

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 3
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Department of
Environmental
Conservation

January 24, 2023

Ben Spratford
GEI Consultants
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BY EMAIL

RE: Village of Mamaroneck Flood Dredging
DEC Permit ID #: 3-5599-00109/00007
Village of Mamaroneck, Westchester County
Technical Comments

Dear Ben Spratford:

The Department of Environmental Conservation has finished reviewing the application you submitted on behalf of Village of Mamaroneck for permits pursuant to Article 15, Title 5 of the Environmental Conservation Law, Protection of Waters, Article 25, Tidal Wetlands, and Clean Water Act Section 401 Water Quality Certification, which was deemed incomplete on October 31, 2022. The area under Tidal Wetland jurisdiction was removed from the proposal November 1, 2022, and additional information was received November 14, 2022. As stated in my email response of November 14th, this was a partial resubmission and the application remains incomplete.

The Department is well aware of the flooding issues that the Village has experienced and the impact this has had on its residents. Department staff will work with the Village in pursuit of measures to mitigate or eliminate flooding impacts. However, as stated in the Notice of Incomplete Application, the Department has significant concerns with this particular proposal and its ability to meet permit issuance standards.

The first standard for permit issuance pursuant to Protection of Waters is “reasonable and necessary” and the second requires that the project “will not endanger the health, safety or welfare of the people of the State of New York”. As detailed below, staff are concerned with the efficacy of the proposal, as well as its potential negative impact on other human resources, including stability of adjacent shorelines and flooding of other areas. Lastly there are some concerns with impacts to natural resources.

The Army Corp of Engineers’ Flood Risk Management Report on the Mamaroneck & Sheldrake River Basins (Army Corp Report) did not recommend large scale dredging as a feasible or effective measure for reducing flood risk in these basins; no study has been done of the Beaver Swamp Brook basin. DEC is undertaking a Resilient NY Stream Study on the Mamaroneck/Sheldrake Rivers and recommends that any large-scale risk reduction plan wait for the completion of this study, draft anticipated in 2023.



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If the Village wishes to proceed with the dredging application at this time, considerably more information will be needed for a complete application and to meet the permit issuance standards.

Reasonable and Necessary

The Village of Mamaroneck proposes to dredge multiple stream reaches for the stated purpose of increasing the waterways' capacities to accept and discharge stormwaters, thereby reducing the risk of flooding on adjacent communities. However, the application lacks a narrative that demonstrates how this is achieved nor is there any kind of analysis that demonstrates that dredging will improve conditions at these locations. There is also no analysis to ensure flooding or other issues are not displaced to other areas or different properties.

As shown on the plans, the proposed dredge area work zone ends at existing bridges or crossings and the sharp changes in elevation will become a barrier to aquatic organisms or will quickly fill in with sediment from areas that are not dredged. The application will need to provide an estimate of the timeframe the potential benefit from dredging is anticipated to last. The application will also need to discuss how existing crossings impact backwater in the areas proposed to be dredged and whether they cause points of constrictions or other impacts.

The Town will need to provide justification for why these work areas were chosen, and flow calculations and any other information to demonstrate the anticipated benefits of the proposed dredging. Potential impacts to upstream and downstream properties will need to be evaluated. The Town will also need to analyze existing sediment sources and consider management of those sources prior to dredging. Other alternatives will need to be evaluated including identifying existing areas of constriction and exploring the advantages of improving those areas, implementing stormwater runoff control, streambank stabilization measures and improving riparian areas where possible.

Incidental Impacts to Other Resources

The plans provide a generic cross section of dredging however, there are a variety of shoreline types in the project areas including timber walls, stone walls, and natural stream banks. Many of the timber and stone walls are in poor condition, and there are portions of stream reaches that are unstable. There are also numerous buildings and utilities that are in close proximity to the proposed dredge areas.

The application must discuss how the structural integrity of existing stone or timber walls and other infrastructure (e.g., buildings, utilities, etc.) will be protected throughout dredging, including from bank access of dredge equipment and undermining of vertical structures during dredging. In addition, the Army Corp Report indicates that depths of the streams are on average 5 feet, so this would be approximately a doubling of the depth. Such an increase in depth could increase the risk of undermining/scour from

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increased shear stress during high flow events. Consideration is also needed of the potential for dredging in the vicinity of bridges to undermine and scour the abutments.

A full assessment of potential impacts to areas beyond the work areas, both upstream and downstream, are needed.

In addition, alterations to the floodplain or floodway may require a Letter of Map Revision for the FEMA Flood Insurance Map. In order to demonstrate compliance with the issuance standards for public health and safety, a copy of the floodplain development permit and if necessary, a copy of a Letter of Map Revision is required.

Impacts to Natural Resources

The Department is also concerned with managing turbidity during the dredging operation, equipment access, and managing dredged material. The plans show that a turbidity curtain will be installed downstream of dredging locations however, without a detail of the turbidity curtain or specifications on the proposed curtain and its location, it is unclear how a curtain could properly function in many of these locations. The plans must show how the work area will be properly isolated to protect water quality.

Dredging will occur over long stream reaches with only one to two soil stockpile locations proposed. The Department has concerns about equipment access in the streams given the length of proposed dredging, the amount of sediment proposed to be removed, and how sediment will be dewatered and managed.

The application states that an excavator will be positioned alongside the riverbank where possible or within the streambed, then material will be temporarily sidecast on the banks before moving it to a stockpile location. The Department generally does not find sidecasting sediment to meet permit issuance standards. Riparian vegetation provides bank stability, reduces erosion, filters stormwater runoff, provides habitat for food and cover, and provides shading, and sidecasting can adversely impact these areas. The application must discuss how natural shorelines will be protected or restored where disturbed.

Disposal of Dredge Materials

As previously stated in the Notice of Incomplete Application, the means and location of dredged material disposal must be provided. The response received November 14, 2022 stated that the material will be “transported to S&S Environmental Service Team LLC in Highland Mills, New York”. Dredge material is considered a solid waste under 6 NYCRR Part 360 series and must either be disposed of as waste or reused pursuant to a Beneficial Use Determination.

As part of meeting permit issuance standards and to comply with the Part 360 series, a sediment testing plan is needed to determine the composition of the sediment, conditions that may be necessary to protect water quality during dredging, and what

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Technical Comments

potential disposal area or Beneficial Use Determinations (BUD) may be available. DEC recommends that a sediment sampling plan be provided for review and approved by DEC staff from Division of Fish & Wildlife and Division of Water prior to testing to ensure that the sampling will provide information sufficient for a complete application.

Please note that the company noted in the response, S&S Environmental Service Team LLC, does not currently possess a Part 364 Permit or Registration for the transportation of waste.

Items for a Complete Application

Below are specific items needed for a complete application for the proposed dredging:

- 1) Narrative discussing:
 - a) Justification for why these work areas were chosen and the need for and practicality of proposed dredge depths.
 - b) Flow calculations and any other information to determine the benefits of the proposed dredging.
 - c) Analysis of how dredging will affect flood water levels.
 - d) Analysis of existing crossings/bridges and their impact on flooding, etc.
 - e) Assessment of impacts from dredging to existing shoreline structures and other infrastructure and how these structures or infrastructure will be maintained during dredging.
 - f) Assessment of impacts from dredging to upstream and downstream properties.
 - g) Confirm if overcut/overdraft will be required.
 - h) How the project manager/contractor will ensure they have dredged to an accurate depth if using an excavator.
 - i) Restoration of stream banks.
 - j) Provide clarification of what is meant by "maintenance dredging." Indicate how the Village intends on dredging these locations in the future. Provide the basis for the assertion that up to two additional dredge events will be required over the requested ten-year period. Please include the details of any sediment trend analyst done.
- 2) Plans which include:
 - a) Site-specific cross-sectional views of work areas, including the contours and water lines for existing and proposed conditions, and proposed side slopes. All side slopes of the dredged area should have a maximum 1:3 slope.
 - b) Methods for controlling turbidity during dredging.
 - c) Restoration of stream banks.
 - d) Turbidity curtain detail and specifications.
 - e) Bathymetry and hydrographic survey information.
 - f) Identify all existing stormwater outfalls, utilities, shoreline types (woods, timber or stone walls), crossings and/or points of constriction.

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- 3) Provide a Hydrologic and Hydraulic (H&H) Analysis.
- 4) Provide a draft sediment testing plan and indicate if the intention is for upland or in-water disposal.

As noted above, the Department suggests waiting for the conclusion of the Resilient NY Stream Study to pursue any mitigative proposals. However, Department staff can be available to meet with you and your team to further discuss this proposal or other potential alternatives to address these concerns.

If there are any questions, please feel free to contact me at (845) 256-3014 or by email at rebecca.crist@dec.ny.gov.

Respectfully,

Rebecca S. Crist

Rebecca S. Crist
Deputy Regional Permit Administrator

Ecc: J. Barberio, Village of Mamaroneck Village Manager
Mamaroneck Harbor & Coastal Zone Management Commission Board
Town of Harrison
Brian Orzel, Army Corps of Engineers
Hannah Willey, NYSDOS Office of Planning & Development
Angela Schimizzi, NYSDEC Division of Marine Resources
Sarah Pawliczak, NYSDEC Bureau of Ecosystem Health, Region 3
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