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STAFF REPORT: REGULAR CALENDAR

Consistency Determination No.: CD-0001-20

Federal Agency: U.S. Environmental Protection Agency (EPA)

Location: EPA-designated Humboldt Open Ocean Disposal Site (HOODS), between three and four nautical miles west of Humboldt Bay, Humboldt County (**Exhibit 1**).

Project Description: Expansion of HOODS boundary by one nautical mile to the north and west, thereby increasing the designated disposal area from one square nautical mile to four square nautical miles.

Staff Recommendation: Concurrence

SUMMARY OF STAFF RECOMMENDATION

The Humboldt Open Ocean Disposal Site (HOODS) is an offshore area where the federal government and other agencies dispose of sediment that is dredged from Humboldt Bay navigation channels. The U.S. Environmental Protection Agency (EPA) has submitted a consistency determination for the expansion of the existing HOODS boundaries by one nautical mile to the north and west, thereby increasing the HOODS disposal area from one to four square nautical miles. Since the original HOODS was established in 1995, the site has approached capacity and cannot provide for additional disposal without creating undesirable mounding. The proposed expansion would allow for 75 years of additional

disposal capacity, assuming a continuation of the annual average disposal of one million cubic yards of sediment from Humboldt Bay channels. The consistency determination includes a revised Site Management and Monitoring Plan, which includes provisions for regulating disposal operations, monitoring the site, using adaptive management to protect marine habitat and resources, and enforcing disposal permit conditions. The consistency determination also includes a description of a nearshore disposal site along the North Spit that represents a potential disposal alternative to retain sand in the littoral system. The consistency determination does not propose establishment of this site nor request Commission concurrence with such a program. In addition, the consistency determination does not include any proposals for, or requests for Commission concurrence with, any disposal projects. All future disposal at HOODS will continue to require separate federal consistency review by the Commission or Executive Director.

Expansion of HOODS will allow greater flexibility to manage disposal in the future over a larger area to reduce the frequency of repeated deposition of sand in the same location. The HOODS expansion area does not support rare or unique marine habitat but rather is comprised of soft-bottom habitat that extends far beyond the expansion footprint. Monitoring of HOODS since 1995 has documented that disposal has not resulted in any adverse long-term effects to water quality or to soft bottom habitat, given its abundance in the region and the ability of benthic organisms to rapidly recolonize disturbed areas. Monitoring by the EPA of the expanded HOODS for potential adverse effects on marine resources and water quality will identify any unanticipated potential long-term and/or cumulative impacts from dredged material disposal. Should effects to any marine resources or water quality be confirmed, the EPA will implement management alternatives to minimize those impacts. The staff recommends that the Commission find the HOODS expansion consistent with the marine resource and water quality policies of the Coastal Act (Sections 30230 and 30231).

The existing HOODS was selected based in part on the fact that this location had the least potential for adversely affecting fish and shellfish resources that are important to the commercial and recreational fishing industries of the region. Annual maintenance dredging in Humboldt Bay that relies on the availability of adequate disposal capacity at HOODS is essential for the safety and continued operation of the commercial and recreational fishing fleet based in Humboldt Bay. The staff recommends that the Commission find the HOODS expansion is consistent with the commercial and recreational fishing policies of the Coastal Act (Sections 30230, 30234, and 30234.5).

The vast majority of dredged sediments disposed at HOODS are physically and chemically suitable for beach nourishment and/or nearshore placement. In an effort to consider all viable options to retain sediment within the local littoral system, the use of previous nearshore disposal sites was evaluated by the EPA. These sites were deemed infeasible due to navigation and fisheries issues. EPA also evaluated a potential nearshore sand placement site along the North Spit, but determined that this site was not currently a feasible alternative to HOODS expansion due to the need for a monitored and successful sediment disposal pilot project at this location and the need for subsequent regulatory actions by EPA and the Corps of Engineers for site designation.

Even with the expansion of HOODS the Commission will continue to evaluate proposed disposal projects on a case-by-case basis. If dredged sediment is determined to be physically and chemically suitable for disposal at HOODS, that disposal project can only be approved if there are no feasible beneficial re-use alternatives available given a particular project's location, timing, and logistics. The proposed expansion of HOODS does not relieve sponsors of future dredging projects of the requirement to undertake a rigorous disposal alternatives analysis in order to determine if beneficial reuse of dredged materials is feasible. The HOODS expansion does not preclude the Commission from requiring beneficial reuse of dredged sediments should such an alternative prove feasible. Given the lack of a designated suitable nearshore placement site at this time, or of other feasible alternative disposal sites capable of handling up to one million cubic yards of clean dredged sediments from Humboldt Bay, the staff recommends that the Commission find the HOODS expansion consistent with the sand supply policy of the Coastal Act (Section 30233(b).

The staff recommends that the Commission **concur** with EPS's consistency determination CD-0001-20. The motion and resolution are on Page 5 of this report. The standard of review for this consistency determination is the Chapter 3 policies of the Coastal Act.

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EXHIBITS

I. FEDERAL AGENCY'S CONSISTENCY DETERMINATION

The U.S. Environmental Protection Agency has determined the project is consistent to the maximum extent practicable with the California Coastal Management Program.

II. MOTION AND RESOLUTION

MOTION:

> *I move that the Commission **concur** with consistency determination CD-0001-20 that the project described therein is fully consistent, and therefore consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).*

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

RESOLUTION:

> The Commission hereby **concurs** with consistency determination CD-0001-20 by the U.S. Environmental Protection Agency, on the grounds that the project described therein is fully consistent, and therefore consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program.

III. FINDINGS AND DECLARATIONS

A. Project Description

The U.S. Environmental Protection Agency (EPA) submitted a consistency determination for the expansion of the existing Humboldt Open Ocean Disposal Site (HOODS), located three to four nautical miles west of the Humboldt Bay entrance channel (**Exhibit 1**). The current HOODS encompasses one square nautical mile in water depths naturally ranging from 150 to 180 feet mean lower low water (MLLW). EPA states that HOODS has effectively reached its original design capacity for dredged material disposal. Since HOODS was designated in 1995 (concurred with by the Commission in CD-072-95), approximately 25 million cubic yards (cu.yds.) of sand has been disposed at the site. This has created a mound with an elevation averaging approximately -130 feet MLLW. The 1995 EIS for the site designation identified this mound height as the maximum desirable, as a greater height at this location could affect the action of waves in large storms and cause navigation safety concerns for vessels transiting the area.

The Draft Environmental Assessment (DEA) for the proposed expansion of HOODS states that:

> At the same time, ongoing dredging of the Humboldt Harbor navigation channels and related maritime facilities is necessary to ensure continued safe entering, navigating within, and exiting Humboldt Bay. Therefore, reliable capacity to accommodate disposal or beneficial use of dredged material will continue to be critically needed, and HOODS as it is currently configured will no longer be able to provide such capacity beginning in approximately 2021.

The proposed expansion will increase the disposal site to four square nautical miles, elongating the existing HOODS boundaries by one nautical mile to the north and west in water depths of approximately 150 to 210 feet MLLW (**Exhibit 1**). The effective total capacity of the site would increase from the original 25 million cu.yds. to 100 million cu.yds. The expansion would allow for the addition of 75 million cubic yards of clean sediment disposal before mounding to -130 feet MLLW could occur, effectively allowing for an additional 75 years of disposal site capacity (**Exhibit 2**). This 75-year timespan assumes an annual average of one million cubic yards of disposal at the site. However, if future disposal rates are lower due to increased beneficial reuse of sediment or establishment of a nearshore sand placement site (NSPS), the effective life of the expanded HOODS could be much longer. The expanded site was specifically chosen per EPA's general and site-specific factors (discussed in further detail below) for the selection of ocean disposal sites.

The 2020 Draft EA analyzed an alternative, smaller expansion of the HOODS footprint by one-half nautical mile to the north and west, which would allow for approximately 31 years of additional disposal. Given the current uncertainty regarding feasibility of future beneficial reuse projects and/or establishment of a NSPS, the EPA selected the proposed larger expansion in order to accommodate maximum dredged material disposal requirements in the region. However, after discussions with Commission staff, the EPA submitted a clarification letter to the Commission in August 2020 stating that disposal at HOODS would be managed for the foreseeable future as if the site was only expanded to the north and west by one-half nautical mile. This would be accomplished through the inclusion of enforceable restrictions in the Site Management and Monitoring Plan. This approach is also consistent with the National Marine Fishery Service's recommendation that potential disturbance to the marine environment at HOODS be kept within the smallest footprint possible.

The consistency determination for the proposed expansion of HOODS also includes development and implementation of a revised Site Management and Monitoring Plan (SMMP). The SMMP includes: (1) regulating the quantities, times, rates, and methods of disposing dredged material; (2) implementing periodic physical, chemical, and biological monitoring programs for the site; (3) considering changes to site use practices or the designation itself if warranted based on the periodic site monitoring results; (4) developing adaptive management recommendations (every ten years at a minimum) based on prior monitoring results; and (5) enforcing disposal permit conditions. The SMMP also includes a set of disposal operation requirements to be attached to each ocean disposal permit or authorization (similar to best management practices), including but not limited to: (1) identification of particular disposal locations for each project within the expanded site (to

manage mounding); (2) weather and wave limitations for disposal; and (3) disposal vessel tracking, record-keeping, and reporting requirements.

The consistency determination also includes a description of a nearshore site along the North Spit of Humboldt Bay that represents a potential long-term alternative for disposal of sand dredged from Humboldt Bay federal navigation channels by the Corps of Engineers. Additional details and analysis of this program are provided in Section F (Sand Supply) of this report. However, the EPA's consistency determination is not proposing establishment of a nearshore sand placement site nor requesting Commission concurrence with such a program. Rather, this information is provided in order to further advance the concept and to support the feasibility of this dredged material disposal alternative that would retain sand in the littoral system and help to limit or buffer against shoreline erosion along the North Spit, particularly as sea level rise accelerates in the future.

Finally, it is noted that the subject consistency determination is limited to the proposed expansion of HOODS to allow for continued use of the site for ocean disposal of suitable dredged material (as determined by the EPA's Ocean Dumping Regulations, 40 CFR Parts 225-227). The consistency determination also states that disposal at HOODS will continue to only be approved when there are no practicable alternatives available for beneficial use of the dredged material. This consistency determination does not include any proposals for, or requests for Commission concurrence with, any specific dredging or dredged material disposal projects. All future disposal activities at HOODS will require separate federal consistency review by the Commission or the Executive Director.

B. Project Background and Regulatory History

Need for Dredging. The expansion of HOODS supports dredging activities in Humboldt Bay that benefit the Humboldt Bay Harbor and Recreational District, the Coast Guard, commercial fishing boats, and recreational boats using Humboldt Bay. Maintenance of the Bar and Entrance Channel and inner channels within Humboldt Bay is necessary to provide access to berthing, unloading and loading, and vessel repair areas. These channels need regular dredging in order to maintain the depth necessary for ingress and egress into the Bay. Without regular dredging, the channels would eventually silt up and interfere with safe vessel navigation. Typically, deep ocean disposal of clean sandy dredged material is not the only available disposal option, and certainly not usually the preferred option. But at Humboldt Bay it has been the only feasible alternative available for the large volumes of sand dredged annually from the Bar and Entrance Channel. For these dredging events, other disposal sites in the region have not contained sufficient capacity to accommodate disposal needs, are more environmentally damaging, or are infeasible due to cost or suitability constraints.

Site History. Starting in the 1940's, the disposal of dredged material from Humboldt Bay occurred at a site identified as SF-3, located south of the harbor entrance in about 55 feet of water. Successful use of the site occurred for a number of years. In 1977, the EPA granted an interim designation to this site. In the 1980's, the site began to shoal, creating a navigation hazard to local boaters and fishers. Because of concerns about shoaling, SF-3 was "de-designated." In September 1990, HOODS was first used as a disposal site under a temporary designation by the Corps of Engineers pursuant to the Marine Protection,

Research and Sanctuaries Act. In 1995 the EPA formally designated HOODS as a multi-user ocean dredged material disposal site for a period of 50 years, in order to accommodate ongoing maintenance dredging of the Humboldt Bay bar, entrance, and inner-bay channels necessary for safe vessel navigation. Subsequently, the Commission began concurring annually with consistency determinations for disposal of clean dredged sediments at HOODS, finding it to be the least damaging alternative for disposal operations, notwithstanding that sediments placed here were lost to the littoral system.

Since 1995, an average of 1 million cubic yards of clean dredged material has been placed at HOODS annually. As a result, and as noted previously, sediment disposal has created mounding and the original site has reached capacity (**Exhibit 2**). No additional sediment may be disposed of at HOODS without creating obtrusive mounding. The proposed expansion of HOODS is necessary as there are currently no feasible offshore, nearshore, or upland alternatives for the disposal of dredged sediment from Humboldt Bay channels.

Regulatory History. The proposed site designation is authorized by the Marine Protection, Research, and Sanctuaries Act (Act). The purpose of the Act is to regulate the dumping of waste material into the ocean. Section 101 of the Act prohibits, unless authorized by permit, the transportation of waste materials for the purpose of dumping them into the ocean and the actual dumping of waste materials into the territorial seas of the United States or into contiguous waters (33 U.S.C. Section 1401).

Section 102 of the Act authorizes the EPA Administrator to designate sites for the dumping of wastes, including dredge spoils (33 U.S.C. Section 1412[c]). The Act requires that, to the extent feasible, dredged material be disposed of in sites designated by the EPA (33 U.S.C. Section 1413[b]). The Act also directs the EPA to establish environmental criteria for site designation. The EPA has developed four general criteria and 11 specific factors that it considers in designating an ocean dredged material disposal site (40 C.F.R. Section 228.5 and 228.6). These criteria and factors require the EPA to consider the need for disposal, the effect on human health, fisheries, and the marine ecosystem, appropriate disposal locations and methods, and the existence of alternative disposal locations. These criteria are examined thoroughly in the HOODS Expansion DEA and are incorporated by reference into this staff report. The EPA adhered to these general and specific criteria during its analysis of the proposed HOODS expansion.

The Act also establishes a permit system for the disposal of dredge spoils into the ocean. Section 103 of the Act authorizes the Corps of Engineers to issue permits for the disposal of dredged material into the ocean if the Corps determines that "the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities" (33 U.S.C. Section 1413[a]). Before the Corps can issue a permit, it must notify the EPA of its intent. The EPA can disagree with the Corps' decision to issue a permit if it finds that the project does not meet the criteria established in its regulations (40 C.F.R. Part 227). If the EPA determines that the material is not suitable for ocean disposal, the Corps cannot issue the permit (33 U.S.C. Section 1413[c]). In addition, any disposal project at HOODS requires Commission concurrence with a consistency determination or Executive Director concurrence with a negative determination under the provisions of the federal Coastal Zone Management Act. The Commission has concurred with 22 consistency determinations and 21 negative

determinations submitted by the Corps since 1985 for maintenance dredging of federal navigation channels in Humboldt Bay, and since 1990 those determinations included disposal of clean sandy sediments at HOODS.

The Commission's Executive Director concurred with a negative determination (ND-0007-16) submitted by the Corps for the 2016 maintenance dredging at Humboldt Bay and disposal of dredged sediments at HOODS. In addition, that concurrence letter stated that there was now a need for the Corps to: (1) undertake a thorough examination of erosion along the North Spit of Humboldt Bay; and (2) revisit the "excessive shoreline retreat criterion" originally agreed upon in 1995 between the Commission and the Corps as a means to establish potential shoreline erosional effects due to offshore disposal at HOODS. The Commission has since approved three consistency determinations (CD-0002-17, CD-0005-17, and CD-0005-18) for annual maintenance dredging and disposal at HOODS. These submittals also included status reports on progress made by the Corps regarding its North Spit erosion studies. Further details and analysis of shoreline erosion at this location and the possible connection with disposal at HOODS are provided in Section F (Sand Supply) of this report.

C. Other Governmental Approvals and Consultations

U.S. Army Corps of Engineers

The EPA developed the 2020 Draft Environmental Assessment jointly with the Corps of Engineers. In addition, the expanded HOODS will continue to be managed by both the EPA and the Corps. The Corps must authorize future disposal projects at HOODS under Section 103 of the Marine Protection, Research, and Sanctuaries Act in consultation with the EPA.

California State Lands Commission

The EPA coordinated with the State Lands Commission concerning historic shipwrecks near HOODS and found that none would be affected by ongoing or future disposal activities. HOODS and the expansion area are not located on submerged lands of the State of California.

U.S. Fish and Wildlife Service

The EPA initiated informal consultation with the Service under Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. Sections 1531-1544. Consultations were completed in December 2019 and January 2020.

National Marine Fisheries Service

The EPA initiated informal consultation with NMFS under Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. Sections 1531-1544), and the Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 U.S.C. 1801-1891(d)). Consultations were completed in December 2019 and January 2020.

Native American Tribes

The EPA extended government-to-government consultation to ten potentially affected tribes. The Tribal Historic Preservation Offices of three of them (Wiyot Tribe, Blue Lake Rancheria, and Bear River Band of the Rohnerville Rancheria) requested further

discussion concerning any potential for effects on cultural resources of concern. Based on those discussions, the tribes determined that the offshore location of the HOODS expansion would not affect onshore cultural resources.

D. Marine Resources and Water Quality

Coastal Act Section 30230 states:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act Section 30231 states:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.

Since HOODS and the proposed expansion footprint are seaward of the coastal zone boundary, the Commission must evaluate the proposal for potential spillover effects on coastal resources in the coastal zone. In its consistency determination EPA examined the future use of the proposed expansion area for the potential to adversely affect water quality and marine resources of the adjacent coastal zone.

The HOODS Expansion Draft Environmental Assessment (DEA) examined benthic habitat and potential adverse effects from expansion of HOODS:

> The benthic habitat at HOODS and throughout the HOODS expansion area is a gently sloping, essentially featureless sedimentary plain that grades evenly from fine sand in shallower depths to silts in deeper areas. As described in the EIS and confirmed via the monitoring surveys in 2008 and 2014 (EPA, 2016, Appendix A), the benthic communities supported by this habitat are virtually identical (i.e. infaunal organism density and richness are not significantly different) at similar depths north to south across the entire study area . . .

> The initial monitoring in 2008, and the more extensive monitoring in 2014, each documented a community of infaunal invertebrates (living in or on the sediment) in the vicinity of HOODS that is dominated by small polychaetes (marine worms), crustaceans, and mollusks . . . Only directly atop the disposal mound itself, which is annually disturbed by disposal of large volumes of clean sand, was there any effect on the infaunal community at all as indicated by organism density, species richness, or diversity (Figure 14).

The EPA concluded that expansion of HOODS will allow greater flexibility to manage disposal in the future over a larger area to reduce the frequency of repeated deposition of sand in the same location (as has occurred over the last several years). Site expansion and the distribution of disposed sediment over a larger area will result in individual disposal areas having more time for benthos recolonization before disposal would occur again at that location, thus increasing benthic habitat quality and biological productivity across the HOODS expansion footprint compared to what currently exists on the sand mound at the existing HOODS.

The DEA states that pelagic and benthic fish species may be present in the vicinity of HOODS and the expansion area but that:

> The HOODS area was identified in the 1995 EIS as having the least potential for impacts to important fish and shellfish resources (including smelt, flatfish, and decapods which are all most abundant in waters shallower than 50 m [164 feet] in the area, closer to shore). It concluded that the potential for impacts to other more pelagic and/or mobile species (including salmonids and other fishes, as well as seabirds, marine mammals, and turtles) was negligible due to the seasonal nature of disposal activity, the fact that the majority of material disposed was expected to be sand (i.e., having lowest potential for lasting turbidity or contaminant effects), and the lack of any unique habitat features that would make the disposal site's location more attractive, productive, or valuable to these species than the surrounding region.

The existing HOODS and the expansion area overlap with species and habitats managed under the 2016 Pacific Salmon Fisheries Management Plan (FMP), the 2016 Pacific Coast Groundfish FMP, and the 2019 Coastal Pelagic Species FMP. The EPA determined in the DEA that the proposed HOODS expansion will not affect fish species addressed in these FMPs because only suitable clean sediment is considered for disposal at HOODS; the vast majority of material disposed is sand, which settles to the ocean floor very quickly and does not substantially spread outside the disposal site boundaries; and water column turbidity effects are extremely temporary with no cumulative effect between disposal events.

Regarding marine resources and habitats at the HOODS expansion area, EPA's consistency determination concluded that:

> Monitoring has confirmed that no significant adverse impacts have occurred outside the disposal site boundaries as a result of over 25 million cubic yards

> of dredged material disposal at HOODS since its designation in 1995. Surveys of the proposed expansion footprint confirm that there are no unique or limited habitats that would be affected by expanding the boundaries of the site, and no new or different impacts are expected as a result of continued disposal of material there under a management plan similar to what has been in place for the existing site.

The Commission concurs with EPA's determination that the HOODS expansion area does not support rare or unique marine habitat but rather is comprised of soft-bottom habitat that extends far beyond the expansion footprint. While benthic organisms present in the expansion area will periodically be covered by disposed material, monitoring of HOODS has demonstrated that disposal will not result in any adverse long-term effects to this habitat type given its abundance in the region and the ability of benthic organisms to rapidly recolonize disturbed areas.

Dredged sediment can only be disposed at HOODS when the sediment is determined suitable for ocean disposal. Suitable means that the sediment has no more than trace levels of chemical pollutants as determined by bioassays, and that any chemical pollutants present would not bioaccumulate in the food web to levels of ecological or human health concern. EPA states that:

> Clean sand dredged from high energy areas that are removed from immediate sources of pollution can often be determined by EPA and USACE to be suitable for ocean disposal without conducting extensive physical, chemical, and biological testing each year. This is true of Humboldt Bay entrance channel sand.

Other sediments from within Humboldt Bay proposed for disposal at HOODS must be tested in order to evaluate potential disposal effects on water quality and to support a suitability determination. This involves preparation of a sediment sampling and analysis plan, and subsequent physical, chemical, and, if necessary, bioassay testing of sediment samples. Only sediments determined by EPA and the Corps of Engineers to be suitable for ocean disposal will be allowed for placement at the expanded HOODS. The consistency determination further states that:

> Specifically, no material may be disposed at HOODS (or other ocean disposal sites) that would result in a violation of water quality standards after allowance for initial mixing within the boundaries of the disposal site. This includes biological testing of the elutriate (suspended particulate phase) in order to address the narrative water quality standard (no toxicity after initial mixing).

The DEA cites EPA's 2016 Monitoring Synthesis Report which states that monitoring at HOODS over the last decade has determined that:

> . . . there has been no significant contaminant loading and no significant adverse impacts are apparent to the benthic environment outside of the site boundaries. It therefore appears that the EPA/USACE pre-disposal sediment

> testing program, coupled with a strict site management approach, has protected HOODS and its environs from adverse chemical or biological impacts.

The DEA and the consistency determination state that 90 percent or more of all disposals at HOODS consist of clean entrance channel sand that includes very little in the way of fines. As a result, increased levels of turbidity in the water column at a disposal site likely persist for less than 15 minutes before returning to ambient conditions, with no cumulative effects of turbidity or suspended solids on the water column. The DEA also notes that "clean sand has the shortest residence time in the water column before settling out, and which also has the least potential to carry contamination which may strip off into the water column before settling." The Commission concurs with EPA's determination that future dredged material disposal in the HOODS expansion area will result in only temporary increases in water column turbidity and that no long-term adverse effects to water quality at disposal sites will occur.

In conclusion, the Commission finds that the HOODS expansion area and adjacent areas do not include unique or sensitive marine habitats. Use of HOODS over the last 25 years has not resulted in adverse impacts to marine resources or water quality. Monitoring by the EPA of the expanded HOODS for potential adverse effects on marine resources and water quality will continue and will identify any unanticipated potential long-term and/or cumulative impacts from dredged material disposal. Should effects to any marine resources or to water quality be determined as part of the monitoring required in the updated Site Management and Monitoring Plan, the EPA can and will implement management alternatives to minimize those impacts.

In addition, and as the Commission found in its concurrence with the designation of HOODS in 1995 (CD-072-95), if monitoring of sediment disposal at the expanded HOODS indicates coastal zone impacts substantially different than anticipated, the Commission can use the federal consistency reopener provisions of the Coastal Zone Management Act (15 CFR § 930.45 and 930.46) and determine if the HOODS expansion remains consistent with the Chapter 3 policies of the Coastal Act. Finally, the Commission or its Executive Director will continue to review consistency or negative determinations, respectively, for all disposal projects at the expanded HOODS. This continued regulatory oversight by the Commission will ensure that protection of marine resources and water quality remains a high priority during the evaluation of dredged material disposal projects at the expanded HOODS. Therefore, the Commission finds the proposed expansion of HOODS consistent with the marine resources and water quality protection policies of the Coastal Act (Sections 30230 and 30231).

E. Recreational and Commercial Fishing

Coastal Act Section 30220 states:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Coastal Act Section 30234 states:

> Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

Coastal Act Section 30234.5 states:

> The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

The commercial and recreational fishing industries are vital coastal-dependent components of the area's coastal economy. The Commission considers an effect on those industries to constitute a coastal resource impact. Thus, impacts to important fish species, or to marine life on which those species depend, are effects on those industries. The previous section of this report explained that the selection of the existing HOODS was based in part on the fact that this location (of those examined in the designation EIS) had the least potential for adversely affecting fish and shellfish resources that are important to the commercial and recreational fishing industries of the region. This finding was based the lack of any unique habitat or locational features that would make HOODS more attractive, productive, or valuable to fish resources than the surrounding waters offshore of Humboldt Bay. Also noted previously was the DEA's finding that the 25-year use of HOODS has not and the proposed expansion would not adversely affect salmonids, groundfish, or coastal pelagic fish species. The DEA further states that HOODS itself is not off limits to commercial, recreational, or tribal fishing activities, and expansion of HOODS would not result in curtailment of ongoing allowable fishing operations.

The proposed expansion of HOODS will provide adequate room for disposal of sediments dredged from navigation channels in Humboldt Bay, an activity necessary to support vessel traffic entering and leaving Humboldt Bay. Failure to expand the capacity at HOODS could adversely affect commercial and recreational fishing by restricting the ability to eliminate hazardous shoals in the Entrance Channel and inner bay channels and berthing areas. Annual maintenance dredging in Humboldt Bay that relies on the availability of disposal capacity at HOODS is essential for the continued operation of the commercial and recreational fishing fleet based in Humboldt Bay. The proposed expansion of HOODS will provide support to this vital industry. Therefore, the Commission finds that proposed expansion of HOODS will not adversely affect fishery habitat or fish species in the region, will provide the needed capacity to accept sediments dredged from navigation channels critical to the fishing industry in Humboldt Bay, and is consistent with the commercial and recreational fishing policies of the Coastal Act (Sections 30230, 30234, and 30234.5).

F. Sand Supply

Coastal Act Section 30233(b) states in part:

> Dredging and spoils shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

As discussed in Section D of this report, the proposed expansion of HOODS is consistent with Coastal Act sections intended to protect and avoid significant disruption to marine habitats. The proposed expansion also supports the avoidance of significant impacts to water circulation and wave climates. The EPA's consistency determination states:

> …to date mounding of sand at HOODS has not affected waves in the area. However, mounding to shallower depths does have the potential to begin affecting the local wave climate…Expanding HOODS is specifically intended to ensure that mounding to shallower depths does not occur.

The remainder of the criteria stated Section 30233(b), concerning the need for suitable dredge spoils to be kept within the littoral system, are considered in the following paragraphs.

The precise level of compatibility of dredged spoils for a given beach nourishment location ultimately depends on the site-specific testing of grain size and other sediment features at that particular location. However, given the inevitable trajectory of sediment coming from the Humboldt Bay channels, it is reasonable to assume that most of the dredged materials would be suitable for nourishment of the nearby beach areas. In fact, approximately 90% of the dredge materials from the Bar and Entrance channels as well as the lower portion of the North Bay channels are comprised of fine sand with an average grain size of 0.2mm (EPA 2020 Draft EA). Dredged materials from the inland channels are comprised of finer silt and clay sediments that would not be suitable for beach nourishment.

In an effort to consider all viable options to retain sediment within the local littoral system, the use of previous nearshore disposal sites was evaluated in the EPA's 2020 Draft EA. However, each preexisting site was deemed infeasible due to navigation and fisheries issues. Expanding HOODS was therefore selected as the preferred disposal alternative as it would have no significant adverse effects on the environment. Concurrently, and recognizing the overarching need to retain federal navigation channel sediments within the littoral system, the EPA also evaluated in the HOODS expansion DEA a potential Nearshore Sand Placement Site (NSPS). This potential NSPS is located along the North Spit (**Exhibits 1 and 3**) and may be a viable option for a pilot nearshore disposal project. However, EPA determined that this nearshore site was not currently a feasible alternative to expanding HOODS due to the need for a monitored and successful pilot project at this location and the need for subsequent regulatory actions by EPA and the Corps of Engineers for site designation.

The HOODS expansion DEA states that the USACE identified a potentially appropriate nearshore sand placement site in 2012 but did not pursue designating a site at that time. However, the DEA notes that:

> This EA provides documentation pursuant to NEPA and other applicable Acts that USACE may use as a basis for proposing to conduct future demonstration nearshore sand-placement operations. Any proposal to formally establish a nearshore site would be a separate EPA-USACE action pursuant to the CWA Section 404(b)(1) Guidelines (40 CFR Part 230.80), informed by monitoring results associated with such a demonstration project.

The Commission has consistently encouraged evaluation of alternate nearshore sand disposal sites during its review of Corps of Engineers consistency determinations for annual maintenance dredging of the federal channels at Humboldt Bay and disposal at HOODS. The EPA addressed this sediment retention issue, the continued use of HOODS, and a potential nearshore placement site in its consistency determination:

> Annual dredging of the Humboldt Bay Federal Channels by the USACE generates an average of 1 million cubic yards of clean sand that is indeed suitable for nearshore placement to support the littoral cell and help buffer against the effects of coastal erosion and sea level rise. EPA strongly supports such use and believes that if a nearshore sand placement site is established in the future the entrance channel sand historically disposed at HOODS (outside the littoral zone) should be placed at the nearshore site to the maximum extent practicable. To that end, the EA for expanding HOODS discusses a potential Nearshore Sand Placement Site (NSPS) in substantial detail. The intent of that discussion is to facilitate a possible future monitored pilot project (and the EA even includes a recommended monitoring program). Such a pilot project could provide the data necessary to allow Federal and State agencies to consider formal approval of a NSPS for ongoing use. If an NSPS were to be designated, not only could a substantial volume of sand be returned to the local littoral cell, but the effective lifetime of the expanded HOODS would be substantially extended. Note however that establishment of a NSPS would be a separate action, and that action would occur pursuant to the Clean Water Act. The expansion of HOODS is occurring under the Marine Protection, Research, and Sanctuaries Act (aka the Ocean Dumping Act), and the need to expand HOODS is independent of the current availability of a potential NSPS.

At the time of the 1995 HOODS designation by EPA and the Corps, the Commission expressed concerns that the annual disposal of large volumes of sand at HOODS could potentially create adverse effects on nearby beaches. As a result, the Corps established the Humboldt Shoreline Monitoring Program (HSMP) as part of the original HOODS designation in order to: (1) monitor the surrounding shoreline for excessive shoreline retreat; (2) determine the cause of any excessive shoreline retreat that is observed; and (3) recommend corrective action should sediment disposal at HOODS be the cause.

The HSMP uses aerial photography to determine the shoreline position change over time along the North and South Spits adjacent to the entrance channel. **Exhibit 3** depicts some of the results from this monitoring, clearly indicating that the North Spit has been eroding over the last several decades while the South Spit has more or less been accreting sediment. The magnitude and rate of erosion however is highly dependent on the relative baseline used in the calculations. Prior to 2016, the Corps used the shoreline position from 1974-1990 as the baseline for determining whether "excessive erosion" had occurred. However, it was later determined that the 1974-1990 period could not adequately represent baseline shoreline conditions due to the extensive jetty modifications during that time period. As such, the Corps and the Commission revisited the "excessive erosion" criteria during the review of CD-0005-18 (for the Corps' 2019 maintenance dredging of the Humboldt Bay federal channels) and established that the baseline should instead be based upon the 1948-1974 timeframe in order to adequately capture the effects of potential erosion due to offshore disposal at HOODS.

In its concurrence with CD-0005-18, the Commission found that:

> . . . (2) there remains a level of uncertainty regarding the significance of erosion on the North Spit arising from placement of dredged sediments outside the littoral cell at HOODS; (3) the use of the recommended 1948 to 1972 shoreline change rate (rather than the currently-used 1974-1990 rate) in the next shoreline monitoring update is expected to determine if excessive shoreline retreat has persisted along the North Spit . . .

The Corps will update the shoreline monitoring report using the new 1948-1974 baseline after it undertakes the next round of aerial photos, expected to occur before 2023. Absent the results of these new erosion calculations, erosion resulting from disposal offshore at HOODS cannot yet be definitively determined. The Commission looks forward to working with the Corps and the EPA to interpret the upcoming shoreline monitoring report and to advance the development of a pilot nearshore placement project should excessive shoreline retreat on the North Spit be confirmed.

The proposed expansion of HOODS will provide adequate capacity for disposal of clean dredged sediments from Humboldt Bay navigation channels for decades to come. The EPA states that while disposal at HOODS will not result in adverse impacts, "neither does offshore disposal provide any direct environmental benefits." Shallow water placement of clean sand can nourish the littoral system and help buffer against coastal erosion and the effects of sea level rise. The Commission notes that even with the expansion of HOODS it will continue to evaluate proposed disposal projects on a case-by-case basis. Even if dredged sediment is determined to be physically and chemically suitable for ocean disposal, that disposal alternative can only be approved under Coastal Act Section 30233(b) if there are no feasible beneficial re-use alternatives available given a particular project's location, timing, and logistics. The proposed expansion of HOODS does not relieve sponsors of future dredging projects of the requirement to undertake a rigorous disposal alternatives analysis in order to determine if beneficial reuse of dredged materials is feasible. The HOODS expansion does not preclude the Commission from requiring beneficial reuse of dredged sediments should such an alternative prove feasible.

Therefore, given the lack of a designated suitable nearshore placement site at this time, or of other feasible alternative disposal sites capable of handling up to one million cubic yards of clean dredged sediments from Humboldt Bay, the Commission finds the EPA's proposed expansion of HOODS is consistent with the sand supply policy of the Coastal Act (Section 30233(b).

SUBSTANTIVE FILE DOCUMENTS

1. CD-0001-20 (U.S. Environmental Protection Agency, Enlarging the Existing Humboldt Open Ocean Disposal Site (HOODS) offshore of Eureka, CA).
2. Draft Final Environmental Assessment for Expansion of the Existing Humboldt Open Ocean Disposal Site (HOODS) offshore of Eureka, CA, USEPA and USACE, July 2020.
3. Draft Final Rule for Modification of an Ocean Dredged Material Disposal Site Offshore of Humboldt Bay, California, USEPA.
4. CD-072-95 (U.S. Environmental Protection Agency, Permanent Designation of Humboldt Open Ocean Disposal Site).
5. CD-0005-18 (U.S. Army Corps of Engineers, 2019 Maintenance Dredging of Federal Navigation Channels at Humboldt Bay and Disposal at HOODS).
6. CD-0005-17 (U.S. Army Corps of Engineers, 2018 Maintenance Dredging of Federal Navigation Channels at Humboldt Bay and Disposal at HOODS).
7. CD-0002-17 (U.S. Army Corps of Engineers, 2017 Maintenance Dredging of Federal Navigation Channels at Humboldt Bay and Disposal at HOODS).
8. ND-0007-16 (U.S. Army Corps of Engineers, 2016 Maintenance Dredging of Federal Navigation Channels at Humboldt Bay and Disposal at HOODS).
9. Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972.