



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

Memorandum

To: Salisbury Inland Wetlands & Watercourses Commission
From: Todd Parsons
Date: July 16, 2024
Re: The Hotchkiss School
Lake Wononskopomuc Maintenance Dredging
2024-IW-016

This memo serves as a response to comments and questions raised at the July 8, 2024 meeting of the Salisbury Inland Wetlands & Watercourses Commission.

How is the turbidity curtain anchored?

The curtain is anchored to the shore with a large metal stake.

The curtain is anchored to the lakebed with a chain that runs the length of the curtain. At the beginning of the project, the contractor will evaluate whether additional ballast is required. If so, he will add concrete blocks along the lakebed at various intervals.

Does it make sense for the project to be phased to address the inflow from Sucker Brook?

The contractor will set up the turbidity curtain to isolate the work area in phases. He will position it to allow the main flow from Sucker Brook to bypass the work area. As the dredging progresses, he will move the turbidity curtain. The plans have been revised to reflect this.

Does DEEP Fisheries have concerns?

I submitted a Fisheries Consultation Form on July 11, 2024. Fisheries conducted a review and indicated that the work will not impact fisheries or habitats provided certain simple recommendations are followed. We added notes on the cover sheet and revised the Construction Sequence to include the recommendations. One of the recommendations is to avoid conducting the work between April 30 and June 30. A copy of the consultation form is attached.





Are there Natural Diversity Data Base concerns?

I generated an Initial Assessment using the Natural Diversity Data Base using the DEEP EZfile portal on July 10, 2024. This is an automatically generated list of potential species and can be used as an initial screening tool. A copy of the assessment (with my comments in red) is attached. I also submitted a formal Request for Review on July 12, 2024. I anticipate that it will be several weeks before there is a response.

Is there vegetation in this area of the lake?

There is some vegetation along the shoreline.

Where is the pump positioned and is any equipment positioned in the lake?

The main pump is on shore near the edge of the lake. There is also a small barge that is used close to the diver. This barge carries a primer pump for the dredging and air supply compressor for the diver. The diver operates the nozzle which draws the sediment through the hose to the barge, back to the main pump on shore, and then to the dewatering bag.

Will the equipment be cleaned before being launched?

Yes, this is a concern on nearly all their projects, and they use a multi-step cleaning process. First, they pressure wash all components including the interior of the pumps. Then they spray with a sterilizer. After waiting sufficient resident time for the sterilizer to take effect, they again pressure wash the equipment. We have added a note to the cover sheet of the plans that indicates all of the equipment shall be cleaned prior to use.

In addition to the above, we have revised the plans based after further consultation with the likely contractor for this project. The revisions include modifications to the dewatering area. The dewatering bag will be placed on a plastic liner that is bermed up around the bag. As the water leaves the dewatering bag, it is trapped in the berm. After an inspection to confirm the water is clean, the water is released back to the lake.

The following plans are submitted in support:

Lake Wononskopomuc Dredging, The Hotchkiss School, Interlaken Road, (Route 112), Salisbury, Connecticut dated May 23, 2024, revised to July 15, 2024.



Connecticut
**Department of Energy &
 Environmental Protection**
 Bureau of Natural Resources
 Fisheries Division

DEEP Fisheries Consultation Form

To the Applicant - Prior to the submission of your license application to the Connecticut Department of Energy & Environmental Protection (DEEP) Water Planning and Management Division (WPMD) or Land and Water Resources Division (LWRD) or Water Permitting and Enforcement Division (WPED), please complete Part I below and e-mail the following to deep.inland.fisheries@ct.gov:

1. this completed DEEP *Fisheries Consultation Form*;
2. a site location map,
3. a PDF version of the proposed project plans including a site survey of existing conditions (if available), and
4. photos of the site.

Fisheries Division staff will contact you if further details are needed. Once the Fisheries Division staff returns the completed form to you, please include the form, and any signed plans (if applicable) in your license application submittal to DEEP.

Part I: Applicant and Site Information (*to be completed by APPLICANT*)

1. Applicant/Registrant Information

Name: The Hotchkiss School
 Mailing Address: 11 Interlaken Road
 City/Town: Lakeville State: CT Zip Code: 06039
 Business Phone: 860-435-3162 Ext.: _____
 Contact Person: John Bryant Phone: 860-435-3162 Ext: _____
 E-mail Address: jbryant@hotchkiss.org

2. Engineer/Surveyor/Agent Information (list as applicable)

Name: Haley Ward, Inc.
 Mailing Address: 140 Willow Street
 City/Town: Winsted State: CT Zip Code: 06098
 Business Phone: 860-379-6669 Ext.: _____
 Contact Person: Todd Parsons Phone: 860-368-0152 Ext: _____
 E-mail Address: tparsons@haleyward.com
 Service Provided: prepare plans and applications

3. Site Location:

Name of Site: The Hotchkis School
 Address of Site or Location Description: 11 Interlaken Road
 City/Town: Lakeville State: CT Zip Code: 06039
 Parcel Location/Tax Assessor's Reference: Map 06 Block _____ Lot 08
 Name of Stream or Waterbody: Lake Wononskopomuc

4. Activity: Check the box best describing your activity: (check all that apply):

- | | | |
|---|---|---|
| <input type="checkbox"/> new public/fishing access; | <input checked="" type="checkbox"/> maintenance dredging | <input type="checkbox"/> work within LIS Blue Plan area |
| <input type="checkbox"/> new docks and marinas on tidal rivers; | <input type="checkbox"/> beach nourishment | <input type="checkbox"/> Other |
| <input type="checkbox"/> coastal/tidal dredging projects; | <input type="checkbox"/> cofferdam installation | |
| <input type="checkbox"/> activities in inland/non-tidal waterbodies and watercourses; | <input type="checkbox"/> conducting construction activity within a 100-foot buffer of a Cold Water Stream Habitat | |
| <input type="checkbox"/> withdrawal of water from a non-tidal/inland river, stream, pond or lake; | | |
| <input type="checkbox"/> withdrawal of water from a wetland, marsh, swamp, or bog hydrologically connected to a non-tidal/inland river, stream, pond or lake; | | |
| <input type="checkbox"/> withdrawal of groundwater from stratified drift deposits hydrologically connected to a non-tidal/inland river, stream, pond or lake. | | |

Note: Fisheries consultation is **not required** for docks and marinas on Long Island Sound.

Part I: Applicant and Site Information (to be completed by APPLICANT) (continued)

5. DEEP Pre-application Contact: Indicate name of permit analyst or engineer, if applicable.
none

6. Project Description: Provide or attach a brief, but thorough, description of the project including any measures to protect, enhance or restore fish populations:
See attached description, photographs, and plan set.

Part II: Fisheries Determination (To be completed by DEEP Fisheries Staff only)

To Fisheries Staff - This completed consultation form is required to be submitted as part of an application to DEEP. The application has not yet been submitted to DEEP. Please review the enclosed materials and determine whether the project will significantly impact any fisheries or fisheries habitat. You may provide comments or recommendations regarding the proposal. Send this completed form to the applicant and copy the DEEP analyst, if known, or the applicable WPMD/LWRD/WPED Supervisor. If the proposed work **WILL** significantly impact any fisheries and/or habitat or if you have any comments or concerns regarding the regulatory review for this project, contact the DEEP analyst, if known, or the applicable WPMD/LWRD/WPED Supervisor.

DEEP FISHERIES DIVISION DETERMINATION

Date Consultation Form received: 7/11/2024

Please check applicable boxes and return the completed Consultation Form to the applicant:

- I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat;
- I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat **if the below Recommendations are followed**; and/or,
- I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat **if the design features shown on the attached plans are incorporated**. Fisheries staff to sign and date plans and return to the applicant with the completed Consultation Form.

COMMENTS/RECOMMENDATIONS (or check here if these are attached following this page:):

The proposed activities include adequate controls to manage the turbidity and sedimentation related impacts from dredging. Suction dredging has the potential to entrain or impinge fish, eggs, and larvae and result in mortality or injury. The littoral area is used by centrarchid species (sunfish and bass) for spawning, these species excavate nests, in the lake bottom and deposit eggs. These species will actively guard their nests and fry. To minimize impacts to centrarchid spawning the dredging should take place outside of the period of April 30th-June 30th, or an inspection should be performed to demonstrate a lack of nests prior to turbidity curtain installation and dredging. Since the turbidity curtains will enclose the work area there is the potential for fish to be trapped and experience greater risk of entrainment. Prior to beginning suction dredging, the diver and project staff should conduct a visual inspection to determine if a substantial number of fish are trapped by the curtain. If so the turbidity curtain should be partially opened and the fish should be driven out via splashing, use of a boat motor, or similar hazing techniques.

“By entering my name below, I agree that I am providing my legal signature, and am legally bound by the determination above.”

Signature of Fisheries Division Staff <i>Joe Cassone</i>	Date <u>7/15/2024</u>
Joseph Cassone	Fisheries Biologist
Print Name of Fisheries Division Staff	Title



Generated by eNDDDB on:
7/10/2024

Comments in red by Todd Parsons of Haley Ward dated July 11, 2024

Todd Parsons
Towns: Salisbury
Automated Site Assessment: 411062700

Subject: Dredging

This is an automated site assessment and not a Natural Diversity Data Base determination. The information provided represents a snapshot that can be used for general planning purposes. **This letter cannot be used to fulfill Endangered Species Act compliance requirements.** Please see information below as well as our [FAQs](#) describing the appropriate use and limitations of the automated Site Assessment tool.

Current data maintained by the Natural Diversity Data Base (NDDDB) and housed in the DEEP ezFile portal, indicates that populations of the following State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306) have been documented within or in close proximity to the area delineated. **Please see the attached table for detailed species information.**

HOW SITE ASSESSMENT SPECIES LISTS ARE COMPILED

Site assessment species lists include all information regarding listed species available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, landowners, private conservation groups and the scientific community. New and updated information is incorporated into the Data Base and accessed through the ezFile portal as it becomes available. The species list provided is not necessarily the result of comprehensive or site-specific field investigations.

WHAT PURPOSE DOES THIS SITE ASSESSMENT SERVE?

A site assessment is intended to provide a snapshot of the species that may be in the vicinity of your drawn area. It may be useful in project planning or to gain an understanding of the potential for listed species to utilize the site. The list is computer generated; it was not prepared or reviewed by program staff. Biologist review of your location may result in the addition of species not provided by the automated site assessment.

I'VE REVIEWED MY SITE ASSESSMENT, WHAT DO I DO NEXT?

If you are undertaking an activity that requires a state permit, utilizes state funding, or involves state agency action, you must demonstrate compliance with the CT Endangered Species Act. This is done through the full Natural Diversity Data Base review process. Please return to the DEEP's ezFile Portal and select [Natural Diversity Data Base Review](#) to begin this review process. Keep in mind that these detailed reviews may include additional species not identified in the automated site assessment. Program staff consider factors such as habitat characteristics, species life history and other

information to determine appropriate species of concern.

SURVEY WORK MAY BE NECESSARY

Suitable and potentially occupied habitat may extend beyond mapped NDDB areas and unmapped areas may represent potential habitat that has not been adequately surveyed for all taxa. If you are undertaking activities that involve significant ground disturbance, converting natural lands to development, or otherwise fragmenting or disturbing large areas, we recommend conducting comprehensive biological surveys and a full site habitat characterization for areas that have not been assessed through prior biological inventories. Survey work may be required as part of the NDDB review process; completing some or all of this work up front will allow the process to proceed more efficiently.

This survey and habitat characterization should be comprehensive and not strictly limited to species included in the site assessment. Field surveys should be performed by a qualified taxonomic expert with the appropriate scientific collecting permits. Surveys should be conducted at seasonally appropriate times.

A report summarizing the results of such surveys should include:

1. Survey date(s) and duration.
2. Site descriptions and photographs.
3. List of component vascular plant and animal species within the survey area (including scientific binomials).
4. Data regarding population numbers and/or area occupied by State-listed species.
5. Detailed maps of the area surveyed including the survey route and locations of State listed species.
6. Recommendations for management and protection of State-listed species with reference to project activities.
7. Statement/résumé indicating the taxonomic expert's qualifications.

Site survey reports should be sent to the CT DEEP-NDDB Program (deep.nddbrequest@ct.gov) for further review by program biologists.

SENSITIVE SPECIES

Please note that, for purposes of automated site assessments, certain sensitive species are not identified beyond their taxa. Additional information will be provided for those projects that will be conducting survey work in preparation for permitting ground disturbing activities or for other activities that might necessitate survey work. For these projects, please submit a [Natural Diversity Data Base Review Request](#) and we will provide information to your taxonomic expert.

ADDITIONAL RESOURCES

The following resources may be helpful when planning survey work

- [State Listed plant species and Natural Communities documented within each CT town](#)
- [Thirteen of Connecticut's Most Imperiled Ecosystems \(1998\)](#) - Metzler and Wagner
- [The Vegetation of Connecticut](#) - Metzler and Barrett
- [Nature's Network](#) identifies opportunities for conserving and connecting intact habitats and ecosystems and supporting imperiled species.
- [Connecticut's Critical Habitat](#) map. The Critical Habitat map project contains a subset of

known important natural community types and sites in CT. Refer to [Resource Guide](#) for a complete description and limitations of this product.

Additional sites of Critical Habitats and important natural communities exist, some of which are documented by NDDDB and some of which have not been identified, or fully mapped or field verified. You may [contact NDDDB](#) prior to conducting field reviews for more comprehensive information.

This letter is computer generated from our existing records and carries no signature. If however, any clarification/error is noted, or, if you have further questions, please contact the following:

CT DEEP Bureau of Natural Resources
Wildlife Division
Natural Diversity Data Base
79 Elm Street
Hartford, CT 06106-5127
(860) 424-3011
deep.nddbrequest@ct.gov

Please include a snapshot of the map, your last name, and the subject area town when you e-mail or write. Thank you for consulting the Natural Diversity Data Base.

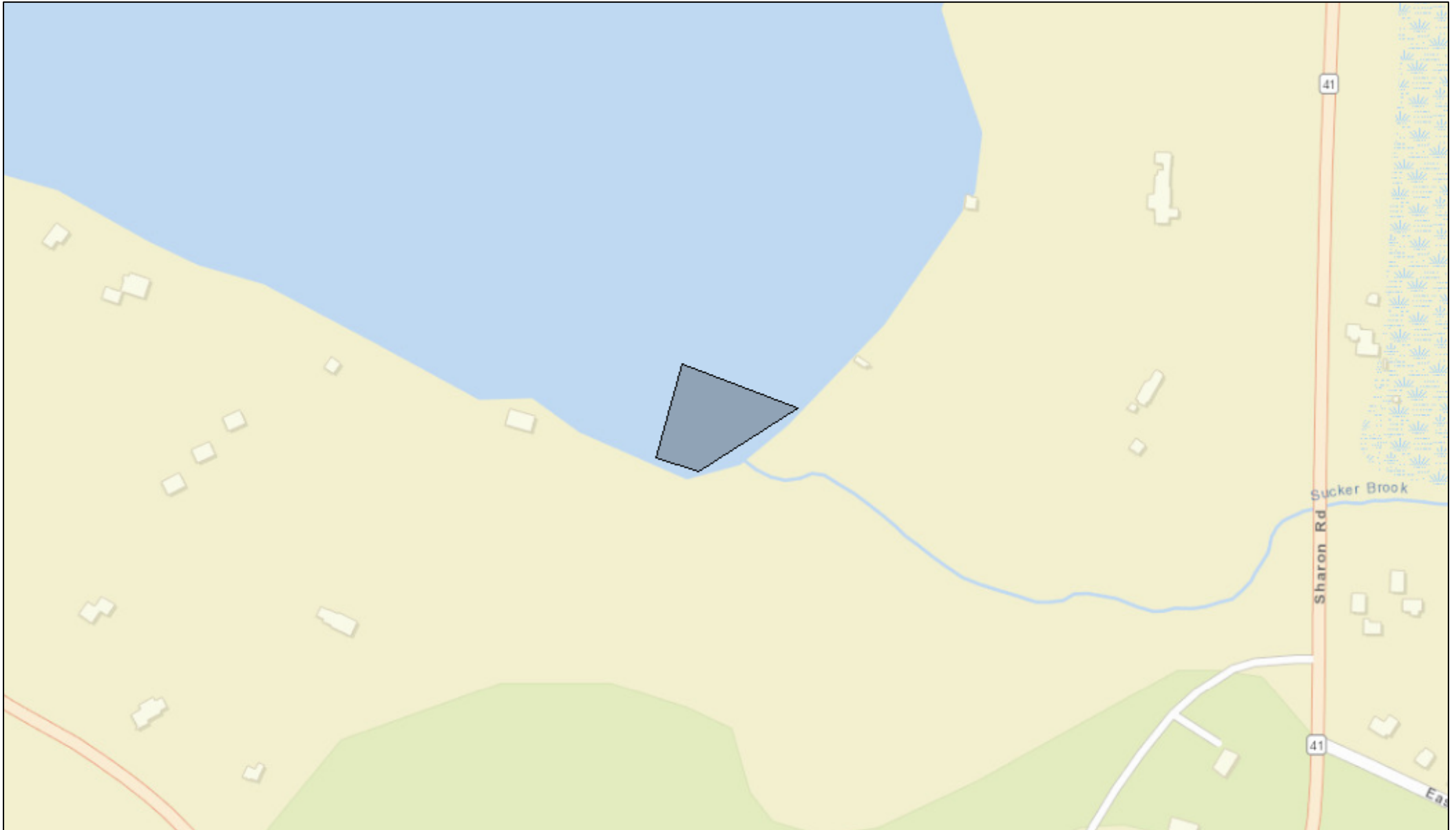
Common Name	Northern long-eared bat	There will be no tree clearing so this should not be a concern.
Scientific Name	<i>Myotis septentrionalis</i>	
Listing Status¹	FE	
Taxa	mammal	
General Ecology	The Northern long-eared bat is one of the species most impacted by White Nose Syndrome. Populations in Connecticut have declined by over 90%, and it has been Federally listed as Endangered. During the summer northern long-eared bats roost singly or in maternal colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. This bat has also been found rarely roosting in structures, like barns and sheds. Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. The presence of northern long-eared bat (<i>Myotis septentrionalis</i>), a federally endangered and state endangered species, may require consultation with the US Fish and Wildlife Service Ecological Field Office in order to be in compliance with the Federal Endangered Species Act if the proposed project requires federal permits or uses federal funds. For more information on federal requirements visit: http://www.fws.gov/midwest/endangered/mammals/nleeb/	
Common Name	Woodland pondsnail	

Scientific Name	<i>Stagnicola catascopium</i>	
Listing Status¹	SC	
Taxa	invertebrate	
General Ecology	Habitat: This species occurs in lakes, rivers and wetlands in the littoral zone.	
Common Name	Fries' pondweed	
Scientific Name	<i>Potamogeton friesii</i>	
Listing Status¹	E	
Taxa	plant	
General Ecology	Habitat: N;deep waters of lakes & ponds (D&C). Blooming time: Aug, Sep	
Common Name	Wallrue spleenwort	The activity does not take place in this habitat
Scientific Name	<i>Asplenium ruta-muraria</i>	so this should not be a concern.
Listing Status¹	T	
Taxa	plant	
General Ecology	Habitat: sheltered cliffs,seams & crevices of limestone outcrops (D&C). Blooming time: Jul	
Common Name	Northern water-milfoil	
Scientific Name	<i>Myriophyllum sibiricum</i>	
Listing Status¹	T	
Taxa	plant	
General Ecology	Habitat: Alkaline waters of ponds, lakes and streams Blooms Jun, Jul, Aug, Sep.	
Common Name	Swamp birch	The activity does not take place in this habitat
Scientific Name	<i>Betula pumila</i>	so this should not be a concern.
Listing Status¹	T	
Taxa	plant	
General Ecology	Habitat: calcareous swamps, meadows & bogs (D&C). Blooming time: May	
Common Name	American bittersweet	The activity does not take place in this habitat
Scientific Name	<i>Celastrus scandens</i>	so this should not be a concern.
Listing Status¹	SC	
Taxa	plant	
General Ecology	Forest edges, forests, shores of rivers or lakes, talus and rocky slopes. Flowering in spring.	
Common Name	Prairie sedge	The activity does not take place in this habitat
Scientific Name	<i>Carex prairea</i>	so this should not be a concern.
Listing Status¹	SC	
Taxa	plant	
General Ecology	Habitat: bogs,swamps,wet meadows & pastures,many calcareous (D&C). Mature fruits: Jun	

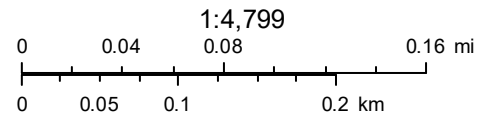
Common Name	Naked miterwort	The activity does not take place in this habitat
Scientific Name	<i>Mitella nuda</i>	so this should not be a concern.
Listing Status¹	SC	
Taxa	plant	
General Ecology	Habitat: cool,mossy woods & swamps (D&C); often calcareous (Raw.). Blooming time: May-Jun	
Common Name	Dioecious sedge	The activity does not take place in this habitat
Scientific Name	<i>Carex sterilis</i>	so this should not be a concern.
Listing Status¹	SC	
Taxa	plant	
General Ecology	Habitat: wet soils in bogs,swamps & wet meadows,many calcareous (D&C); calcareous spring fens . Mature fruits: May-Jun	
Common Name	Water sedge	The activity does not take place in this habitat
Scientific Name	<i>Carex aquatilis ssp. altior</i>	so this should not be a concern.
Listing Status¹	SC	
Taxa	plant	
General Ecology	Habitat: Calcareous rich fens. Mature fruits: Jun	

¹E = State Endangered, T = State Threatened, SC = State Special Concern, FE = Federally Endangered, FT = Federally Threatened, NA = Not applicable.

Dredging Map



July 10, 2024



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community