Feb. 28, 2018

George Williamson, District Planner
Humboldt Bay Harbor, Recreation, and Conservation District
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Re: Humboldt Bay Sediment Management Strategy Draft Environmental Impact Report – Comments on the Notice of Preparation

Mr. Williamson,

I am writing on behalf of the staff, board, and members of Humboldt Baykeeper, which was launched in 2004 with a mission to safeguard coastal resources for the health, enjoyment, and economic strength of the Humboldt Bay community through education, scientific research, and enforcement of laws to fight pollution.
As you are aware, we have raised concerns with the District's past method of handling dredged materials from marinas and docks in the bay by disposing of them on the beach. Thank you for the opportunity to comment on this report.

Humboldt Baykeeper is pleased that the District is finally taking a comprehensive approach to developing a long-term strategy for managing these materials as called for in the 2007 Humboldt Bay Management Plan (HWM-5). This policy states that the LTMS "shall focus on identifying an inventory of sites around the Bay, and the type and quantity of material necessary, that may be beneficial in habitat enhancement, material disposal, and other forms of dredged material re-use. The District will identify areas around Humboldt Bay where dredge material could enhance habitat or other desirable land uses."

Dioxins, furans, and other contaminants

One of our primary concerns with dredged sediment is the potential for contamination and the need for thorough sampling of the materials prior to

dredging, beneficial reuse, or disposal. With Humboldt Bay's 2006 listing as impaired by dioxins and furans under Section 303(d) of the Clean Water Act comes a responsibility to sample for these extremely toxic and long-lasting compounds, both in areas to be dredged and in potential receiving areas such as wetland restoration sites, living shoreline projects, and other areas where the potential introduction of contaminants could negatively impact wildlife and human health.

Detection limits for dioxins and furans need to be analyzed at the lowest levels possible, since they are extremely harmful to human health and the environment at exceptionally low doses. Previous studies have found that background levels of dioxins and furans in Humboldt Bay sediments are generally below 1 part per trillion (ppt) in areas not impacted by former lumber mills or other industrial sites involving the use of the wood preservative, pentachlorophenol (*Beneficial Reuse of Dredged Materials for Tidal Marsh Restoration and Sea Level Rise Adaptation in Humboldt Bay, California Feasibility Study*, 2015).

Therefore, the District should require all dredging proposals to use EPA-approved sampling methods that can detect 2,3,7,8-TCDD at an estimated value of 1 ppt. Higher detection levels are inadequate, considering the potential for reuse of the dredge materials for restoration. If these materials are to be removed and then introduced into a sensitive marine environment, it must be certain that any residual contamination is known to avoid exposing aquatic, estuarine, and marine wildlife to potentially deleterious materials. The final dredge disposal decision cannot be determined until the results of this sampling have been obtained.

Thresholds for contaminants of concern to sensitive receptors in aquatic environments should be analyzed, including but not limited to dioxins and furans, PCBs, metals such as mercury and copper, petroleum hydrocarbons, volatile organic compounds, arsenic, and radionuclides. A decision tree of potential use and/or disposal of dredge materials should be established based on appropriate thresholds. For example, what level of each constituent would be considered acceptable at the Humboldt Open Ocean Disposal Site versus reuse for wetland restoration? What levels would be required to be transported to an approved hazardous waste facility?

Impacts to Coastal Access

When dredge spoils were dumped at Samoa Beach in 2007, it covered a large area of the beach, blocking beach access to surfers, birders, fishermen, beachcombers, dog walkers, and residents of Samoa and Manila.

The Humboldt Bay Management Plan recognizes that "A broad policy goal of the California Coastal Act of 1976 is to maximize coastal access for all people while protecting public rights, private property, and sensitive coastal resources. The Coastal Act requires, among other things, that development not interfere with the public right of access to the sea (Section 30211). Coastal Act requirements are

mirrored in the local coastal plans prepared by local agencies in the Humboldt Bay area." (3.5.3)

When evaluating alternatives for reuse and disposal of dredged materials, the District should assess the potential for interfering with existing public coastal access opportunities. Furthermore, beaches that provide access for water-oriented recreational activities should be protected for such uses.

Alternatives to analyze

We would like to see full environmental analysis of a range of alternatives, including but not limited to the concepts presented in SHN Consulting Engineers & Geologists, Inc.'s *Summary of Dredge Material Disposal on the Samoa Beach Surf Zone and Alternative Disposal Analysis* (Feb. 3, 2017). In addition, we would like to see an analysis of potential pilot projects that may be necessary or helpful in further analyzing the impacts of experimental methods.

We recognize that some alternatives may not be feasible due to state and federal permitting, physical constraints, or financial costs, but it would be helpful to assess those and explain why they were ruled out, in an attempt to focus efforts on truly feasible options. If the costs of alternatives are to be analyzed, we ask that you include the full costs of permitting, sampling, mobilizing equipment, dredging, transporting dredged materials, etc. to provide a complete cost analysis.

We appreciate the opportunity to comment at this stage in the process, and we look forward to providing additional input. Please keep us informed of any further opportunities to review and comment on this important project.

Sincerely,
__s/_____
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References

Beneficial Reuse of Dredged Materials for Tidal Marsh Restoration and Sea Level Rise Adaptation in Humboldt Bay, California Feasibility Study. SHN Consulting Engineers & Geologists, Inc. July 14, 2015.
http://humboldtbay.org/sites/humboldtbay2.org/files/20150714-FinalBeneficialReuseFeasibilityStudy%20%28No%20App%20C%29.pdf

Summary of Dredge Material Disposal on the Samoa Beach Surf Zone and Alternative Disposal Analysis. SHN Consulting Engineers & Geologists, Inc. Feb. 3, 2017.
http://humboldtbay.org/sites/humboldtbay2.org/files/documents/Beach%20Zone%20Disposal%20H%20Rpt%20SHN%20Feb%203%202017.pdf