

June 21, 1999

ER 99/168

Colonel Bruce A. Berwick
District Engineer
Baltimore District, Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203

Attn: Mr. Wesley Coleman

Dear Colonel Berwick:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Open-Water Placement of Dredged Material at Site 104, Queen Annes County, Maryland. The proposed project involves open-water deposition in Site 104 of up to 18 million cubic yards of dredged material from the mainstem Chesapeake Bay shipping channels leading to the Port of Baltimore. We request that you give these comments careful consideration.

This letter constitutes the report of the Department on the proposal, and is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. *et seq.*) and the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

General Comments

The DEIS inadequately addresses resources and impacts for which the Department has jurisdiction and special expertise. In particular, the environmental analysis contains errors, omissions, inconsistencies, and apparent bias which taken together provide a faulty basis for deriving conclusions about the environmental impacts of the proposed project and alternatives.

Although the Department is fully committed to working with the Corps of Engineers to resolve issues of concern, due to the magnitude of anticipated project effects, we may refer any remaining disagreement for resolution to the Council on Environmental Quality (CEQ) under Section 1504 of the Council's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. Pursuant to CEQ procedures for referral at Section 1504.3 (c) (2) (iv), we believe the issues raised in our comments are of national importance based on the

expected adverse impacts to the Chesapeake Bay.

Probable ecological impacts of the proposed project, particularly in relation to the release of nitrogen and phosphorus, would conflict with the objectives of the Chesapeake Bay Agreement regarding nutrient loadings and living resources. This agreement commits to a goal of reducing nutrient input to the Chesapeake Bay by 40 percent by the year 2000. Nutrient and sediment loading in the Chesapeake Bay adversely impacts all bay fish and wildlife resources by increasing algae in the water column, which in turn reduces light penetration and eliminates or reduces beneficial submerged aquatic vegetation that is critical for good water quality, and for fish and shellfish populations. Algal blooms may also contribute to outbreaks of *Pfiesteria piscicida*. The Department considers projected nutrient releases of up to 1,800,000 lbs. of nitrogen to be significant. The nutrient input will compromise the ability of many private organizations, local and state governments, and federal agencies to achieve the Agreement goals. The DEIS conclusion that impacts are expected to be insignificant, short-lived, localized, and non-additive with the nutrient input from other Army Corps of Engineers authorized overboard dumping in the northern portion of the Bay, lack supporting documentation. Such assumptions of no significant effect contradict the intent of environmental laws and best management practices aimed at reducing nutrient and sediment loadings in the watershed, and regulating development, agriculture, industry, and municipalities.

The sediment chemistry data presented in the DEIS is inadequate. The sediment chemistry data provided and the majority of the discussion of potential environmental effects were directed toward characterizing the sediments collected at Site 104 and adjacent areas, which is not the primary purpose of sediment testing (pages 5-59 to 5-69 in the DEIS). Very little information was provided in the document on the levels of sediment-associated contaminants in the proposed dredged material. Evaluation of existing conditions at the disposal site should be part of the process, but should not be the focus. The only contaminant data that the Department could find in the DEIS were the elutriate data (Table 5-18) and a brief summary paragraph on page 5-66. The supplemental report on sediment quality provided additional information on sediment contaminant levels in channels targeted for dredging; however, the emphasis still appeared to be directed toward characterizing Site 104. In addition, the Department found the consideration of these data biased and somewhat misleading. Examples are provided in the Specific Comment section below. Furthermore, the Department does not believe the data support the conclusion that "sediment quality of the mainstem channels is generally better than that observed at the sampling locations inside Site 104" (p. 4 Sediment Quality Supplemental Report).

The analysis of alternatives provided in the DEIS is inadequate. Section 102 of the National Environmental Policy Act (NEPA) requires federal agencies to take a hard look at all outstanding issues with a contemplated federal action 942 U.S.C. 4332; 40 C.F.R. 1502.1; *Marsh vs. Oregon Natural Resources Defense Council*, 490 U.S. 360 at 374 (1989). An acceptable EIS must consider a range of alternatives, analyze each alternative adequately, and present the environmental consequences of each alternative under consideration. Contrary to that mandate, the DEIS fails to analyze a reasonable range of alternatives or provide sufficient justification for

the preferred alternative. The overall tenor of the document gives a strong impression that site 104 was the preselected choice for disposal of dredged material and that the other alternatives were mentioned as required by NEPA, but were not given serious consideration. Furthermore, eliminating alternatives based solely on economic considerations are not consistent with the 404(b)(1) Guidelines of the Clean Water Act. The term *practicable* is defined in the Guidelines as “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall scope/cost of the proposed project.” The preamble continues by stating that “...consideration of the applicant’s financial standing, or investment, or market share,... is not necessarily material to the objective of the Guidelines. ...to be practicable, an alternative must be capable of achieving the basic purpose of the proposed activity.”

Throughout the DEIS alternative analysis discussion there is reference to alternatives being eliminated, or put on hold pending future consideration, based on the Port’s time-frame. Once again this rationale is inconsistent with the Guidelines. It is the Port’s responsibility to allow adequate time for planning and section 404 (b)(1) compliance. This proposal is representative of the Port’s continued reliance on overboard disposal despite environmental advisory agencies, non-governmental organizations, and public opposition for many years.

As with the 404(b)(1) Guidelines, NEPA has strict alternative analysis requirements. The CEQ regulations state that an analysis must rigorously explore and objectively evaluate all reasonable alternatives (40 CFR 1502.14(a)-(d)). The DEIS does not meet this requirement.

Given that nutrient enrichment is one of the most detrimental consequences associated with the proposal, alternatives that confine the material, as opposed to unconfined, overboard disposal, should be given more consideration. Dr. Jeffrey Cornwell’s draft report of February 19, 1999, “Estimation of Potential Nutrient Releases Associated with Placement Activities at Site 104” predicts significant reductions in nutrient releases for confined vs. unconfined, overboard disposal. Dr. Cornwell notes that Maryland Environmental Service’s estimate of ammonium release from the Hart-Miller Island Disposal Facility was 1.975 moles of nitrogen per cubic meter of outer channel material, as compared to his own estimate of releasable nitrogen (from overboard disposal) of 4.42 moles of nitrogen per cubic meter. Therefore, the Hart-Miller Island releases were approximately 45 percent of the overboard releasable nitrogen. Dr. Cornwell later added 10-20 percent increase to his estimate of overboard, releasable nitrogen based on probable configurations of the deposited dredged spoil piles. If this did occur, the relative benefits of confinement would increase.

Alternative disposal options exist that would avoid or minimize the adverse impacts of open water disposal. Hart-Miller Island and Poplar Island are or will be available to meet what has been described as a critical near-term dredged material disposal requirement. For the longer term, the existing disposal facilities and Federal lands along the Chesapeake & Delaware Canal (C & D Canal) can provide significant dredged material capacity. In addition, upland disposal options have been discussed for an area referred to as J-Field on Aberdeen Proving Grounds. The Department realizes that unexploded ordnance is an issue at Aberdeen; however it does not

necessarily preclude the area from consideration. Capping of such ordnance could be considered beneficial.

In the past, Baltimore and Philadelphia Army Corps Districts have managed navigation projects and disposal needs according to District geographic jurisdictions, rather than along an ecosystem or watershed basis. Philadelphia District has argued that the upland sites along the C&D Canal are reserved for canal-proper generated dredged spoils. Both jurisdictions work in the Chesapeake Bay watershed relative to navigation projects, and given the negative environmental impacts of unconfined, overboard disposal, upland disposal sites along the canal should be considered as alternatives to Site 104. Three existing diked disposal areas merit consideration: Courthouse Point, Chesapeake City, and Bethel. Furthermore, the Final Environmental Impact Statement for deepening the C&D Canal documents the existence of 2,558 acres of vacant federally-owned land previously set aside for the express purpose of providing for upland disposal of dredged material. These undiked acres along the canal comprise an area more than twice the footprint of Hart-Miller Island. Given that shoaling and dredging rates for the canal-proper are significantly lower (46,000 cubic yards/year) than those in the Chesapeake Bay approaches, it would appear both Districts' placement needs could be satisfied. Considering only the existing diked sites, the FEIS calculates the existing disposal areas have remaining useful life estimates ranging from 106 to 924 years. Courthouse Point's useful life is estimated to be the year 2026, if dikes are raised to the ultimate design height.

In addition to upland disposal options, we believe there has been inadequate consideration given to using the dredged material for "beneficial uses." Such uses could include:

- o erosion control and creation of low wave energy areas;
- o wetland creation;
- o shellfish/finfish reef creation; and,
- o island habitat development.

Several sites previously identified in the 1989 Draft Dredged Material Management Master Plan and/or by the Dredged Material Needs and Placement Options Program have possibilities in terms of minimizing resource tradeoffs or recreating fish and wildlife habitats lost to erosion. Sites such as Site 170 (near the mouth of the Patapsco River), Bethlehem Steel, and the waters surrounding Aberdeen Proving Ground merit further consideration.

Specific Comments

DEIS 5.1.5 Sediment: The document indicates that the requirements of Tier I and Tier II of the Inland Testing Manual will be used to assess the *suitability of dredged materials* that are to be placed at Site 104. However, on page 5-59, it is stated the "Tier II evaluation compared the *results of sediment testing at Site (104)* to available criteria, standards,...." This is not appropriate. The purpose of Tier I and Tier II evaluations is to characterize and assess the material that is to be dredged. As stated previously, evaluation of existing conditions at the

disposal site should be part of the process, but should not be the focus.

Sediment Quality Supplemental Report - Sediment Organics Concentrations p. 3, second full paragraph: Evaluation of the potential environmental impact of sediment-associated contaminants in mainstem Chesapeake Bay channels relied heavily on the calculation of average sediment concentrations for these samples. The document should describe how these average concentrations were calculated. In particular, organic compounds frequently contain a number “not detected” concentrations. Assumptions about ND values (e.g., equal to zero, equal to half the detection limit) will have a large influence on the calculated mean concentrations for organic compounds and may affect the interpretation of the results. For example, although the average concentrations for the majority of polycyclic aromatic hydrocarbons in the channel sediments were lower than average concentrations at Site 104 (Table 1), the maximum concentrations of 12 out of 19 polycyclic aromatic hydrocarbons measured in channel sediments exceeded the maximum concentrations at Site 104, sometimes by as much as ten times.

Sediment Quality Supplemental Report - Sediment Organics Concentrations p. 3, third full paragraph: Pesticide and polychlorinated biphenyls concentrations at Site 104 and the vicinity are discussed; however, only pesticides in the channel sediments are explicitly considered (i.e. PCBs are omitted). For consistency, a comparison of the relative concentrations of PCBs in the locations should be included, as it appears that PCBs were detected in several channel sediment samples. In addition, we do not agree with the statement that “organotin concentrations in the mainstem channels in FY 1998 were generally similar to concentrations at the Site 104 reference station.” Concentrations of tributyltin ranged as high as 186.87 ng/g whereas the concentration of TBT at the Site 104 reference stations was 23.65 ng/g (Table 1).

Sediment Quality Supplemental Report - Sediment Metals Concentrations p. 4, second paragraph: The conclusion that “concentrations of most metals in the channels were markedly lower than those observed at sampling locations inside Site 104” is somewhat misleading. If station KI-7, the recognized hotspot within Site 104, is excluded, the average concentrations at the remaining 3 stations inside Site 104 are comparable to or *less than* average concentrations of chromium, copper, lead, nickel, and zinc in channel sediments (Table 5-21 revised).

DEIS 6.1.3 Hydrodynamics: Worst-case potential for material movement is predicted to be 16.9 percent (bottom-release scow) and 6.2 percent (controlled hydraulic pipeline). These erosion model predictions are based on tidal movement of the material, and do not consider movement due to episodic storm events. Even with tidal movement, the models cannot predict the ultimate fate of the material due to erosion and movement. Given these predictive deficiencies, we question how the Army Corps of Engineers can assure that the use of Site 104 will not ultimately impact bay bottom outside of the initial dumping zone. The document states that, “Due to placement activities, the Site 104 area would be more susceptible to erosion from storm events occurring less frequently than the 25-year storm.” We also question model assumptions that bottom-release scow placement will result in a larger footprint of dredged material than controlled hydraulic pipeline placement. Other Army Corps of Engineers studies have concluded

the opposite. Given that different models were used to predict bottom-release scow vs. hydraulic pipeline placement, we question the validity of the model predictions.

DEIS 6.1.6.b Fisheries/Shellfish: Placement activities at Site 104 will not raise bottom elevations above the summer anoxia/hypoxia zone. Wording suggesting placement activities will enhance fisheries or shellfish habitat stretches credulity, is inaccurate, and misleading to the public. Such reference should be removed from the document. The only exception would be those areas of Site 104 which contain previously placed contaminated dredged material which would be capped. In addition, placement of material in the Pooles Island open-water placement sites has never been shown to improve fisheries/shellfish habitat. On the contrary, Pooles Island overboard dumping has eliminated large areas of high relief bottom attractive to commercial and recreational species of fish. Attempts throughout the DEIS to identify Site 104 as a habitat improvement, with the exception of contamination capping, should be removed from the document.

DEIS 6.3.2b Oyster Recovery Program: As a matter of public record, it should be noted that the Department, National Marine Fisheries Service, Army Corps of Engineers, and Bay user groups - which participate on the Dredged Material Needs and Placement Options Program, were never conferred with regarding the \$12.4 million agreement between the Maryland Department of Transportation, Maryland Department of Natural Resources, and the Maryland Waterman's Association. This private oyster enhancement agreement was made in 1996 before work had started on the DEIS, and again suggests Site 104 was being preselected prior to an objective environmental assessment.

DEIS Section 8 Cumulative Impacts: Throughout this section conclusions are made that the use of Site 104 will result in only short-term negative impacts which cumulatively have no significant effect. Many of these conclusions lack supporting documentation, and should be qualified as such. No studies, data, or modeling are included in the DEIS to address cumulative or synergistic effects of this proposal with Army Corps authorized dredged material overboard disposal operations in the vicinity of Pooles Island. The Department views this inadequate cumulative impact assessment as a major deficiency in the document.

Threatened and Endangered Species Act

The shortnose sturgeon (*Acipenser brevirostrum*), an endangered species under the regulatory jurisdiction of the National Marine Fisheries Service, have been caught by commercial watermen in the middle and upper portions of Chesapeake Bay. To date, 28 shortnose sturgeons have been caught between Kent Island and the Susquehanna River. Mr. John Nichols of the National Marine Fisheries Service should be contacted at 410-226-5771, regarding Section 7 Consultation pursuant to the Endangered Species Act. With the exception of the shortnose sturgeon, and except for occasional transient individuals, no federally-listed or proposed endangered or threatened species under our jurisdiction are known to occur in the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation is required with the

Department's U.S. Fish and Wildlife Service. This response relates only to federally protected threatened or endangered species under our jurisdiction.

Summary

The DEIS does not comply with the requirements of the Section 404 (b)(1) Guidelines of the Clean Water Act or NEPA. Practical and environmentally preferable alternatives exist to the Site 104 proposal, and the DEIS alternative analysis is inadequate to justify the preferred course of action. Rather than being an objective environmental assessment of project impacts, both positive and negative, the DEIS is fraught with bias conclusions in support of Site 104's use. Furthermore, nutrient loadings projected in the document provide ample reason for avoiding the use of Site 104 for unconfined dredged material disposal. The Department is willing to work with the Army Corps of Engineers to resolve issues of concern. However, depending on the outcome of these efforts, we may refer any remaining disagreement for resolution to the Council on Environmental Quality. We strongly recommend that the Corps of Engineers reconsider the alternatives and impact analysis contained in the DEIS.

Thank you for the opportunity to provide these comments on the draft document. Should you have any questions regarding these comments, please contact John Wolflin, Field Supervisor, 410-573-4573, or John Gill, Project Biologist, 410-573-4529 at the U.S. Fish and Wildlife Service's Chesapeake Bay Field Office.

Sincerely,

Michael T. Chezik
Regional Environmental Officer

LITERATURE CITED

- Cornwell, J.C. 1999. Estimation of Potential Nutrient Releases Associated with Placement Activities at Site 104. Unpublished Draft Report to the Baltimore District, Army Corps of Engineers. University of Maryland Center for Environmental Science. 6 pp.
- U.S. Army Engineer District, Philadelphia. 1996. Chesapeake and Delaware Canal - Baltimore Harbor Connecting Channels (Deepening) Delaware and Maryland, Final Feasibility Report and Final Environmental Impact Statement. Philadelphia, PA.