

12.0 WATER USE AND THE BUILT ENVIRONMENT OF HUMBOLDT BAY

12.1 BACKGROUND AND SETTING

The District's management responsibilities to a considerable extent involve planning for, managing, and regulating the human uses of Humboldt Bay. As noted in Chapter 8.0, the District has adopted an "ecosystem-based management" approach, which is generally understood to incorporate regulating or managing the actions of people to shape how those actions may affect the physical and biological environment of the bay. A significant part of the District's management focus concerns the major uses and "built" components that collectively comprise the port-related and harbor-related activities occurring in Humboldt Bay.¹ The legislative action that established the District provided explicit direction that this focus should be a primary consideration for the District's ongoing operations.

This EIR adopts a perspective on port or harbor management that the District's responsibilities are necessarily focused on that collection of human activities that are related to the use of the bay for water-oriented recreational, commercial, and industrial purposes, plus the various facilities and components that support such uses. That is, the Draft Humboldt Bay Management Plan provides policy guidance that assists the District in planning for, developing, and regulating port-related or harbor-related uses. This EIR chapter considers potential environmental concerns associated with the policy framework for the port-related and harbor-related water uses within the bay that are subject to District jurisdiction, infrastructure-related environmental concerns, shoreside public utilities and services, and landside transportation.

As noted previously in this EIR, the legislation that established the District defined the District's purposes as including:

... the acquisition, construction, maintenance, operation, development, and regulation of harbor works and improvements, including rail, water, and air terminal facilities, for the development, operation, maintenance, control, regulation, and management of Humboldt Bay upon the tidelands and lands lying under the inland navigable waters of Humboldt Bay, for the promotion of international commerce, navigation, fisheries, and recreation thereon, and for the development and protection of the natural resources of the area ...

The authorizing legislation also states that the District

... shall improve the Humboldt Bay Harbor for navigation and commerce through maintenance and construction of channels, shipways, berths, anchorage places, turning basins,

¹ This EIR does not attempt to draw a rigorous distinction between "port" and "harbor" definitions (as, indeed, the Draft Plan did not, although both documents recognize one of the District's functions to be to act as "the Port of Humboldt Bay"). Generally it may be concluded that "harbor" is a broader category, including all of the shipping and boating uses that occur in the bay, and "port" refers to the kinds of activities that result from management focused on developing, maintaining, and operating facilities related to commercial shipping, particularly in international trade. It is effectively impossible to rigorously separate the policy framework in the Management Plan into categories that are primarily "harbor" policies and those that are primarily "port" policies, and such a distinction is not attempted in this EIR.

breakwaters, bulkheads, wharves, processing plants, warehouses, roads, spur tracks or beltline railways, and any other work that is deemed necessary that would not otherwise be accomplished by other public or private agencies.

The district shall plan, designate, and protect wildlife habitats, establish open space areas and areas provided for recreational use with open access for the public, protect, conserve, supervise, and improve the wildlife and fish resources of, [sic] and control and enhance the aesthetic appearance of the area.

The district shall regulate the use of Humboldt Bay by control of pollution, dredging, and filling within the area subject to its jurisdiction ...

The district shall work closely with the planning agencies of the adjacent corporate bodies in the exercise of such powers and duties.

This original mandate, in combination with the District's additional responsibilities under state law, essentially requires that the District achieve a balance among its obligations to manage Humboldt Bay as a harbor and port while also meeting its obligations to manage the bay's environmental and recreational resources.

The District is not a "land use planning" agency as that local governmental function is understood and practiced in California, and the District lacks legal authority to regulate "land use" in upland areas adjacent to the bay margin. The District does have a direct role in planning for, regulating, and otherwise influencing the human activities on the waters of Humboldt Bay, and, as quoted above, it is required to "work closely" with adjacent planning agencies. As discussed further in the Draft Management Plan, the District's water use planning and management functions overlap with the responsibilities of several other local, state, and federal jurisdictions, each acting under legislative or constitutional mandates to independently manage or regulate actions within Humboldt Bay in conjunction with the District's decisions.

The District's activities, in combination with those of other agencies and proponents, also have indirect connections to human uses and the built environment around the bay. As recognized in the Draft Plan, the District supports the specified uses established under the coastal planning designations of the land use planning agencies having jurisdiction on lands adjacent to the bay's waters. While designation of coastal-dependent industrial and commercial uses around the bay is a function of local governments (i.e., primarily the City of Eureka and the County of Humboldt), the District's management of areas within its jurisdiction is intended to be consistent with these designations, and in such ways, the District's management of the bay's waters may be functionally connected with upland land uses.

12.1.1 The Port and Harbor

The Draft HMBP (Volume I, Section II, Chapter 2.0) provides an overview of major harbor-related functions of Humboldt Bay, both as a working port for shipping and commerce, as well as in the more general sense as a harbor for other activities. As noted in the Plan, the District serves as the Port Authority for the Port of Humboldt Bay. In fulfilling this mission, the District is responsible for a wide range of activities to support and maintain the use of the bay as an international and domestic port.

In terms of this EIR, the components of this part of the human environment are understood to include all of the physical features of the working port, including the bay

entrance and shipping channels, the shoreline and related improvements, the active and potential coastal-dependant industrial and commercial sites, shipping terminals, marine transport and cargoes, and port-related services. In addition, as described in the Draft Plan, the human environment of the harbor also includes other, equally important, “non-cargo” uses, such as commercial fishing and recreational boating, which also benefit from sheltered anchorage, maintained channels, marinas, waterfront facilities and services, and the maintained shoreline of the harbor.

The discussion in Section II, Chapter 2.0, of the Plan relies extensively on descriptions of sites, facilities, cargoes, and uses in the Port of Humboldt Bay Harbor Revitalization Plan (PB Ports and Marine et al. 2003), which is the most comprehensive and up-to-date characterization of port and harbor activities and possible strategies that exists for Humboldt Bay. As noted in the Draft Management Plan, the “revitalization plan” was actually a study, and while the participating agencies have “received” this document, the recommendations, market strategies, and vision that it contains have not been formally adopted by any of the affected agencies, including the District (although selected Revitalization Plan policy elements are proposed as components of the Draft Management Plan). The Revitalization Plan provides useful information regarding the commercial and industrial uses of Humboldt Bay waters and the related built environment, and this information was used extensively in the Draft Management Plan, which is formally an attachment to and a part of this EIR.

12.1.1.1 Bay Entrance and Shipping Channels

As noted in the Draft Management Plan, a system of dredged navigation channels is maintained in Humboldt Bay by the District and the U. S. Army Corps of Engineers. Safe navigation of deep draft, commodity-carrying vessels doing trade in Humboldt Bay requires that some of these channels be dredged regularly (usually annually for the largest channels). Industries that would be affected by lack of safe navigation include forest products trade, petroleum and petroleum products, and to a lesser extent the commercial fishing industry (U. S. Army Corps 2006). Dredge spoils from major operations are removed to the Humboldt Open Ocean Disposal Site (HOODS), a USEPA-designated offshore disposal area three miles west of the Humboldt Bay entrance. Construction, maintenance, deepening, and improvements of Humboldt Bay’s navigation channel have been congressionally authorized under various River and Harbor Acts dating from 1881 to the present. The Humboldt Harbor and Bay Channel Deepening Study was authorized by Congress in 1982 (U. S. Army Corps 2006); the deepening project was authorized in 1996, and initial deepening was completed in 2000, to improve navigation safety as well as improve the Port’s competitiveness for marine trade.

Humboldt Bay is the only harbor between San Francisco and Coos Bay, Oregon, with deep draft channels sufficiently sized to permit passage of large ocean-going vessels. Currently, the bay can typically accommodate vessels in the “Panamax” class, the largest size vessel that can be accommodated in passage through the Panama Canal, with a length up to 750 feet, width (beam) of approximately 110 feet, and a total weight of approximately 50,000 tons. EIR Table 12.1 presents a summary of vessels calling on Humboldt Bay, by depth of draft, in the five-year period between 1999 and 2003.

EIR Table 12-1. Summary of Drafts of Vessels Calling on Humboldt Bay, 1999 to 2003.

Vessel Draft (feet)	Number of Vessels Recorded				
	2003	2002	2001	2000	1999
38	-	-	1	-	-
37	-	1	2	-	-
36	1	-	3	2	-
35	3	1	4	2	-
34	-	1	3	7	1
33	1	5	1	4	5
32	-	3	3	6	4
31	171	3	2	4	6
30	2	5	4	7	7
29	4	3	-	1	8
28	5	3	7	6	14
27	4	2	4	6	9
26	5	6	6	13	13
25	9	5	8	12	19
24	7	6	7	7	7
23	19	10	10	8	13
22	5	7	3	7	10
21	3	4	6	5	1
20	2	5	-	3	6
19	-	2	2	4	2
≤18	475	392	867	1,961	2,492
Total	546	464	943	2,065	2,617

Source: Waterborne Commerce of the United States, Pacific Region, United States Army Corps of Engineers Navigation Center Data, cited in U.S. Army Corps of Engineers, 2006.

The navigation channel system in Humboldt Bay consists of the entrance channel and turning basin, a northerly channel from the turning basin to North Bay and Samoa that forks around Woodley Island, and a southerly channel to Fields Landing. As described in the Draft Plan:

The Bar Channel extends seaward from the Entrance Channel and is maintained at a depth of 48 feet; it is approximately 2,300 feet in length, and is 1,600 feet wide at the seaward end and 700 feet wide at the jetties. The Entrance Channel extends between the two jetties and is maintained at a depth of 48 feet. It is approximately 9,000 feet in length, and 500 feet wide.

The North Bay Channel, which has a width of 400 feet and depth of 38 feet, extends north from the entrance turn for a distance of approximately 18,500 feet, where it branches into the Eureka Channel and the Samoa Channel. The easterly fork is the 400-foot wide Eureka Channel, which serves the Eureka waterfront and consists of two segments: a 3,000-foot length at a depth of

35 feet and a 6,700-foot Inner Reach at a depth of 26 feet. The westerly fork, the Samoa Channel, which serves the industries on the Samoa Peninsula, is approximately 8,000 feet long, 400 feet wide, and 38² feet deep and ends at a turning basin. The Fields Landing Channel (or Hookton Channel), which serves Fields Landing and King Salmon, extends in a southeast direction from the Bay entrance; this channel is approximately 12,000 feet long, 300 feet wide, and 26 feet deep, and also ends at a turning basin.

The principal focus of discussion regarding channel maintenance in the bay is the apparent utility of the channels and basins for commercial shipping. However, other harbor-related activities that occur in Humboldt Bay also require adequate channels and thus also benefit to greater or lesser degree from channel maintenance projects carried out in the bay. It is uncertain, for example, that channels from the bay entrance to the marinas in Entrance Bay or South Bay would remain open adequately to serve commercial and sport fishing vessels without some degree of maintenance dredging. In addition, there can be no doubt that the Humboldt Bay entrance bar would become impassable without some degree of maintenance dredging.

To the best of the EIR preparers' knowledge, the potential effects on vessel mobility in Humboldt Bay that would result from a cessation of maintenance dredging have not been assessed, and additional discussion about these potential effects would be highly speculative. Given the ongoing sedimentation that occurs in Humboldt Bay as a consequence of sediment inflow from the nearshore Pacific Ocean and from the bay's watershed (see EIR Chapter 5.0), however, the EIR concludes that it should not be assumed that there would be no effects on the movements of vessels of all sizes should no dredging at all occur within the bay.

12.1.1.2 Shoreline Maintenance and Improvements

The District retains jurisdiction over the tidelands in Humboldt Bay to the elevation of Mean Higher High Water (MHHW). This jurisdiction therefore includes the outer slopes of all shorelines in Humboldt Bay to the elevation of MHHW. A number of ongoing (or even increasing) concerns are engendered by this responsibility, including the responsibility to address potential effects on bay-margin levees throughout the bay in the face of rising sea level (see Chapter 4.0), as well as the responsibility to plan for maintaining levees that are of varying degrees of soundness.

For the purposes of this EIR chapter, it is assumed that most stakeholders would find the protection of shorelines to be an important concern. As noted in the Draft Plan, approximately 15 percent of Humboldt Bay's shoreline is devoted to port-related marine uses and activities. Currently, approximately 4,873 linear feet of dock space is available in Humboldt Bay, divided among a number of industries. Adjacent to the navigation channels are five operating terminals that serve ocean-going dry-cargo vessels, one oil dock, and several other inactive terminals.

Among the necessary harbor-related activities for the District and other users of waterfront areas are activities related to shoreline maintenance and dock, pier, and piling repair, replacement, or removal. The existing port-related shoreline facilities include

² The Draft Management Plan listed this depth as -35 feet; the authorized depth is actually -38 feet.

several with shoreline bulkheads (that is, some of the bay’s commercial shipping facilities are now filled land behind sheetpile or other bulkheads. Other facilities function as piling-supported docks in the bay’s waters near dredged channels, with piers connecting them to shoreside roadways and other infrastructure; the shorelines in these cases are generally armored to withstand potential wave-caused erosion. Additional shoreline protection has been emplaced in the marinas that shelter both commercial and recreational boats in Humboldt Bay.

The District’s management of the bay currently lacks a comprehensive or consistently applied planning focus for these shoreline-related concerns. At the present time the District largely relies on the fact that applicants proposing to install or modify shoreline protect must design the protection measures adequately to comply with the requirements of the Corps of Engineers and other agencies for erosion-protection measures.

12.1.1.3 Key Coastal-Dependent Sites

A number of key marine sites and facilities were identified in the Harbor Revitalization Plan as comprising the main areas of active or potential commercial and industrial activity associated with the Port of Humboldt Bay. These sites and facilities are summarized in the Draft Management Plan as follows.

A number of waterfront areas around Humboldt Bay have a history of industrial use, particularly in parts of the Bay that are adjacent to the deep water channels on the waterfront side and adjacent to the railroad line (or a spur) on the upland side. Designation of coastal-dependent industrial sites is a function of local governments – the City of Eureka and the County of Humboldt – under their required General Plans and Local Coastal Plans, which are prepared through processes that involve public participation and environmental review, and are typically implemented through zoning regulations and use permits. Like all forms of land use, coastal industrial uses change over time, in response to market conditions, land use and environmental requirements, and other factors; however, the designations in local, adopted planning documents continue to prescribe coastal-dependent land uses for many industrially suitable locations on the Bay.

Currently, as described in more detail in the Harbor Revitalization Plan, there are a number of “key” sites and facilities for coastal-dependent industries and port-related commerce. Sixteen key sites were identified, consisting of six sites with active cargo terminals, five sites with inactive cargo terminals, and five other industrial or commercial public sites [EIR Table 12-2].

EIR Table 12-2. Key Coastal-Dependent Sites, Humboldt Bay.

Sites with Active Cargo Terminals	Sites with Inactive Cargo Terminals	Other Industrial, Commercial, and Public Sites
<ul style="list-style-type: none"> • Schneider Dock • Eureka Forest Products (Sierra Pacific)/Preston Properties • Chevron Terminal • Humboldt Bay Forest Products • Simpson Samoa Chip Export Dock 	<ul style="list-style-type: none"> • Dock B/Balloon Track • Phillips Petroleum (formerly Tosco) • Fields Landing Terminal Area • Redwood Dock Site • Pulp Mill Dock 	<ul style="list-style-type: none"> • Halvorsen/City of Eureka Sites • Humboldt State University Boating Instruction and Safety Center • Commercial Street/C Street Docks • Parcel 4 (City of Eureka) • Eureka Airport Property

Sites with Active Cargo Terminals	Sites with Inactive Cargo Terminals	Other Industrial, Commercial, and Public Sites
<ul style="list-style-type: none"> • Simpson Property/Fairhaven Terminal 		

(Source: Modified from the *Port of Humboldt Bay Harbor Revitalization Plan*, 2003)

12.1.1.4 Marine Transport and Cargoes

The Draft Management Plan generally describes some of the historical trends and more recent operational information regarding the shipping traffic and cargoes in the Port of Humboldt Bay. A relevant excerpt is presented below.

... Historically, outgoing cargo from Humboldt Bay consisted almost exclusively of forest products exports, such as wood chips, wood pulp, lumber, and logs. Export demand has fluctuated over the years. In more recent decades, various circumstances have lessened production and output by the North Coast timber industry, with the result that, after helping to spur a peak in Humboldt Bay waterborne commerce in 1991, wood products exports have generally been on the decline, and lumber exports are nearly non-existent.

Today, the incoming cargo to Humboldt Bay includes unprocessed logs from New Zealand and Canada, as well as imported wood chips. Overall, according to the Harbor Revitalization Plan, for all commerce flowing through Humboldt Bay facilities, exports (which are declining, but still dominated by forest products) and domestic receipts (e.g., refined petroleum products and woodchips) are currently the dominant cargoes in waterborne commerce in Humboldt Bay [EIR Table 12-3].

EIR Table 12-3. Summary of Cargoes and Operation by Terminal (Revised 2005).

Terminal	Channel Location	Cargoes & Operations
Schneider Dock	North Bay / Eureka Channel, south of downtown Eureka	Multi-purpose utility dock; intermittent berthing of non-cargo vessels, including Coast Guard, cruise boat, and marine environmental / safety
Eureka Forest Products (Sierra Pacific)/Preston Properties	North Bay Channel, south of downtown Eureka	Multi-purpose forest products dock; inbound log barges; outbound woodchip barges; occasional inbound lumber barges
Chevron Terminal	North Bay Channel, south of downtown Eureka	Bulk refined petroleum products; dedicated ocean barge every 7 to 8 days
Humboldt Bay Forest Products	Fields Landing Channel, Fields Landing	Import logs; approximately 20 to 35 inbound log barges per year
Simpson Samoa Chip Export Dock	North Bay / Samoa Channel, Samoa Peninsula	Bulk woodchip exports
Fairhaven Terminal	North Bay Channel, North Spit	Fairhaven: Containerized and/or break-bulk wood pulp exports from Evergreen mill

(Source: *Port of Humboldt Bay Harbor Revitalization Plan*, 2003)

EIR Table 12-4 provides a summary of inbound and outbound commodity shipments (in short tons) that used Humboldt Bay shipping channels between 1993 and 2003. Generally, forest products comprised approximately 70 percent of the total inbound and outbound commodity traffic, petroleum and petroleum products comprised about 24

percent, and chemicals and manufactured goods comprised the remaining six percent (U.S. Army Corps of Engineers 2006).

**EIR Table 12-4. Humboldt Bay Comparative
Commodity Traffic 1993 to 2003 (short
tons).**

Year	Total
1993	994,000
1994	1,407,000
1995	1,220,000
1996	1,197,000
1997	1,175,000
1998	1,072,000
1999	1,302,000
2000	1,063,000
2001	950,000
2002	920,000
2003	1,042,000

Source: United States Army Corps of Engineers
Institute for Water Resources Navigation Data Center,
cited in U.S. Army Corps of Engineers, 2006.

12.1.1.5 Port-Related Services

Port-related services include commercial activities such as tugboat and harbor piloting services, stevedoring, and longshoreworkers. Currently, no dockside cranes are in use on Humboldt Bay, and vessels use on-board cranes to load and off-load cargo.

Under the District’s authorizing legislation, the District is empowered to “regulate and control the anchoring, mooring, towing, docking, movement and pilotage of all vessels. The District may perform the functions of warehouseworkers, stevedores, lighterers, reconditioners, shippers and reshippers of properties of all kinds.” The District does regulate certain of these activities, including anchoring, mooring, and docking, as well as vessel movement within the bay (in conjunction with the U. S Coast Guard), but the District is currently not directly engaged in providing many of the designated shipping-related services.

12.1.2 Harbor-Related, Non-Cargo Activities

The Draft Management Plan describes several additional categories of important commercial water-related activities that rely on Humboldt Bay and associated infrastructural concerns that are partly or wholly within the District’s management responsibility. The following Plan excerpts are included here for clarity and ease of reference, and the entire Draft Management Plan is functionally incorporated into this EIR document as if fully set forth.

12.1.2.1 Marinas, Boat Repair Operations, and Associated Small Craft Facilities

Humboldt Bay is served by marinas at Woodley Island, on the City of Eureka waterfront, and at King Salmon. Woodley Island Marina, owned by the District, is the largest marina in Humboldt County. The 237-slip facility is located on the 26-foot deep Inner Reach of Eureka Channel, and serves a combination of commercial fishing boats and recreational vessels. At the west end of the marina is an approximately 200-foot dock for larger vessels, such as the Humboldt State University marine research vessel and a Coast Guard patrol boat. The Woodley Island Marina facility also provides a work and storage areas, hoist and forklift services, restaurant, ships chandlery, offices, laundry, and restroom facilities. The island has also become home to the region's National Weather Service facility.

The Eureka Public Marina (also known as the "Boat Basin" or "Small Craft Harbor") is a 134-slip facility, owned by the City of Eureka and located near downtown on the 26-foot Outer Reach of Eureka Channel; the Eureka Public Marina serves a combination of local and visiting recreational vessels and commercial fishing boats. King Salmon Marina, Johnny's Marina and RV Park, and E-Z Landing are located just north of Fields Landing on the 26-foot deep Fields Landing Channel; these privately owned and operated facilities are used by recreational vehicles, seasonal commercial fishing boats, and pleasure craft.

Humboldt Bay is served by one small boat/ship repair facility. The Fields Landing Boat Yard is a self-serve facility provided by the District at Fields Landing Terminal. The District provides the haul-out and launch service and the individual vessel owners arrange for repair work at the site; the facility includes a 150-ton capacity travel lift. The Eureka Boat Yard was a small, privately owned facility located on Samoa Peninsula south of Samoa Pacific Chip Export that formerly also provided repair work on a seasonal basis.

Two areas in Humboldt Bay provide locations for small-parcel marine commercial and industrial uses, as identified in the Harbor Revitalization Plan. In this capacity, they serve as "incubator" sites for small industry to develop. The approximately 8-acre "Fields Landing Small-Parcel Site," located on the Fields Landing Channel between Humboldt Bay Forest Products and Fields landing Terminal, encompasses seven parcels, formerly home to Vita Sea Corporation and Eureka Fisheries. These parcels are now owned by Humboldt Bay Forest Products. The "Samoa Peninsula Small-Parcel Site" is located on Samoa Peninsula between the Simpson Samoa Chip Export Dock and the Simpson/Fairhaven Terminal Property. The approximately 9-acre site encompasses almost 40 parcels, including residential, boat repair, mariculture, and other uses.

12.1.2.2 Commercial Fishing

Commercial fishing, and a number of occupations and facilities related to commercial fishing, have long been an important part of the tradition, culture, lifestyle, and economy of the Humboldt Bay area. ...

Currently, approximately 220 registered commercial vessels list Eureka as home port and over 500 vessels from other West Coast ports use the bay's facilities annually (HCAOG 2004; District information). Commercial fishing facilities are concentrated at Woodley Island Marina, along the Eureka waterfront from the Eureka Public Marina to the foot of J Street, and at Fields Landing. The fishing fleet is based at Woodley Island Marina, the City Marina, and, to a lesser extent, at King Salmon Marina in South Bay.

The two types of fishing boats generally used in Humboldt Bay are trollers and trawlers.³ Trollers, typically under 50 (often 30) feet in length, deploy multiple individual lines to catch salmon; larger trollers may fish for albacore tuna in deeper ocean waters. In season, trollers often set crab pots to catch Dungeness crab. An estimated salmon fleet of 75 commercial boats remain active; this number is supplemented during salmon season by large numbers of recreational boats that generally fill the marinas. Trawlers generally range from 45 to 80 feet in length and carry large net spools on their sterns. These boats pull nets along the seafloor at depths of 250 to 3,500 feet to catch various types of groundfish. Many trawlers have been bought out with federal funding to reduce fishing impacts on the groundfish fishery.

According to the Harbor Revitalization Plan, a “strong core group of approximately 200 commercial fisher people (sic) based in Humboldt Bay continue to make their living from the harvesting of fish for human consumption and research.” In addition to the Humboldt Bay-based fleet, the Bay provides a safe haven for the Pacific-based albacore tuna fleet when weather conditions force them to harbor. The albacore tuna fleet makes use of the Bay on an annual basis; these boats generally tie up at the Eureka Public Marina and Woodley Island Marina.

Pacific Choice Seafoods is the major remaining fish-processing facility in operation on Humboldt Bay; other fish buyers include Carvalho Fisheries, Caito Fisheries, and Humboldt Seafood Unloaders. Some processing facilities have gone out of business or been bought up by the larger companies. Pacific Choice, the Bay’s largest processor, is located on the Inner Reach of the Eureka Channel at the City of Eureka owned EDA-funded fish plant. The City-owned facilities, at the foot of Commercial Street in Eureka, include a fish processing plant with area for a second plant, a ship’s chandlery, and a fueling facility (HCAOG 2004). Groundfish, tuna, salmon, Pacific pink shrimp, and Dungeness crab are among the most important commercial species.

Commercial fishing currently ranks as the third most important “industry” in the Humboldt Bay region. According to the California Department of Fish and Game’s “Poundage and Value of Landings by Port, Eureka Area During 2004,” 19,257,610 pounds of fish and other seafood worth an estimated \$12,903,929 were landed in Humboldt Bay in 2004. The major species both by weight and value were Dungeness crab, albacore tuna, ocean shrimp, Dover sole, and Pacific whiting (California Department of Fish and Game 2006b).

12.1.2.3 Mariculture

... The Bay’s mariculture industry consists of shellfish farming, primarily oysters but also clams; both seed and adult oysters are produced. Approximately 74,240 gallons of oysters were harvested from Humboldt Bay in 2002. The District exercises primary local jurisdiction over mariculture activities in Humboldt Bay; other agencies that may also be involved in directly or indirectly regulating mariculture include the U. S. Army Corps of Engineers, the California Department of Fish and Game, the California Coastal Commission, the North Coast Regional Water Quality Control Board, the State Lands Commission, the California Department of Health Services, the City of Arcata, and the City of Eureka. The District currently monitors oyster culture and current research efforts through its Mariculture Monitoring Committee.

³ There is, in addition, a limited herring gillnet fishery within Humboldt Bay, with six permit-holders but only one operator who regularly fishes for herring.

Various methods are used for shellfish farming, as described in more detail in the Harbor Revitalization Plan and other sources [footnote omitted]. The “Rack and Bag” method uses steel reinforcing bar (“rebar”) racks placed into the sandy or muddy substrate, and plastic mesh bags containing oyster stock are attached to the racks. Another method is the Floating Upweller System (or “FLUPSY”), which is a porous mesh raft that holds the seed stock. Oyster “longlines” are another suspension method where oysters are grown along ropes supported above the intertidal substrate. Manila seed clam mariculture generally is conducted using floating, anchored rafts. Ground culture methods, involving harvesting of cultured oysters by hydraulic dredge, were typically used in the past. In the past five years, a variety of off-bottom techniques, particularly longlines, have become the primary method of oyster mariculture used in Humboldt Bay, and hydraulic dredging has been permanently discontinued.

Coast Seafoods Incorporated, the largest mariculture company on Humboldt Bay, uses Humboldt Bay for oyster and clam cultivation, providing fresh and canned shellfish to local and foreign markets. Coast Seafoods holds title to approximately 561 acres of Humboldt Bay tidelands, and it leases another 3,385 acres from the District and the City of Eureka, for a total of approximately 3,946 acres, all in Arcata Bay. The actual amount of area in production at any given time is much less, however; the operational area has varied from 500 or 600 acres in the past to about 300 acres currently. Coast Seafoods currently uses a variety of “off-bottom culture” methods, primarily longlines (Army Corps 2003).

Other mariculture companies operating in Humboldt Bay include North Bay Shellfish, Emerald Pacific Seafoods, Aqua-Rodeo Farms, Humboldt Bay Oyster Company, and Kuiper Mariculture. These companies conduct a variety of activities – including shore-based tanks, rack-and-bag, longlines, FLUPSY, and floating work platforms – in areas of the Bay from the Mad River Slough to Fields Landing. Kuiper Mariculture and North Bay Shellfish, for example, use mariculture rafts in the Mad River Slough Channel area. North Bay Shellfish sells its products locally; Kuiper is a seed supplier for both domestic and international markets. Humboldt Bay Oyster Company produces oyster seed and market oysters – including “single oysters” for the half-shell market and other specialty uses – for customers all along the West Coast. Humboldt Bay Oyster Company uses rafts in the Mad River Slough for the nursery stage of production; seed oysters are then moved to the North Bay and grown in mesh bags strapped to rebar racks. Various scientific studies related to mariculture and the environment have been conducted in recent years in cooperation with mariculture companies, including studies related to eelgrass, salmonids, and water-quality issues.

12.1.2.4 Other Harbor-related Infrastructural Considerations

As was noted under port-related concerns, the Draft Plan did not fully focus on the importance of certain infrastructure maintenance concerns that emerge from the EIR’s assessment as important considerations for the potential long-term management of the bay general harbor-related functions.

Channels. As noted in subsection 12.1.1.1, commercial and sport fishing vessels, recreational boats, cruise ships, educational vessels, and all other non-port-related vessel traffic in Humboldt Bay is likely to require at least some degree of active channel maintenance in order to navigate within Humboldt Bay. The extent of channel (and marina or moorage) dredging that would be required for the long-term maintenance of these uses in the bay is currently unknown. At minimum it appears that long-term entrance bar dredging is essential for the bay’s ongoing use by these smaller vessels.

Shoreline Protection. The discussion regarding shoreline protection for port-related uses in subsection 12.1.1.2 is fully applicable for non-port uses of the Humboldt Bay shoreline. Many of the perimeter levees separating the bay from the diked former tidelands are more than a century old, and the degree to which the levees were adequately “designed” at the times that they were constructed is unknown but likely to be small. During the past two decades at least two major levee failures have occurred in Arcata Bay. Existing levees along the eastern margin of Arcata Bay were significantly damaged by high water and wave erosion in December of 2005. At the present time no extant survey exists of the status or quality of the bay-margin levees, or the quality of the shoreline protection protecting the levees, and this EIR cannot identify the extent to which existing levees are potentially subject to failure as a consequence of storms, high tides, tsunamis, or the effects of strong seismic shaking.

12.1.3 Infrastructure, Services, and Land Transportation

“Public services,” as the term is used in the CEQA process, generally refers to the activities of government agencies provided as services to members of the community, including fire protection, police services, schools, recreation, and similar services. Maintenance of publicly owned facilities generally is subsumed within this category of services. This category also includes medical services, which generally are provided by private entities

“Utilities,” as the term is used in CEQA, generally refers to the utility and service systems supporting developed land uses, including water, sewerage, storm drainage, and similar services; this category is not distinct from “public services,” however, especially with respect to maintenance services. While this category normally would be assumed to include electrical power, natural gas, telephone, cable television and related information services, these “utilities” are currently not listed in any of the Environmental Checklist questions.

12.1.3.1 Water Services in the Humboldt Bay Area

As described in Chapter 4.0 of this EIR, the majority of the water provided by public agencies within the Humboldt Bay region is ultimately supplied by the Humboldt Bay Municipal Water District (HBMWD) from the Mad River. The HBMWD is the main wholesale water agency serving the greater Humboldt Bay area, including the Cities of Eureka and Arcata, the McKinleyville Community Services District (MCSDD), and the Humboldt Community Services District (HCSDD); the HCSDD provides domestic water and fire-flow services to users in the incorporated areas adjacent to the eastern and southern parts of the City of Eureka. The HBMWD also supplies untreated (non-potable) process water to the Evergreen pulp mill; this supply is also available for fire protection uses on the Samoa Peninsula.

Potable water is supplied to residents within the City of Eureka (and partially to the HCSDD) via the City’s Mad River Water Pipeline. The HCSDD derives approximately a third of its water supply from this source. A second source of HBMWD water for the HCSDD (also approximately a third of the HCSDD supply) is a water pipeline that is routed down the Samoa Peninsula; this pipeline also serves the communities of Manila and Samoa,

and then passes under Humboldt Bay.⁴ The HCSD obtains about a third of its water from a set of District-owned wells in the Humboldt Hill region south of Eureka. The Wiyot Tribe-Table Bluff Reservation obtains potable water for its community water system from a Reservation-owned and operated groundwater well. The City of Arcata also operates a groundwater well in the northern part of the City. In more rural parts of the Humboldt Bay region many residents (and many resource-dependent operations such as farms) derive their water supplies from groundwater wells.

12.1.3.2 Wastewater Services in the Humboldt Bay Area

Wastewater collection services in the Humboldt Bay region are provided by several public agencies, including the two cities, the HCSD, the MCSD, the Manila Community Services District, and several small community service areas. The Humboldt Community Services District contracts for treatment and disposal with the City of Eureka. The City of Arcata, the MCSD, the Manila Community Services District, and a service area in Fairhaven also operate treatment and disposal facilities. In more rural parts of the Humboldt Bay region, wastewater treatment is provided by individual systems with onsite disposal (septic tank-and-leachfield systems). An onsite wastewater system upgrade is currently proposed as part of the Samoa Town Master Plan. The County of Humboldt does not provide wastewater services.

The publicly owned treatment works (POTW) of the City of Arcata incorporates a discharge of treated effluent to Humboldt Bay, although the effluent is usually as high or higher in quality as the surface water in most of the bay's tributary streams. The City of Eureka disposal requirements effectively cause the effluent from the City of Eureka POTW (including wastewater from the HCSD service area) to be discharged in the bay entrance on outgoing tides and the discharge is functionally an ocean discharge. The MCSD effluent and the Manila CSD effluent do not enter Humboldt Bay. The proposed Samoa system and the Fairhaven system also do not involve effluent disposal to the bay.

12.1.3.3 Other Utilities and Services

Fire protection services are provided by the Arcata Fire Protection District in the northern part of the Humboldt Bay region. The City of Eureka and the Humboldt Fire District No. 1 are responsible for fire-protection services in the vicinity of the City of Eureka. The California Department of Forestry provides wildland fire protection services in undeveloped resources lands in the Humboldt Bay area. Generally these agencies operate under mutual-assistance agreements.

Police services in the region are shared among several entities, including the City of Arcata Police Department, the City of Eureka Police Department, and the Humboldt County Sheriff's Department for area outside the cities. In addition, the California Highway Patrol provides police services related to state highways, with assistance in other areas when needed.

⁴ This pipeline is smaller in size and capacity from the region just south of Manila to the under-bay crossing than it is to the north or under the bay. The HBMWD and the HCSD are currently considering options to increase the capacity of this pipeline.

Public facility maintenance, especially for streets and drainage facilities, is shared among the cities of Arcata and Eureka and the Humboldt County Department of Public Works, which also is responsible for planning for solid waste services and for trails and related recreational services. Maintenance of the water and sewer systems and street lighting, where these systems exist, is similarly shared among these local government entities.

Medical services, including both facilities and emergency response capability, are provided by private entities. The northern part of the Humboldt Bay area is served by the Mad River Community Hospital in northern Arcata. In the southern part of the Humboldt Bay area hospital services are provided by Eureka General Hospital and St. Joseph's, both located on Harrison Avenue.

Several waste haulers in the project provide solid waste collection services; solid waste is trucked to a transfer station in Eureka, then to the Dry Creek landfill in Medford, Oregon.

12.1.3.4 Land Transportation and Traffic

A necessary element in operating a port or harbor is effective landside transportation that is able to move cargo into and out of the port region. Therefore part of the District's concerns about managing the port-related functions covered by the Draft Management Plan include the interface between the marine shipping that is appropriately a part of the Plan and the shoreside transportation that is not directly covered by the Draft Management Plan.

The most effective surface transportation linkage for marine cargo is a set of rail connections. Rail service for the region that includes Humboldt Bay is currently nonexistent. The relationship between the port-related functions for Humboldt Bay and surface transportation was covered extensively in the Harbor Revitalization Plan (PB Marine 2003a). The Revitalization Plan identified a number of transportation constraints for the functions of the Port of Humboldt Bay, including some limitations in the capability of the state's highway system elements in the North Coast to accommodate trucks that would be preferred for the landside linkage to marine cargo movement. A separate study (PB Marine 2003b) considered the potential for rail service restoration, indicating a number of financial concerns with the course to rail service reestablishment in the Humboldt Bay region and physical obstacles associated with proposals to reestablish rail service. The Revitalization Plan did not presume the existence of rail service.⁵ The Draft Management Plan includes policies (e.g., Policy HLU-5) supporting the maintenance of surface transportation services that serve the bay's port-related functions, but the upland areas within which these services and facilities are located are outside the District's jurisdiction. Should proposals that include rail service to the bay margin be considered by the District, the District would rely on consultations with appropriate agencies (e.g., the County and Caltrans) to identify necessary measures to address possible rail service concerns in upland areas.

⁵ The possibility that a localized rail service could be reestablished in the Humboldt Bay region that would support various port-related and harbor-related uses, such as aggregate transport to port facilities, movement of rail-boxes to a barge terminal in the bay, or cruise-ship passenger transport, was identified in the rail study as a somewhat more likely event than a re-opening of the main rail line to the San Francisco Bay region.

The function of the bay as a port or harbor is partly controlled by the ability to move people and goods to the bay margin and any terminals, docks, or marinas that support ships and boats. In the Humboldt Bay region this transportation network is composed of surface roadways. The roadways involved generally are elements in publicly maintained street and highway systems, and the roadways are shared by travelers with bay-related purposes and travelers with other purposes.

The primary focus of cargo-related access occurs along the bay's eastern margin between Fields Landing and the Dock B site; on the west side of the bay the primary cargo-related facilities range along the western side of the Samoa Channel from Fairhaven to the Redwood Dock Site south of the Highway 255 bridge.⁶ While the Draft Management Plan does not identify any specific intensified uses that might occur at these cargo-related facilities, the nature of the roadway access to these sites is an evident element that would be important in considering potential impacts.

On the eastern side of the bay, the Fields Landing (Kramer Dock) site owned by the District has a separate and relatively direct access route between the site and Highway 101. All of the other potential major terminal sites are/would be accessed through the local street system in the City of Eureka, where potential traffic conflicts with other travelers occur. Future intensification of local street use that might be associated with cargo-related traffic could increase the potential conflict with other users, a concern that is technically outside of the District's jurisdiction, but a concern that is clearly part of the concerns for port-related management.

On the western side of the bay, access to the coastal-dependent industrial parcels is provided by New Navy Base Road, a County of Humboldt primary roadway. The roadway was designed to accommodate heavy commercial vehicle traffic associated with the existing and prior heavy industrial uses on the peninsula. However, this roadway is also shared with traffic that is not related to these facilities, particularly with traffic from local residential communities and recreationally oriented coastal visitors, and there is a potential for conflict between commercial/industrial users and other users of New Navy Base Road. In addition, New Navy Base Road intersects Highway 255 where the state route turns north after crossing the bay, a context with existing potential for turning movement conflicts and some safety concerns. Again, however, these transportation-related issues largely lie outside the direct jurisdiction of the District, and are therefore covered by existing planning documents adopted by the County of Humboldt and the cities (i.e., they are outside the necessary coverage of the Draft Management Plan).

There are minor access points to the bay's margin in South Bay (e.g., the Hookton Slough site developed by the U.S. Fish and Wildlife Service) and Arcata Bay (e.g., the South I Street access point managed by the City of Arcata); these facilities are identified in the Draft Management Plan in policies covering recreation and coastal access (e.g., Policies RFA-3 and RSA-1). Additional access to maintained channels exists on the bay's eastern shore along the Eureka Inner Reach, from the vicinity of the Eureka Public Marina (the "Small Boat Basin") and the Highway 255 bridge. The dock and marina facilities in this region are designed for small craft rather than cargo vessels, and the use of surface

⁶Roadway access connections to all of the terminal facilities in the bay are identified and considered in the Revitalization Plan.

transportation corridors by traffic related to the bay's users is generally of the same kind (e.g., autos and small trucks) as non-water-related traffic.

12.1.4 Relationships with Other Regulatory Agencies, Governments, and Planning Jurisdictions Affecting Humboldt Bay

The Draft Humboldt Bay Management Plan (Volume I, Section I) provides considerable explication regarding the District's roles and responsibilities in managing Humboldt Bay, the District's Public Trust responsibilities, its relationships with other planning in the Humboldt Bay Region, and its relationships with state and federal agencies and requirements. The Draft Plan is a part of this EIR; its discussion of agency authorities is highly germane to water use and the built environment, and is incorporated herein.

12.1.4.1 California Coastal Zone

Humboldt Bay and the District's areas of "primary" and "secondary" concern are located entirely within the California Coastal Zone. All land uses within the Coastal Zone are subject to regulation pursuant to the California Coastal Act. The Coastal Act requires that cities and counties within the Coastal Zone develop Local Coastal Programs (LCP) that are consistent with the Act. Under their respective LCPs (after certification by the California Coastal Commission), local agencies may issue coastal development permits for projects within their jurisdiction. The City of Arcata, the City of Eureka, and the County of Humboldt incorporate Local Coastal Plan elements into their respective general planning programs, zoning ordinances, and permit programs. Permit authority is retained by the Coastal Commission for submerged and public trust lands. All such regulatory reviews are independent of any actions take by the District.

12.1.4.2 Relationships with Local Planning Agencies

The City of Arcata, City of Eureka, and County of Humboldt are the local governments directly and legally responsible for land use planning in non-trust land areas around Humboldt Bay under their respective General Plans, which incorporate the Coastal Act planning requirements. Uses prescribed by these agencies' general plan designations and policies are implemented through the jurisdictions' zoning ordinances and through project-specific reviews and permitting decisions.

As noted in the Draft Plan, some tideland areas of Humboldt Bay were granted by the State to the City of Eureka and other tideland areas to the City of Arcata; accordingly, these cities exercise some original jurisdiction over portions of the "primary" area covered by the Management Plan. However, the legislative act that established the District also explicitly established the District's regulatory authority over all actions occurring in the tidelands and waters of Humboldt Bay, notwithstanding the prior conveyance of some tidelands to the cities. The formative legislation authorized the District to negotiate for, and to accept, conveyance of these tidelands from the cities to the District. The Draft Plan does not necessarily presume that such conveyances will take place.

The City of Arcata, City of Eureka, and County of Humboldt planning jurisdictions include essentially all of the District's "secondary" area of concern. The District does not have regulatory authority in this area. The two cities and the County also exercise land use authority within the remaining upland portions of the bay's watershed, which makes up the third level of District interest. According to the Draft Plan, the District expects to

continue monitoring activities in this “tertiary” area of concern; however, the District does not expect to be involved in this third area from a regulatory perspective.

City of Arcata. The City of Arcata adopted its most recent General Plan update in 2000.⁷ The City's main implementing tool is its Land Use Code (2004) (formerly called the Land Use and Development Guide), which prescribes zoning districts and land use regulations consistent with the General Plan land use designations, densities, and policies. The City's Sphere of Influence includes lands that are contiguous to the City boundary; the largest area is just southeast of the City. The City's Planning Area includes additional lands extending across the Mad River Slough to the ocean and inland up into the Jacoby Creek drainage.

The Arcata General Plan includes a Natural Resource (NR) designation, which has as primary objectives the protection of unique and/or sensitive natural resources and the managed production of resources. Sub-districts under this NR designation include the Public Trust Zone (NR-PTZ), a designation that is applied to areas in Arcata Bay as well as to the Arcata Marsh and Wildlife Sanctuary (the wastewater treatment plant is designated as a “Public Facility”). Recreation may be considered as a secondary use in these sub-districts when there are no adverse impacts to the protected resources. The NR-PTZ designation is also applicable to aquaculture uses in Arcata Bay within the City's jurisdiction.

City of Eureka. The City of Eureka's General Plan (including Coastal elements) was adopted in 1997.⁸ Bay shoreline areas within the City are largely designated for commercial and industrial uses [i.e., Waterfront Commercial (WFC), Core Waterfront Commercial (C-WFC), Core Coastal Dependent (C-CD), and Coastal Dependent Industrial (CDI)]. Areas around the Elk River spit are designated for natural resources protection [i.e., Natural Resources (NR)]. Two land use designations are applied by the City to the waters of Humboldt Bay: Water – Conservation (WC) and Water – Development (WD). Woodley Island Marina is designated Public/Quasi-Public (PQP); Indian Island is designated NR, and is surrounded by WC.

City of Eureka land use designations extend across the bay to the North Spit, where much of the land with frontage on the bay is designated Coastal-Dependent Industrial (CDI).⁹ Ocean frontage and an area south of the City's Airport property are designated NR. The County Boat Launch park is PQP, and the southern tip of the North Spit is designated Park and Recreation

Land use designations within the city are implemented through appropriate zoning classifications. For example, the CDI (Coastal-Dependent Industrial) land use designation corresponds to an “MC” (Coastal-Dependent Industrial) zoning classification. The City's

⁷ The City of Arcata General Plan 2000 and Draft Land Use Code are available online at http://www.arcatacityhall.org/gen_plan.html (viewed January 2006).

⁸ The City of Eureka General Plan Policy Document may be downloaded (2.5 MB PDF) from the following URL: <http://www.ci.eureka.ca.gov/civica/filebank/blobdload.asp?BlobID=2249> (viewed March 2006).

⁹ It should be noted that the City of Eureka owns the peninsula site of the Eureka Airport, and the City may “pre-empt” County land uses designations at this location.

Zoning Ordinance, which provides regulations for uses within both coastal and non-coastal areas, includes the following “permitted” and conditional uses in the MC zone:¹⁰

... (C) Permitted uses. The following uses shall be permitted: (1) Boat repair and ship building; (2) Commercial fishing facilities; (3) Docks, piers and wharves; (4) Marine services; (5) Marine oil terminals; (6) OCS service bases and offshore pipelines; (7) Seafood processing; (8) Water borne carrier import and export facilities.

... (D) Conditional uses. (1) The following conditional uses shall be permitted in accord with the provisions of Article 24 of this chapter: (a) Access support facilities; (b) Boat launching and berthing facilities; (c) Electrical generating or other facilities which require intake, outfalls, or pipelines; (d) Fish waste processing plants; (e) Fishing piers; (f) Ice and cold storage facilities; (g) OCS oil and/or gas processing and treatment facilities; (h) Oil and gas pipelines; (i) Onshore petroleum production; (j) Outfalls; (k) Warehouses serving permitted uses.

The land uses that are contemplated by the cited land use and zoning designations are those contemplated for “coastal-dependent” or “water-dependent” upland land uses adjacent to the bay in the Draft Humboldt Bay Management Plan.

County of Humboldt. Land use planning for the unincorporated areas around the bay outside the two cities is conducted by the County of Humboldt. The County’s adopted General Plan consists of a Framework Plan (Volume I; 1984 as amended) and a number of community plans. The General Plan incorporates six Local Coastal Program elements, including the Humboldt Bay Area Plan (1982). The County of Humboldt is currently in the process of conducting a multi-year program to update its General Plan, including both coastal and non-coastal elements.¹¹ The General Plan is being updated to reflect changes in land use, resource management, community needs, and community values. Until that update is completed, the current planning documents apply.

The County’s current General Plan does not address tideland uses within Humboldt Bay, but it does regulate land uses throughout much of the upland areas around Humboldt Bay (i.e., the parts of the region not within either city) that lies within the District’s secondary zone of interest. As with other jurisdictions, the plan designations are implemented through zoning districts (or classifications) and zoning ordinances, which must by law be consistent with the General Plan. Under the County’s zoning regulations, the principal and conditionally permitted uses shown in EIR Table 12-5 are specified for the MC: Coastal-Dependent Industrial Development zone, including the appropriately designated areas on the Samoa Peninsula; the uses shown in the figure are those contemplated for “coastal-dependent” and “water-dependent” upland land uses adjacent to the bay in the Draft Management Plan.¹²

¹⁰ City of Eureka Zoning Ordinance, Title XV – Land Usage; Chapter 156: Coastal Zoning Regulations.

¹¹ Information about the County’s General Plan Update is available online at: <http://www.planupdate.org/> (viewed March 2006).

¹² Humboldt County Zoning Regulations, chapter 3, Regulations Inside the Coastal Zone: Section A: Regulations for the Zoning districts; Part 1: Principal Zones: Section 313-3.4

EIR Table 12-5. Land Uses Envisioned in Areas Zoned “MC: Coastal-Dependent Industrial” by the County of Humboldt (Code Section 313-3.4).

Use Type	Principle Permitted Use
Civic Use Types Industrial Use Types	Minor Utilities Coastal Dependent; subject to the Coastal Dependent Industrial Development Regulations Aquaculture; subject to Coastal-Dependent Industrial Regulations
Use Type	Conditionally Permitted Use
Residential Use Types Civic Use Types Commercial Use Types Industrial use Types* Extractive Use Type Natural Resource Use Types Use Types Not Listed in This Table**	Caretaker’s Residence Solid Waste Disposal; subject to the Solid Waste Disposal Regulations Oil and Gas Pipelines; subject to the Oil and Gas Pipelines Regulations Major Electrical Distribution Lines; subject to the Electrical Distribution Lines Regulations Coastal-Dependent Recreation Coastal-Related; subject to the Coastal-Dependent Industrial Regulations Heavy Industrial; limited to alteration, improvement, and relocation of existing facilities Surface Mining – 1; subject to Surface Mining Regulations Surface Mining – 2; subject to Surface Mining Regulations Oil and Gas Drilling Processing; subject to Oil and Gas Drilling and Processing Regulations Coastal Access Facilities Any use not specifically enumerated in this Division, if it is similar to and compatible with the uses permitted in the MC classification.

* See Industrial Performance Standards, Section 313-103.1

** See “Classifying Uses Not Specifically Mentioned in Use Type Descriptions,” Section 313-165

In addition, the County’s Zoning Regulations include other provisions for Coastal-Dependent Industrial Development (Section 313-45.1). These provisions primarily address requirements for an “alternative site study” as part of the CEQA environmental evaluation of proposed coastal-related industrial developments (County Zoning Regulations Section 313-45.1.3). Evaluation of alternative sites is required to include input from several agencies, including the Coastal Commission and the HBHRCD; the evaluation is then required to rank alternative sites in accordance to specified priorities. Associated with these requirements is an additional provision that should also be noted (Humboldt County Zoning Regulations, Section 313-45.1.4):

45.1.4 Public Acquisition of Priority Sites. Where appropriate, the Humboldt Bay Harbor Recreation and Conservation District shall be petitioned by the County to consider exercising its right of eminent domain to acquire and manage the site as identified pursuant to Section 313-45.1.3.

It is not known whether this provision has ever been exercised.

12.1.4.3 Relationships with Other State and Federal Jurisdictions and Requirements

The Draft Management Plan provides brief descriptions of a number of state and federal agencies that have responsibility for approving projects or protecting resources in

Humboldt Bay. These agencies are noted briefly below (for further details, see the Draft Plan). In addition to the California Coastal Commission, other State agencies with substantial influence or control over aspects of the Bay's management include:

- California State Lands Commission, which retains an oversight role for California's sovereign (public trust) lands, particularly with respect to regulatory functions for offshore oil and gas development, marine oil terminals, ballast water regulation, and state lands leasing;
- California Department of Fish and Game, which exercises authority over fishing-related and aquaculture-related activities; enforces of State Fish and Game Code, including sport and commercial fishing; and manages several wildlife areas on the bay;
- North Coast Regional Water Quality Control Board, which enforces water quality regulations and shares responsibility for wetland regulations; and
- California Resources Agency, particularly through its Department of Parks and Recreation, for shared management of the Samoa Dunes Recreation Area.

Federal agencies with substantial influence or control over aspects of the bay's management include:

- the U. S. Army Corps of Engineers, which is involved in funding and carrying out dredging of navigation channels, as well as in implementing wetlands regulations under the Clean Water Act;
- the U. S. Fish and Wildlife Service, including its role in managing the Humboldt Bay National Wildlife Refuge Complex and as the federal agency entrusted with ownership of tidelands in Arcata Bay and in South Bay, as well as its role (shared with the National Marine Fisheries Service) as a trust agency for biological resources pursuant to a variety of federal laws;
- the U. S. Coast Guard, which is the federal agency responsible for many aspects of navigation and marine safety; and
- the Bureau of Land Management, which administers public lands on the North Spit and, in conjunction with other agencies, on the South Spit.

12.1.4.4 Relationship with Native American Tribes

As discussed in more detail in EIR Chapter 14.0, the Wiyot Tribe-Table Bluff Reservation is recognized by the federal government as a tribal organization under the general protection of the federal government, with sovereign rights of self-determination. The Table Bluff Reservation, established in 1990, consists of more than 80 acres on the ridge south of Humboldt Bay, within the bay watershed. In 2000, the Wiyot Tribe purchased 1.5 acres of Indian Island for the purpose of environmental and cultural restoration. In 2004, the tribe acquired approximately 60 acres of Indian Island north of Highway 255 from the City of Eureka. The Wiyot lands associated with Indian Island include upland areas, marshlands, and tidelands. As stated in the Draft Plan, the Tribe's status as a sovereign government entity creates intergovernmental responsibilities with respect to baylands management; the District, together with the Tribe, will develop additional working understanding with respect to tribal relations as the Management Plan is implemented.

12.1.4.5 Collaboration in Implementation of the District's Management Plan

The Draft Management Plan is intended to provide guidance for the District's review of its own operations and management activities, its review of applications for uses of the bay's waters and tidelands, and its participation in local, state, and federal government agencies that share management responsibility for Humboldt Bay and its resources. Many provisions in the Draft Plan indicate the importance of collaboration among managers and stewards of Humboldt Bay.

As stated in the Draft Plan, the District is the principal regulatory agency with local jurisdiction within the bay for the majority of the bay's tidelands [the lands below mean higher high water (MHHW), including a number of specified streams and sloughs] according to the language of the legislation that created the District. Within these tidelands the District serves as the lead agency for application reviews, environmental assessments, and other reviews and approvals authorized for local agencies under state law. The Draft Plan, in conjunction with District implementing ordinances, is intended to serve as a policy framework for District decision making.¹³

The Draft Plan, however, is not a general plan or a local coastal plan, nor is it subject to certification by the California Coastal Commission. The District lacks authority to approve shoreside developments in the uplands of the City of Eureka or in the County. The District does not have the authority to issue coastal development permits for proposals within its areas of jurisdiction; the Coastal Commission retains permit jurisdiction in the bay's tidelands, submerged lands, public trust lands, and other "retained jurisdiction" lands below the mean high tide line. The Draft Plan will be implemented in conjunction with the requirements of the general plans of the cities and the county and the Coastal Act and a number of other plans and policies at the federal, state, and local levels.

The Plan is intended to establish a policy framework to assist and guide the integration of these plans and policies and other relevant planning and decision-making activities as those plans apply to the actions that the District considers and approves pursuant to its legislative mandate. Many of the management considerations that the District anticipates addressing concern the interrelationships among land and water uses that are germane to the port-related or harbor-related activities that are described in this EIR. The Management Plan (and this EIR) presumes that the Plan will be implemented, over time, through ongoing discussions among the District and the other agencies that regulate uses around Humboldt Bay. As stated in the Draft Plan:

The District expects to work collaboratively with the City of Eureka, the City of Arcata, and the County to identify the District's concerns for the Public Trust lands within the jurisdictions of these other local agencies. The District will identify its concerns on the basis of the policies in this Plan, and may offer suggestions for addressing the events or practices within the Public Trust lands; the District may, in addition, enter into agreements or "partnerships" with the cities

¹³ The District currently addresses management within areas subject to its jurisdiction with a set of implementing ordinances (see the Draft Plan). The District expects that the Draft Management Plan, when adopted, will lead to the amendment of the existing ordinances and the development of additional ordinances.

and the County in support of city or County projects. The District does not, however, expect to be significantly involved in this expanded geographical area from a regulatory perspective.

...

The District expects to work collaboratively with the cities, the Tribe, and the [USFWS] Refuge to assure that the policies in the cities' General Plans, the Refuge's management plan, Tribal management plans, and the District's policies regarding the tidelands in Humboldt Bay are considered mutually and inclusively in decision-making regarding the management of the tidelands in the Bay. The District will seek to formalize working relationships with the cities, the Refuge, and the Tribe regarding tidelands management as part of the implementation of this Plan.

12.2 ISSUES TO BE ADDRESSED AND THRESHOLDS OF SIGNIFICANCE

The issues addressed in this chapter include those identified in the Initial Study (see Appendix A), as well as in issues raised during public scoping sessions and in comments on the Notice of Preparation (NOP). The main concern in this assessment is identifying the relative likelihood that the policy focus in the Draft Plan would be associated with any reasonably foreseeable, direct or indirect, significant, adverse effects on the human environment in terms of water uses, the built environment, and related infrastructure and transportation components of Humboldt Bay.

The subject matter addressed in this EIR Chapter is only partially covered by the issues addressed in the Initial Study, which was based on the Environmental Checklist in Appendix G of the CEQA Guidelines. The Guidelines' Appendix G covers a number of impact assessment topics and questions that are usually pertinent for project-specific assessments, but the Checklist does not address very well the programmatic nature of the Draft Management Plan. There are no questions, for example, explicitly regarding potential impacts to Public Trust lands or coastal access; nor are there any questions aimed at identifying potential adverse effects on the human uses of a harbor or port, nor whether the "project" – i.e., the Draft Plan – would be likely to have adverse effects to shipping, commerce, commercial fishing, or mariculture.

The general conclusion of the Initial Study was that implementation of the Draft Plan "will have no effect on upland land uses" (Item IX.a); this conclusion primarily rests on the fact that the District has no direct regulatory authority for prescribing or regulating uses of uplands. The Initial Study (Item II) also found that implementation of the Draft Plan would be unlikely to be associated with significant effects on agricultural resources, including the conversion of farmland around parts of the bay to other uses. The Initial Study further concluded (Item XII) that implementation of the Plan would not be expected to have any related, significant increase in population or other discernable effects on population growth, nor to result in creating housing, nor to displace any foreseeable housing units. The Plan itself will not directly create new businesses, although the Plan's implementation has a potential for supporting the development of additional business opportunities in the Humboldt Bay region; the details of such possible additional business opportunities are considered to be too speculative for assessment (Item XII.a).

Under "Hazards and Hazardous Materials" (Checklist Item VII), the Initial Study found that the harbor-related uses of the bay could be associated with potentially significant

effects in terms of the transportation and use of hazardous materials. As identified in the Initial Study, marine transportation and harbor-related uses may be associated with “possible accidents and upset conditions.”

Another item in the Initial Study (Checklist Item IX.b) asks whether the “project” – in this case, implementation of the Draft Plan – would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. The Initial Study concluded that “[b]ecause the District exercises primary authority over the region covered by the Draft Plan, and because the Plan itself provides the policy framework for District management, the Draft Plan does not represent a conflict with applicable management plans.” In an NOP response, the City of Eureka indicated a concern that the proposed Plan appeared to conflict with the shoreline designations in the adopted City of Eureka General Plan, which would be considered an environmentally significant effect.

The assessment also considers whether implementation of the Draft Plan within the District’s Primary Area could reasonably be associated with potential indirect effects on upland uses within the District’s Secondary Area. The Initial Study noted, for example, that the Plan’s implementation might change the locations or intensities of some port-related land uses, and that future projects could involve shore-side aquaculture facilities.

As in other chapters, the thresholds of significance convention used in this chapter is that a potential environmental effect of the Plan is judged to be significant if the proposed policies increase the potential for occurrence of possible environmental impacts beyond the degree that would exist if the policies were not carried out. This assessment requires a judgment regarding the likelihood that the Management Plan will lead to actions that will create or exacerbate adverse conditions that would not occur without the policies. If a reasonable argument is possible that the Plan’s policies would exacerbate a possible adverse condition, or create a new adverse condition that does not occur at the present time, then the effect is judged to be significant.

12.3 ENVIRONMENTAL EFFECTS OF PROPOSED PLAN AND ALTERNATIVES

12.3.1 “No Project” (Existing Master Plan)

The No Project Alternative in this EIR is the District’s continued reliance its existing planning and implementation documents for the management of Humboldt Bay. The District’s existing planning and regulatory documents consist of the 1975 Humboldt Bay Master Plan and the existing set of District ordinances, including Ordinance No. 7.¹⁴

As discussed in Chapter 2, the Master Plan (and Ordinance No. 7) identifies various categories of water “use” and land “use” on Humboldt Bay and on adjacent uplands.

¹⁴ Ordinance No. 7 was created by the District subsequent to the District’s formation to provide guidance for various “use” decisions. The ordinance incorporates regulatory provisions that were laid out in the legislative act that formed the District. Ordinance No. 7 also includes a number of the planning recommendations for specific uses in the bay that were identified in the 1975 Master Plan.

Water use areas identified in the Master Plan approximately correspond to the primary water use areas identified in the proposed Management Plan; they are also generally consistent with local agency use designations, such as those in Eureka's Land Use Map, as previously presented in this chapter. Most of Arcata Bay and South Bay are designated as "Conservation Water" in the 1975 plan; this designation also covers the part of Entrance Bay opposite the bay entrance, up to and including the mouth of Elk River, as well as the waters on both sides of Indian Island. The majority of the central part of the bay is designated as "Development Water."

By designating upland uses in the vicinity of Humboldt Bay, the 1975 Master Plan, however, goes beyond the designations proposed in the Draft Management Plan, which are instead only focused on the District's area of primary concern. The Master Plan and Ordinance 7 designate upland land uses – including agricultural lands, "service commercial" areas, and port-related industry and non-water-related industry – in areas that are outside the "areas of regulatory jurisdiction" as specified by these same documents. This inherent conflict would be perpetuated by a reliance on the existing Master Plan.

The 1975 Master Plan also contains a set of "Direct Planning and Development Policies," as approved by the District Board of Commissioners in 1974. In part, these policies include the following:

Navigation and Commerce

- Navigation and commercial capabilities should be developed in accordance with the needs of Humboldt County.
- Development within Humboldt Bay, Shelter Cove and Trinidad Bay should be planned so as not to restrict the future development of harbor capabilities.

Industry

- Industrial development in the immediate proximity of tidal and submerged lands should be limited to that which requires or benefits from direct access to these lands.
- Development, and particularly industrial development, in the proximity of tidal and submerged lands should not be allowed to become haphazardly distributed.
- Support of the commercial fishing industry shall be recognized as an important purpose of the development of Humboldt Bay, Shelter Cove and Trinidad Bay.
- Education, research and other non-consumptive water-oriented uses shall be encouraged.

The Master Plan identified property ownership as one of the most serious problems facing the District, in terms of clearly establishing ownership of lands within the District's jurisdiction because of "myriad potential property title problems related to boundary uncertainty, the right of use, the right of possession, the right of access, the right of exclusion and the 'common law trust' of commerce, navigation, and fisheries." This element of the Master Plan is absent from the Draft Management Plan.

The 1975 Master Plan also recommended a number of proposals that would affect water use and the built environment around the bay; a sample of these proposals is mentioned in this section. The plan called for deepening and widening the navigation channels, as well as protection of upland areas for various types of industrial uses. In a number of instances, the Master Plan identified the need for better use of port lands, terminals, and

commercial docks, finding these facilities to be “underutilized.” Nevertheless, the plan also recommended that areas be reserved for new types of terminal facilities, docks, and wharves, in anticipation of future changes in shipping. The plan recommended aggressive solicitation of new industries.

The 1975 Master Plan “designated” the area from Fairhaven to Samoa as “port-related industrial use” and the Airport property as “nonwater-related industrial use, such as an industrial park.” It recommended that the District take the lead in developing “the industrial park at the Samoa Airport.” The plan also presumed (incorrectly) that the communities of Fairhaven and Samoa would “eventually phase themselves out due to difficulties in providing public services such as fire and police protection to these remote areas and pressures from increased development.” Along the Eureka shores on the east side of the bay, the plan called for “water-related industry,” with associated commercial uses, particularly those related to commercial fishing. The “port-related industrial” designation was also applied to shoreline areas south to Elk River. A high-rise motel was proposed as part of the “service-commercial” designation in the King Salmon area. Additional boat launching areas and small craft berthing facilities were also recommended.

The Master Plan contained a number of suggestions aimed at trying to improve conditions for the Humboldt Bay fishing industry. Recommendations included:

- Centralizing the commercial fishing industry; “intensely” developing the northern Eureka waterfront; creating a single commercial fishing “industrial complex” instead of piece-meal development.
- Constructing additional seafood processing plants, with the District taking the lead in planning and development.
- Expanding services to the fishing fleet, with the District taking the lead in the development of new and updated services.
- Creating new businesses to develop fish by-products and waste, with the District seeking out such an industry.
- Pursuing new markets, including expansion of air transportation of fresh fish.

Finally, the 1975 Master Plan included a set of “capital projects for the bay,” which were collectively a capital improvement program for the District and other local, state, and federal agencies as part of plan implementation. Projects identified included:

- A solid waste conversion plant;
- Site improvements for docks, warehousing, paving, utilities, and rail service on the North Spit;
- An industrial park at the “Samoa Airport;”
- Development of a Commercial Fishing Complex;
- Additional small craft marinas and facilities; and
- Recreation, conservation, and other projects.

Taken as a whole, the 1975 plan promoted a more aggressive approach to promoting industrial and commercial development around Humboldt Bay than does the proposed plan. Some of the suggested proposals have been completed, such as an increased number of berths for small watercraft; other parts of the 1975 plan will likely never be realized.

The 1975 Master Plan assumed compliance and active participation by the County and the City of Eureka (even though the District lacked the authority to require such compliance). The active participation of the city and county governments likely would have led to the realization of the more intensive development promoted by the 1975 Master Plan, expanding the coastal-dependent uses present in the Humboldt Bay region in general, increasing potential economic growth, and encouraging harbor-related uses.

Implementing the 1975 Master Plan would also likely have been associated with significant adverse environmental effects, both within the bay as well as in upland areas outside the District's direct authority. These likely adverse effects would have been associated with air quality, water quality, sensitive habitat, fish and wildlife, recreation, cultural resources, visual quality, noise, and transportation impacts. Some provisions in the 1975 Master Plan, and in state laws (such as CEQA), likely would have mitigated the adverse effects to some extent.

On a different scale, the 1975 Master Plan (and the District's implementing ordinances) did not provide explicit policy direction to District decision-makers and other interested parties about a number of infrastructural, transportation, and environmental concerns that are now germane for Humboldt Bay planning. The Master Plan does address channel expansion for shipping purposes, but it should not necessarily be presumed that the Master Plan's directions would have resulted in the District's attention being directed to an overall sediment management approach for the bay, an approach that is now clearly appropriate for concerns that include both channel maintenance and other environmental resources in the bay. In addition, the Master Plan lacks any consideration of the effects of earthquakes, tsunamis, rising sea level, or changes in value systems among residents and constituents in the region.

Overall, this EIR finds that continued reliance on the policy framework in the 1975 Master Plan would: (a) create greater or more intense port-related or harbor-related development in the bay than would occur under the Draft Management Plan, and (b) be associated with much higher levels of adverse effects on a variety of environmental concerns than would occur as a consequence of implementing the Draft Management Plan. In addition, the 1975 Master Plan generally provides substantially less direction to the District and other interested parties than is desirable, given the complexity of bay management in the 21st Century.

12.3.2 Proposed Management Plan

The Draft Management Plan incorporates a focus on port-related and harbor-related uses as an essential part of the District's mission. Given the clear expression of legislative direction to the newly formed District in the 1970s to "improve the Humboldt Bay Harbor for navigation and commerce," it would not be possible for this focus to be absent from the Plan.

Many of the policies in the Draft Plan would have positive effects on harbor-related water uses and the built environment, including those that support a priority for port-related or harbor-related uses, as well as those focused on providing for inter-governmental coordination aimed at removing constraints for such uses. Policies in the Draft Plan also support continued maintenance dredging of the entrance bay, navigation channels, and

moorages, which is essential for commercial shipping, for the commercial fishing industry, and for most other water-related uses in the bay. The plan also includes goals, objectives, and policies that would support and assist the continuation of commercial fishing and aquaculture in Humboldt Bay. The following Draft Plan policies reflect a focus on supporting harbor-related uses, coastal-dependent industry, commercial fishing and aquaculture, and a variety of infrastructural considerations that can reasonably be associated with potential beneficial effects to those activities:

Harbor-Related Uses (Including Upland Uses)

- HLU-1: Harbor-related uses shall have priority under this Plan within the portions of Humboldt Bay designated for port-related or harbor-related uses
- HLU-2: Assist local, regional, and state agencies in identifying and protecting harbor-related land uses in Humboldt Bay, and in developing increased institutional capability in the planning, regulatory, and development programs related to such uses
- HLU-3: Assist in removing constraints for marine-dependent or coastal-dependent land uses along the Samoa Peninsula, Fields Landing Channel, Eureka shorelines, and other harbor-related areas
- HLU-4: Assist in removing potential constraints for marine-dependent or coastal-dependent land uses on harbor-related parcels in the South Bay

Shoreline Management

- HSM-1: Develop an inventory of shipping terminal facilities necessary to carry out adopted harbor-related planning policies for Humboldt Bay
- HSM-2: Develop standards for new and existing Humboldt Bay shoreline protection
- HSM-3: Develop appropriate, consistent shoreline protection guidelines for commercial, industrial, and residential development around Humboldt Bay

Channel Maintenance

- HWM-2: Dredging may be authorized to meet Plan purposes
- HWM-4: Placement of fill within Humboldt Bay may be authorized to meet Plan purposes
- HWM-6: Sediment dynamics in Humboldt Bay shall be identified and a sediment management approach for Humboldt Bay shall be developed

Fishing and Aquaculture

- HFA-1: Support the improvement of existing fish landing, buying, and processing facilities in the Humboldt Bay area
- HFA-4: Identify additional aquaculture opportunities in Humboldt Bay
- HFA-5: Designate a Preferred Aquaculture Use Area in Arcata Bay, and require Best Management Practices to meet environmental constraints
- HFA-2: Protect appropriately designated shoreside areas for the development, maintenance, or expansion of commercial fish processing and aquaculture facilities or activities
- HFA-4: Identify additional aquaculture opportunities in Humboldt Bay

12.3.2.1 Direct Consideration of Port-Related and Harbor-Related Uses

The proposed Management Plan is expected to have largely positive and beneficial effects in terms of port-related and harbor-related uses. For the most part, the Draft Plan provides the necessary policy framework to establish a basis for decision-making that promotes reasonable, long-term harbor and port development, maintenance, and sustainability. For example, the Goals for “Harbor-Related Land Use and Development” (Section III, Chapter 3.0, Subsection 3.2) are directed toward the District’s role, along with “upland agencies” in ensuring

- “the availability and readiness of large coastal-dependent industrial sites adjacent to Humboldt Bay;” and
- “the development and long-term maintenance of harbor-related infrastructure in Humboldt Bay.”

Similarly, the Objectives in the same part of the Draft Plan call for

- working with local governments to protect water-dependent and coastal dependent sites and maintaining “opportunities for designating additional water-dependent or coastal-dependent industrial sites and uses near Humboldt Bay;” and
- working with local, state, and federal agencies to facilitate the necessary reviews of related implementation projects.

In considering the adequacy of policy coverage for overall harbor management, this EIR’s assessment identified three specific harbor-related concerns that were incompletely considered in the Draft Management Plan. The first of these is *sedimentation and sediment management in the bay*. The effects of sediment dynamics in the bay, in the bay’s watershed, and in the nearshore Pacific Ocean were not well characterized in the past (see Chapter 5.0), and are not well characterized at the present time; nonetheless, it now appears clear that enlightened management of the bay as a harbor must consider sediment dynamics to a greater extent than occurred in the past. However, in considering the policy focus in the Draft Plan for sediment management, the EIR finds that the existing policies (particularly policy HWM-6) already provides adequate direction to District decision-makers and other interested parties, and additional policy considerations are unnecessary.

The second area in which prior considerations for bay management have not adequately incorporated the understanding reflected in this EIR is *shoreline protection, shoreline erosion, and the effects of changing sea level*. The knowledge of climate-change processes and related events such as sea level increases, the effects of intensified storms on water surface elevations, and the effects of seismic shaking on shoreline stability that is available today was not fully incorporated into the content of the Draft Plan. The shoreline management policies in the Plan adequately direct the District’s decision-makers to develop and consider appropriate standards for shoreline protection, but the policy focus in the Draft Plan omitted a direction to the District to identify the condition of the existing shorelines in Humboldt Bay, a necessary element of an adequate management policy. Therefore, an additional policy element is identified below that prevents this omission from crossing a threshold of significance for the Plan’s focus.

A third harbor-related concern was identified in considering the Plan’s policy coverage. The Management Plan inadvertently omitted clear policy direction to District decision-

makers regarding the needs of the many small watercraft user groups in Humboldt Bay. Goals and objectives in the Draft Plan (Section 3.5) include statements supporting the needs of the commercial fishing industry and recreational boating, citing applicable policies from the California Coastal Act. The Draft Plan includes several policies supporting commercial and recreational fishing, including policies supporting fish-processing facilities and other commercial-use shoreside areas (existing Policies HFA-1 and HFA-2), as well as policies regarding the District's role in protecting Essential Fish Habitat (Policies HFA-6, HFA-7 and CAS-2), which address commercially important species. The Draft Plan includes a policy (Policy RSA-2) addressing the District's responsibility for marinas (in this case, largely in a recreational sense).

These policies do not, however, fully address the District's acknowledged responsibilities with respect to protecting and improving "harbor space" for the commercial fishing industry, for recreational craft, and for other boating needs, including the need for berthing and moorage space. The Draft Plan did not specifically include a policy direction regarding the maintenance of berthing space for commercial fishing vessels. The omission might not be a significant impact for harbor-related concerns, since most commercial boats can (and do) use berthing that also serves recreational boats and other small vessels. However, the Draft Plan does not include a policy that focuses specifically on the District's role in maintaining adequate berthing for those vessels, either. Finally, the existing policy framework in the Draft Plan does not explicitly direct the District to monitor the availability of other support facilities needed to support the activities of these user groups. A policy element that addresses this omission is included in Section 12.4.

With the incorporation of these additional elements, the EIR finds that the Draft Plan's policy focus on harbor-related management concerns avoids potentially significant effects for the variety of uses considered with respect to the port-related or harbor-related uses of the bay.

12.3.2.2 Indirect Land Use Considerations for Harbor-Related and Port-Related Uses

The assessment above indicates that beneficial effects would be expected to accrue to port-related and harbor-related uses through the implementation of Management Plan. Such a conclusion, however, does not adequately reflect the complexity of the interrelationships among the District and the local agencies that govern upland uses adjacent to the bay (and potentially some water uses in the bay). For example, in comments responding to the Notice of Preparation the City of Eureka expressed a concern that recreational activities or uses in the bay that might be authorized by the District pursuant to the Management Plan might be incompatible with principally permitted industrial uses allowed under the City's Coastal Dependent Industrial land use designation. The City's general plan reserves the upland bay margin for "water-related industry," and in a response to the NOP the City identified a concern that requiring a focus on recreational uses in the bay adjacent to those upland areas might inhibit or prevent the development of coastal-dependent industrial uses on lands regulated by the City. This concern conceivably could arise if the District were to exercise a "preference" for recreational uses or activities in waters adjacent to those uplands. This potential "use" conflict could be considered to be an environmentally significant concern.

The scope of the Draft Management Plan does not include a policy focus that would reasonably lead to the conflict envisioned by the City's comment, which is apparently

based on a perception that the “water uses” described in Chapter 2.0 of the Draft Plan (and specifically illustrated in Figure 2.1 of the Plan) would result in a District approval of recreational uses in the waters adjacent to the Eureka shoreline, in an area that is designated “coastal dependent industrial” in the City’s general plan. The “recreation” considerations cited by the City are an example of a secondary or “combining” use designation in an area where the primary or “base” designation is for “harbor” uses. The text in Section 2.3 of the Draft Plan explicitly stated that “the combining designations will not remove or change the underlying base designations.” The intent of the Draft Plan is thus clearly expressed that the coastal-dependent shoreside uses required by the City’s general plan should inform the District’s decision-making in Humboldt Bay adjacent to the shoreline.

This intent is further reflected in the Draft Plan’s policies. Policy HLU-1 explicitly directs District decision-makers to recognize that coastal-dependent water uses shall be assigned a higher priority than other uses in the central part of Humboldt Bay (where the “base” use designation is “harbor”). Policies HLU-2, HLU-3, and HLU-4 explicitly direct the District, working collaboratively with the City and other local, state, and federal agencies, to protect these designated land and water areas for coastal-dependent uses.

The Draft Plan recognizes a need to balance recreational uses and conservation in the bay with harbor-related uses. This “balancing” requirement does not override the overall policy focus in the Draft Plan to maintain coastal-dependent uses as a priority in areas where such uses are required by the plans of upland agencies. This direction is explicitly stated as a policy in Policy HLU-2, which directs District decision-makers to protect areas in the central part of the bay as support areas for coastal-dependent uses on shoreline lands adjacent to the bay. In addition, RFA-4 subordinates recreational uses to coastal-dependent uses in areas of the bay that could have values for both coastal-dependent uses and recreational activities (although this EIR notes that the permissive policy language in Policy RFA-4, with its focus on health and safety concerns, does not resolve this potentially significant policy conflict adequately). This EIR nonetheless concludes, based on these policy considerations, that the Plan’s policy direction favoring the protection of coastal-dependent uses in the central part of the bay is clearly established, and that additional policy language addressing this issue is not warranted.

The EIR also notes, however, that a source of possible misunderstanding about District management can be traced back to a lack of clarity regarding certain District powers in the legislation that established the District. For example, the legislature *suggested* that the tidelands “owned” by the City of Eureka and the City of Arcata be acquired by the District, but left it to the affected governments to work out an appropriate transfer. This lack of clarity is also present in the Draft Management Plan, which lacks an explicit policy focused on resolving real property acquisition and ownership issues.¹⁵

¹⁵ The District and the surrounding local governments have not identified a need, during the three decades since the District was formed, to resolve tidelands ownership and management questions that clearly were an issue for the Legislature when the District was established. These questions are only weakly related to potential environmental concerns, and the EIR finds no CEQA-related need to recommend policy approaches toward resolving issues that have not, apparently, been considered significant by the decision-makers of these governments. Nonetheless, it seems appropriate that decision-makers for the District, the City of Arcata, and the City of Eureka might revisit the tidelands ownership issues to seek clarity for future management purposes.

Additionally, the Draft Management Plan could be interpreted by some readers (inappropriately) as a prescriptive land use plan. In such a plan it would be possible for District “prescriptions” to conflict with the land use plans and related zoning diagrams for upland agencies. However, the Draft Plan does not include a list of “permitted” uses that constitute the only uses allowed, and the District is free to consider the appropriateness of essentially any use anywhere (indeed, a primary focus of the Draft management Plan is to provide some consistency in direction with respect to uses of the bay’s waters). In short, the Draft Plan is *not* a land use plan in the usual sense. What the Draft Plan requires is that the District’s decision-makers consider the consequences of water uses that are placed before them on a variety of factors, including the land uses designated for adjacent uplands. In the central part of the bay, the District’s decision-makers will consider both coastal-dependent upland uses and recreational uses, giving a priority to water uses that support the coastal-dependent upland uses. This does not appear likely to produce an adverse effect on the environment, and the interface of the water uses and the upland uses should not be presumed to be a source of possible planning conflicts.

Even though lack of procedural clarity appears to be a substantial planning concern, it is not directly related to the environmental consequences of implementing the Draft Plan, and thus this EIR does not identify specific policy “mitigation” for this concern. Nonetheless, the EIR does commend this important issue to the attention of the District’s decision-makers and those of the other local governments around the bay.

Managing the bay environment inherently is about managing potentially conflicting or competing uses. As with the California Coastal Act, potentially incompatible requirements – e.g., protection of environmentally sensitive areas, creation and enhancement of public access, and development of port-related commercial or industrial uses – are all supported by the plan, as directed by the legislation that created the District. In addition, the plan provides policy guidance to help resolve inherent conflicts. As noted throughout this EIR, avoiding or reducing potentially significant adverse environmental impacts associated with the Draft Plan depends on the full implementation, jointly, of all of the Plan’s policies. In light of these considerations, and with the additional policies and policy adjustments identified below, the EIR finds that the impacts of the Draft Management Plan associated with potential conflicts over the uses of bay waters and adjacent upland areas may be reduced to levels that are less-than-significant.

12.3.2.3 Utilities, Services, and Surface Transportation

Water, Wastewater, and Other Utilities. Implementing the Management Plan would not result in any *direct* adverse effects on public utilities of services such as water and wastewater. The District does not control uses in upland areas near the bay, and would not be the lead agency for proposals that might result in such effects. Because such projects would in most cases not be before the District as a lead agency, the Management Plan does not need a policy framework to address their review. For implementation projects on District-owned sites, potential effects on services and utilities would be considered in project-specific environmental reviews.

Nonetheless, the Management Plan may lead to the implementation of projects that have *indirect* effects on public services. Project-specific or cumulative demands for water

services, wastewater treatment and disposal services, electrical services, or other “public” services could exceed the capabilities of the existing systems in the Plan area. These effects would be associated with possible projects in the upland areas that are outside the District’s jurisdiction, but (as noted above) the Draft Plan supports the development of coastal-dependent uses on upland areas adjacent to the Entrance Bay channels. The existing water service capability on the Eureka side of the channel is likely to be adequate for most implementation projects that might be proposed there. The water service on the Samoa Peninsula, however, is already limited and considered in need of upgrades. Recent District attention to a proposal considered by the Humboldt Bay Municipal Water District to export water from Humboldt Bay clearly indicated that the HBMWD has adequate water supplies to meet a large demand. It is unclear, however, that adequate infrastructure exists to serve proposals for development that might have a large demand for treated water.

Similarly, the possible need for expanded wastewater treatment capability because of upland development projects that are supported by Plan policies could result in an indirect effect of increasing the demand for additional wastewater collection, treatment, and/or disposal capability, particularly on the Samoa Peninsula side of Entrance Bay. It is unclear how this need would be met. Alternative options would include collection system elements leading to the City of Eureka system, collection system elements leading to the City of Arcata system, a new POTW on the peninsula, or a series of smaller systems associated with any of the possible future uses.

In addition to coastal-dependent industrial uses, some recreational uses (e.g., a new marina) or some commercial bay-related uses (e.g., new shoreside aquaculture facilities on the peninsula) could trigger a need for new water or wastewater facilities or services.

At the present time it is unclear that any of the other utilities and public services present in the Humboldt Bay area would be affected significantly by upland developments compatible with the implementation of the Management Plan.

Police, Fire, and Other Emergency Services. The development of coastal-dependent industrial uses along the upland margins of Entrance Bay likely would be associated with increased risks of fire or upset conditions, but it is mere speculation to attempt specific projections of such risks. With respect to the Draft Plan’s policy framework, the Plan already incorporates a policy requirement directing the District to recognize and act on such risks should any be associated with projects considered by the District; additional policy elements appear unnecessary.

Land Transportation and Traffic. The implementation of the Management Plan could be associated with increased traffic, as well as with an increase in potentially hazardous traffic-associated conditions. On the eastern side of Humboldt Bay the access routes to the bay-margin coastal-dependent industrial areas pass through City streets that likely will continue to be used by non-industrial vehicular traffic and pedestrians. The potential conflicts between industrial traffic and general commercial or coastal-access-related traffic potentially would be an important concern along the Eureka waterfront. However, this EIR cannot predict specific locations or degrees of conflict for future implementation projects that are currently unknown.

Coastal-dependent industrial projects on the Samoa Peninsula also would be associated with a potential for circulation conflicts, engendered in part by the narrowness of New Navy Base Road, proposed increases in residential uses, and popular use of the roadway by coastal visitors. The potential for turning-movement conflicts at the intersection of New Navy Base Road with Highway 255 is not immaterial, particularly if developments south of this intersection included port-related terminal operations or other activities that generated much traffic from large vehicles.

In summary, this EIR concludes that there is a potential for increasing direct circulation related effects associated with the kinds of actions envisioned by the Draft Management Plan. However, the EIR cannot project the levels of intensities or types of projects that may be proposed in the future. The adopted general plan documents of the County of Humboldt and the City of Eureka have reserved the bay-margin lands for uses that may result in the types of circulation impacts suggested here; however, it is uncertain whether the adopted planning documents (and their environmental assessments) fully considered the potential circulation effects that might result from the variety of possible implementation projects. When the projects contemplated in this discussion are proposed, detailed CEQA assessments would be required that would properly identify the circulation-related effects of the projects.

Summary Regarding Utility and Service Impacts. The Draft Management Plan could be associated with future implementation projects that could increase demands for public utilities, public services, and additional transportation infrastructure (or upgraded infrastructure). However, the uses contemplated in the Draft Management Plan for the bay-margin region that might host such developments are already identified in adopted land use plans of local governments for precisely those kinds of uses.

The Draft Management Plan includes no specific policy focus that addresses these concerns, but it appears that the Draft Plan does not need to provide a policy contingency for these possible effects, for two reasons: (1) the District lacks authority to address these upland-related impacts, and a policy focus suggesting such considerations would therefore be irrelevant; and (2) the existing policy focus in the Draft Plan clearly requires that the District consider mitigation measures that are adequate to offset the impacts of projects that the District does consider (e.g., Policies CEP-6 through CEP-8).

In a broader context, this EIR presumes that necessary mitigation measures for projects that the District proposed to approve, on District-owned land or when the District acts as a Responsible Agency for the bay-related aspects of a proposed project on bay-margin uplands, would be identified by relevant agencies as part of the CEQA processes carried out for such a project. That is, the identification of appropriate project-specific mitigation is expected to emerge during the project-specific environmental reviews, which is the intent of CEQA. It does not appear necessary to add additional policy elements to the Management Plan directing that the District follow the requirements of existing state law.

12.3.2.4 Recreational and Conservation

The discussion in the preceding section indicates clearly that there are potential conflicts between management for harbor-related uses and the provision of recreational opportunities. Similar potential conflicts exist between management for harbor uses and management focused on conservation. These possible conflicts were identified in the

Draft Plan, and many of the Plan's policies were crafted to provide guidance regarding the "trade-offs" that the District must consider when implementing the Plan (for example, as with the coastal-dependent industry and recreational balancing required in Policy RFA-4, as noted above).

For recreational concerns, a Plan implementation focus on port-related and commercial shipping could lead to increased hazards for recreational boating in the bay. In addition, to the extent that new coastal-dependent industrial uses were approved by the responsible local and state agencies, some existing or potential avenues of public access to the bay or coastal shore could be precluded by coastal-dependent industrial or harbor-related development. A management approach focused on port-related or harbor-related activities could be associated with a higher potential for impacts to known and inadvertently discovered cultural resources and traditional and ceremonial activities. An emphasis on harbor-related elements could be associated with potential noise and visual/aesthetic impacts, both in terms of the number of project-specific instances as well as on a cumulative basis. In general, the EIR finds that the Draft Plan provides an adequate approach for "balancing" these potentially competing policies, and that additional policies are not necessary.

For conservation concerns, a management focus promoting District emphasis of port-related and harbor-related uses might be associated with a greater frequency of nonindigenous species introductions (see Chapter 11.0). There is a clear potential for harbor-related projects carried out in Entrance Bay, and for mariculture projects in Arcata Bay, to lead to reductions in eelgrass (*Z. marina*) coverage (see Chapter 10.0). In carrying out the EIR assessments the possible impacts of the Draft Plan's policies on conservation-related concerns were evaluated carefully in the contexts covered in EIR chapters 8.0 through 11.0, with appropriate mitigation policy elements identified in those chapters; additional policies are not identified in this chapter.

12.4 POLICY CONSIDERATIONS FOR MITIGATING POTENTIALLY SIGNIFICANT EFFECTS

As noted throughout this EIR, the Draft Management Plan contains policies that help to reduce the effects of other policies; that is, the Plan is intended to be "self-mitigating" to the greatest extent feasible. Based on the assessment results identified in this chapter, the following additional policies and policy revisions are needed to assure that the policy framework in the Draft Plan will have foreseeable environmental effects that are less-than-significant.

12.4.1 Shoreline Protection Inventory Shall be Conducted, Standards Developed, and Need for Improvements Identified

Section 3.3 in the Draft Plan establishes a policy framework for the District's responsibilities regarding shoreline maintenance in the bay. The Draft Plan establishes a policy framework that encompasses most of the necessary management actions, including the development of standards for shoreline improvements (Policy HSM-2). The existing policy framework inadvertently omitted a policy directive to identify the state of the existing shoreline protection system in the bay. The omission is rectified by the following amendment to Policy HSM-2 (new text is indicated by underline):

HSM-2: Develop an inventory of shoreline protection devices, identify potential needs for additional protection, and develop standards for new and existing Humboldt Bay shoreline protection

Policy: The District shall develop a program for conducting an inventory of the shoreline protection devices within Humboldt Bay, including levees, slope protection, bulkheads, pilings, and other devices that protect the shoreline and adjacent uplands from potential losses because of erosion or shoreline failure. The inventory shall include a preliminary assessment of the integrity of existing shoreline protection devices, and shall include a preliminary assessment of any deficiencies that may exist in the overall shoreline protection system of the bay. The District shall develop a consistent set of standards with respect to shoreline improvements (levee protection, levee maintenance programs, culvert replacement policies, etc.), which shall apply for all shorelines of Humboldt Bay. The standards shall be developed with a consideration of any improvements necessary to increase shoreline protection in consideration of anticipated increases in sea level, potentially increased erosional forces resulting from increased storminess, and other factors that may be deemed relevant by the District.

The Draft Plan's focus on shoreline protection was identified in Chapter 5.0 of this EIR as lacking adequate policy direction for crafting a coherent response to anticipated future sea level increases. An additional policy was identified in Chapter 5.0 (see Subsection 5.4.1), which also addresses the need for additional policy guidance identified in this section; the additional measure is restated here (new text in underline):

HSM-7: Identify needs for potential shoreline improvements necessary to accommodate bay water surface elevation changes, including potential effects of climate change

Policy: The District shall consult with the County of Humboldt, the City of Arcata, the City of Eureka, other affected local agencies, relevant state and federal agencies, and affected local parties to identify the potential effects on the Humboldt Bay shoreline and nearby areas that may occur because of meteorological or climate-related water surface-level fluctuations in the bay prior to the year 2050. Based upon these consultations, the District and other affected parties shall develop a plan that identifies any necessary shoreline alterations or maintenance programs needed to accommodate the water-level fluctuations. The District shall adopt findings with respect to the contents and recommendations of this plan when approving District operational programs or when approving any application for project approval submitted to the District.

The incorporation of these additional policies into the Plan will reduce the potential Plan-related consequences below a threshold of CEQA significance.

12.4.2 Adequate Small Craft Berthing and Operational Support Facilities Shall be Provided

The following policy is recommended for inclusion in the Harbor section in order to clarify the District's overriding responsibility for monitoring and meeting the needs of the collective boating public for berthing, moorage, and support services (new text is indicated by underline; existing policies HFA-1 through HFA-7 to be renumbered as HFA-2 through HFA-8):

HFA-1: The District shall plan for, designate locations for, and seek to provide adequate berthing, marina space, moorage, and other facilities necessary to

meet the operational and maintenance needs of commercial fishing vessels, recreational boats, and other small watercraft

Policy: The District, in collaboration with the California Department of Boating and Waterways, other state and federal agencies, local government jurisdictions, members of the commercial fishing fleet, recreational user groups, and other interested parties, shall monitor, on an ongoing basis, the need for berthing or moorage space for small watercraft in Humboldt Bay. Should the monitoring indicate a need for additional marina slips, berthing space, or other moorage needs for small watercraft (including space needed by the commercial fishing fleet using Humboldt Bay, as well as the needs of recreational boaters and those using other small watercraft) the District shall assume the lead responsibility for pro-actively developing plans for increasing the available berthing in the bay. The District shall also consider needs for waterside and shoreside support facilities and services appropriate for these user groups, including a need for boat repairing and maintenance facilities, and shall pro-actively plan for meeting identified needs.

The incorporation of this additional policy will reduce potential Plan-related consequences below a CEQA threshold of significance.