District-owned land, designated Wetlands, is currently leased to the existing power plant operator, but upon demolition of the existing power plant, is intended for mitigation and/or restoration area that will include a buffer between existing and created wetland areas and upland use.

EXTRACTED PD7 TABLE 19: PROJECT LIST

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CHULA VISTA BAYFRONT: PLANNING DISTRICT 7

	Sub	Dev	App	FiscYear
GENERAL				
1. STORM DRAINS: Construct, enhance, and maintain storm drains.	73/74	N		ONGOING
SWEETWATER DISTRICT				
2. SWEETWATER PARK (S-2): Development of 21-acre signature park in Sweetwater District, including associated public amenities, promenades, and parking areas as detailed in Planning District text.	73	P	N	Phase I
3. NATURE CENTER PARKING AREA (SP-3): Construct new 100-space parking area and access road for Chula Vista Nature Center.	73	T	N	Phase I
4. SWEETWATER DISTRICT LODGING (S-1): Construct a low-scale, low profile, lower-cost overnight accommodations such as a campground and/or RV park; associated meeting rooms, retail stores and food service are limited to one story within a maximum height of 25 feet.	73	T	Y	Phase I
5. SWEETWATER DISTRICT ROADWAY AND INFRASTRUCTURE IMPROVEMENTS: Reconfiguration of existing (F Street) and construction of new interior (E Street) roadways, as well as necessary utility improvements and pedestrian/bicycle connections to support planned projects. E and F Streets are appealable category developments.	73	P	Y	Phase I – IV
6. SWEETWATER DISTRICT WETLAND AND UPLAND HABITAT ENHANCEMENT (SP-1 / SP-2): Creation, restoration, and enhancement of identified wetland and upland habitat areas, as well as the establishment of buffers; these areas may also be utilized for mitigation opportunities as CVBMP development impacts occur.	73	P	N	Phase I – IV
7. F STREET TERMINATION: Termination of F Street segment/Lagoon Drive and construction of new roadway connection to E Street, as well as pedestrian/bike trail connection on former F Street segment.	73	P	Y	Phase II / IV
8. MIXED-USE COMMERCIAL RECREATION/MARINE RELATED OFFICE DEVELOPMENT (S-3): Construct low-intensity mixed-use marine commercial recreation/marine related office development of up to 60,000 to 120,000 square feet in size, along with associated on-site landscaping and parking improvements; maximum building height is limited to 45 feet.	73	T	Y	Phase IV
HARBOR DISTRICT				
9. SHORELINE MAINTENANCE (HP-1/H-8): Maintain stone revetment and replenish Beach at Bayside Park.	74	P	N	ONGOING
10. H STREET EXTENSION: Extend H Street to Marina Parkway.	74	P	Y	UNDERWAY
11. RESORT CONFERENCE CENTER (H-3): Construct resort conference center, including a portion of the allowed 2,850 hotel rooms in the Harbor District, up to 100,000 square feet of restaurant, up to 20,000 square feet of retail, up to 415,000 square feet of net meeting space, and other associated ancillary uses. The bayward portion of this site will be developed with a 150-foot wide public open space esplanade inland of E Street, and a specialty retail shopping village consisting of buildings no more than 35 feet in height with commercial retail on the ground floor, and hotel/conference center uses above. The special shopping area shall be interspersed with plazas, landscaping, public art and other pedestrian oriented public amenities. Maximum heights are limited to 240 feet for the hotel and 120 feet for the conference center.	74	T	Y	Phase I

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	Sub	Dev	App	FiscYear
12. INTERIM SURFACE PARKING LOT (H-18): Construction of approximately 1,100 surface parking spaces for use as collector and off-site parking lot.	74	T/P	N	Phase I
13. SIGNATURE PARK EXTENSION (HP-1N, HP-1S, H-1AS, H-8): A 25-acre extension of Sweetwater Signature Park into Harbor District, including improvements to existing Bayside Park as detailed in Planning District text.	74	P	N	Phase I / IV
14. HARBOR DISTRICT ROADWAY AND INFRASTRUCTURE IMPROVEMENTS: Reconfiguration of existing (H Street, J Street and Marina Parkway) and construction of new interior (E Street, Street A and C) roadways, as well as necessary utility improvements and pedestrian/bicycle connections to support planned projects. All new streets are appealable category developments.	74	P	Y	Phase I - III
15. HARBOR DISTRICT BAYWALK (HP-3): Development of new Baywalk promenade along the shoreline.	74	P	N	Phase I - IV
16. H STREET PIER (FIRST HALF) (HP-28): Construct new 60-foot wide, 300-linear-foot pier at terminus of extended H Street corridor above existing open water area (only portion eastward of existing navigation channel; second half of total 600-linear-foot pier totaling 36,000 square feet to be constructed in Phase IV following realignment of navigation channel).	74	P	Y	Phase II
17. HARBOR RESORT HOTEL AND CULTURAL/RETAIL (H-23): Construct hotel with portion of allowed 2,850 rooms in Harbor District, associated conference room, retail, and ancillary uses, along with up to 200,000 square feet of cultural/retail uses and integrated open space; maximum heights are limited to 300 feet for the hotel and 65 feet for the cultural/retail uses.	74	T	Y	Phase II
18. NORTH HARBOR RETAIL AND MARINA SUPPORT (H-9): Construct visitor-serving retail and marina support uses totaling up to 25,000 to 50,000 square feet within maximum building heights of 25 feet (30 feet with architectural or mechanical features) around northern periphery of Chula Vista Harbor.	74	T	Y	Phase II
19. MARINA WAY RECONFIGURATION: Reconfiguration of Marina Way, including modifications to Marina View Park (HP-7, HP-8) and parking areas (HP-6) to accommodate reconfigured J Street/Marina Parkway, including construction of pedestrian promenade (HP-3) with minimum 25-foot width.	74	P	N	Phase III
20. CHULA VISTA BAYFRONT PARK IMPROVEMENTS (HP-14): Reconfiguration of existing boat trailer parking lot and modifications to park area to accommodate installation of minimum 25-foot wide shoreline promenade. No change in number of parking spaces.	74	P	N	Phase III
21. OPEN SPACE IMPROVEMENTS (HP-12, HP-13, OP-3): Construct greenbelt improvements, such as landscaping and trails for pedestrians and bicyclists, along SDG&E and Coronado Branch Railroad rights-of-way.	74/76	P	N	Phase III
22. SOUTH HARBOR RETAIL AND MARINA SUPPORT (H-21): Construct up to 75,000 to 150,000 square feet with maximum building heights of 25 feet (30 feet with architectural or mechanical features) of visitor-serving retail, marina support, and parking uses around southern periphery of Chula Vista Harbor.	74	T	Y	Phase III

EXTRACTED PD7 TABLE 19: PROJECT LIST

	Sub	Dev	App	FiscYear
23. CHULA VISTA HARBOR RECONFIGURATION AND MARINA SUPPORT (HW-1, HW-2, HW-3, HW-4): Reconfiguration of existing marina slips to create new open water commercial harbor (HW-2 and HW-3), and development of landside marina support facilities; of the existing 900 marina slips, 700 slips would be reconfigured within the existing harbor at HW-1 and HW-4.	75	P	Y	Phase IV
24. BOAT CHANNEL REALIGNMENT: Realign and straighten existing boat navigation channel.	77	P	N	Phase IV
25. H STREET PIER (SECOND HALF) (HP-28): Construct second phase of new 60-foot wide, 600-lineal-foot pier totaling up to 36,000 square feet at terminus of extended H Street corridor (extension into former navigation channel).	74	P	Y	Phase IV
26. MIXED-USE OFFICE/COMMERCIAL RECREATION AND COLLECTOR PARKING GARAGE (H-18): Construct approximately 100,000 square feet of mixed-use marine-related office/commercial recreation and a 1,100 to 3,000-space collector parking garage; maximum building heights is 155 feet (10 stories).	74	T/P	Y	Phase IV
27. FERRY TERMINAL (H-12): Construct ferry terminal with second story restaurant/retail totaling up to 10,000 to 25,000 square feet of building area; building height is limited to 25 feet (30 feet with architectural or mechanical features).	74	T	Y	Phase IV
OTAY DISTRICT				
28. RECREATIONAL VEHICLE PARK (O-3A, O-3B): Construct replacement recreational vehicle park with minimum 237 spaces, along with supporting ancillary uses with building heights limited to 25 feet (30 feet with architectural or mechanical features).	76	T	Y	Phase I
29. OTAY DISTRICT ROADWAY AND INFRASTRUCTURE IMPROVEMENTS: Reconfiguration of existing and construction of new interior roadways (Street B), as well as necessary utility improvements and pedestrian/bicycle connections to support planned projects.	76	P	Y	Phase III
30. OTAY DISTRICT WETLAND AND UPLAND HABITAT MITIGATION (OP-2A, OP-2B): Creation, restoration, and enhancement of identified wetland and upland habitat areas, as well as the establishment of buffers; replacement of existing concrete Telegraph Canyon Creek channel with wider, naturally vegetated channel.	76	P	N	Phase III
31. SOUTH PARK (OP-1A, OP-1B): Development of 24-acre park in Otay District, including associated public amenities, promenades, and parking areas as detailed in Planning District text.	76	P	N	Phase III
<u>WILDLIFE RESERVE</u>				
<u>32. SAN DIEGO BAY NATIVE OYSTER LIVING SHORELINE PILOT PROJECT:</u> <u>Pilot project for the placement of oyster reef ball element arrays; includes biological monitoring and data collection.</u>	79	P	N	--

P- Port District T- Tenant N- No Y- Yes

Phase I refers to the time period of approximately 1-7 years after PMPA certification
Phase II refers to the time period of approximately 4-10 years after PMPA certification
Phase III refers to the time period of approximately 11-17 years after PMPA certification
Phase IV refers to the time period of approximately 18-24 years after PMPA certification