

ATTACHMENT D – SECTION 404(B)(1) ANALYSIS

**CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION
HONGA RIVER
MAINTENANCE DREDGING
DORCHESTER COUNTY, MARYLAND**

February 2024

I. PROJECT DESCRIPTION

- a. Location – The Honga River is located in Dorchester County, Maryland, south of the Blackwater National Wildlife Refuge along the lower Eastern Shore of the Chesapeake Bay. The study area is located in the Maryland Department of the Environment (MDE) 8-digit Watershed #02130401 – Honga River. The Honga River is designated as an MDE Use Class II and has shallow water Submerged Aquatic Vegetation (SAV) use, open water fish and shellfish use, and shellfish harvesting use.
- b. General Description – The Honga River and Tar Bay Project was approved by the River and Harbor Act of August 30, 1935, in accordance with Rivers and Harbors Committee, Document No. 35, 74th Congress, First Session. The project was modified on June 30, 1948, in accordance with House Document No. 580, 80th Congress, Second Session. The Honga River and Tar Bay are located in Dorchester County, Maryland (MD) on either side of Hoopers Island. The project provides for a channel 60 feet wide and seven feet deep mean lower low water (MLLW) from the seven-foot depth contour in Chesapeake Bay through Tar Bay and Fishing Creek to the Honga River; and for a channel in Back Creek seven feet deep MLLW and 60 feet wide from the seven-foot depth contour in Honga River to the head of Back Creek, with a turning basin of the same depth, 150 feet long, and 200 feet wide. The project length is 5.8 miles. This Record of Environmental Consideration (REC) only covers the Honga River Federal Navigation Channel (Honga River Channel) and does not cover the Back Creek Channel.
- c. Purpose – To restore the Honga River Channel to its authorized depth and improve navigation between the Honga River and the Chesapeake Bay, and to obtain fill material to help with the recovery and restoration of Barren Island as part of the greater Mid-Chesapeake Bay Island Restoration Project.
- d. General Description of Discharge Material – Dredged material from the channel will be a mixture of mud, silt with a combination of small amounts of sand. A separate 404b1 and EA were performed for discharging the material and is covered in the “Final Supplemental Environmental Assessment – Mid Chesapeake Bay Island Ecosystem Restoration Project: Barren Island” (March, 2022).
- e. Description of the Proposed Discharge Sites – USACE Baltimore will be placing dredged material within the historic footprint of Barren Island (southwest portion of the southern island).

- f. Description of Discharge Method – Dredged material will be conveyed to the placement site via pipes from the hydraulic dredge.
- g. Alternatives Considered – There are approximately three possible routes for the hydraulic pipes to discharge the dredged material and are subject to change based on the contractor’s plan, as well as time of year restrictions. Time of year restrictions include SAV and Nesting Bird Restriction. Dredging will only take place between Oct 15 – Apr 15. Please see Figure 1 and 2.

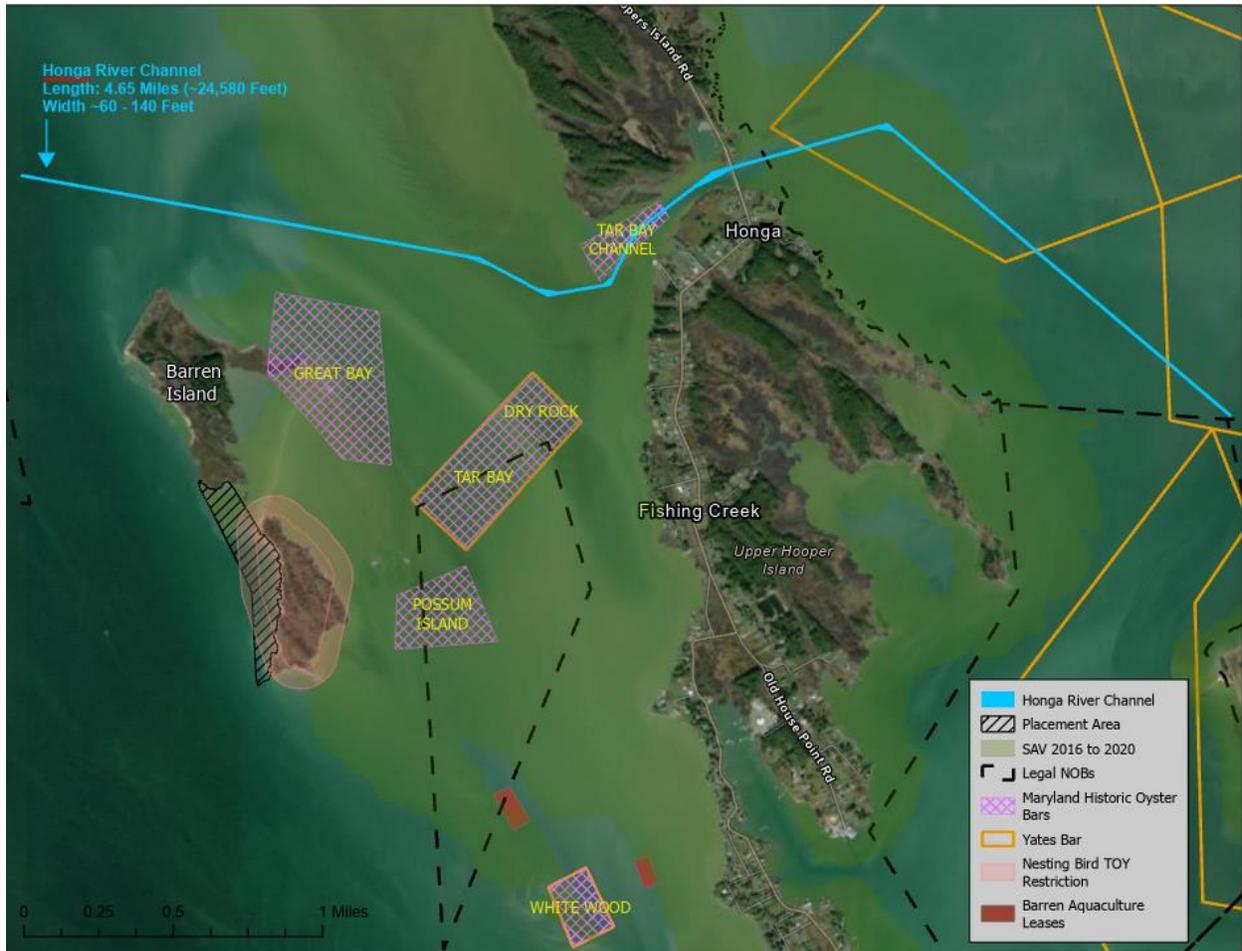


Figure 1 – Extents of Honga River Federal Navigation Channel and Environmental Resources



Figure 2 – Hydrographic survey and approximate pipe route options.

II. FACTUAL DETERMINATIONS

The following descriptions pertain to both dredging and placement sites.

a. Physical Substrate Determinations

- (1) Substrate Elevation and Slope – N/A
- (2) Sediment Type – The dredged material from the channel will be a mixture of mud, silt, sand, and combinations thereof.
- (3) Material Movement – The proposed action will move approximately 325,000 CY of dredged material from the Federal Navigation Channel and placed in the southwest portion of the historic footprint of Barren Island.
- (4) Physical Effects on Benthos – Dredging of the channel will disturb and remove the existing substrate and benthos. It is anticipated that the newly exposed channel

substrate will be repopulated by benthic organisms via migration from adjacent underwater areas.

(5) Other Effects – N/A

(6) Actions Taken to Minimize Impacts – The proposed action is being conducted during a window of time that the dredging will cause only minimal impacts to SAV resources. Environmental protection measures will be employed (including time of year restrictions specific to SAV, nesting shore birds, and bald eagle) to avoid and minimize impacts to the aquatic and natural environment. Construction specifications will state that compliance is mandatory for all applicable environmental protection regulations for pollution control and abatement.

b. Water Circulation, Fluctuation, and Salinity Determinations

(1) Water

a. Salinity – No change expected.

b. Chemistry – No change expected.

c. Clarity – Minor and temporary change expected during dredging due to turbidity.

d. Color – Minor and temporary change expected during dredging due to turbidity.

e. Odor – No change expected.

f. Taste – N/A

g. Dissolved Gas Levels – No change expected.

h. Nutrients – Minor, temporary elevations in nutrients are expected as a result of newly exposed sediments in the channel and elutriation of sediments at the placement site. All are expected to be within state guidelines.

i. Eutrophication – Not expected to occur.

j. Others as Appropriate – None.

(2) Current Patterns and Circulation

a. Current Patterns and Flow – Minimal effects are expected.

b. Velocity – No significant change is anticipated.

- c. Stratification – No change expected.
 - d. Hydrologic Regime – No change expected.
- (3) Normal Water Level Fluctuations – No change expected.
- (4) Salinity Gradients – N/A
- (5) Actions to Minimize Impacts – No actions were considered to manage impacts to water circulation, fluctuation and salinity.
- c. Suspended Particulate/Turbidity Determinations
 - (1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Project Site – Minor and short-term impacts are expected to occur in the immediate vicinity of the dredging and placement sites during operations and while placed materials are settling.
 - (2) Effects on Chemical and Physical Properties of the Water Column
 - a. Light Penetration – A minor, temporary decrease may occur during dredging and placement.
 - b. Dissolved Oxygen – A minor, localized and temporary depression of dissolved oxygen may occur during dredging and placement activities.
 - c. Toxic Metals and Organics – An Environmental Database Report (EDR) was performed within a one-mile buffer of the proposed dredging site. No toxic metals or organics were present during this evaluation.
 - d. Pathogens – N/A
 - e. Aesthetics – No adverse impacts are anticipated.
 - f. Others as Appropriate – N/A
- d. Contaminant Determinations – Placed material is free of organic contaminants and has very low levels of toxic metals and nutrient compounds. No contaminants are anticipated.
- e. Aquatic Ecosystem and Organism Determinations
 - (1) Effects on Plankton – No effect expected.
 - (2) Effects on Benthos – Non-mobile benthic organisms attached to or burrowed in the channel bottom, such as worms, polychaetes, anemones, snails and other

invertebrates will be destroyed. However, data collected from other routine dredging projects demonstrates that re-colonization usually occurs within the first year following dredging.

- (3) Effects on Nekton – Nekton in the immediate area of the dredging are expected to be temporarily disturbed during dredging itself, but to return after project completion. Disposal activities will be conducted above the intertidal zone and therefore will not affect nekton.
- (4) Effects on Food Web – Some temporary reduction in benthic food sources is expected from the removal of benthics in the channels and enlargement of the placement sites. These effects will be temporary and are not expected to have a food web-level effect due to the relatively small area to be impacted and the large amount of similar habitat in the area.
- (5) Effects on Special Aquatic Sites
 - a. Sanctuaries and Refuges – N/A
 - b. Wetlands – N/A
 - c. Tidal flats – N/A
 - d. Vegetated Shallows – N/A
 - e. SAV Beds – Dredging will only take place during winter months.
 - f. Natural Oyster Bars (N.O.Bs) – NOB 23-2 is situated northwest of Barren Island. NOB 23-4 is east of Barren Island in Tar Bay. Hydraulic dredging within 500 yards of shellfish areas is prohibited from June 1 through September 30.
- (6) Threatened and Endangered Species – The U.S. Fish and Wildlife Service (USFWS) identified three potential threatened or endangered species within the project area; Northern Long-eared Bat (*Myotis septentrionalis*), Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*), and Monarch butterfly (*Danaus plexippus*). None of these species are expected to be impacted by the maintenance dredging.
- (7) Other Wildlife – An Essential Fish Habitat (EFH) worksheet was prepared and concluded that the adverse effect is not substantial EFH or species covered under the Magnuson-Stevenson Act is expected. To minimize impacts to EFH, no dredging activities will take place during 15 Apr through 15 Oct of any year.
- (8) Actions to Minimize Impacts – Dredging will be conducted in accordance with State and Federal standards and policies.

f. Proposed Disposal Site Determinations

1. Mixing Zone Determinations – N/A

2. Determination of Compliance with Applicable Water Quality Standards – Work will be performed in accordance with all applicable State water quality standards.

(3) Potential Effects on Human Use Characteristics

a. Municipal and Private Water Supply – No impacts expected.

b. Recreational and Commercial Fisheries – Temporary effects are expected as fishing and boating is restricted in the project area during the dredging. Dredging of the channel is expected to enhance commercial and recreational boating and fishing activities.

c. Water Related Recreation – Temporary disturbance to recreational boating and fishing during dredging activities. Dredging will improve access to recreational boating.

d. Aesthetics – Minor, temporary impacts may be expected.

e. Parks, National and Historical Monuments, National Seashore, Wilderness Areas, Research Sites and Similar Preserves – No impacts expected.

g. Determination of Cumulative Effects on the Aquatic Ecosystem – This project is not expected to contribute to cumulative impacts to the aquatic ecosystem. Although impacts to SAV are expected to occur, this area does not contribute significantly to the food chain or to the nursery function of the surrounding shoals. The effects, such as turbidity, are minor and temporary.

h. Determination of Secondary Effects on the Aquatic Ecosystem – The proposed dredging will allow the continued use of the area for crabbing, oystering, fishing, boating and other water-based commerce and recreation.

III. FINDING OF COMPLIANCE

a. No adaptations of the Section 404(b)(1) Guidelines were made relative to this evaluation.

b. The planned dredging of the Federal Navigation Channel and placement site will comply with State water quality standards.

- c. The proposed placement of material will not violate the Toxic Effluent Standard of Section 307 of the Clean Water Act.
- d. The proposed project will not negatively affect any rare, threatened or endangered species.
- e. No Marine Sanctuaries, as designated in the Marine Protection, Research and Sanctuaries Act of 1972, are in the project area.
- f. The proposed project will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, wildlife and special aquatic sites. The life stages of aquatic life and other wildlife will not be adversely affected.
- g. Appropriate steps to minimize potential impacts of the dredging and placement in aquatic systems will be followed.
- h. On the basis of the guidelines, the Proposed Action is specified as complying with the inclusion of appropriate and practical conditions to minimize contamination or adverse effects to the aquatic ecosystem.