

Monitoring Plan
Mathews County – Haven Beach Renourishment Project
JPA File NAO-2021-01953/ VMRC- 20211533
Mathews, Virginia

December 2022

The Proposed Monitoring Plan has been reviewed by Mathews County legal counsel which has determined the plan is consistent with the required elements per permit [NAO-2021-01953](#). The Plan has been accepted by Mathews County on March 15, 2023.

Mathews County further recognizes the cost required for monitoring is a separate and distinct cost, not included in the Virginia Port Authority Grant Award. The cost for monitoring is to be carried by Mathews County. If the selected contractor is unable to cover the cost for monitoring in the bid award, Mathews County fully accepts the cost as a requirement as per [NAO-2021-01953](#).

Introduction –

Mathews County has been issued a permit from the Virginia Marine Resources Commission (VMRC 21-V1533 issued December 21, 2021) and the United States Army Corps of Engineers (USACE) Norfolk District ([NAO-2021-01953](#) issued September 2, 2022) for a dredging and beneficial reuse project at the Hole in the Wall and Haven Beach in Mathews County.

To ensure compliance with the Department of the Army authorization and the Endangered Species Act, Mathews County, as the permittee, is responsible for implementing and complying with the terms and conditions of the Biological Opinion (B.O.) provided by the U.S. Fish and Wildlife Service (USFWS) on August 3, 2022, regarding the Northeastern Beach Tiger Beetle (NBTB). The terms and conditions of the B.O. include the “REASONABLE AND PRUDENT MEASURES” (1-2), “TERMS and CONDITIONS” (1-5), and the “MONITORING AND REPORTING REQUIREMENTS” (1-4).

The USFWS B.O. states that the project will occur in two phases as described in the following:

Phase 1 – to include Dredging and Beach Renourishment and

Phase 2 – to include Breakwater Construction and Beach Grass Planting.

Monitoring Plan Scope -

The monitoring plan described in the following meets the requirements set forth in Item #4 of the Terms and Conditions and Item #3 of the Monitoring and Reporting Requirements set forth in the USFWS B.O. dated August 3, 2022. The intent of the monitoring plan is to provide sufficient monitoring of the impacts of incidental take on NBTB and to determine if the amount or extent of take is exceeded. The Plan addresses only the requirements for Phase 2 preconstruction, construction and post construction required activities

The B.O. requires that the monitoring is to occur in the action area depicted in the highlighted areas in "Figure 5" below. This includes the beach renourishment, beach grass planting and breakwater construction area; the breakwaters and extension area; the staging and project access area; and the indirect impact area. The indirect impact area is the stretch of shoreline 300 meters to the south of the southernmost breakwater location. It is important to note that the northernmost portion of the indirect impact area consists of property owned by Mathews County and southern portion of the area is located on privately owned property. Mathews County and its designated agents cannot legally enter onto the privately owned property within the indirect impact area without the consent and permission of the private property owner. Mathews County will contact the private property owner to request consent and permission to conduct project monitoring activities but should the private property owner decline to grant access, then monitoring activities will be conducted solely on the County owned Haven Beach property. USFWS staff will be notified on the access status of the private property once the owner has been contacted.

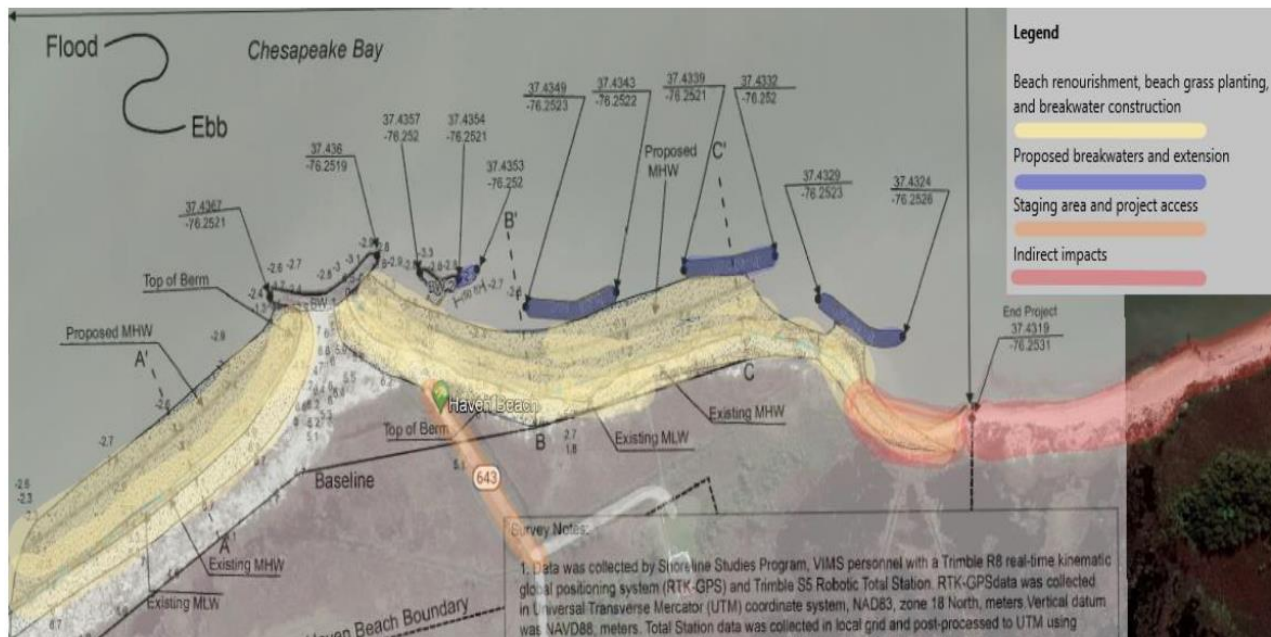


Figure 5. Aerial image of the action area at Haven Beach with an overlay of the project plans. The 22,200 ft² of subaqueous bottom covered by the proposed breakwaters and breakwater extension are shown in purple; the 10,000 ft² of uplands for the staging area and project access are shown in orange; the 334,860 ft² of area for beach renourishment, breakwater construction, and beach grass planting shown in yellow; and the 300 m of shoreline associated with indirect effects shown in red.

Mathews County or its designated agent will conduct the following activities and report to USFWS staff accordingly (per p. 29 #3 of the USFWS B.O.):

- 1- Aerial imagery of the action area will be conducted:
 - a. Once prior to the initiation of work on Haven Beach,
 - b. Once immediately after construction, and
 - c. Twice at regular annual intervals post-construction (once in Year 1 and once in Year 3).

Aerial imagery will be conducted by a USFWS approved individual or agency (federal, state, academic, etc.). The proposed source's qualifications will be sent to USFWS staff for review and approval at least 30 days prior to the initiation of surveys. To the greatest extent practical, the same individual will perform the surveys to ensure consistency in methods, techniques, data gathering, etc. Surveys will be conducted near end of September or early October during the same time during each year and will not be conducted during a King Tide or significant flooding event.

- 2- Beach profiles of the indirect impact area delineated in red in Figure 5 and 50 m downdrift of this area will be conducted:
 - a. Once prior to the initiation of work on Haven Beach,
 - b. Once immediately after construction, and
 - c. Twice at regular annual intervals post-construction (once in Year 1 and once in Year 3).

Beach profiling will be conducted by a USFWS approved individual. The proposed individual's qualifications will be sent to USFWS staff for review and approval at least 30 days prior to the initiation of surveys. To the greatest extent practical, the same individual will perform the surveys to ensure consistency in methods, techniques, data gathering, etc. Surveys will be conducted near end of September or early October during the same time during each year and will not be conducted during a King Tide or significant flooding event.

As noted previously, the shorelines south of the County-owned Haven Beach property are privately owned and monitoring is only permissible should the owners grant consent and permission. Should Mathews County or its designated agent not be granted access to privately-owned property, beach profiles will only occur on the portion of the indirect impact area owned by Mathews County.

- 3- Adult and larval NBTB surveys in the action area in Figure 5 will be conducted as follows.
 - a. Phase 2 pre-construction construction path staking -
Before the start of phase 2 construction, in coordination with the applicant, a USFWS-approved NBTB surveyor will stake out a construction path on

the beach that minimizes impacts on NBTB larval areas. During phase 2 construction all equipment will utilize that construction path.

- b. Adult Surveys:
 - i. Once after construction on warm, sunny days between July 1 and July 25, and
 - ii. Twice at regular annual intervals post-construction on warm, sunny days between July 1 and July 25 (Year 1 and Year 3).
- c. Larval Surveys:
 - i. Once after construction between October 10 and 30 during low tide on cool and/or cloudy days, and
 - ii. Twice at regular annual intervals post-construction between October 10 and 30 during low tide on cool and/or cloudy days (Year 1 and Year 3).

Surveys will be conducted by a USFWS-approved NBTB surveyor. If a non-approved surveyor is selected, the proposed surveyor's qualifications will be sent to USFWS staff for review and approval at least 60 days prior to the survey. The total number of adults observed will be recorded for each adult survey. The total number of larval burrows will be recorded for each larval survey. An attempt to identify instar stage of larvae will be made during surveys. A report will be provided to USFWS staff documenting/including the following for both adult and larval surveys: surveyor and dates, methods, results, photographic monitoring, and any habitat/population observations of significance within 30 days following the completion of the larval survey.

As noted previously, the shorelines south of the County-owned Haven Beach property are privately owned and monitoring is only permissible should the owners grant consent and permission. Should Mathews County or its designated agent not be granted access to privately-owned property, NBTB surveys will only occur on the portion of the action area owned by Mathews County.

Mathews County or its designated agent will conduct the following activities and report to USFWS staff accordingly (per p. 29-30 #1, 2, and 4 of the USFWS B.O.):

- 1- Any spills of motor oil, hydraulic fluid, coolant, or similar fluids, not contained before entry into the action area, will be reported to USFWS staff and National Response Center (800-424-8802) immediately.
- 2- USFWS staff will be notified by the County or its designated agent regarding the projected and actual start dates, progress, and completion of the project. The County or its designated agent will verify that the disturbance of 357,060 ft² between latitude: 37.4386, longitude: -76.254 and latitude: 37.4319, longitude: -76.2531 was not exceeded by beach renourishment, the proposed breakwaters and their construction, and beach grass planting; and that all conservation measures were followed. A report will be provided to USFWS staff by the County

or its designated agent containing this information by December 31 of each year until the year after construction is complete.

- 3- Care will be taken in handling any dead specimens of proposed or listed species to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the USFWS to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, the USFWS Virginia Law Enforcement Office and the Virginia Field Office will be contacted.