Full Environmental Assessment Form
Part 1

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Blind Sodus Bay REDI Project		
Project Location (describe, and attach a general location map): Towns of Wolcott and Sterling, Wayne and Cayuga County, NY		
Brief Description of Proposed Action (include purpose or need): Blind Sodus Bay is located on the shoreline of Lake Ontario in Wayne County, NY. The Bay was formerly separated from Lake Ontario by a barrier bar. In 2017 and 2019, Lake Ontario experienced high water levels that resulted in severe flooding and erosion throughout the region. These high water events resulted in the extensive loss of the Blind Sodus Bay barrier bar. The loss of the barrier bar increases the potential that existing infrastructure and private properties along the shoreline of the Bay will incur damages due to future flooding events. Wayne County received funding under the Lake Ontario Resiliency and Economic Development Initiative (REDI) to reconstruct the barrier bar. The proposed project includes the placement of cobble beach breakwater features within Lake Ontario, generally in line with the former barrier bar alignment. The eastern portion of the barrier bar (which has not been completely breached) and existing vegetation on the barrier bar will be preserved. Additional fill will be placed around the intact portions of the barrier bar. The proposed design also includes a navigational channel to maintain access between Blind Sodus Bay and Lake Ontario, and natural and nature-based features such as root wads and supplemental plantings. The proposed breakwaters and restored barrier bar will aid in wave attenuation, and will reduce the heights and velocities of incoming waves from Lake Ontario, which will ultimately aid in reducing erosion along the Blind Sodus Bay shoreline. The conceptual design is shown in Figures 1 and 2, attached.		
Name of Applicant/Sponsor: Wayne County SWCD, C/O Lindsey Gerstenslager, District Manager	Telephone: (315)-946-7200 E-Mail: lindsey@wayneNYswcd.org	
Address: 7312 Route 31		
City/PO: Lyons	State: NY	Zip Code: 14489
Project Contact (if not same as sponsor; give name and title/role): Grete Day, Environmental Scientist, Barton & Loguidice, D.P.C.	Telephone: 315-457-5200 E-Mail: gday@bartonandloguidice.com	
Address: 443 Electronics Parkway		
City/PO: Liverpool	State: NY	Zip Code: 13088
Property Owner (if not same as sponsor): NYS Office of General Services Note: The project area also overlaps one privately owned parcel. The County SWCD will coordinate with all property owners during the project's design phase in order to secure any necessary easements.	Telephone: (518) 474-6238 E-Mail: Ralph.Hill@ogs.ny.gov	
Address: 39th Floor, Corning Tower, Empire State Plaza		
City/PO: Albany	State: NY	Zip Code: 12242

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	Towns of Wolcott and Sterling (permits)	Winter 2021
b. City, Town or Village Planning Board or Commission ☐Yes ☑No		
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Wayne County Soil & Water Conservation District (project sponsor)	Winter 2021
e. County agencies ☑Yes ☐No	Wayne County (funding)	Winter 2021
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC (permit), NYSOGS (permit and easement), NYSDOS (permit), DASNY (funding)	Summer 2021
h. Federal agencies ☑Yes ☐No	USACE (permit)	Summer 2021

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☑Yes ☐No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☑Yes ☐No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

Lake Ontario Lakewide Action and Management Plan, West Erie Canal Heritage Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☑Yes ☐No

If Yes, identify the plan(s):

Wayne County Agriculture & Farmland Protection Plan; Cayuga County Agriculture & Farmland Protection Plan

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
The Town of Wolcott does not currently have a zoning ordinance in place. The Town of Sterling has zoning regulations in place. The project area is located in the waterfront district.

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Red Creek Central School District

b. What police or other public protection forces serve the project site?
Wayne County Sheriff's Office, Cayuga County Sheriff's Office, NYS Police Troop E

c. Which fire protection and emergency medical services serve the project site?
Red Creek Volunteer Fire Department, Fair Haven Fire Department, Sterling Volunteer Fire Company

d. What parks serve the project site?
West Barrier Bar County Park, Fair Haven Beach State Park, and Lake Shore Marshes State Wildlife Management Area are within 5 miles of the project area

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Other - shoreline protection

b. a. Total acreage of the site of the proposed action? 23 acres
b. Total acreage to be physically disturbed? Approx. 14 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0 acres

The majority of the project area is owned by NYSOGS. There is one privately owned property in the western end of the project area.

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 14 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☑No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☑No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐Yes ☐No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑Yes ☐No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Lake Ontario (NYSDEC Waters Index No. Ont), Blind Sodus Bay (NYSDEC Waters Index No. Ont. 75-P 77)

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

The creation of a new natural barrier bar will result in the placement of fill in Lake Ontario and Blind Sodus Bay along the location of original barrier bar. Final impact amounts will be determined during the projects final design phase.

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☑ Yes ☐ No

If Yes, describe: The placement of fill and natural features for the breakwaters and barrier bar may disturb bottom sediments

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

Temporarily disturbed areas, if any, would be restored to their original grades and substrates.

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☑ No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☑ No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or ~6 acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. No new point sources. The new breakwaters and barrier bar expansion will involve the placement of fill within the open water of Lake Ontario.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site surface waters.

- If to surface waters, identify receiving water bodies or wetlands: Lake Ontario, Blind Sodus Bay
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☑No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

N/A

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Heavy equipment during construction

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7AM-5PM
- Saturday: 7AM-5PM
- Sunday: 7AM-5PM
- Holidays: 7AM-5PM

ii. During Operations:

- Monday - Friday: Continuous (shoreline protection)
- Saturday: Continuous (shoreline protection)
- Sunday: Continuous (shoreline protection)
- Holidays: Continuous (shoreline protection)

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Temporary increases above ambient noise levels may occur during construction. Construction will be limited to daytime work hours (7AM-5PM)

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☐ Yes ☑ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☑ Agriculture ☑ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

The project area includes the barrier bar alignment between Blind Sodus Bay and Lake Ontario. The project area primarily consists of open water and the intact portion of the barrier bar. Seasonal residential properties and forested land surround the project area.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	0	0
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	18.5	12.5	-6.0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0.5	6.5	+6.0
• Other Describe: Intact barrier bar (partially vegetated)	4	4	0

c. Is the project site presently used by members of the community for public recreation? ☑ Yes ☐ No

i. If Yes: explain: Lake Ontario and Blind Sodus Bay are used for a variety of recreational activities.

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? Approx. 6.5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:

Beaches (Be)	35.8 %
Lake Beaches (Lb)	4.4 %
Sodus gravelly fine sandy loam, 8-15% slopes	0.3 %

Note: the remainder of the project area is classified as open water.

d. What is the average depth to the water table on the project site? Average: 0 feet

e. Drainage status of project site soils:

☑	Well Drained:	40.5 % of site
☐	Moderately Well Drained:	_____% of site
☐	Poorly Drained	_____% of site

Note: the remainder of the project area is classified as open water, which does not have a designated drainage class.

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	40.2 % of site
☑	10-15%:	0.3 % of site
☐	15% or greater:	_____% of site

Note: the remainder of the project area is classified as open water, which does not have a designated slope.

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name None Mapped Classification _____
- Lakes or Ponds: Name Lake Ontario and Blind Sodus Bay Classification A/A, B/B
- Wetlands: Name None Mapped Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☑ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____
Lake Ontario- pathogens from urban/storm runoff

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☑ Yes ☐ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

Ring-billed gull | Mallard duck | Double-crested cormorant
Canada goose | Great blue heron | Various fish/aquatic species

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☑ Yes ☐ No

If Yes:

i. Species and listing:

Spiny softshell (*Apalone spinifera*, special concern), blackchin shiner (*Notropis heterodon*, rare)

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑ Yes ☐ No

If yes, give a brief description of how the proposed action may affect that use:

Lake Ontario and Blind Sodus Bay are used for fishing and waterfowl hunting. The nature-based barrier bar will be constructed in Lake Ontario and Blind Sodus Bay within the general limits of the original barrier bar. No adverse impacts to recreational activities are expected to result from the project.

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: West Barrier Bar County Park, Fair Haven Beach State Park, Lake Shore Marshes State Wildlife Management Area

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): County and state parks, state wildlife management area

iii. Distance between project and resource: 0.3-3.4 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Lindsey Gerstenslager Date 1/29/21

Signature _____ Title Director, Wayne County SWCD

PRINT FORM

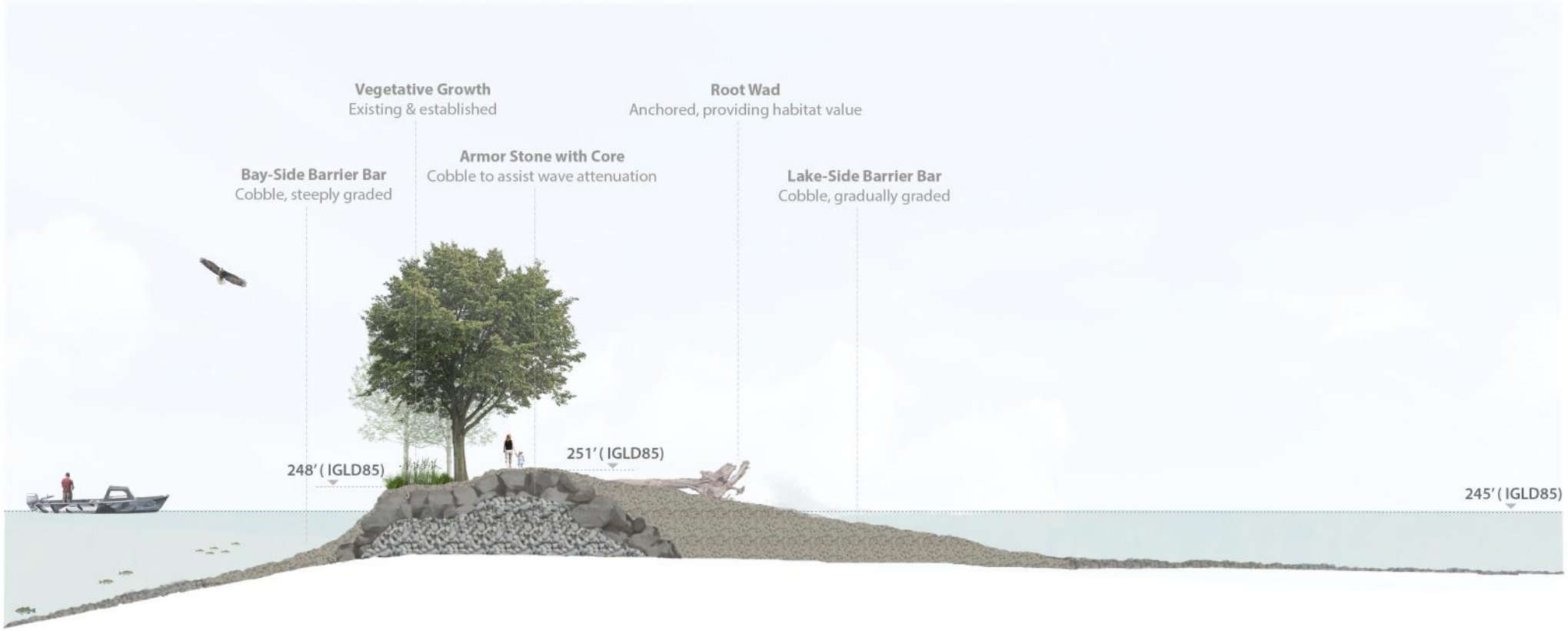
Figure 1. Conceptual Design Layout

Breakwater Embedded in Cobble Beach

With soft/nature based enhancements

NOT TO SCALE

Figure 2. Conceptual Design Cross Section



Intent to be Lead Agency Resolution

WAYNE COUNTY
SOIL & WATER
CONSERVATION DISTRICT

7312 Route 31, Lyons, New York 14489
Telephone (315) 946-7200
www.waynecountyNYsoilandwater.org

AUTHORIZATION TO DECLARE LEAD AGENCY STATUS FOR SEQR FOR THE BLIND SODUS BAY EAST BARRIER BAR REDI PROJECT

WHEREAS, Wayne County Soil & Water Conservation District is proposing the Blind Sodus Bay Eastern Barrier Bar REDI Project, located in the Towns of Wolcott, Wayne County, New York; and

WHEREAS, the Project has been classified as a "Type I Action" as defined by the State Environmental Quality Review Act (SEQRA) in 6 NYCRR Part 617.4; and

WHEREAS, it is the intent of the Wayne County Soil & Water Conservation District Board of Directors to assume the role of "Lead Agency" for purposes of conducting a SEQRA assessment of the Project; and

WHEREAS, Part I of a Full Environmental Assessment Form (FEAF) has been completed, reviewed by the Wayne County Soil & Water Conservation District Board of Directors, and will be circulated to all Interested and Involved Agencies for purposes of establishing the Wayne County Soil & Water Conservation District Board of Directors as "Lead Agency" in accordance with 6 NYCRR Part 617.6(b), now, therefore be it

RESOLVED, that the Chairman of the Wayne County Soil & Water Conservation Board of Directors is hereby authorized to sign Part I of the FEAF (page 13); and be it further

RESOLVED, that Wayne County Soil & Water Conservation District will send said Part I of the FEAF and associated site figure to the attached list of "Interested and Involved Agencies" under cover of a "Notice of Intent to Establish Lead Agency" letter for purposes of establishing Lead Agency status under the SEQRA; and be it further

RESOLVED, that the Chairman of the Wayne County Soil & Water Conservation District and the Board of Directors, together with the representative consultants of Barton & Loguidice, are hereby authorized to take all actions, serve all notices, and complete all documents required to give full force and effect to this determination.

Chairman of Soil & Water Conservation District — Date: 1/29/2021

Vice-Chairman of Soil & Water Conservation District — Date: 01/29/2021

Recording Officer — Date: 1/29/2021

Interested and Involved Agency Letters

Barton & Loguidice

February 1, 2021

Steven Metivier
U.S. Army Corps of Engineers
1776 Niagara Street
Buffalo, New York 14207
Steven.V.Metivier@usace.army.mil

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Mr. Metivier:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

Blind Sodus Bay is located on the shoreline of Lake Ontario in Wayne County, NY. The Bay was formerly separated from Lake Ontario by a barrier bar. In 2017 and 2019, Lake Ontario experienced high water levels that resulted in severe flooding and erosion throughout the region. These high water events resulted in the extensive loss of the Blind Sodus Bay barrier bar. The loss of the barrier bar increases the potential that existing infrastructure and private properties along the shoreline of the Bay will incur damages due to future flooding events. Wayne County received funding under the Lake Ontario Resiliency and Economic Development Initiative (REDI) to reconstruct the barrier bar. The proposed project includes the placement of cobble beach breakwater features within Lake Ontario, generally in line with the former barrier bar alignment. The eastern portion of the barrier bar (which has not been completely breached) and existing vegetation on the barrier bar will be preserved. Additional fill will be placed around the intact portions of the barrier bar. The proposed design also includes a navigational channel to maintain access between Blind Sodus Bay and Lake Ontario, and natural and nature-based features such as root wads and supplemental plantings. The proposed breakwaters and restored barrier bar will aid in wave attenuation, and will reduce the heights and velocities of incoming waves from Lake Ontario, which will ultimately aid in reducing erosion along the Blind Sodus Bay shoreline. The conceptual design is shown in Figures 1 and 2, attached.

Enclosed for your review, as required pursuant to 6 NYCRR 617.6(b)(3)(i), is Part 1 of a completed Full Environmental Assessment Form (FEAF), that describes the proposed action in more detail, and conceptual design plans detailing the project location and proposed improvements. The FEAF is complete with all information available at this time. If you are a representative of a state or local agency, your agency has been determined to meet the definition of an Interested or Involved Agency, as these terms are defined in 6 NYCRR Part 617.2. It is noted that additional entities (federal agencies involved with the project and the County's engineering consultant) are receiving copies of SEQRA correspondence for their files, although they do not meet the definition of Involved or Interested Agencies.

In accordance with 6 NYCRR 617.6(b)(3), the intent of this letter is to initiate the coordinated review process. Involved Agencies must agree upon Lead Agency designation by March 3, 2021 (30 days from the date of this mailing). For your convenience, a Lead Agency consent form is provided at the end of this letter. Please return this form as soon as possible. In the event that you disagree with the proposed designation of the Wayne County Soil & Water Conservation District as Lead Agency for this project, or would otherwise like to provide comment, please send notice of said disagreement and/or comments to Grete Day at gday@bartonandloguidice.com or to the following address by March 3, 2021: Barton & Loguidice, D.P.C., 443 Electronics Parkway, Liverpool, NY 13088.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Terra Haight
New York State Department of State
One Commerce Plaza
99 Washington Avenue
Albany, New York 12231-0001
Terra.Haight@dos.ny.gov

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Ms. Haight:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

Blind Sodus Bay is located on the shoreline of Lake Ontario in Wayne County, NY. The Bay was formerly separated from Lake Ontario by a barrier bar. In 2017 and 2019, Lake Ontario experienced high water levels that resulted in severe flooding and erosion throughout the region. These high water events resulted in the extensive loss of the Blind Sodus Bay barrier bar. The loss of the barrier bar increases the potential that existing infrastructure and private properties along the shoreline of the Bay will incur damages due to future flooding events. Wayne County received funding under the Lake Ontario Resiliency and Economic Development Initiative (REDI) to reconstruct the barrier bar. The proposed project includes the placement of cobble beach breakwater features within Lake Ontario, generally in line with the former barrier bar alignment. The eastern portion of the barrier bar (which has not been completely breached) and existing vegetation on the barrier bar will be preserved. Additional fill will be placed around the intact portions of the barrier bar. The proposed design also includes a navigational channel to maintain access between Blind Sodus Bay and Lake Ontario, and natural and nature-based features such as root wads and supplemental plantings. The proposed breakwaters and restored barrier bar will aid in wave attenuation, and will reduce the heights and velocities of incoming waves from Lake Ontario, which will ultimately aid in reducing erosion along the Blind Sodus Bay shoreline. The conceptual design is shown in Figures 1 and 2, attached.

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In accordance with 6 NYCRR 617.6(b)(3), the intent of this letter is to initiate the coordinated review process. Involved Agencies must agree upon Lead Agency designation by March 3, 2021 (30 days from the date of this mailing). For your convenience, a Lead Agency consent form is provided at the end of this letter. Please return this form as soon as possible. In the event that you disagree with the proposed designation of the Wayne County Soil & Water Conservation District as Lead Agency for this project, or would otherwise like to provide comment, please send notice of said disagreement and/or comments to Grete Day at gday@bartonandloguidice.com or to the following address by March 3, 2021: Barton & Loguidice, D.P.C., 443 Electronics Parkway, Liverpool, NY 13088.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Robert S. Derico, R.A.
Director, Office of Environmental Affairs
Dormitory Authority of the State of New York
515 Broadway
Albany, New York 12207-2964
RDerico@dasny.org

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Director Derico:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

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Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Ralph Hill
New York State Office of General Services
36th Floor, Corning Tower
Empire State Plaza
Albany, New York 12242
Ralph.Hill@ogs.ny.gov

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Mr. Hill:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

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Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Thomas Haley
Regional Permit Administrator
New York State Department of Environmental Conservation
Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519
thomas.haley@dec.ny.gov

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Mr. Haley:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

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Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Scott Crawford, Supervisor
Town of Sterling
1290 State Route 104A
Sterling, New York 13156
sterlingsupervisor@gmail.com

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Supervisor Crawford:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

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Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Barton & Loguidice

February 1, 2021

Lynn Chatfield, Supervisor
Town of Wolcott
6070 Lake Avenue
Wolcott, New York 14590
eastportbay@yahoo.com

Re: Notice of Intent to Establish Lead Agency
Blind Sodus Bay REDI Project
File: 2139.002.001

Dear Supervisor Chatfield:

On behalf of the Wayne County Soil & Water Conservation District, pursuant to the State Environmental Quality Review Act ("SEQRA") and 6 NYCRR 617.6(b)(3)(i), please be advised that the Wayne County Soil & Water Conservation District intends to establish itself as Lead Agency for the purposes of fulfilling the SEQRA requirements relative to the proposed Blind Sodus Bay REDI Project. The Project is located in the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

Blind Sodus Bay is located on the shoreline of Lake Ontario in Wayne County, NY. The Bay was formerly separated from Lake Ontario by a barrier bar. In 2017 and 2019, Lake Ontario experienced high water levels that resulted in severe flooding and erosion throughout the region. These high water events resulted in the extensive loss of the Blind Sodus Bay barrier bar. The loss of the barrier bar increases the potential that existing infrastructure and private properties along the shoreline of the Bay will incur damages due to future flooding events. Wayne County received funding under the Lake Ontario Resiliency and Economic Development Initiative (REDI) to reconstruct the barrier bar. The proposed project includes the placement of cobble beach breakwater features within Lake Ontario, generally in line with the former barrier bar alignment. The eastern portion of the barrier bar (which has not been completely breached) and existing vegetation on the barrier bar will be preserved. Additional fill will be placed around the intact portions of the barrier bar. The proposed design also includes a navigational channel to maintain access between Blind Sodus Bay and Lake Ontario, and natural and nature-based features such as root wads and supplemental plantings. The proposed breakwaters and restored barrier bar will aid in wave attenuation, and will reduce the heights and velocities of incoming waves from Lake Ontario, which will ultimately aid in reducing erosion along the Blind Sodus Bay shoreline. The conceptual design is shown in Figures 1 and 2, attached.

Enclosed for your review, as required pursuant to 6 NYCRR 617.6(b)(3)(i), is Part 1 of a completed Full Environmental Assessment Form (FEAF), that describes the proposed action in more detail, and conceptual design plans detailing the project location and proposed improvements. The FEAF is complete with all information available at this time. If you are a representative of a state or local agency, your agency has been determined to meet the definition of an Interested or Involved Agency, as these terms are defined in 6 NYCRR Part 617.2. It is noted that additional entities (federal agencies involved with the project and the County's engineering consultant) are receiving copies of SEQRA correspondence for their files, although they do not meet the definition of Involved or Interested Agencies.

In accordance with 6 NYCRR 617.6(b)(3), the intent of this letter is to initiate the coordinated review process. Involved Agencies must agree upon Lead Agency designation by March 3, 2021 (30 days from the date of this mailing). For your convenience, a Lead Agency consent form is provided at the end of this letter. Please return this form as soon as possible. In the event that you disagree with the proposed designation of the Wayne County Soil & Water Conservation District as Lead Agency for this project, or would otherwise like to provide comment, please send notice of said disagreement and/or comments to Grete Day at gday@bartonandloguidice.com or to the following address by March 3, 2021: Barton & Loguidice, D.P.C., 443 Electronics Parkway, Liverpool, NY 13088.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Grete L. Day
Staff Environmental Scientist

GLD/jms

Attachments: Lead Agency Consent Form
FEAF Part 1 (signed)

Full Environmental Assessment Form
Part 2

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

NI = No Impact
SI = Small Impact

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☐	☑
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑ NI	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑ NI	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑ NI	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☑
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑ SI	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☐	☑
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

☐ NO ☑ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☑ NI	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☑ NI	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☑ NI	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☑
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☑ SI	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☑ NI	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☑ NI	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☑ SI	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☑ NI	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☑ NI	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☑ NI	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☑ NI	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☑ SI	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☑ NI	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☑ NI	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☑ NI	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☑ NI	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. ☑ NO ☐ YES
(See Part 1. D.2.f., D.2.h, D.2.g)
If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐ NO ☑ YES
If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☑ NI	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☑ SI	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☑ NI	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☑ SI	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☑NI	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☑NI	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☑SI	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☑NI	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☑NI	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☑ SI	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☑ NI	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☑ SI ☑ SI	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☑ SI ☑ SI	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☑ SI	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☑ SI	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☑ NI	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☑ SI	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☑ NI	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☑NI	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☑SI	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☑NI	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☑NI	☐
e. Other impacts: _____ _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
c. Other impacts: _____ _____		□	□

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☑ NO ☐ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☑ SI	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑ NI	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑ NI	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑NI	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☑NI	☐
f. Other impacts: The barrier bar will require navigational marker lights, which will be placed offshore (Lakeward) of the breakwaters and barrier bar.		☑SI	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☐ NO ☑ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☑ NI	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☑ NI	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☑ NI	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☑ SI	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☑ NI	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☑ NI	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Full Environmental Assessment Form
Part 3

Agency Use Only [IfApplicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

An evaluation of the magnitude and importance of project impacts was completed and details are available under separate cover in a Part 3 Supporting Information document.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information
See Part 3 Supporting Information (attached).

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the Wayne County Soil & Water Conservation District as lead agency that:

[X] A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

[ ] B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

[ ] C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Blind Sodus Bay REDI Project

Name of Lead Agency: Wayne County Soil & Water Conservation District

Name of Responsible Officer in Lead Agency: Lindsey Gerstenslager

Title of Responsible Officer: District Manager

Signature of Responsible Officer in Lead Agency: LNG Date: 9/15/21

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Lindsey Gerstenlager

Address: 7312 Route 31, Lyons, NY 14489

Telephone Number: 315-946-7200

E-mail: lindsey@waynenyswcd.org

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Part 3 Supporting Information

PART 3 SUPPORTING INFORMATION

EVALUATION OF THE MAGNITUDE AND IMPORTANCE OF PROJECT IMPACTS

for

Blind Sodus Bay REDI Project

Towns of Wolcott and Sterling, Wayne and Cayuga Counties, New York

August 2021

Prepared For:

Wayne County Soil & Water Conservation District
7312 Route 31
Lyons, New York 14489
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A. PROJECT DESCRIPTION

Blind Sodus Bay is located on the southern shoreline of Lake Ontario in Wayne County, NY. The Bay was formerly separated from Lake Ontario by a barrier bar. In 2017 and 2019, Lake Ontario experienced high water levels that resulted in severe flooding and erosion throughout the region. These high water events resulted in the extensive loss of the Blind Sodus Bay barrier bar. The loss of the barrier bar increases the potential that existing infrastructure and private properties along the shoreline of the Bay will incur damages due to future flooding events. The loss of the barrier bar also contributed to significant ecological changes within Blind Sodus Bay. The Bay is no longer a protected embayment, but now an open water system that receives significantly more sediment deposition from the Lake, which has led to degraded water quality. In addition, the damage resulted in a substantial loss of vegetation and wildlife habitat, particularly nesting habitat for the spiny softshell turtle. Wayne County received funding under the Lake Ontario Resiliency and Economic Development Initiative (REDI) to reconstruct the barrier bar. The Wayne County Soil & Water Conservation District (SWCD) is managing the project. The eastern end of the former barrier bar will be restored along its former alignment. The intact section of the barrier bar will be preserved and enhanced with additional fill. Breakwaters will be constructed between the restored barrier bar and the western shoreline. In addition, the navigational channel will be relocated to its historic location in the center of the barrier bar to maintain access between Blind Sodus Bay and Lake Ontario. Various natural and nature-based features such as turtle nesting and basking habitat, woody habitat enhancements, and native vegetation plantings will be incorporated into the breakwaters and barrier bar design. The proposed breakwaters and barrier bar restoration and enhancement will aid in wave attenuation, reducing the heights and velocities of incoming waves from Lake Ontario, which will ultimately help reduce erosion along the Blind Sodus Bay shoreline. The restored barrier bar will also reduce sedimentation and improve water quality in Blind Sodus Bay. The proposed natural and nature-based features will enhance wildlife habitat. The conceptual design is shown in Figures 1 and 2, attached. More detailed information regarding the alternative designs considered for the project and modeling efforts is provided in the 60% Basis of Design Report, provided as Appendix A.

B. COORDINATED REVIEW

The Wayne County Soil & Water Conservation District (SWCD) declared their intent to act as the lead agency for the State Environmental Quality Review Act (SEQRA) process on January 29, 2021. Subsequently, Part 1 of the Full Environmental Assessment Form (FEAF) and a project location map were sent electronically to the interested and involved agencies listed in Table 1 on February 1, 2021, to initiate a coordinated review of the proposed action.

Table 1— Interested and Involved Agencies

Involved Agencies	Interested Agencies	Other Entities Provided Copies of SEQRA Correspondence
Town of Wolcott Town of Sterling NYS Dept. of Environmental Conservation NYS Dept. of State NYS Office of General Services Dormitory Authority of the State of New York	NYS Office of Parks, Recreation and Historic Preservation	U.S. Army Corps of Engineers Barton & Loguidice, D.P.C.

The coordinated review comment period ended on March 3, 2021. No agencies objected to the Wayne County SWCD serving as Lead Agency for the project's SEQR review. Responses were received from the Dormitory Authority of the State of New York (DASNY), NYS Department of Environmental Conservation (NYSDEC), NYS Office of General Services (NYSOGS), and NYS Department of State (NYSDOS). DASNY indicated that they are a funding agency for the project and requested that the NYS Office of Parks, Recreation and Historic Preservation be included as an interested agency for SEQR. The NYSDEC suggested that the project description be revised to emphasize the water quality and wildlife habitat benefits that the project will provide, in addition to the protection of private properties. The project description in Section A, above, was revised accordingly. The NYSDEC also indicated that item D.2.r on page 8 of Part 1 of the Full Environmental Assessment Form was not completed. It is noted that this question only applies to commercial or industrial projects, and was therefore intentionally left blank. Finally, the NYSDEC indicated that nesting habitat for the spiny softshell turtle (deep sand/gravel areas with no to sparse vegetation) should be incorporated into the project design. One of the project's objectives is to incorporate such nesting areas into the barrier bar design. NYSOGS indicated that the project will require NYSOGS approvals. The NYSDOS did not comment further beyond their consent to the Wayne County SWCD serving as Lead Agency.

The coordinated review responses received from the agencies mentioned above are provided in Appendix B. Several meetings have been held to-date to discuss the project's progress with the permitting entities. Pre-application meetings were held with permitting agencies on October 29, 2020 and December 17, 2020. An additional agency meeting was held on July 12, 2021 to present the preliminary modeling results for the project. Further coordination with the appropriate agencies will be completed as permit applications are submitted.

C. DETAILED INFORMATION IN RESPONSE TO PART 2 OF SEQRA FULL EAF

The following information provides a detailed discussion of the potential impacts identified in Part 2 of the FEAF that were listed as small or moderate to large, in support of Part 3 of the FEAF. The answers in the "No or Small Impact" column on Part 2 of the FEAF are further clarified with an "NI" for no impact and "SI" for small impact. This document is organized according to the question numbers in Part 2, and the additional information provided herein summarizes the proposed actions that will be taken to minimize and/or mitigate each identified impact.

1. Impacts on Land

1.a. The proposed action may involve construction on land where depth to water table is less than 3 feet.

Based on data available from the U.S. Dept. of Agriculture Natural Resources Conservation Service's (USDA-NRCS) Web Soil Survey, the average depth to the water table in the land-based portion of the project area is approximately two feet below the ground surface. Work is also proposed to take place within the standing water column of Lake Ontario and Blind Sodus Bay. The eastern portion of the project area is dominated by cobble substrate, while the western end has a mixed cobble and sandy substrate. The proposed breakwaters and re-established/enhanced barrier bar will result in 90,000 cubic yards (CY) of fill (including gravel, cobble, sand, core stone, and armor stone) on the bed of Lake Ontario and Blind Sodus Bay. The project elements will likely be constructed from a barge and from the shore on the east and west mainland points. A summary of the modeling efforts and basis of design information is provided in Appendix A. Erosion and sediment control measures will be incorporated into the design plans for the project, which will detail suitable erosion control practices for construction, including material and equipment staging. The NYSDEC indicated that in-water work is prohibited within Lake Ontario and Blind Sodus Bay between May 15 and June 30 to protect spawning smallmouth bass and rock bass. The construction schedule will adhere to this timing restriction, or will seek variance approval from NYSDEC if deviation from this restrictive period is necessary. Construction is anticipated to begin during the Spring of 2022 (before the in-water work restriction begins), as long as weather and water level conditions permit.

1.e. The proposed action may involve construction that continues for more than one year or in multiple phases.

The project will be constructed under a single phase. Construction activities are expected to continue for approximately 5 months. Note that while the FEAF Part 1 form indicated a 14-month construction timeframe, it is expected that

construction will begin in early Spring 2022 and be completed by the end of 2022. Timing restrictions apply for Lake Ontario and Blind Sodus Bay; in-water work is prohibited for both the Lake and the Bay between May 15 and June 30. Staging and equipment washout locations will be sited by the contractor and approved by the Engineer prior to the commencement of construction, to ensure there are no impacts to sensitive habitats.

1.f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).

The proposed breakwaters and barrier bar enhancement/re-establishment will involve a total of approximately 90,000 CY of fill within the project area. The work within the Lake and Bay will involve the placement of stone, sand, and natural features such as woody habitat features and plantings. Minimal excavation within the bed of the Lake or Bay is proposed. Temporary increases in erosion are likely to occur during construction due to ground disturbance associated with the placement of rock for the breakwaters and barrier bar enhancement/re-establishment. Erosion and sediment control measures will be detailed in the project's design plans, which will be followed during construction. The erosion and sediment control plans will address the construction and maintenance of temporary stormwater controls required for the project. The temporary increase in sediment isn't expected to be in significant contrast to the water quality issues currently encountered in the project area due to the continued erosion of the barrier bar features and the more open connection between Lake Ontario and Blind Sodus Bay. The project intends to re-establish and enhance much of the pre-existing barrier bar to improve water quality and restore habitat elements, particularly in the Bay ecosystem.

Coastal modeling completed for the project shows that compared to existing conditions, the proposed breakwaters and re-established/enhanced barrier bar protect Blind Sodus Bay from Lake Ontario wave conditions and re-establish the historical separation of Blind Sodus Bay and Lake Ontario. The model for the proposed breakwaters and barrier bar enhancements predicts that these features may reduce wave heights in Blind Sodus Bay up to approximately 1.5 feet under typical conditions, approximately 2.5 feet for the 1-year storm, and approximately 3 feet for the 100-year and the Halloween 2019 storm event (noted as a significant recent high water event), compared to existing conditions. The model results also show that compared to existing conditions, the proposed breakwaters and barrier bar re-establishment/enhancement will also re-establish the historical flow velocity pattern along the barrier bar, including sediment transport characteristics. Additional details regarding the

modeling and anticipated performance outcomes of the barrier bar enhancements are provided in Appendix A.

1.g. The proposed action is, or may be, located within a Coastal Erosion hazard area.

The project area is entirely located within a Coastal Erosion Hazard Area (CEHA) regulated by the NYSDEC under Article 34 of the Environmental Conservation Law (ECL). The Natural Protective Feature Area (NPFA) is mapped along the Bay side of the historic alignment of the Blind Sodus Bay barrier bar. The portions of the barrier bar to be re-established will be constructed along the historic barrier bar alignment between Lake Ontario and Blind Sodus Bay. The breakwaters will be constructed slightly north of the historic barrier bar alignment. The breakwaters cannot be constructed precisely on the historic alignment due to steep slopes on the bed of the Bay in that location, which would make construction impractical. New breakwaters and other coastal erosion protection structures are regulated activities on beaches within CEHA areas under Article 34. The Town of Sterling is a certified CEHA Community, and has been authorized by the NYSDEC to administer the CEHA permitting program locally. The Town of Wolcott is not a certified CEHA community. Therefore, the project will require a CEHA permit from the NYSDEC for the portion of the project within the Town of Wolcott, as well as a CEHA permit from the Town of Sterling for work at the eastern end of the project area located in the Town of Sterling. All conditions of these permits will be followed during construction to minimize impacts to the NPFA. As discussed in Appendix A, the proposed breakwaters and barrier bar enhancement/re-establishment will protect Blind Sodus Bay from future erosion related to wave action (under both typical and high water conditions), and will reconstruct portions of the NPFA that have eroded.

The project area is also located within a Coastal Barrier Resource System (CBRS) unit designated by the U.S. Fish and Wildlife Service (USFWS). Blind Sodus Bay is identified as unit NY-79. Federal expenditures that promote development or other modifications to natural resources are restricted in CBRS units. The proposed project does not involve any federal funding, therefore, consultation with USFWS is not required. Additionally, the project aims to further protect Blind Sodus Bay by installing breakwaters and re-establishing the eastern end of the barrier bar. The Coastal Barrier Resource Act (CBRA) imposes no restrictions on actions and projects within the CBRS that area carried out with state, local, or private funding.

As part of the preliminary design process, existing sediment transport conditions within the project area were evaluated. According to the U.S. Army Corps of Engineers' (USACE) Sediment Budget Analysis System (SBAS), the net

longshore sediment transport along the shoreline near the project area is to the east. The USACE SBAS shows no net deposition of material along the project shoreline, and a minimal volume of sediment being transported along the project shoreline (20,800 cubic yards per year).

The USACE SBAS data reflects sediment transport conditions for the formerly intact Blind Sodus Bay barrier bar (pre-eroded conditions). With the recent and continued erosion and degradation of the barrier bar, sediment from the west is now able to enter and deposit within Blind Sodus Bay and is lost from the littoral system. Installing the breakwaters and re-establishing the barrier bar will restore the historical sediment transport path along the barrier bar and allow for the transport to continue to the east along the Lake shore, thereby improving water quality in Blind Sodus Bay. Sediment transport is described in further detail in Appendix A.

2. Impacts on Geological Features

No impacts to geological features were identified. The proposed action will not result in the modification or destruction of, or inhibit access to, any unique or unusual landforms on the site (e.g., cliffs, dunes, minerals, fossils, caves).

3. Impacts on Surface Water

3.d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.

A wetland delineation was completed for the project area in December 2020 (no snow cover was present); no freshwater wetlands were identified. Aquatic resources present within the project area include Lake Ontario and Blind Sodus Bay. The portions of barrier bar re-establishment will be constructed along the historic barrier bar alignment between Lake Ontario and Blind Sodus Bay. The remnants of the eroded barrier bar can be seen from the bathymetric survey contours. The proposed breakwaters will be constructed slightly north of the historic barrier bar alignment due to steep slopes on the bed of the Bay that limit the constructability of these features along the former alignment. The breakwaters and barrier bar enhancement/re-establishment will result in approximately 90,000 CY of new material being placed within the project area. The proposed amount of fill is minimal compared to the total volume of the Lake, which is 393 cubic miles according to the U.S. Environmental Protection Agency. In addition, the barrier bar will be constructed of natural materials that will be consistent with existing materials found in the Lake bed and along the shoreline. It is a project objective to locally source the new gravel/rock/sand materials proposed for installation in the Lake and Bay.

The proposed barrier bar crest elevation will be finalized as design is progressed, but were modeled at an elevation of 250 feet IGLD85. At this crest elevation, the modeling results indicated the barrier bar would provide sufficient wave attenuation. The final crest elevation will be set above the elevation of the Ordinary High Water Elevation (OHWE) of Lake Ontario (247.3 feet IGLD85) and above the 2019 record high water level elevation of 249.3 feet IGLD85. The barrier bar crest elevation will balance performance of the structure (wave attenuation) with the aesthetics of the breakwater (visibility above the waterline), considering both low water and high water level conditions, and project cost. If additional funds become available, the barrier bar breakwaters to the west end of the site may be raised to a maximum height of 252 feet IGLD85, which would reduce maintenance and operation costs associated with the movement of gravel and cobble material on the lake side of these structures during extreme storm events. The barrier bar crest elevation was originally selected to match the height of the existing remaining portion of the barrier bar and to balance performance of the structure (wave attenuation) with the aesthetics of the breakwater (visibility above the waterline), considering both low water and high water level conditions, and project cost. The breakwaters and reconstructed barrier bar will result in a small loss of the current surface area in Lake Ontario and Blind Sodus Bay, however, the area above the OHWE will be similar to the extent of the former barrier bar before it eroded. The project is not anticipated to alter water quality or increase sedimentation long-term/post-construction; temporary increases of turbidity within the work area may occur during active construction but will be managed.

The project will require the following permits/approvals prior to construction:

- (USACE – Individual Permit under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act
- NYSDEC – Article 15 Protection of Waters (Excavation and Fill in Navigable Waters and Stream Disturbance); Article 34 Coastal Erosion Management; Section 401 Individual Water Quality Certification
- NYS Office of General Services (NYSOGS) – State-Owned Lands Under Water Permit and Easement
- NYS Department of State (NYSDOS) – Federal Coastal Consistency Concurrence
- Town of Wolcott – Local Floodplain Development Permit
- Town of Sterling – Local Floodplain Development Permit; Coastal Erosion Hazard Area Permit

The conditions of local, state, and federal permits will be followed during construction to ensure that adverse impacts to the Lake and Bay are minimized. The proposed fill within the Lake and Bay will be offset by the positive impacts that the restored barrier bar will have on Blind Sodus Bay. Wildlife habitat will be enhanced through the placement of natural and nature-based features along the barrier bar.

3.e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff, or by disturbing bottom sediments.

As discussed above, minimal excavation within the bed of Lake Ontario or Blind Sodus Bay is proposed. The placement of fill for the breakwaters and barrier bar enhancement/re-establishment and natural features (anchored woody habitat features, basking stones, sand and gravel fill, and native vegetation plantings) may temporarily disturb the bottom sediments of the Lake and Bay during placement. Erosion and sediment control details will be incorporated into the project's design plans, as appropriate, to minimize the release of suspended sediment from the immediate work area. Appropriate erosion and sediment controls will also be implemented at the construction staging area(s).

3.h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.

See response to 3.e, above. No disturbed sediments resulting from project construction are expected to migrate into Lake Ontario or Blind Sodus Bay beyond the immediate work areas.

4. Impacts on Groundwater

No impacts to groundwater were identified for the proposed project. The project will not involve the use of groundwater resources nor introduce contamination to groundwater or an aquifer.

5. Impacts on Flooding

5.b. The proposed action may result in development within a 100-year floodplain.

The project area is located within Lake Ontario and the 100-year floodplain of Lake Ontario and Blind Sodus Bay, as mapped by the Federal Emergency Management Agency's (FEMA). Digital floodplain data from FEMA is available for the Town of Sterling, which indicates that the base flood elevation for Lake Ontario is 249 feet IGLD85. According to the FEMA Flood Insurance Rate Map for the portion of the project area in the Town of Wolcott, the project area is

within the 100-year floodplain of Blind Sodus Bay and Lake Ontario, but a base flood elevation is not indicated on the map. FEMA is currently working on updating floodplain mapping for selected Lake Ontario communities, including Wolcott. FEMA's draft Coastal Work Map indicates a base flood elevation of 253 to 254 feet IGLD85 for Lake Ontario and 248 feet IGLD85 for Blind Sodus Bay.

The project will result in approximately 90,000 CY of fill within the Lake and Bay. The total volume of Lake Ontario is approximately 393 cubic miles. Comparatively, the proposed amount of fill is very minor and any changes to the flood flow storage capacity of the Lake will be *de minimis*. Local floodplain development permits will be obtained from the Towns of Wolcott and Sterling; conditions that they impose upon the project to avoid and minimize impacts to floodplains will be followed. The project is not anticipated to increase the amount of development within 100-year floodplain areas. Development in these mapped areas is managed by the Towns.

As discussed in Appendix A, the breakwaters and barrier bar enhancement/re-establishment will reduce wave velocity and subsequently reduce erosion along the shoreline of Blind Sodus Bay. It is emphasized that the project focuses on reducing erosion and will not address flooding within Blind Sodus Bay. Future high water events are projected to still occur.

6. Impacts on Air

No air permits will be needed for the construction or operation of the project. There will be an increase in fossil fuel consumption by heavy machinery during the construction period, however, this minor and temporary increase in vehicular and equipment emissions is not anticipated to have any measurable impact on local air quality.

7. Impacts on Plants and Animals

7.b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.

The proposed action is likely to have a small impact on the local flora and fauna. Efforts will be made to reduce impacts by limiting the construction zone to the smallest footprint required, and by following Federal and State guidelines related to ecological impacts and review processes.

The U.S. Fish and Wildlife Service (USFWS) New York Field Office's Information, Planning, and Consultation (IPaC) System was queried to determine whether any federally listed endangered, threatened, or candidate species are known to inhabit areas within the project area. The USFWS' IPaC System indicated that

there are no documented records of federally threatened or endangered species within the project area. The USFWS IPaC database for migratory birds includes observations of migratory birds within 10 km^2 blocks based on data obtained by the Avian Knowledge Network from field surveys and citizen science databases. Although not a component of the Section 7 consultation process with the USFWS under the federal Endangered Species Act, this database provides additional information regarding potential protected avian species presence within the project area. The Migratory Bird Report for the project area reported one New York State (NYS) endangered species, the golden eagle (*Aquila chrysaetos*), and one NYS threatened species, the bald eagle (*Haliaeetus leucocephalus*).

The New York Natural Heritage Program (NHP) was contacted for information regarding reports of state-listed endangered species, threatened species, species of special concern, or significant natural communities within or adjacent to the project area. A response received from the NHP on November 25, 2020 reported one New York State Listed species known to inhabit the project area, the spiny softshell turtle (*Apalone spinifera*), a species of special concern.

Additionally, a query of the NYSDEC's Nature Explorer website was completed to assess the potential presence of any rare species or natural communities reported for the project area. The Nature Explorer reported one species within the project area. This database reported the blackchin shiner, a rare species with a 1939 historically confirmed record.

A habitat assessment was completed in December 2020 to determine whether suitable habitat for any of the listed or rare species identified above were present within the project area. Site observations and recommended effect determinations for each reported species are summarized below.

Bald eagle

Bald eagles generally inhabit areas of open water with an abundant fish supply. Bald eagles nest in trees, usually choosing the tallest living tree with accessible branches in which to build a nest. Nesting locations are typically located within a forested area or edge location close to large bodies of water. Trees present along the intact barrier bar and the shoreline of Blind Sodus Bay. The trees remaining on the barrier bar are not large enough to support nesting habitat, but may provide suitable temporary perching and foraging habitat for the bald eagle. No documented bald eagle nests were reported within 660 feet of the project area. In addition, no bald eagles or nests were observed within the project area, and no tree clearing is proposed for the project. The existing trees on the intact portion of the barrier bar will be preserved. Therefore, the project

is not likely to adversely affect the bald eagle, and take of this species is not likely. The project is not expected to require a BGEPA permit form the USFWS or Part 182 Permit from the NYSDEC.

Golden eagle

Suitable habitat for the golden eagle, such as cliffs, grassland, or open shrubland, was not observed within or adjacent to the project area. The project area consists of the remaining barrier bar of Blind Sodus Bay, and open water of Lake Ontario and the adjoining portion of Blind Sodus Bay. Based on an absence of suitable habitat noted within the project's limits, the project is not likely to adversely affect the golden eagle. A BGEPA permit is not expected to be required for the project and take of this species is not likely.

Spiny softshell turtle

The spiny softshell turtle has been documented within the project area, as reported by the NHP. Suitable foraging habitat for the spiny softshell turtle includes lakes, bays, and rivers with a substrate that consists of soft mud or sand with little vegetation. The turtle buries itself under soft substrate, leaving their head exposed, and waits for prey to pass by. The spiny softshell turtle prefers to bask and nest on mudflats, sandbars, and floating vegetation mats. High quality nesting habitat for this species consists of a mix of sand and gravel above the OHWE that is not vegetated and has good sun exposure. Partially submerged rocks and logs are also used for basking. This species breeds from April to October and hibernates from November to March.

Areas of open sandy substrate that could provide suitable foraging habitat are present in Lake Ontario and Blind Sodus Bay. The spiny softshell turtle has been documented within the project site, as reported by the NHP. During preliminary design agency meetings the NYSDEC indicated that the spiny softshell turtle has been documented nesting on the western portion of the Blind Sodus Bay barrier bar (which has since eroded), and that the barrier bar is one of the few portions of the Blind Sodus Bay shoreline that provides suitable nesting habitat for this species (Carlson, 2021). The intact portion of the barrier bar as well as the eastern shoreline of the project area provide suitable nesting habitat for this species. Additional nesting habitat (areas of open sand and gravel substrate) will be incorporated into the breakwaters and barrier bar enhancement/re-establishment as part of the project. Woody habitat features and flat rocks will also be placed along the barrier bar and breakwaters to provide basking habitat. Therefore, the project may affect, but is not likely to adversely affect the spiny softshell turtle. One of the project objectives is to re-establish and enhance the

nesting and basking habitat that was once available to this species within the larger barrier bar alignment.

Blackchin shiner

Suitable habitat for the blackchin shiner was not observed within the project area. The fish species is dependent on habitats with abundant aquatic vegetation. Although work will take place within the open waters of Lake Ontario and Blind Sodus Bay, little to no aquatic vegetation was observed in the portions of the Lake and Bay that would be disturbed and are located within the project area. The project is not likely to adversely affect the blackchin shiner.

The proposed project will protect the Blind Sodus Bay shoreline, reducing the amount of wave energy that reaches the Bay during future storm events. The natural and nature-based features to be incorporated into the barrier bar and breakwater features is intended to provide additional and enhanced wildlife habitat, as discussed in Appendix A. Appropriate documentation and coordination will be completed during project permitting to ensure that potential impacts to state and federal listed species are minimized to the extent practicable.

7.d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.

See response to 7.b, above.

7.g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.

See response to 7.b, above. The predominant wildlife species that occupy the project area include a variety of fish and shorebirds as well as other aquatic species. Although the project will result in approximately 90,000 CY of material installation within the project area, this change is not expected to adversely affect nesting or foraging opportunities for species that utilize the project area. In fact, the breakwaters and re-established/enhanced barrier bar will restore habitat that was recently lost due to high water levels and storm events, providing great benefit to the wildlife that utilize this area of the Bay. The project will not affect freshwater wetlands or known and intact sensitive nesting areas for protected species. Although temporary impacts to existing aquatic habitats and disturbances to the substrate of Lake Ontario and Blind Sodus Bay will occur during construction, long-term and permanent adverse impacts to habitat availability and quality are not expected. The addition of various natural

and nature-based features (including turtle nesting habitat, woody habitat features, basking rocks, and native vegetation plantings) will enhance the habitat components present within the project area.

The population of double-breasted cormorants has rapidly increased throughout the Great Lakes region over the last few decades. Cormorants are present within the project area and utilize the barrier bar in large numbers. The cormorants have caused significant damage to the remaining vegetation. The County SWCD may continue to consult with the USFWS, NYSDEC, and other wildlife management groups to determine potential cormorant management options to protect vegetation on the re-established barrier bar.

8. Impacts on Agricultural Resources

No impacts to agricultural resources were identified. The project area is not within a certified agricultural district, and does not contain any active agricultural land.

9. Impacts on Aesthetic Resources

9.a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.

The portions of barrier bar re-establishment will be constructed along the historic barrier bar alignment between Lake Ontario and Blind Sodus Bay. The remnants of the eroded barrier bar can be seen from the bathymetric survey contours. The proposed breakwaters will be constructed slightly north of the historic barrier bar alignment due to steep slopes on the bed of the Bay that limit the constructability of these features along the former alignment. Construction activities will be visible to local residents along the immediate east and west shorelines of Blind Sodus Bay and nearby portions of Lake Ontario, as well as to people recreating within the Lake and Bay. Construction will likely be completed from a barge within the Lake and Bay, and some project components may be constructed by equipment operating on shore at the east and west mainland points (privately-owned lands). The reconstructed barrier bar will be reconstructed to a top elevation of approximately 250 feet IGLD85, and the breakwaters will have a top elevation between 250 and 252 feet IGLD85, which is 2.7 to 4.7 feet above the OHWE (247.3 feet IGLD85). The final crest elevation will be determined during design development. The minimum crest elevation of 250 feet IGLD85 was selected to match the intact portion of the barrier bar and to maximize wave attenuation for protection of the Blind Sodus Bay shoreline. After construction, visual conditions will be similar to conditions that existed when the entire barrier bar was intact.

Average Lake Ontario water levels between July 2017 and August 2021 are summarized in Table 2, below. Data were obtained from the U.S. Geological Survey (USGS) water level gages in Fair Haven and Sodus Point, New York. The Fair Haven gage is 0.7 miles east of the project area, and the Sodus Point gage is the next closest gage (12.9 miles west of the project area). The Fair Haven gage only reported water level data beginning in October 2019, therefore, data from July 2017-September 2019 were obtained from the Sodus Point gage to assess the average water level fluctuations over the last 4 years. For comparison purposes, the amount of the breakwaters and reconstructed barrier bar that would be visible under these water level conditions is also summarized in Table 2. Based on recent water level data, up to 7.3 feet of the top of the breakwaters (based on a crest elevation of 252 feet IGLD85) and 5.3 feet of the top of the barrier bar (based on a 250 foot IGLD85 crest elevation) would be visible during low water conditions (generally the late fall and winter months of each year). The breakwaters and barrier bar would be less visible but not submerged during high water conditions. The materials to be used are similar to the historic barrier bar and to the nearby Lake Ontario shoreline. The project will not diminish the use and/or enjoyment of Lake Ontario, Blind Sodus Bay, and the recreational opportunities these resources offer for the public and local communities. Blind Sodus Bay property owners have been consulted throughout the preliminary design process. Project information and updates have been posted on social media and the ESRI Storymap Project Website to keep residents informed, and resident feedback has been considered during the project's design phase.

Table 2. Recent Lake Ontario Water Levels and Extent of Breakwaters and Barrier Bar Visibility

Year	Date Range	Average Lake Ontario Water Level* (feet, IGLD85)	Amount of breakwaters/barrier bar visible based on crest elevation of 250 feet IGLD85** (feet)	Amount of breakwaters/barrier bar visible based on crest elevation of 252 feet IGLD85** (feet)
2017	July-September	247.1	2.9	4.9
	October-December	245.3	4.7	6.7
2018	January-March	245.5	4.5	6.5
	April-June	246.4	3.6	5.6
	July-September	245.6	4.4	6.4
	October-December	244.8	5.2	7.2
2019	January-March	245.7	4.3	6.3
	April-June	247.8	2.2	4.2
	July-September	247.6	2.4	4.4
	October-December	246.2	3.8	5.8
2020	January-March	246.6	3.4	5.4
	April-June	247.2	2.8	4.8
	July-September	246.3	3.7	5.7

Table 2. Recent Lake Ontario Water Levels and Extent of Breakwaters and Barrier Bar Visibility

Year	Date Range	Average Lake Ontario Water Level* (feet, IGLD85)	Amount of breakwaters/barrier bar visible based on crest elevation of 250 feet IGLD85** (feet)	Amount of breakwaters/barrier bar visible based on crest elevation of 252 feet IGLD85** (feet)
	October-December	245.0	5	7
2021	January-March	244.7	5.3	7.3
	April-June	245.1	4.9	6.9
	July-August	245.6	4.4	6.4

**Water level data obtained from USGS water level gages in Sodus Point, New York (July 2017-September 2019) and Fair Haven, New York (October 2019-August 2021).*
***Note: final crest elevation to be determined during later design stages.*

During normal and low water conditions, the breakwaters and barrier bar may be visible from West Barrier Bar County Park, which is approximately 2,000 feet east of the project area. Fair Haven Beach State Park is located approximately 1-mile east of the project area, and the Lake Shore Marshes State Wildlife Management Area is located approximately 1-mile southwest of the project area. The breakwaters and barrier bar are not likely to be visible from Fair Haven Beach State Park or the Lake Shore Marshes State Wildlife Management Area due to their distance from the project area and the shoreline geometry.

9.c. The proposed action may be visible from publicly accessible vantage points:

i. Seasonally (e.g., screened by summer foliage, but visible during other seasons)

ii. Year-Round

See response to 9.a., above. The upper portion of the breakwaters and barrier bar are likely to be visible year-round during normal and high water conditions. The portion of the barrier bar to be re-established (in the eastern portion of the project area) will be constructed along the historic barrier bar alignment. The breakwaters will be constructed nearby but slightly north of the former barrier bar alignment. Visual conditions are intended to be similar to what they were before the former barrier bar was eroded in 2017.

9.d. The situation or activity in which viewers are engaged while viewing the proposed action is:

i. Routine travel by residents, including travel to and from work

ii. Recreational or tourism based activities

See response to 9.a., above. The project will primarily be visible to viewers engaging in recreational or tourism-based activities, however, the project will restore similar visual conditions that were present before the former barrier bar was eroded. The Blind Sodus Bay and nearby Lake Ontario shorelines primarily consist of seasonal residences.

9.e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.

See response to 9.a, above.

9.f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile, ½-3 miles, 3-5 miles, or 5+ miles.

The portions of the barrier bar to be re-established will be constructed along the historic barrier bar alignment. The breakwaters will be constructed slightly north of the historic barrier bar alignment. The former barrier bar was intact until it started to erode from high water levels in 2017. The barrier bar was further eroded over the last several years due to high water and storm events. Therefore, the breakwaters and barrier bar will not result in a significant visual change in the local viewshed. The breakwaters and barrier bar will be designed similar to the Fair Haven west barrier bar (located immediately east of the project area), which consists of a natural cobble beach along the shore of Lake Ontario. The breakwaters will also be designed similar to the Crescent Beach REDI project, which involves the construction of barrier rock breakwaters in Lake Ontario approximately 12 miles west of the Blind Sodus Bay project area.

The breakwaters and barrier bar would be constructed of natural materials, similar to the existing rocky shoreline of Lake Ontario near the project area. Based on recent water level data, the upper 5.3 to 7.3 feet of the breakwaters and barrier bar may be visible during low water conditions, as described in 9.a and Table 2, above. The minimum top elevation (250 feet IGLD85 to 252 feet IGLD85, to be finalized during design development) of the breakwaters and barrier bar was selected to match the existing intact portion of the barrier bar and to maximize wave attenuation to protect properties along the Blind Sodus Bay shoreline. The breakwaters and barrier bar are not expected to result in a significant adverse change to the local viewshed.

10. Impacts on Historic and Archeological Resources

10.b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.

The project was submitted to the SHPO for review through the Cultural Resource Information System (CRIS) in January 2021. The project area is located within an archaeologically sensitive area. SHPO issued a letter on February 11, 2021, indicating their opinion that the project would not affect any historic or archaeological resources. No further consultation with the SHPO is required.

11. Impacts on Open Space and Recreation

11.b. The proposed action may result in the loss of a current or future recreational resource.

Lake Ontario and Blind Sodus Bay are used for a variety of recreational purposes including boating, fishing, hunting, and swimming. The breakwaters and barrier bar will result in approximately 90,000 CY of fill within the project area of Lake Ontario and Blind Sodus Bay. The total volume of Lake Ontario is approximately 393 cubic miles; the proposed amount of fill is minimal in comparison. The proposed breakwaters and barrier bar are not expected to alter the recreational opportunities that are currently provided by the Lake and the Bay. The proposed design includes establishment of a formal navigational channel to maintain access between Blind Sodus Bay and Lake Ontario. The navigational channel will be constructed near its historic location. Proper navigational markers and aids will be installed in accordance with local, state, and federal permit conditions, to maintain public safety. Temporary restrictions to recreational opportunities within the project area may be required during construction. Construction is expected to commence in the Spring of 2022 and extend through the end of 2022. A navigational channel between the Lake and the Bay will be maintained throughout construction to allow recreational access between the two waterbodies. Additionally, in-water work is prohibited between May 15 and June 30 to protect spawning smallmouth bass and rock bass. A variance may be sought from the NYSDEC to alter those restricted timeframes, if needed to support construction. No permanent or long-term restrictions to recreational activities are expected to result from the project.

12. Impacts on Critical Environmental Areas

No impacts to Critical Environmental Areas were identified. There are no Critical Environmental Areas within or near the project area.

13. Impacts on Transportation

No impacts on transportation were identified. Work will be restricted to the barrier bar location between Lake Ontario and Blind Sodus Bay and the adjacent shorelines.

14. Impacts on Energy

No impacts to energy were identified. The project does not involve new construction or improvements involving an increase in energy usage.

15. Impacts on Noise, Odor, and Light

15.a. The proposed action may produce sound above noise levels established by local regulation.

Ambient noise levels will be exceeded temporarily during construction. Excess noise will be limited to weekday, daylight hours as much as possible to minimize adverse impacts on the community and nearby receptors. Elevated noise conditions will be temporary and will end once construction is complete. No long-term impacts to noise levels are expected to result from the project.

15.f. The barrier bar will require navigational marker lights, which will be placed offshore (Lakeward) of the breakwaters and barrier bar.

Though the details are still being confirmed with the U.S. Coast Guard, the breakwaters and barrier bar project is anticipated to require navigational markers to warn incoming watercraft from Lake Ontario about the locations of the installed features. Markers are expected to consist of flashing amber lights mounted on buoys that would be placed offshore (Lakeward) of the breakwaters and barrier bar. The lights would be similar to existing navigational markers in Lake Ontario. While they may be visible from the shoreline, they are not expected to shine onto nearby properties. Additionally, the breakwaters and barrier bar are expected to extend approximately 2-5 feet above the water depending on the time of year, and will aid in screening the offshore lights from properties located along the Blind Sodus Bay shoreline.

16. Impacts on Human Health

No impacts to human health were identified. The project area is not located within the vicinity of any sensitive receptors (such as a school, group home, or daycare facility), and there are no reported contaminant spill records or remediation sites within or near the project area.

17. Consistency with Community Plans

No impacts were identified. The proposed action is consistent with existing Community Plans.

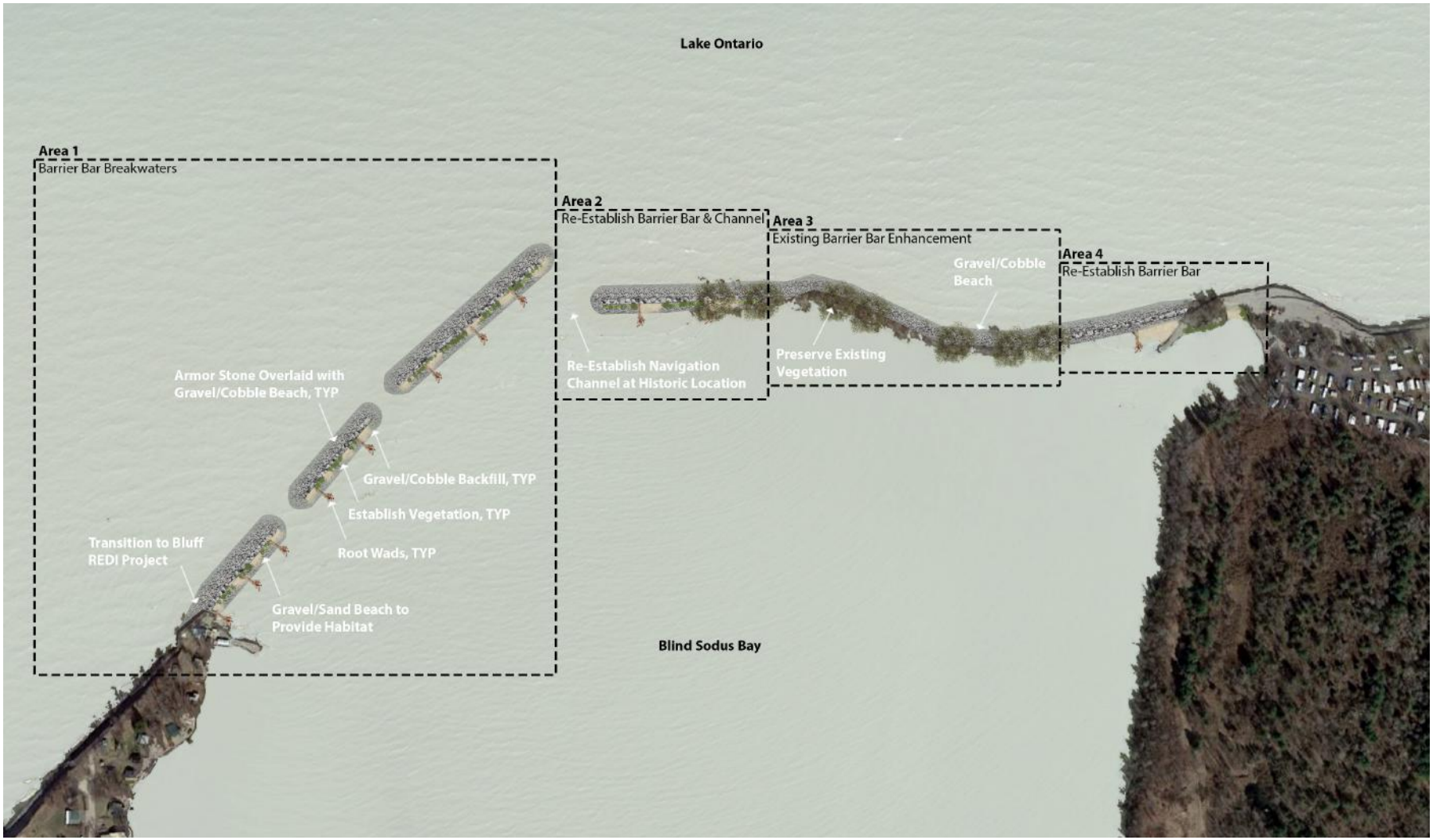
18. Consistency with Community Character

18.d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.

The breakwaters and barrier bar enhancement/re-establishment will result in approximately 90,000 CY of fill within project area. The Lake and Bay are used for a variety of recreational purposes including boating, fishing, hunting, and swimming. The barrier bar materials will likely be placed from a barge within the Lake or Bay. Some project components may also be constructed from equipment operating on the shore. During construction, recreational activities within the project area may be temporarily restricted to maintain public safety as well as safe working conditions and access for the contractor. A navigational channel between the Lake and the Bay will be maintained throughout construction to allow recreational access between the two waterbodies. Access to the area will be fully restored upon completion of construction. Multiple public outreach efforts have been completed to date, and these efforts will continue to ensure that residents are informed of the project schedule.

Figures

DRAFT



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ANCHOR QEA

Figure 1
Proposed Barrier Bar Layout
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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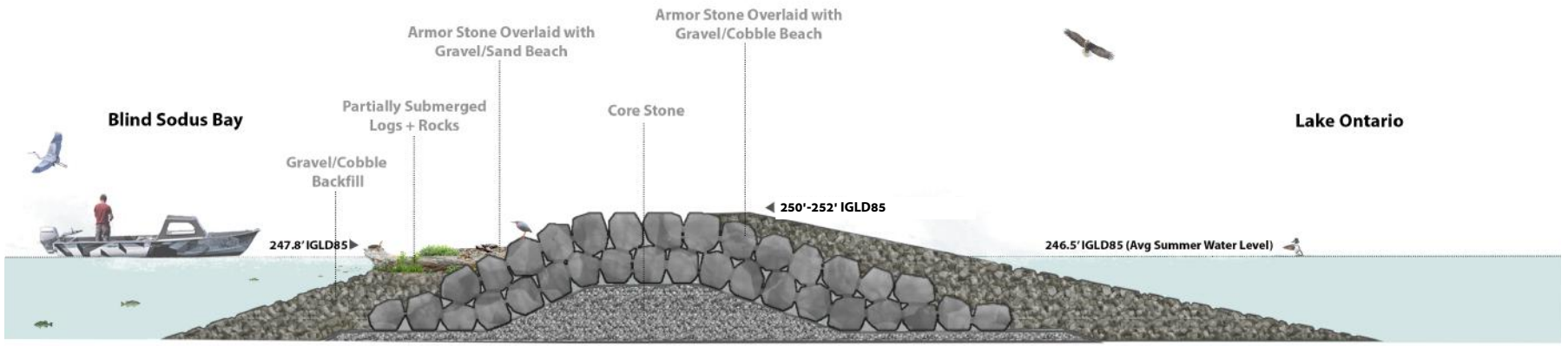

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ANCHOR QEA

Barton & Loguidice

Figure 2
Proposed Barrier Bar Breakwater Section
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

Appendix A

Basis of Design Report

60% Basis of Design Report

Blind Sodus Bay Barrier Bar REDI Project

Town of Wolcott and Town of Sterling
Wayne County and Cayuga County, New York

Prepared For

Wayne County

Soil & Water Conservation District

7312 Route 31
Lyons, NY 14489

August 2021

Barton&Loguidice

Blind Sodus Bay Barrier Bar REDI Project
Town of Wolcott
Wayne County, New York

Basis of Design Supplemental Information

August 2021

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1.0 INTRODUCTION

This document presents basis of design information for the proposed Blind Sodus Bay Barrier Bar project, which is being undertaken by the Wayne County Soil & Water Conservation District. The project is funded under the Resiliency and Economic Development Initiative (REDI). This report was developed to support the State Environmental Quality Review Act (SEQRA) and permitting processes. The project is located on the southern shore of Lake Ontario in the Town of Wolcott, Wayne County and Town of Sterling, Cayuga County, New York. It is anticipated that the project will require the following permits:

- U.S. Army Corps of Engineers, Buffalo District:
  - Section 10 and Section 404 Individual Permit
- New York State Department of Environmental Conservation:
  - Section 401 Individual Water Quality Certification
  - Article 15 Excavation and Fill in Navigable Waters and Stream Disturbance Permit
  - Article 34 Coastal Erosion Management
- New York State Department of State:
  - Federal Coastal Consistency Concurrence
- New York State Office of General Services:
  - State-Owned Lands Underwater Permit and Easement
- Town of Wolcott:
  - Local Floodplain Development Permit
- Town of Sterling:
  - Coastal Erosion Hazard Area Permit
  - Local Floodplain Development Permit

2.0 PROJECT OVERVIEW AND OBJECTIVES

2.1. Existing Conditions

Blind Sodus Bay is located on Lake Ontario in Wayne County, New York between Port Bay to the west and Little Sodus Bay to the east. There are approximately three miles of shoreline along Blind Sodus Bay, which is predominantly occupied by seasonal residences or vacant land. Until recently, the Bay was protected from Lake Ontario by a barrier bar that was approximately 0.6 miles in length. The barrier bar is owned by New York State Office of General Services (NYSOGS) and had one channel located on the eastern end of the Bay to provide watercraft access to and from Lake Ontario. The barrier bar has historically separated and protected Blind Sodus Bay from wind, wave, and ice forces on Lake Ontario, and provided an isolated ecosystem.

Barrier bars are dynamic features, and geomorphic change of a barrier bar within its coastal environment is a natural process. In the absence of a replenishing sediment supply, barrier bars are susceptible to recession and/or deterioration due to wave and current erosion, overtopping (which may in turn trigger "rollover" of the bar, a process whereby material is transported from the front of the bar to the backside), and breaching – all of which are accelerated at higher water levels. As discussed in Pinet, et al. (1992), low-lying barrier bars on the southeastern shore of Lake Ontario have been actively migrating landward in recent decades.

Due to record high water levels and wave action in Lake Ontario over the past several years, the Blind Sodus Bay barrier bar has significantly deteriorated in length and width. What was once almost three-quarters of a mile of barrier bar has been reduced to approximately one-quarter of a mile, with breaches both on the west and east end of the site. The deterioration of the barrier bar has left the shoreline of Blind Sodus Bay susceptible to wind and wave action from Lake Ontario causing damage to shoreline properties, damage to mature trees and vegetation on the barrier bar, interrupting sediment transport, and impacting water quality in the Bay through sediment accumulation. In addition, the relocation of the channel to the east side of the barrier bar , assumed by various anecdotes by residents to have been moved east of its original location for anticipated recreational demands and potentially easier maintenance access, has in turn resulted in increased maintenance demands including bi-annual dredging. In addition, the loss of trees and vegetation along the barrier bar further reduce the overall structural integrity of the barrier bar and makes the barrier bar more susceptible to continued erosion. Future erosion associated with high water levels would likely widen the existing breaches and reduce the minimal remaining segment of barrier bar.

2.2. Sediment Transport

According to the U.S. Army Corps of Engineers' (USACE) Sediment Budget Analysis System (SBAS), the net longshore sediment transport along the shoreline in the vicinity of the project area is to the east (USACE 2021a). This directionality is expected since the predominant wind and wave directions are from the westerly direction, and the sediment transport patterns align

with the longer fetch distances across Lake Ontario. The USACE SBAS indicates that there is minimal sediment moving through the project area because there is only a small amount of sediment supplied to the system west of the project area (i.e., the system is "sediment starved"). In addition, the sediment supplied to the system due to bluff erosion to the west of the project site is expected to be reduced because of a project currently being constructed that will install shoreline protection and harden the shoreline west of the site.

The USACE SBAS also shows no net deposition of material along the project shoreline, and a minimal volume of sediment being transported along the project shoreline (20,800 cubic yards per year). Baird (2011) states that active nearshore sediment transport extends to a depth of approximately six meters (20 feet). Previous USACE projects have delineated a nearshore placement zone that extends beyond the 11 feet below Low Water Datum contour.

The USACE SBAS data reflects sediment transport conditions with the Blind Sodus Bay barrier bar from when it was intact (i.e., pre-eroded conditions). With the erosion and degradation of the barrier bar, sediment from the west is now able to enter and deposit within Blind Sodus Bay and is not continuing to the east (i.e., sediment is being lost from the littoral system). As described in subsequent sections, the proposed project aims to reestablish the eroded Blind Sodus Bay barrier bar. Re-establishing the barrier bar will re-establish the historical path for sediment to be transported along the barrier bar and continue in the system to the east.

2.3. Ice

Ice formation on Lake Ontario can impact the shoreline during the winter months, with the most extensive ice cover generally confined to the eastern end of the lake. Typically, ice begins to form in the shallow, nearshore areas (e.g., bays at the eastern end of the lake and approaches to the St. Lawrence River) during the first week of January, with maximum ice cover occurring in early to mid-February. Break-up of the ice normally starts in late February with the lake becoming mostly open water in late March. Ice coverage on the lake generally ranges from 10 to 40% but can reach up to 80% depending on the severity of the winter. In the sheltered bays, ice thicknesses typically range from 8 to 24 inches. However, processes such as ridging, rafting, and hummocking can significantly increase these thicknesses (Canadian Ice Service 2010).

2.4. Wildlife

The predominant wildlife species that occupy the project area include a variety of fish and shorebirds as well as other aquatic species. The population of double-breasted cormorants has rapidly increased throughout the Great Lakes region over the last few decades. Cormorants are present within the project area and utilize the barrier bar in large numbers. The cormorants have caused significant damage to the remaining vegetation.

2.5. Project Objectives

The primary objectives of the Blind Sodus Bay Barrier Bar Project are to return the barrier bar to its historical separation location, reduce sediment deposition in the Bay and improve longshore sediment transport along the lakeshore, incorporate natural and nature-based features, and minimize future maintenance needs of the selected alternative. The following section provides an overview of the conceptual design alternatives considered for the shoreline stabilization system, and the approach for selecting, evaluating, and refining the design for the preferred alternative.

3.0 ALTERNATIVES ANALYSIS

3.1. Alternatives Considered

A Preliminary Engineering Report was completed for the project in March 2020 by Ramboll. Existing conditions data related to the barrier bar and the alternative analysis were used as a base point for design development. Multiple alternatives including the no action alternative, the nature-based barrier bar alternative design concept, reef breakwater, and nature based features from this Report were referenced in the development of three project alternatives. These three alternatives follow the recommendation proposed in the Report for a combination of approaches that are adaptive to the coastal setting of the barrier bar to the east and west. Each alternative predominantly focuses on re-establishing the barrier bar to the west along the historical alignment, closing the breach that has formed on the east side of the barrier bar, and relocating the channel to its historic location. The alternatives considered below involve various approaches combining the breakwater structures, barrier bar re-establishment, and channel. See Figure 1 for conceptual alternatives.

- No Action
- Continuous barrier bar re-establishment with structured channel in historic location
- Barrier bar breakwaters with structured channel in historic location and closure of the eastern breach
- Barrier bar breakwaters, re-establishment, and enhancement with naturalized channel and sediment deflection in historic location, and sediment deflection in current channel location

These alternatives were evaluated based on wave attenuation performance, protection of the Bay, cost efficiency, constructability, and environmental impacts. The no action alternative, as highlighted in the Preliminary Engineering Report, is not considered a viable option because of the recession of barrier bar each year and because the system is not anticipated to recover naturally. The barrier bar breakwaters, re-establishment, and enhancement with a naturalized channel and sediment deflection in the historical location was selected as the preferred alternative because it balances performance with cost efficiency as compared to the continuous barrier bar establishment, and allows for adaptive improvements site-wide. This alternative

reduces the wave energy entering the Bay and its eastern shoreline, re-establishes the barrier bar alignment closely with the historical alignment, and restores sediment transport along the shoreline. In addition, the gaps in the segmented design allow more water circulation and exchange compared to the continuous breakwater. The naturalized channel is expected to require less maintenance dredging as compared to the structured channel, and improves the aesthetic and ecological aspects of this gap in the barrier bar.

3.2. Preferred Alternative Conceptual Design Components

The preferred alternative is illustrated in Figure 1. The development of the preferred alternative included focusing on certain key areas of the site to determine what level of additional protection and/or other features were needed to balance performance with cost efficiency (See Figure 2. These areas are, in order of project priority, barrier bar re-establishment with breakwaters to the west (Area 1), the barrier bar re-establishment to close the gap on the eastern portion of the site (Area 4), relocation of the channel to its historic orientation (Area 2), and barrier bar enhancement (Area 3).

Barrier bar re-establishment on the west end of the project site involves the placement of rock material in a breakwater structure. The barrier bar breakwaters are located slightly north of the historical alignment due to steep slopes on the bed of the Bay that would influence the breakwaters' stability along the former barrier bar alignment. The barrier bar segments will consist of core stone overlaid with armor stone, which is then overlaid with gravel and cobble on both the Lake and Bay side (See Figure 3). The gaps between barrier bar breakwaters will be wide enough between segments to promote water circulation and exchange without compromising their ability to reduce wave energy entering the Bay, especially from the West-Northwest wind direction. The bayside of the breakwaters will become a zone of calmer wave energy, while the lakeside of these structures will promote sediment transport and improve wave attenuation and stability. Gravel and cobble materials will be placed on the lakeside of the breakwaters, the re-established barrier bar, and the existing barrier bar, which is characteristic of the Great Lakes and similar to conditions exhibited east of the project site at Fair Haven. Gravel and cobble materials will also be placed on the bayside of the breakwaters to not only stabilize the restored barrier bar, but also serve as a substrate to incorporate wildlife habitat improvements compared to existing conditions.

Various types of natural and nature-based features will be strategically located throughout the project site, which will enhance habitat for a diverse range of species. These features also contribute to the naturalized aesthetic of the barrier bar re-establishment. Natural and nature based features are described in Section 6 of this report.

For the relocation of the channel, input from the public and the Blind Sodus Bay Improvement Association indicated a preference for relocating the channel to an area that would alleviate the need for frequent dredging. Therefore, the channel will be relocated close to its historical

location in the central portion of the project site, as seen in the historical images in 1938 and 1954 included as Figure 4 and oriented similar to the historical channel. The proposed breakwaters to the west of the proposed channel extends out into the lake to protect the channel from sediment accumulation, and promote sediment transport along the lakeside of the barrier bar. While the original preferred design shows a structure deflecting debris from the existing channel, the updated concept removes this feature since public input indicated preference for de-commissioning this channel and letting it fill in.

The remaining portion of the barrier bar will be enhanced through the placement of gravel and cobble on the lakeside (Area 3, Figure 2). The gravel and cobble fill will reduce the existing slope on the lakeside, which will stabilize and improve resiliency of the existing barrier bar, provide smooth transitions between each approach to shoreline protection.

The preferred conceptual design has minimal impact on private property due to public ownership of the barrier bar (NYSOGS). Permanent easements will be needed from the two private property owners to the east and west of the site. Construction will take place both from the Lake for the construction of the breakwaters and from the shoreline for the re-establishment of the east side of the barrier bar and enhancement of the existing bar. The adjacent assets were also considered in the conceptual design of the preferred alternative. The westernmost breakwater will connect into the retaining wall that is being constructed as part of the Wayne County SWCD's Bluffs REDI Project (which is separate from the Blind Sodus Bay REDI project). The Bluffs REDI project is currently being designed by MRB Group. The breakwater will connect into the Bluffs REDI Project's retaining wall via a surface level transition of gravel and cobble beach material on the lakeside. The eastern re-established barrier bar will tie into the existing beach at the Shady Shores RV Resort. While re-establishing the barrier bar, the transitions between new and existing structures on site will be smooth with the placement of gravel and cobble fill material.

The preferred conceptual design has low long-term maintenance requirements, as maintenance activities tend to involve rearrangement of rocks or additional vegetation plantings (NOAA, 2015). The proposed barrier bar re-establishment and enhancement features are expected to have a minimum service life of 30 years. A monitoring and maintenance plan will be provided as part of the final design deliverables.

The County SWCD may continue to consult with the USFWS, NYSDEC, and other wildlife management groups to determine potential cormorant management options to protect vegetation on the re-established barrier bar.

4.0 COASTAL MODELING ANALYSIS

4.1. Model Description

Coastal modeling analysis was performed to evaluate existing wave and hydrodynamic conditions along the Blind Sodus Bay barrier bar and the performance of the preferred shoreline stabilization alternative of re-establishing the barrier bar. The coastal modeling analysis was performed using a two-dimensional (2-D) coupled hydrodynamic and wave model to simulate nearshore wave and hydrodynamic conditions under a variety of meteorological conditions ranging from typical conditions to extreme storm events. The Delft3D Flexible Mesh Suite was the numerical model selected for these simulations. The model was developed and supported by Deltares and validated for use in riverine, estuarine, and open coast hydrodynamic systems. Wave transformation modeling was performed with the 2-D Delft3D-WAVE (WAVE) model. The WAVE model is based on the Simulating Waves Nearshore (SWAN) model. The SWAN model was developed by the University of Delft and includes all relevant wave processes, such as refraction, shoaling, diffraction approximated by directional spreading of the phase-averaged waves, and wave breaking. The hydrodynamic modeling was performed with the 2-D version of the Delft3D-FLOW Flexible Mesh (FLOW) model.

The WAVE and FLOW model grid domains used for the numerical modeling analysis covered Lake Ontario as well as Blind Sodus Bay and the nearshore area near the Blind Sodus Bay barrier bar. The resolution of the model grids was spatially variable, with local refinement in the nearshore area to represent the detail of the project area and the shoreline stabilization alternatives evaluated. The WAVE and FLOW model grids are shown in Figures 5 and 6.

4.2. Modeling Approach

Three types of simulations were performed with the coupled WAVE and FLOW model to simulate a range of nearshore wave and hydrodynamic conditions at the site: (1) typical conditions, (2) return period storms, and (3) a recent extreme event.

1. *Typical conditions*

   The purpose of the typical condition simulations was to evaluate wave conditions and flow patterns associated with the prevailing wind and wave directions that frequently impact the site, at a water level typical of recent (2017 to 2019) measurements in Lake Ontario.

2. *Return period storms*

   The purpose of the return period storm simulations was to evaluate storm waves and flow patterns associated with the prevailing wind and wave directions that could impact the site at return periods ranging from 1 year to 100 years under a range of potential lake levels, including the record peak lake level that occurred in 2019. For reference, the

USACE typically uses a 20-year design return period for similar projects in Lake Ontario, including the Braddock Bay project (USACE 2015).

3. *Recent extreme event*

   The purpose of the recent extreme event simulation was to evaluate storm waves and flow patterns associated with an actual recent extreme event, in addition to the more statistical-based return period storm simulations. The event selected for this simulation was the Halloween 2019 storm, which produced significant rainfall, flooding, and damaging winds across the eastern Great Lakes region on October 31 and November 1, 2019.

Model grid bathymetry and topography were based on several data sources including a survey of the project area performed in November 2020, and elevation data sets published by USACE, NOAA, and FEMA. The prevailing wind and wave directions that impact the site were determined from the wind and wave roses at USACE Wave Information Studies station 91051 (located approximately 2 miles northwest of Blind Sodus Bay) to be west-northwest and north-northeast (USACE 2021b). The typical, 1-year, and 100-year wind speeds were estimated from the hourly wind record at National Data Buoy Center (NDBC) station 45012, located near the center of Lake Ontario approximately 40 miles northwest of the site (NOAA NDBC 2020). The recent typical and 2019 peak Lake Ontario water levels were based on the hourly water level record at NOAA station 9052030, Oswego, NY, located approximately 15 miles northeast of the site. The typical recent Lake water level used was taken to be the median water level from 2017 to 2019 measurements at NOAA station 9052030. The winds and water levels used for the Halloween 2019 storm were based on the measurements at NDBC station 45012 and NOAA station 9052030 during the simulation period from October 31 to November 2, 2019. Tables 1 and 2 below summarize the conditions used in the coastal modeling analysis simulations. The range of water levels evaluated was considered appropriate to account for uncertainties in potential future Lake Ontario level trends.

Table 1. Wind Speeds for Model Simulation Scenarios

Wind Direction	Typical (mph)	1-year (mph)	100-year (mph)
West-Northwest	12	32	52
North-Northeast	10	24	49

mph: miles per hour

Table 2. Water Levels for Model Simulation Scenarios

Scenario	Water Level (feet, IGLD85)
Typical	246.2
2019 Peak	249.3

IGLD85: International Great Lakes Datum of 1985

4.3. Model Results – Existing Conditions

Table 3 below summarizes the range of existing conditions wave heights and current velocities in the nearshore area along the historical Blind Sodus Bay barrier bar alignment for the range of conditions simulated.

Table 3. Wave Model Results Summary – Existing Conditions

Scenario	Wave Height (feet)	Current Velocity (fps)
Typical	0.3 to 1.7	0 to 0.7
1-year	1.0 to 5.1	0.1 to 3.2
100-year	1.2 to 5.9	0.2 to 3.5
Halloween 2019	1.5 to 4.0	0.1 to 2.4

fps: feet per second

The model results for the typical conditions show smaller wave heights that would not be expected to cause significant erosion of the barrier bar. However, as shown in Table 3, the range of wave heights from the 1-year return period storm are in a similar range as the wave heights from the 100-year return period storm. These results indicate that larger offshore waves generated by larger storm events become depth limited as they approach the Blind Sodus Bay barrier bar. The modeled wave heights for both the 1-year and 100-year storm events would be expected to cause significant erosion of the barrier bar. Similarly, Table 3 shows that the Halloween 2019 storm also had wave heights and current velocities in the nearshore environment in a similar range as the 1-year and 100-year storm events. The model results confirm that storm events that occur on an annual basis can cause significant erosion to the barrier bar. Additionally, the possibility of higher frequencies of elevated lake levels in the future would result in deeper water depths that would allow larger waves to impact the shoreline more frequently and result in higher rates of erosion of the barrier bar than what has occurred historically. The model results confirm why these conditions caused the barrier bar to experience accelerated erosion and breaching in recent years (2017 to 2020).

The wave results also confirm that the no action alternative would not be viable option to achieve the project objectives of protecting Blind Sodus Bay. Under a no action alternative the waves and currents from Lake Ontario would continue to act, unmitigated, on the existing remaining portions of the barrier bar and the interior shorelines along Blind Sodus Bay. The erosion that has occurred at the Blind Sodus Bay barrier bar is expected to continue during future storm events, and the properties within Blind Sodus Bay would remain at risk of being damaged or lost. As the barrier bar has eroded, Blind Sodus Bay is no longer protected from debris, ice, and waves from Lake Ontario, and those forces are able to enter the Bay unimpeded, which has caused structural damage and erosion along the shoreline of the Bay. Before it was eroded, the Blind Sodus Bay barrier bar previously provided critical wildlife habitat. Specifically,

the spiny softshell turtle (*Apalone spinifera*, a NYS species of special concern) was previously documented nesting on the portion of the barrier bar that is proposed to be re-built. The barrier bar is one of the few areas of the Blind Sodus Bay shoreline that provides suitable nesting habitat for this species (Carlson, 2021).

4.4. Barrier Bar Alignment and Geometry

The selected alternative to re-establish the Blind Sodus Bay barrier bar consists of four main project areas intended to either re-establish the eroded barrier bar along its historical alignment or enhance the remaining eastern portion of the barrier bar. The proposed alignment and project area boundaries are shown on Figure 2. Areas 1, 2, and 4 all consist of re-establishing the barrier bar using large, mounded rock and placing gravel and cobble material on both sides of the barrier bar. Area 3 consists of enhancing the existing remaining portion of the barrier bar by placing additional gravel cobble material along that portion of the barrier bar. Re-establishing and enhancing the historical Blind Sodus Bay barrier bar alignment is intended to attenuate incoming wave energy and reduce the erosive forces acting on the shorelines within Blind Sodus Bay.

Functionally, the re-established and enhanced barrier bar will act as a nearshore breakwater system, as described in the USACE Coastal Engineering Manual. Nearshore breakwaters are generally shore-parallel structures that are detached from the shoreline and reduce the wave energy that reaches a protected area (USACE 2006). As stated in the Coastal Engineering Manual, the primary objectives of nearshore breakwater systems are to "increase the fill life (longevity) of a beach fill project, provide protection to upland areas from storm damage, provide a wide beach for recreation, and create or stabilize wetland areas."

The proposed re-established barrier bar alignment also considered the findings of the 2020 bathymetric and topographic survey. Area 1 consists of 3 barrier bar breakwaters, ranging in length from approximately 375 to 700 feet from toe to toe, which will be placed approximately along the historical barrier bar alignment with an average bed elevation of approximately 241 feet IGLD85 (approximately 2.3 feet below the Lake Ontario Low Water Datum elevation of 243.3 feet IGLD85). Gaps between the breakwaters are approximately 50 feet. The longest segment at the eastern end of Area 1 is intended to provide protection of the proposed navigation channel between Areas 1 and 2, as well as to facilitate sediment bypassing the navigation channel. This will minimize sediment deposition in the navigation channel, with the goal of reducing the need for maintenance dredging of the channel. The gaps between barrier bar segments were incorporated into the barrier bar design to allow circulation through the barrier bar system that will promote enhanced water quality, recreational use and access of the Lake and Bay, fish passage, and to reduce the overall cost of the barrier bar system.

The improvements in Area 3 consist of enhancing the existing remaining portion of the barrier bar by placing gravel and cobble material along the lakeside. The gravel and cobble material will

connect to and provide a smooth transition between the re-established barrier bar in Areas 2 and 4.

The proposed barrier bar in Area 4 will also consist of core stone overlaid with armor stone, with gravel cobble material placed on the lakeside, but will not include gravel cobble on the bayside due to steep slopes within the Bay. The improvements in Area 4 will close the eastern breach that formed as a result of erosion of the barrier bar.

The proposed barrier bar crest elevation will be finalized as design is progressed, but were modeled at an elevation of 250' IGLD85. At this crest elevation, the modeling results indicated the barrier bar would provide sufficient wave attenuation. The final crest elevation will be set above the elevation of the Ordinary High Water Elevation (OHWE) of Lake Ontario (247.3 feet IGLD85) and above the 2019 record high water level elevation of 249.3 feet IGLD85. The barrier bar crest elevation will balance performance of the structure (wave attenuation) with the aesthetics of the breakwater (visibility above the waterline), considering both low water and high water level conditions, and project cost. If additional funds become available, the barrier bar breakwaters to the west end of the site may be raised to a maximum height of 252' IGLD85, which would reduce maintenance and operation costs associated with the movement of gravel and cobble material on the lake side of these structures during extreme storm events.

The barrier bar configuration used in the alternatives analysis was selected to restore the historical alignment of the Blind Sodus Bay barrier, re-establish the navigation channel to its historical location, and balance the performance of the structure (wave attenuation) with a cost-effective approach to achieve the project objectives. Site-specific factors considered in the development of this barrier bar configuration included historical data, wave conditions, water depths, navigation considerations, marine safety, habitat objectives, constructability, and cost. Gaps wide and deep enough for watercraft passage are expected to be marked appropriately for safety and navigational purposes. The barrier bar breakwaters and the proposed navigation channel will be marked in accordance with permitting agencies to avoid impacts to navigation (if required).

The proposed barrier bar re-establishment and enhancement will result in an approximate maximum total fill of 90,000 CY. Fills within the Lake and Bay will consist of a combination of core stone, armor stone, and gravel and cobble, and sand material as illustrated in Figure 3. The core stone of the barrier bar will assist with wave attenuation. The gravel and cobble material will range from approximately 3-12 inches in diameter, which is the same size range as the existing barrier bar materials. The gravel and cobble material will be placed on both sides of the barrier bar breakwaters and on the lakeside of the rest of the site to integrate the re-established barrier bar with the nearshore area along the shoreline and match characteristics of the gravel cobble shoreline adjacent to the project area to the east (i.e., along West Barrier Bar Park in Fair Haven). The armor stone placed around the core stone of the barrier bar breakwaters will be sized appropriately to withstand the design wave and ice conditions.

A preliminary evaluation was performed to estimate a range of stable stone sizes for the barrier bar. The evaluation was performed using guidance published in the USACE Coastal Engineering Manual and studies published by the USACE Cold Region Research Environmental Laboratory. The preliminary evaluations indicate that stable armor stone sizes may have diameters in the 2 to 4 foot range. The cross section geometry of the barrier bar was designed to incorporate sufficient crest width and layer thicknesses to support the anticipated core and armor layer materials and incorporate side slopes that increase the resiliency of the barrier bar breakwaters and account for potential toe scour of the structure due to ice forces and wave action. This resulted in a crest width set between 10 to 15 feet. The re-established barrier bar design also incorporates two layers of armor stone which reduces the wave transmission of the structure compared to using a single large rip rap material that allows wave energy to pass through the larger voids between stones. Wave transmission, which is an estimate of the amount of wave energy expected to bypass the structure during design wave and water level conditions. The amount of wave transmission through a structure is dependent on the structure geometry, water depth, and wave conditions.

The design of the barrier bar alignment and geometry may be refined or optimized during subsequent design phases of the project as needed based on factors including material availability, geotechnical data collected in October 2020, and cost considerations.

4.5. Modeling Approach – Barrier Bar Re-Establishment

The proposed re-established and enhanced barrier bar was evaluated using the barrier bar geometry and alignment for the same range of wind, wave, and water level conditions as the existing conditions model simulations described in Section 4.2. The results of the two sets of simulations were compared.

4.6. Modeling Results – Barrier Bar Re-Establishment

The model results show that compared to existing conditions, the proposed re-established and enhanced barrier bar protects Blind Sodus Bay from Lake Ontario wave conditions and re-establishes the historical separation of Blind Sodus Bay and Lake Ontario.

The predicted significant wave heights in Blind Sodus Bay were reduced in select areas up to approximately 1.5 feet under typical conditions, up to approximately 2.5 feet for the 1-year storm, and up to approximately 3 feet for the 100-year and the Halloween 2019 storm event. The model results also showed that compared to existing conditions, the proposed barrier alignment and geometry re-established the historical pattern of flow velocities along the barrier bar consistent with historical conditions, including sediment transport characteristics.

Figures 7 through 10 show wave model simulation results comparing existing conditions to the proposed barrier bar for the 1-year and 100-year wave conditions from the west-northwest

direction at both typical and high water conditions. Figures 11 through 14 show wave model simulation results comparing existing conditions to the proposed barrier bar for the 1-year and 100-year wave conditions from the north-northeast direction at both typical and high water conditions. As shown in the figures, the wave heights in the nearshore area approaching the barrier bar are larger under the higher water conditions since the deeper water allows greater wave heights to propagate closer to shore. The range in wave heights in the nearshore area was similar for the 1-year and 100-year storm events due to the larger offshore waves becoming depth limited as they approach the shoreline.

As expected, the wave results show that under typical water level conditions, the barrier bar breakwaters provide greater wave attenuation under the typical water level conditions compared to the high water conditions. This is due to some wave energy being able to pass over top of the barrier bar under high water level conditions. Overall, the model results indicate that the proposed barrier bar alignment and geometry would provide attenuation for both typical and high water level conditions and would reduce the erosive forces acting on the shorelines within Blind Sodus Bay.

Figures 15 through 18 show flow velocity model simulation results comparing existing conditions to the proposed barrier bar for the 1-year and 100-year wave conditions from the west-northwest direction at both typical and high water conditions. Figures 19 through 22 show flow velocity model simulation results comparing existing conditions to the proposed barrier bar for the 1-year and 100-year wave conditions from the north-northeast direction at both typical and high water conditions. The model results support the USACE Sediment Budget Analysis System characterization of the littoral transport in the project area. As shown in the figures, the predicted flow velocities are higher under the 100-year storm conditions compared to the 1-year storm conditions. The model results showed that the proposed barrier alignment and geometry re-established the historical pattern of flow velocities along the barrier bar consistent with historical conditions, including sediment transport characteristics, and re-established the separation of Blind Sodus Bay and Lake Ontario.

By reducing storm wave energy and associated erosive forces impacting Blind Sodus Bay, the proposed barrier bar will provide protection from erosion caused by future storm events. This protection would not be provided under the no action or gravel cobble beach alternatives. The proposed barrier bar will maintain recreational access to Lake Ontario from Blind Sodus Bay. Nature-based features will be incorporated into the design to enhance the habitat value of the barrier bar and the backside of the barrier bar in Blind Sodus Bay. Therefore, the coastal modeling analysis supported the selection of the re-established and enhanced barrier bar as the preferred shoreline stabilization alternative for the Blind Sodus Bay REDI project.

5.0 NATURAL AND NATURE-BASED FEATURES

This section provides an overview of potential natural and nature-based features that will be incorporated into the Blind Sodus Bay barrier bar design. The incorporation of natural and nature-based features will be refined as part of subsequent design phases of the project.

Natural and nature-based features will be incorporated into barrier bar breakwaters and re-establishment, which will enhance wildlife habitat. These features include the placement of sand gravel material along the bayside of the barrier bars to provide nesting habitat for the spiny softshell turtle, root wads/tree crowns anchored to the breakwaters and re-established barrier bar to provide habitat for macroinvertebrates and fish, and perching for birds during low water level conditions, and large flat stones for turtle basking. In addition to these features, native submerged aquatic plant plugs will be placed on the bayside of the barrier bar and offshore, emergent live stakes on the bayside and lakeside of the barrier bar, and upland plantings and tree plantings will be planted on the bayside of the barrier bar throughout the project site. Placement of plantings will be determined by water depths and the proposed design coastal modeling results, so that appropriate conditions for each species are selected.

5.1. Sandy Gravel and Flat Boulder Placement for Nesting and Basking

Sand and gravel material will be placed along the bayside of the barrier bar breakwaters and re-establishment above the OHWE, will be clear of vegetation in selected areas that are approximately 400sq ft or more to provide basking habitat for the spiny softshell turtle and other reptile species. A pile of boulders or a single tree trunk will serve for nesting habitats for the spiny softshell turtle and other reptile species. Large flat boulders and anchored root wads will also be introduced to these areas to offer partially submerged structures for additional foraging and basking opportunities. Emergent vegetation will be placed around the designated basking areas to re-naturalize the barrier bar breakwaters and re-establishment. Submerged vegetation will also be integrated into the design in locations below the OHWE and particular offshore.

5.2. Root Wads/Tree Crowns

Root wads/tree crowns will be installed in the barrier bar breakwaters and re-establishment. They will be lodged into the barrier bar structures and anchored to submerged stone blocks, extending outward of the barrier bar structures towards the Bay. The root wads/tree crowns provide cover and refuge for wildlife, and encourage microhabitats to develop along the barrier bar. Some root flares or tree limbs will be trimmed at the summer average water level (246.5 IGLD85), while others will be allowed to extend above the water surface to provide basking locations for turtles and perching locations for birds. To the extent possible, woody materials for the anchored root wads and tree tops will be harvested from dead trees in the vicinity of the project area. It is anticipated the limbs or roots extending above the summer water level elevation would be a transient feature, lasting approximately 5 to 10 years, due to the

continuous wetting and drying of the woody materials that will rot the material over time as well as disturbance by debris and ice.

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Figures

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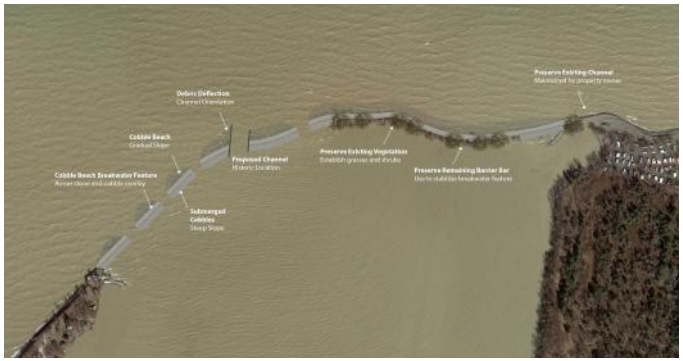
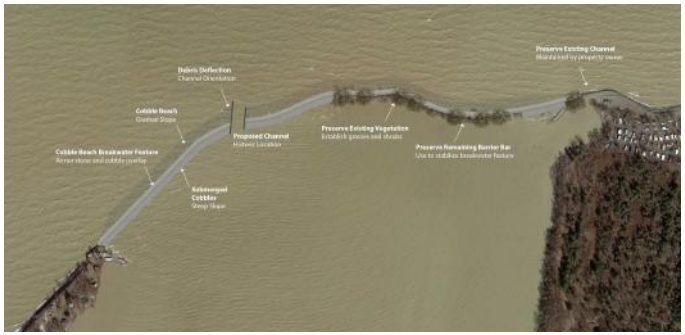
Preferred Alternative: Barrier Bar Breakwaters, Re-Establishment, and Enhancement with Naturalized Channel and Debris Deflection in Historical Location, and Sediment Deflection in Current Channel Location





Alternative Concepts: No Action (top), Barrier Bar Breakwaters with Structured Channel and Closure of the Breach (middle) and Continuous Barrier Bar Re-Establishment with Structured Channel in Historic Location (bottom)

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Barton & Loguidice

Figure 1
Alternative Concept Designs
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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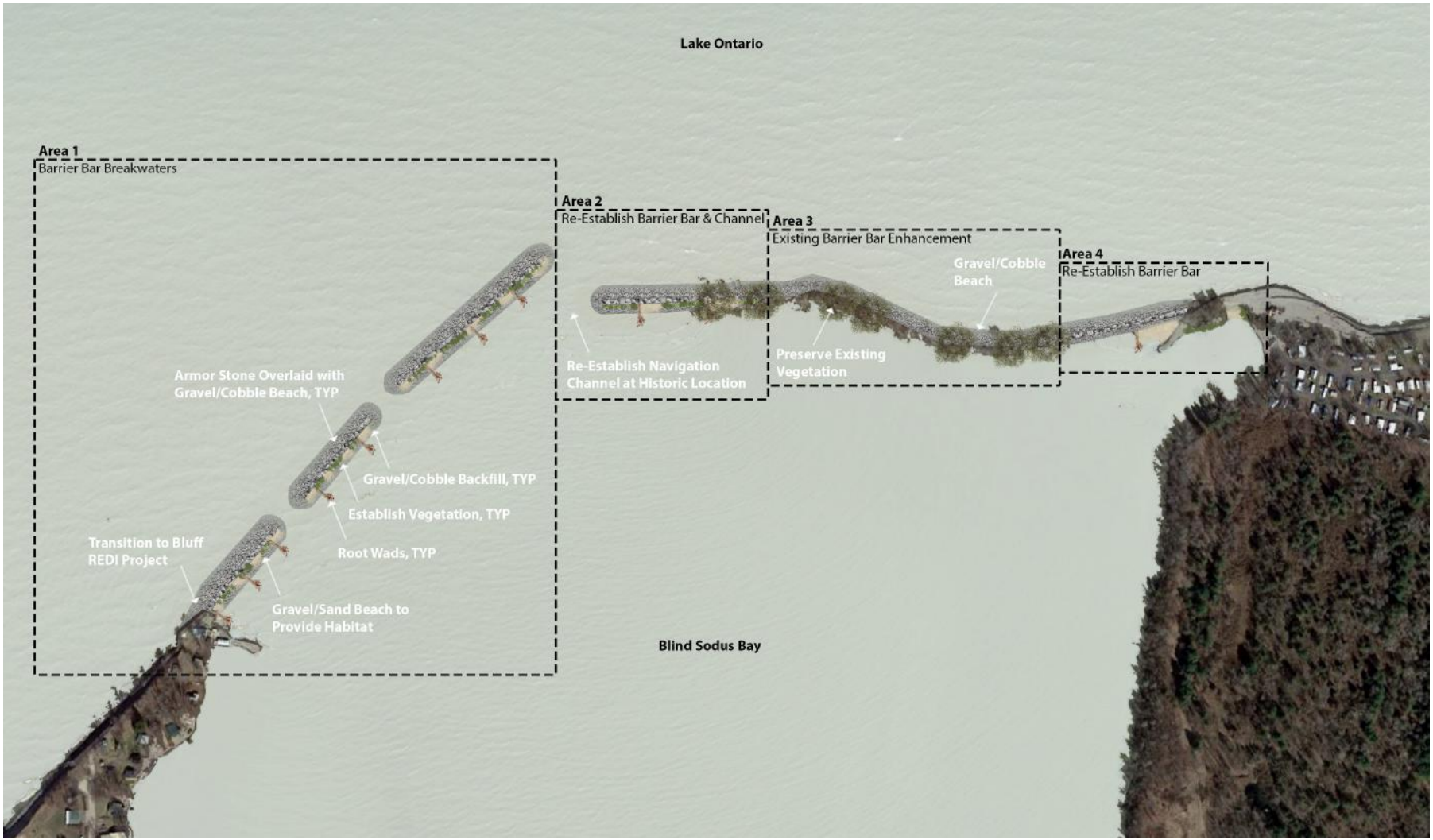

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Figure 2
Proposed Barrier Bar Layout
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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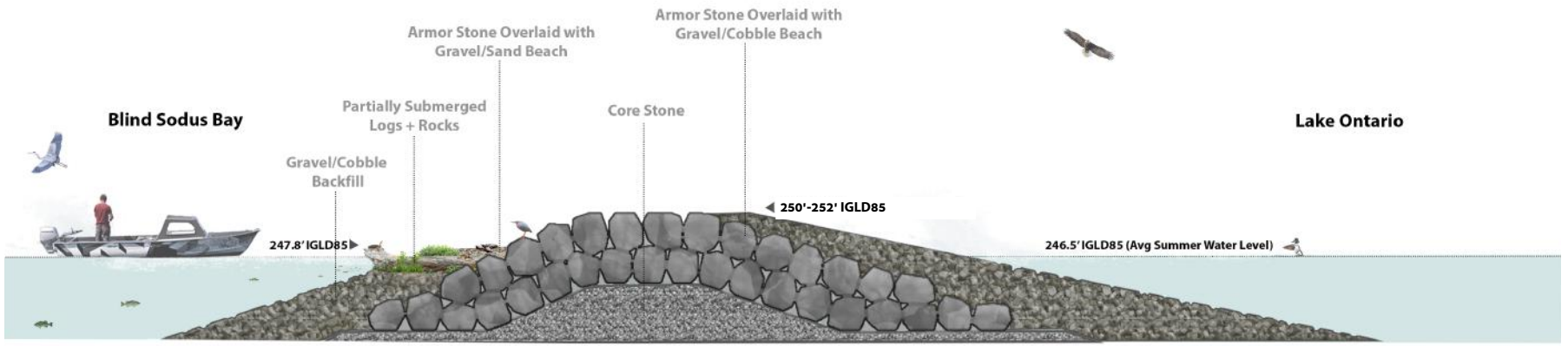

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Figure 3
Proposed Barrier Bar Breakwater Section
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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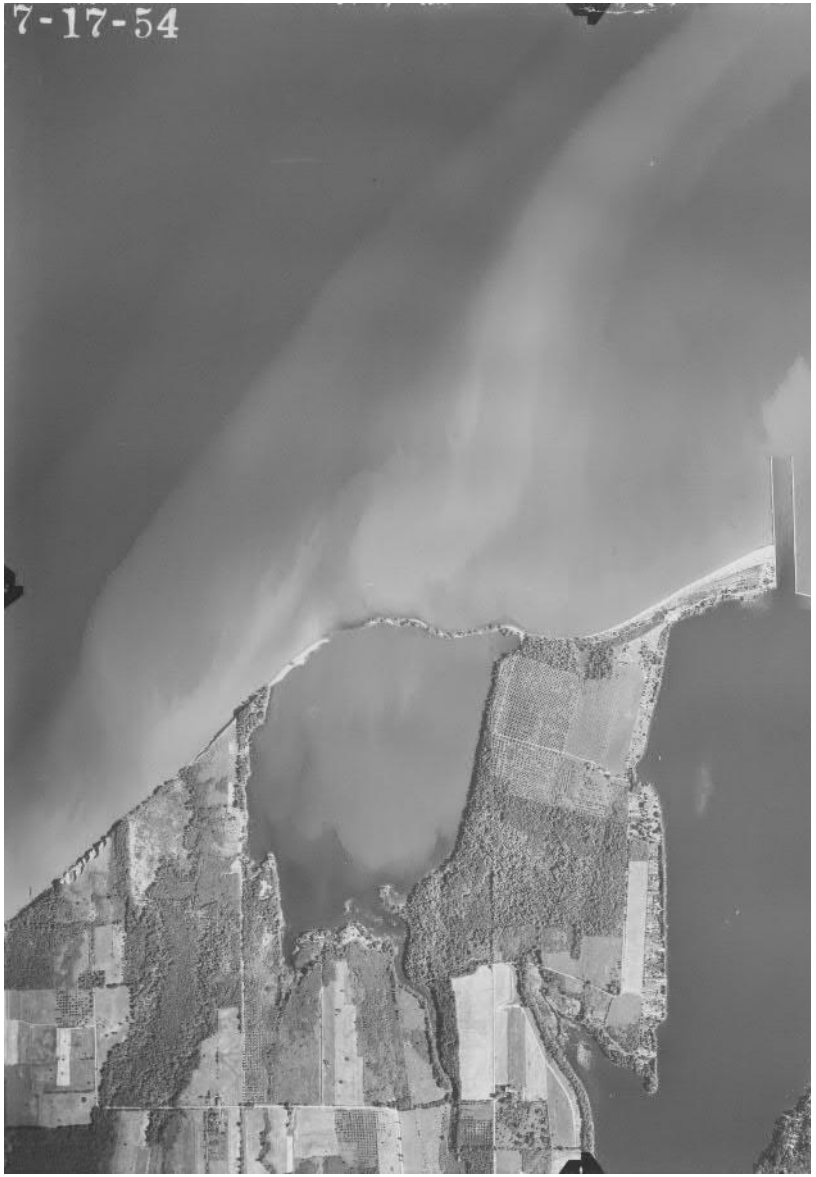

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Figure 4
Historical Aerial Imagery
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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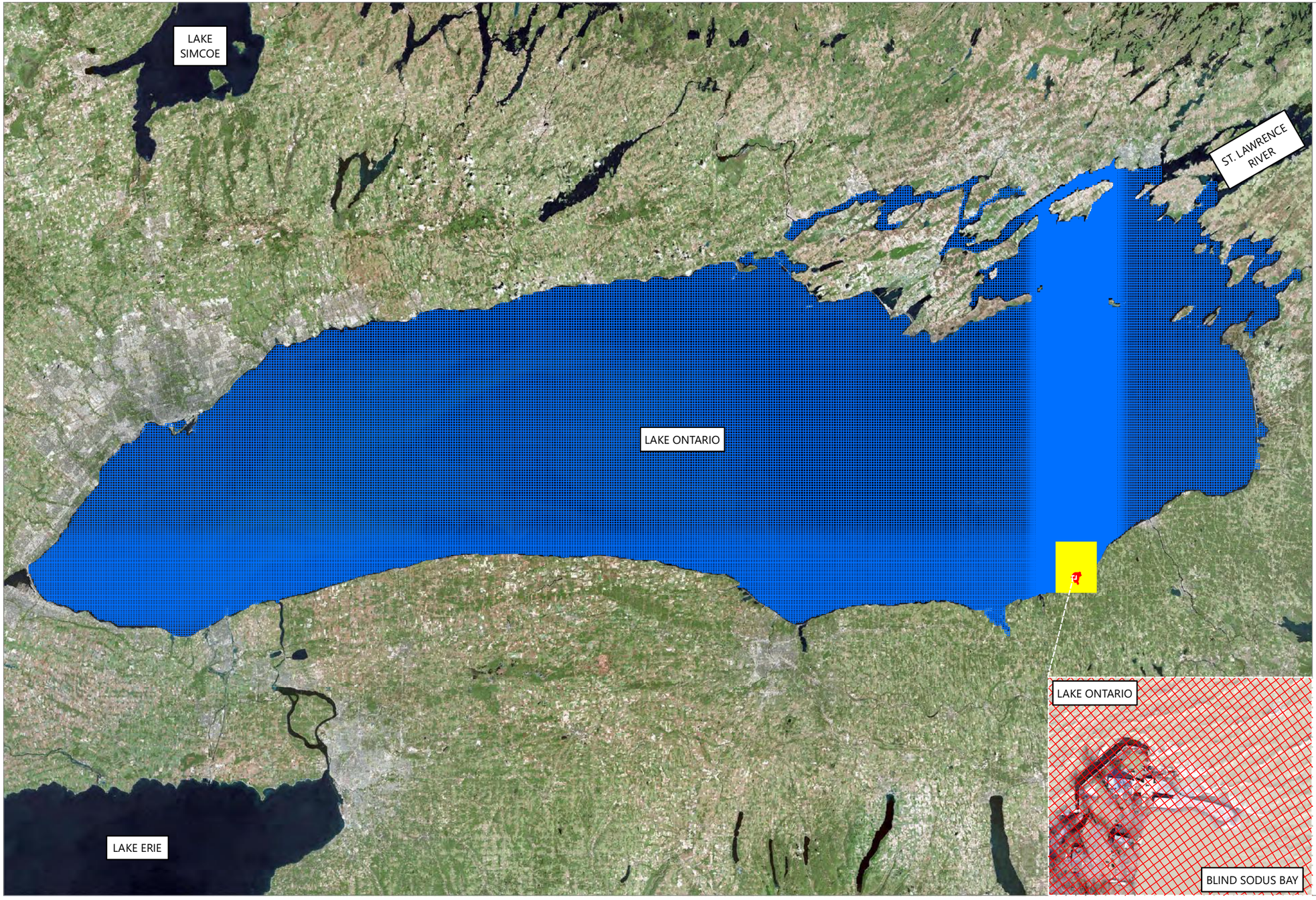

LEGEND:

- Far-Field WAVE Grid
- Intermediate WAVE Grid
- Near-Field WAVE Grid

NOTES:
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Figure 5
WAVE Grids
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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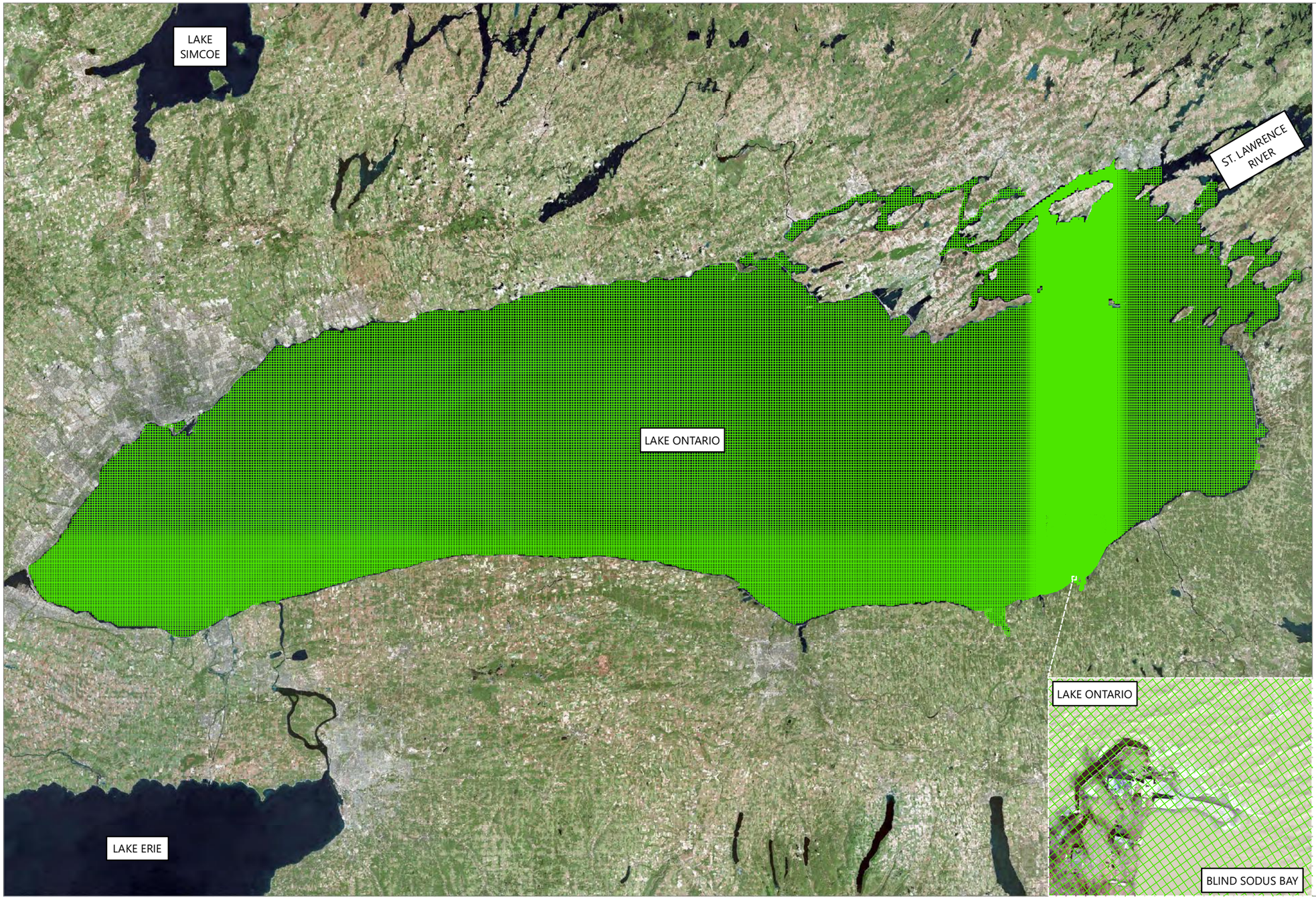

LEGEND:

FLOW Grid

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Figure 6
FLOW Grid
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

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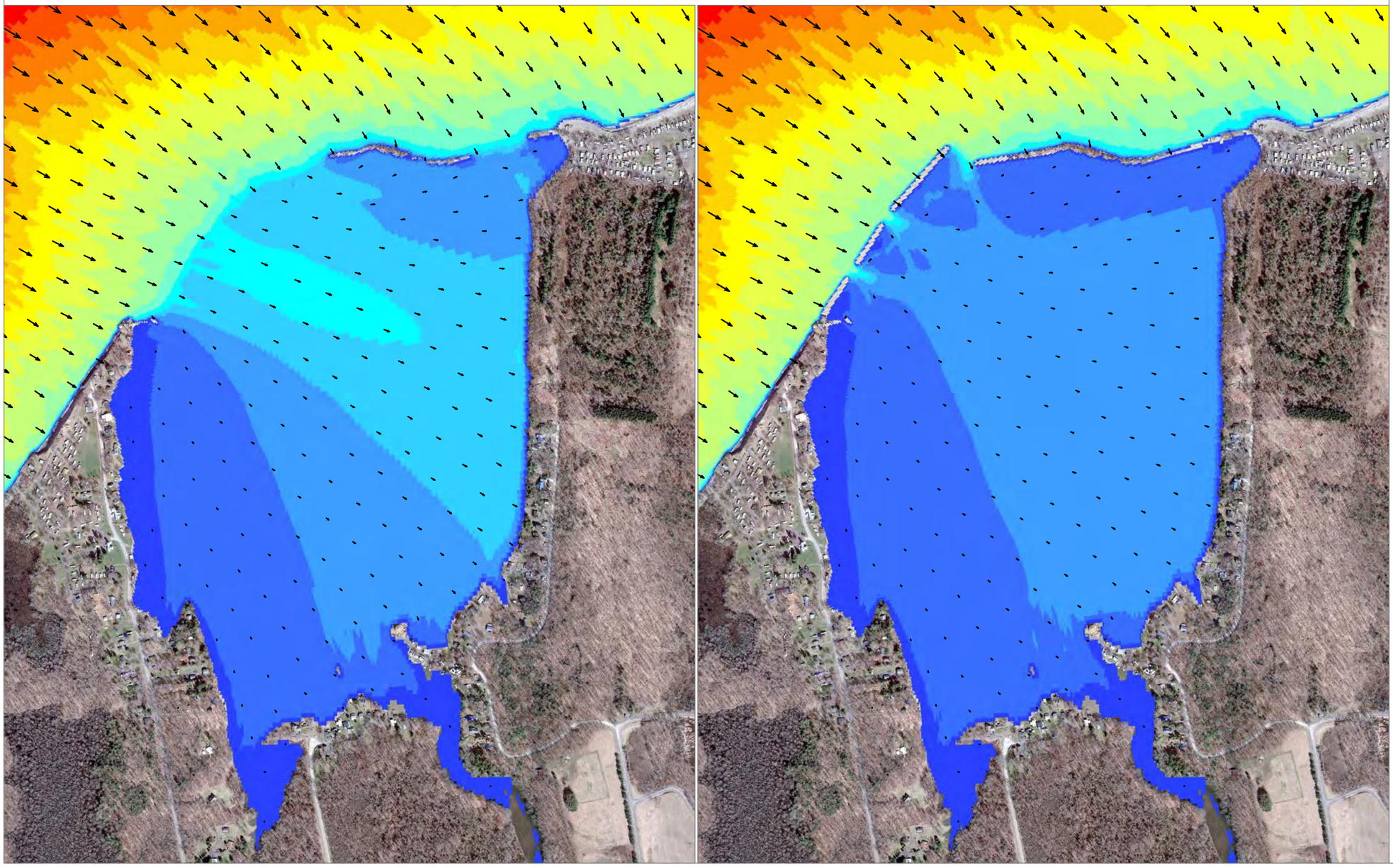
Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

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Feet

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Figure 7

Wave Height Results: 1-Year West-Northwest Wind, Post-2016 Median Water Level Scenario

Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

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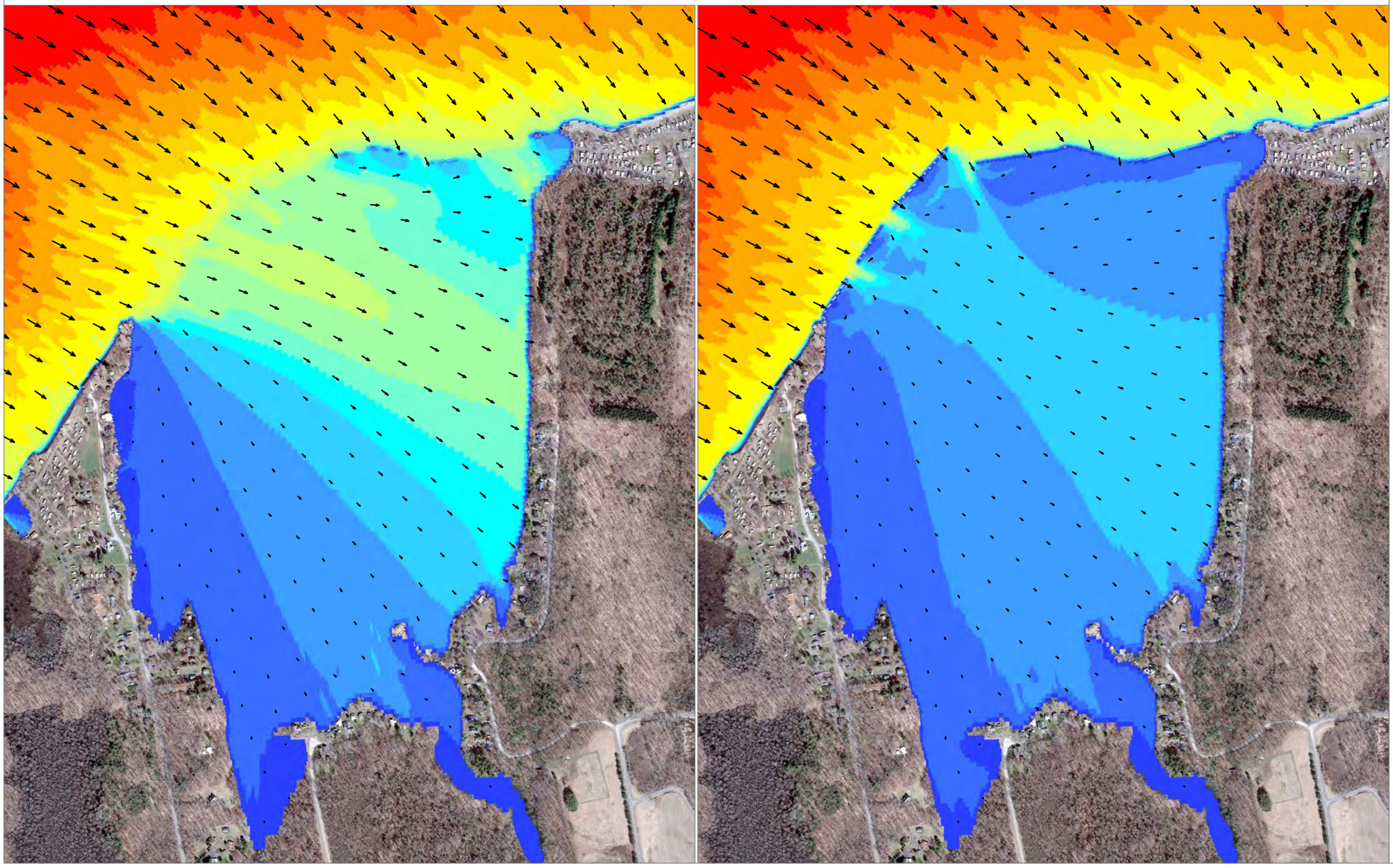
Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

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Basemap Source: Google Satellite Imagery

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Feet

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ANCHOR QEA

Figure 8

Wave Height Results: 1-Year West-Northwest Wind, 2019 Peak Water Level Scenario

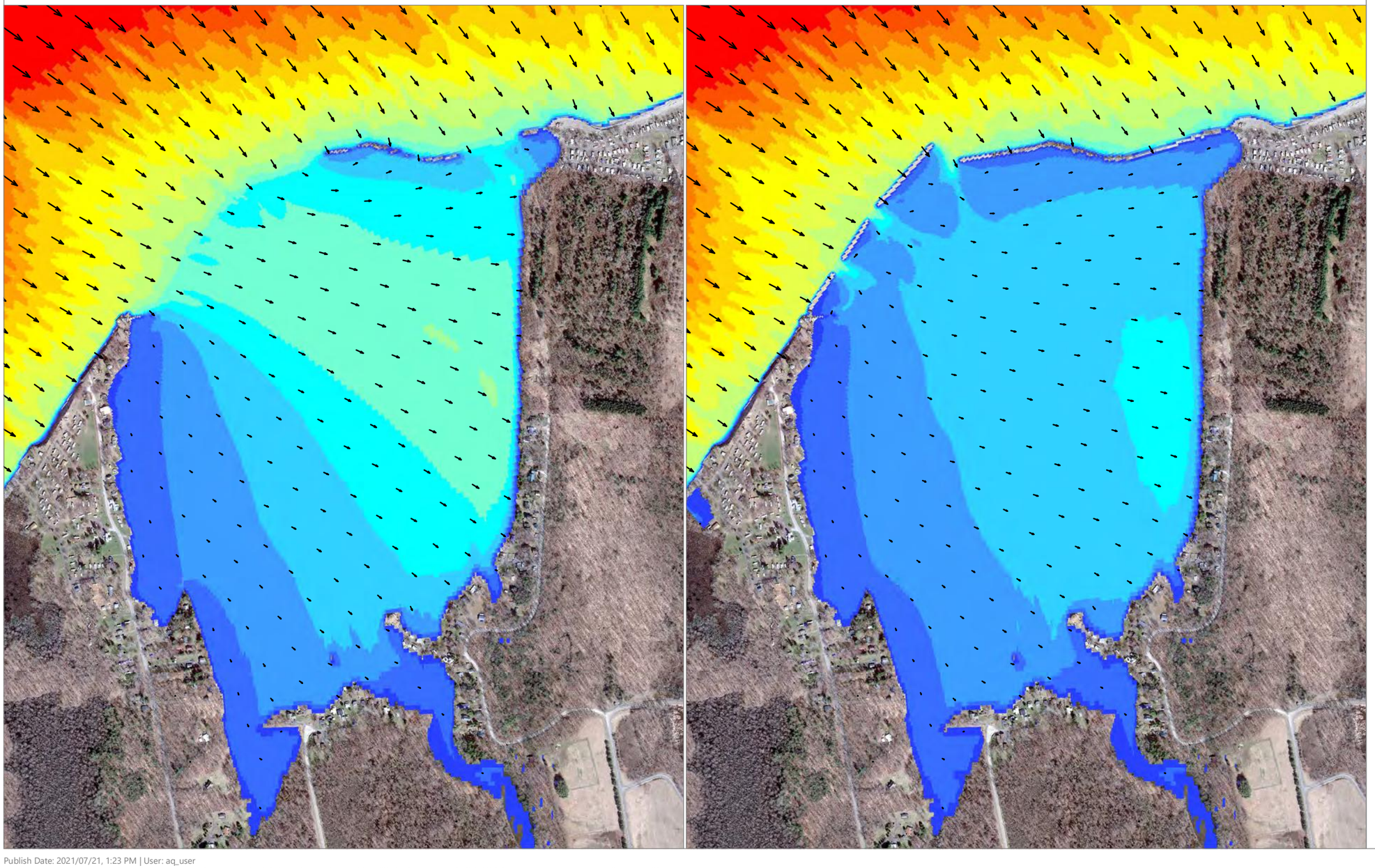
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

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ANCHOR QEA

Figure 9

Wave Height Results: 100-Year West-Northwest Wind, Post-2016 Median Water Level Scenario

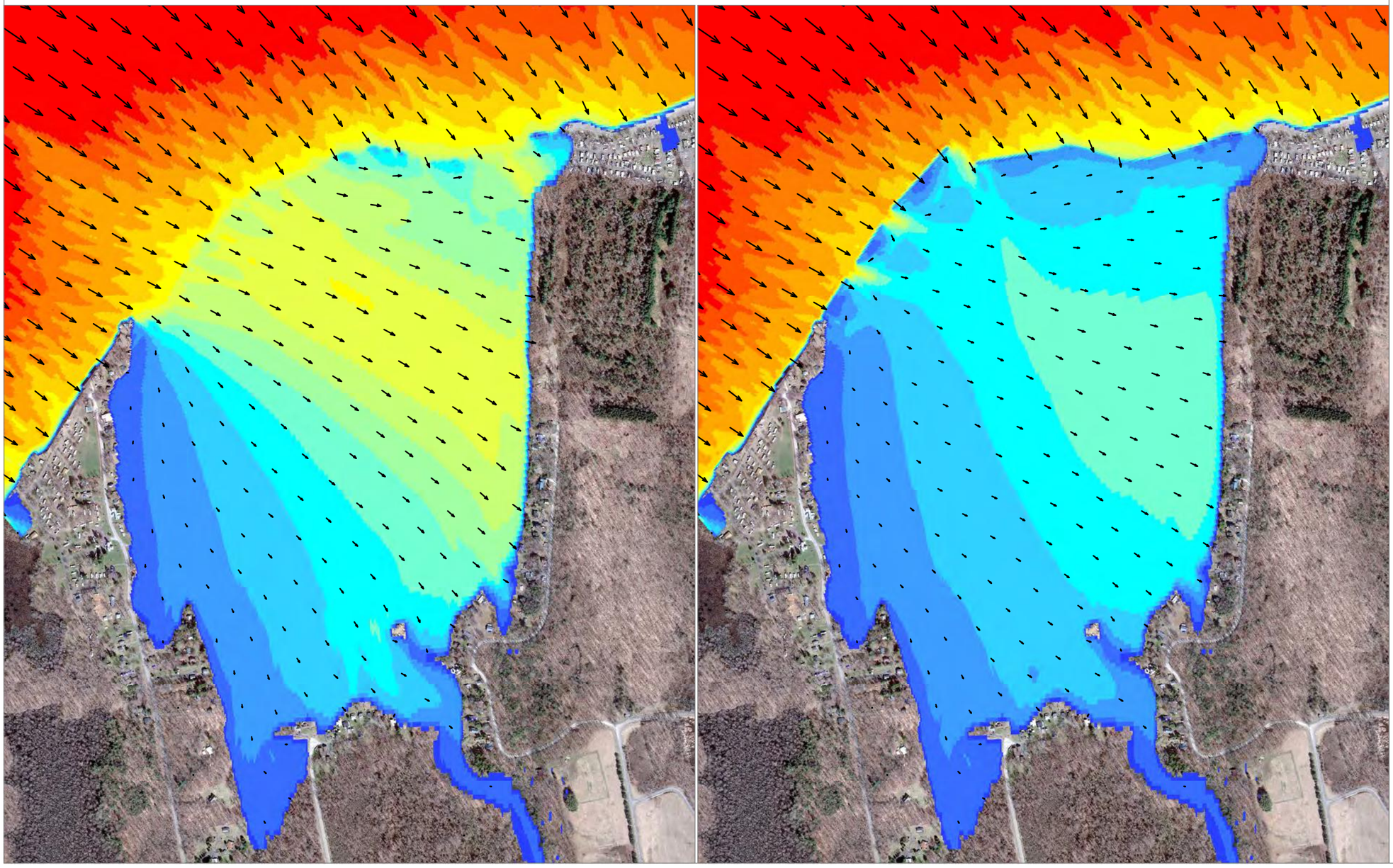
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

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Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_07\Figure_07.mxd

ANCHOR QEA

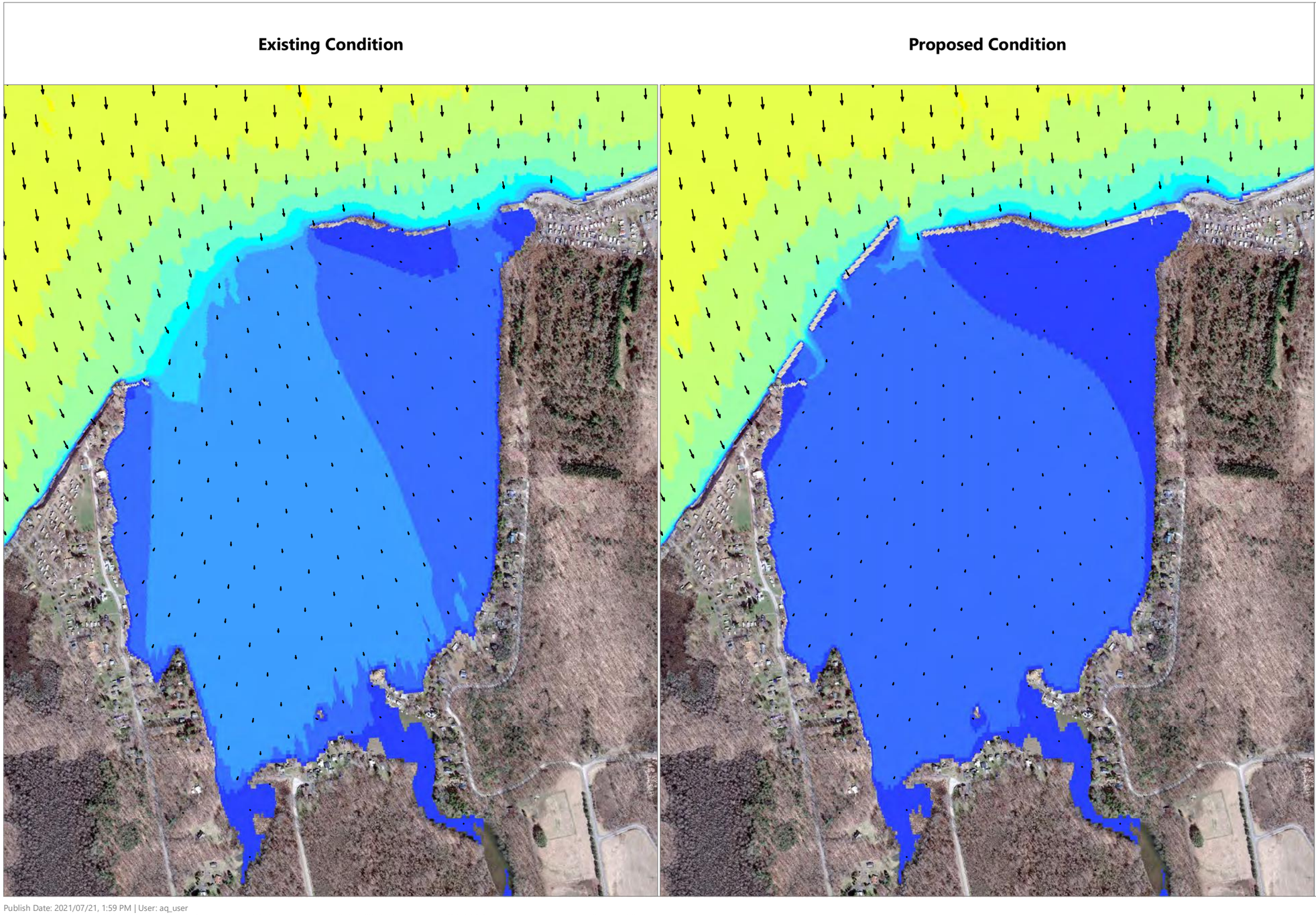
Figure 10

Wave Height Results: 100-Year West-Northwest Wind, 2019 Peak Water Level Scenario

Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT



Publish Date: 2021/07/21, 1:59 PM | User: aq_user
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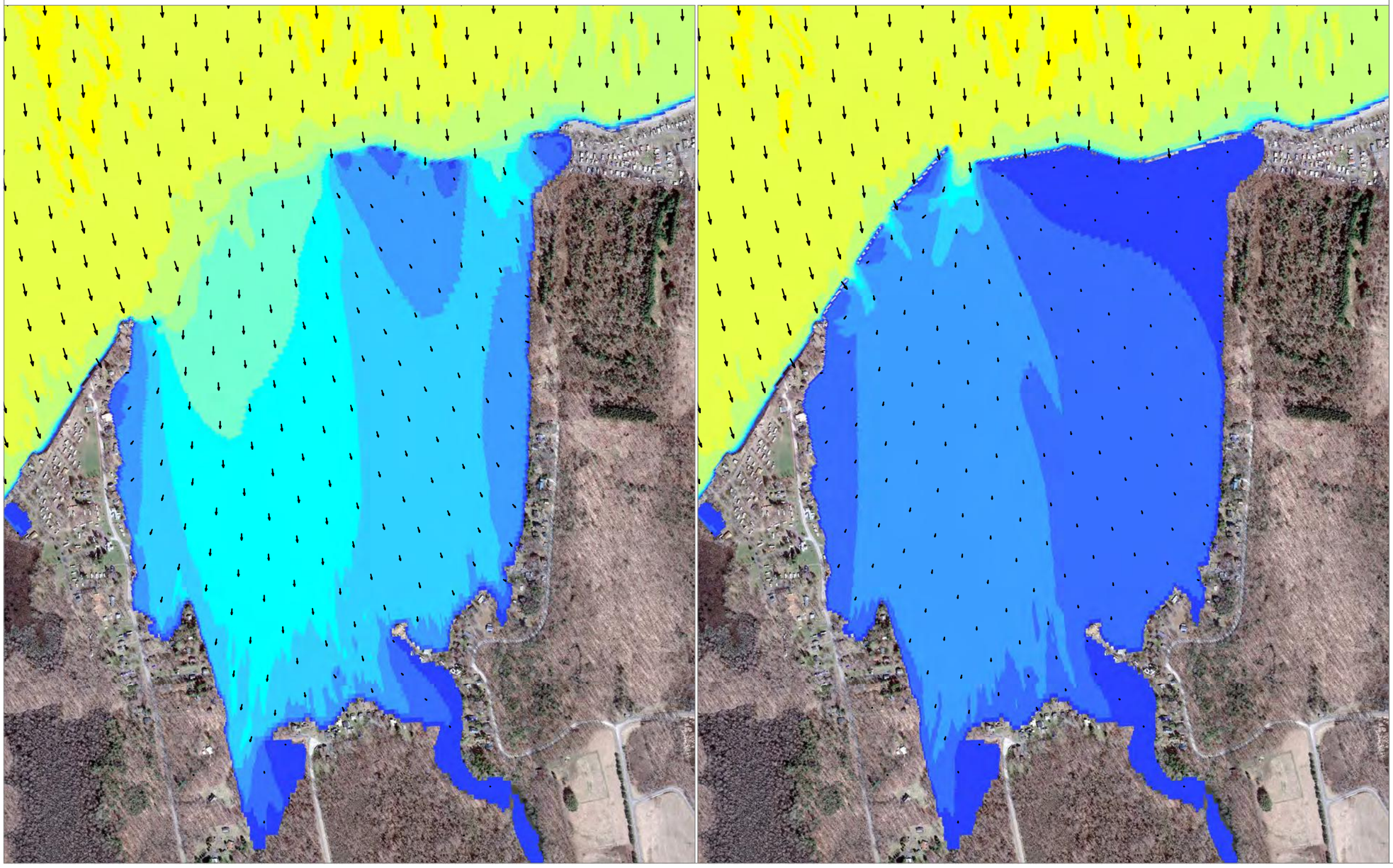
ANCHOR QEA

Figure 11
Wave Height Results: 1-Year North-Northeast Wind, Post-2016 Median Water Level Scenario
Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/21, 2:03 PM | User: aq_user

Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_09\Figure_09.mxd

ANCHOR QEA

Figure 12

Wave Height Results: 1-Year North-Northeast Wind, 2019 Peak Water Level Scenario

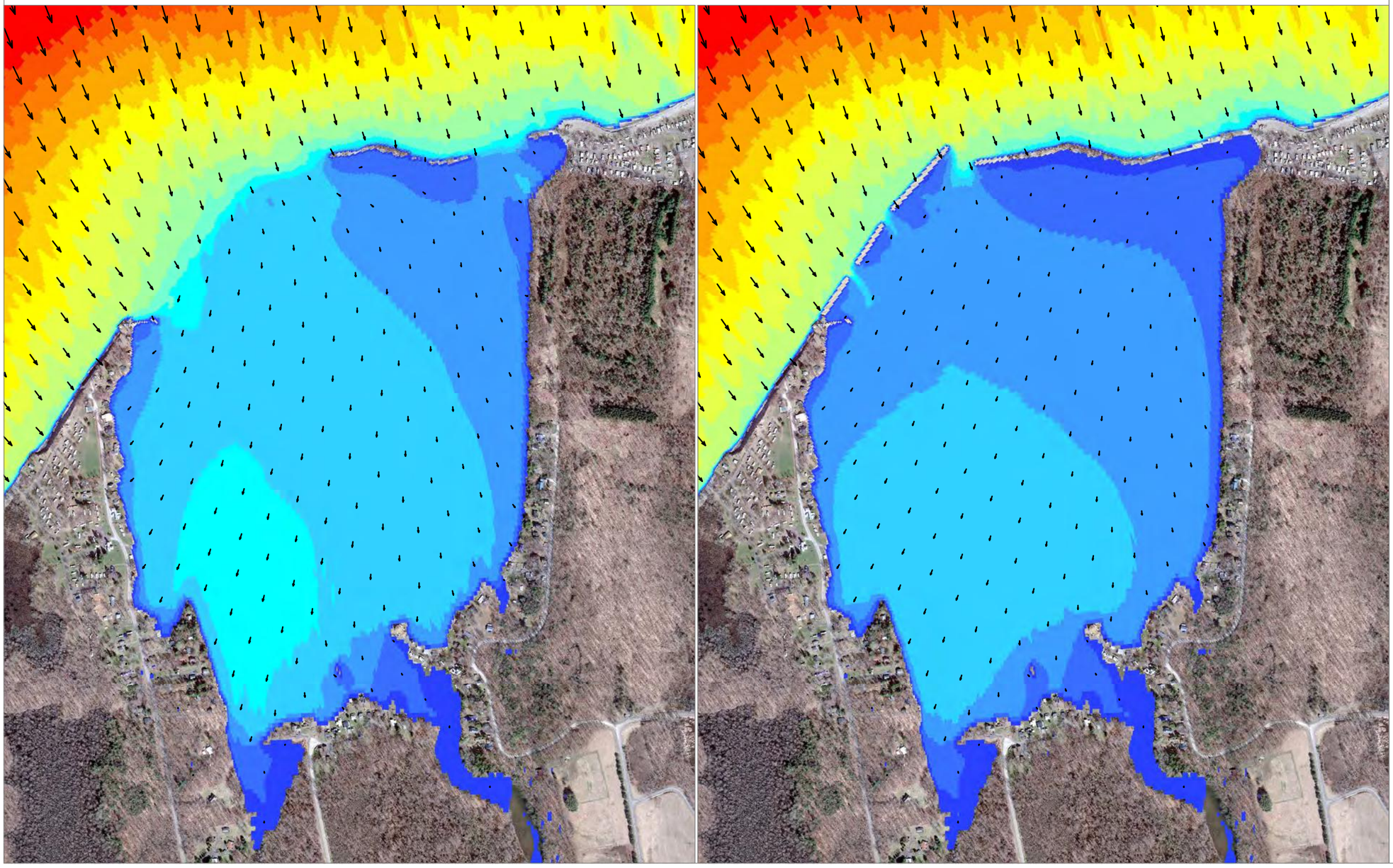
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/21, 2:13 PM | User: aq_user

Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_10\Figure_10.mxd

ANCHOR QEA

Figure 13

Wave Height Results: 100-Year North-Northeast Wind, Post-2016 Median Water Level Scenario

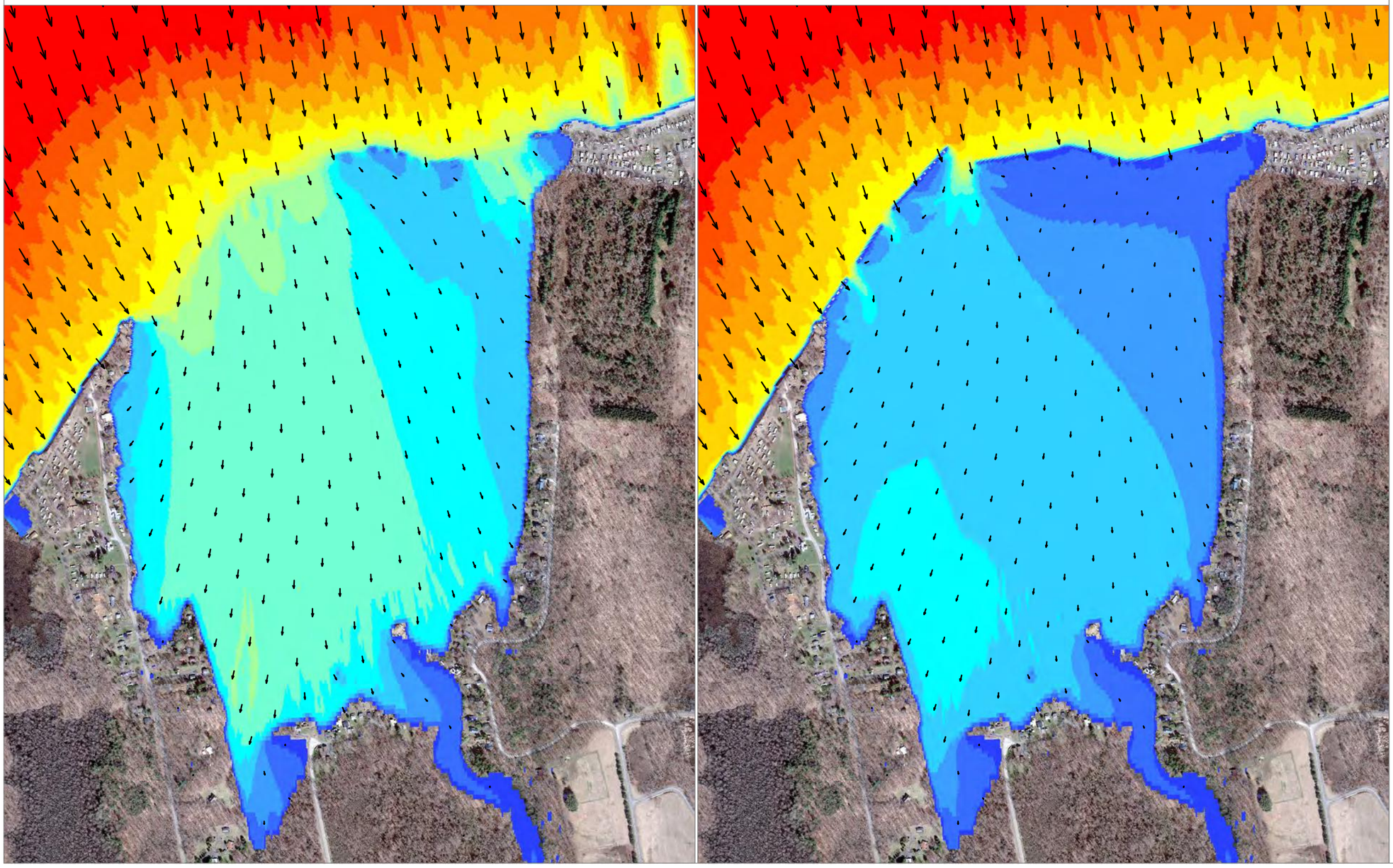
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Significant Wave Height (Feet)

- < 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0
- 5.0 - 5.5
- 5.5 - 6.0
- 6.0 - 6.5
- 6.5 - 7.0
- > 7.0

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/21, 2:18 PM | User: aq_user

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ANCHOR QEA

Figure 14

Wave Height Results: 100-Year North-Northeast Wind, 2019 Peak Water Level Scenario

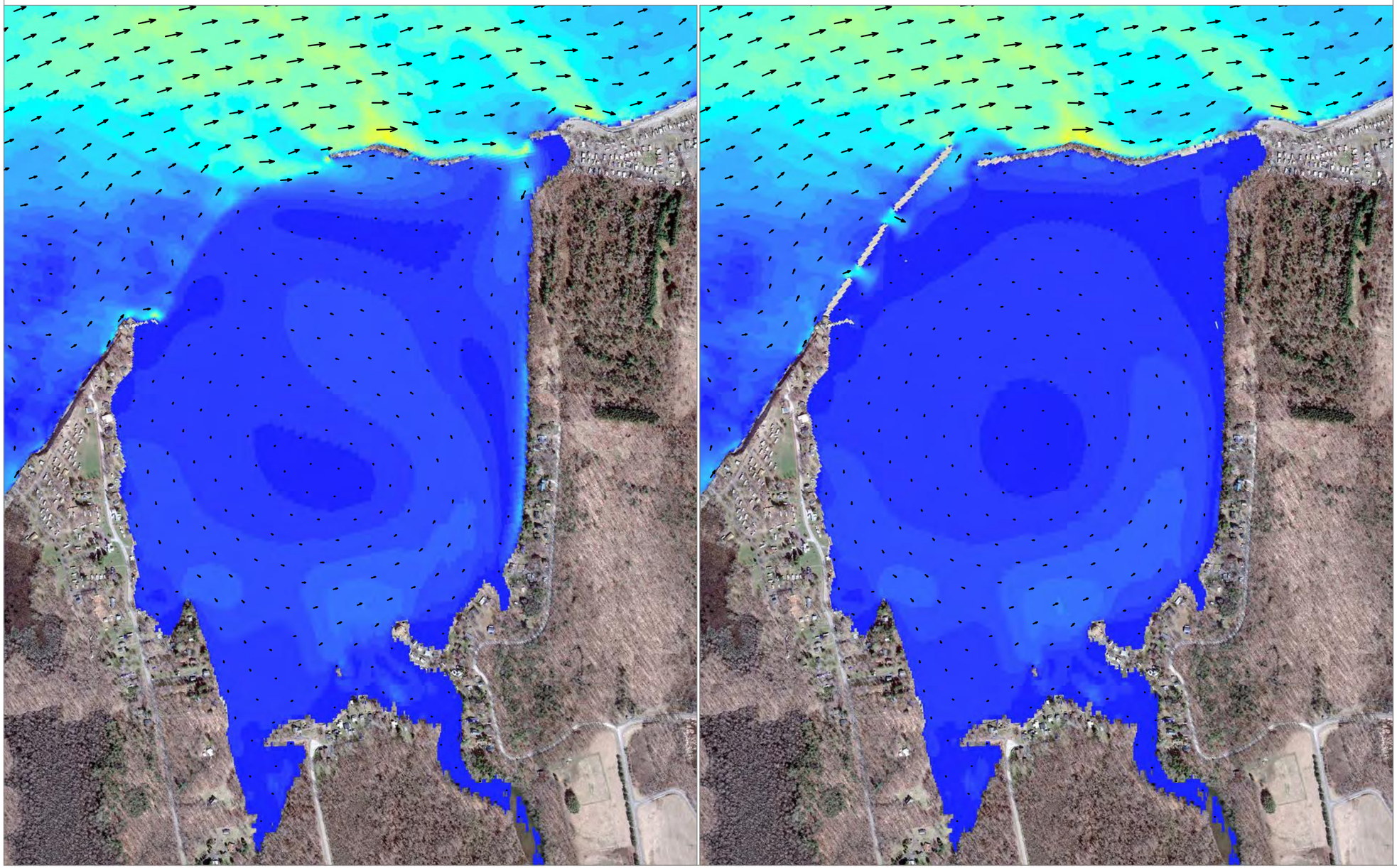
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 11:44 AM | User: aq_user

Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_12\Figure_12.mxd

ANCHOR QEA

Figure 15

Flow Velocity Results: 1-Year West-Northwest Wind, Post-2016 Median Water Level Scenario

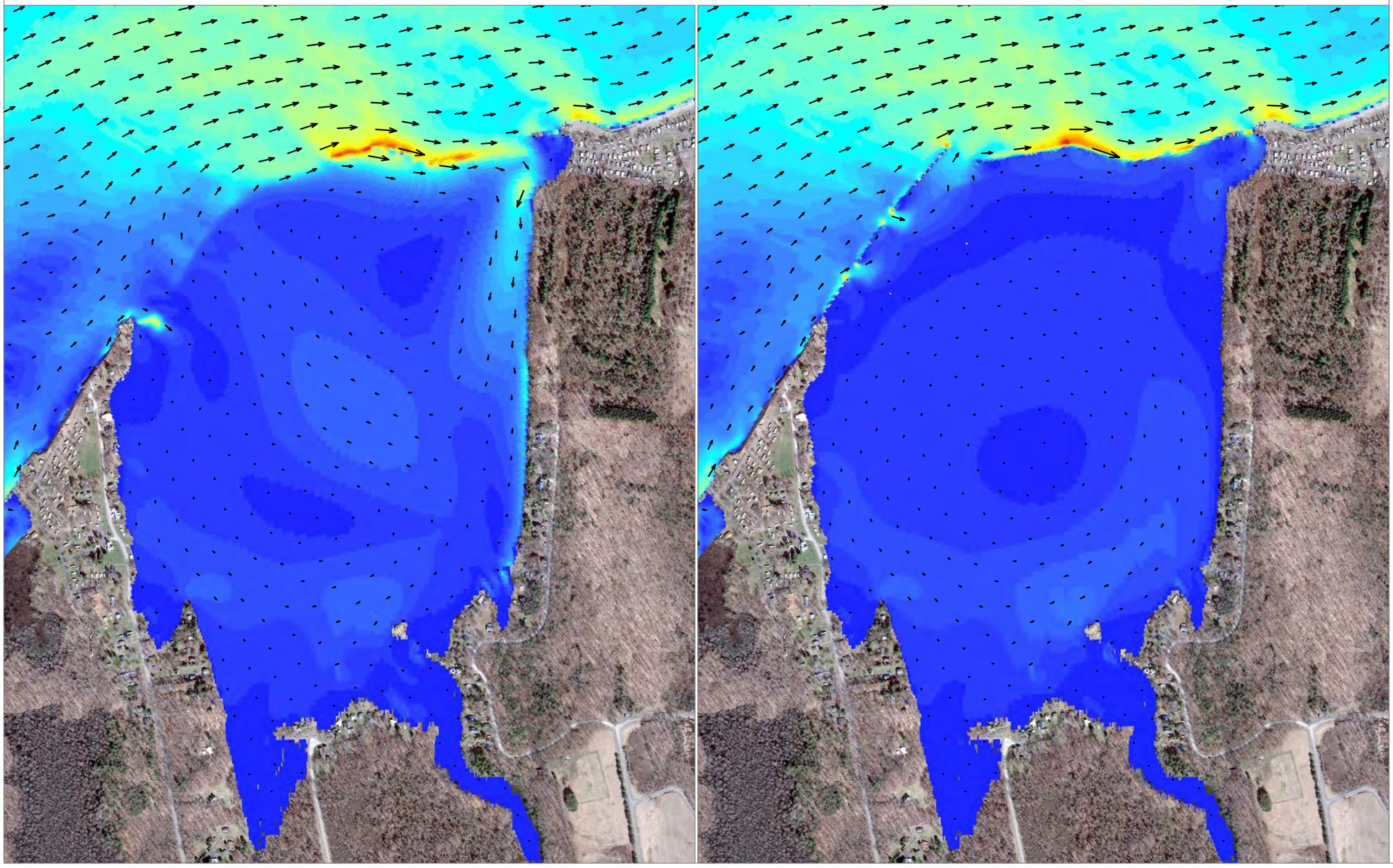
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

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ANCHOR QEA

Figure 16

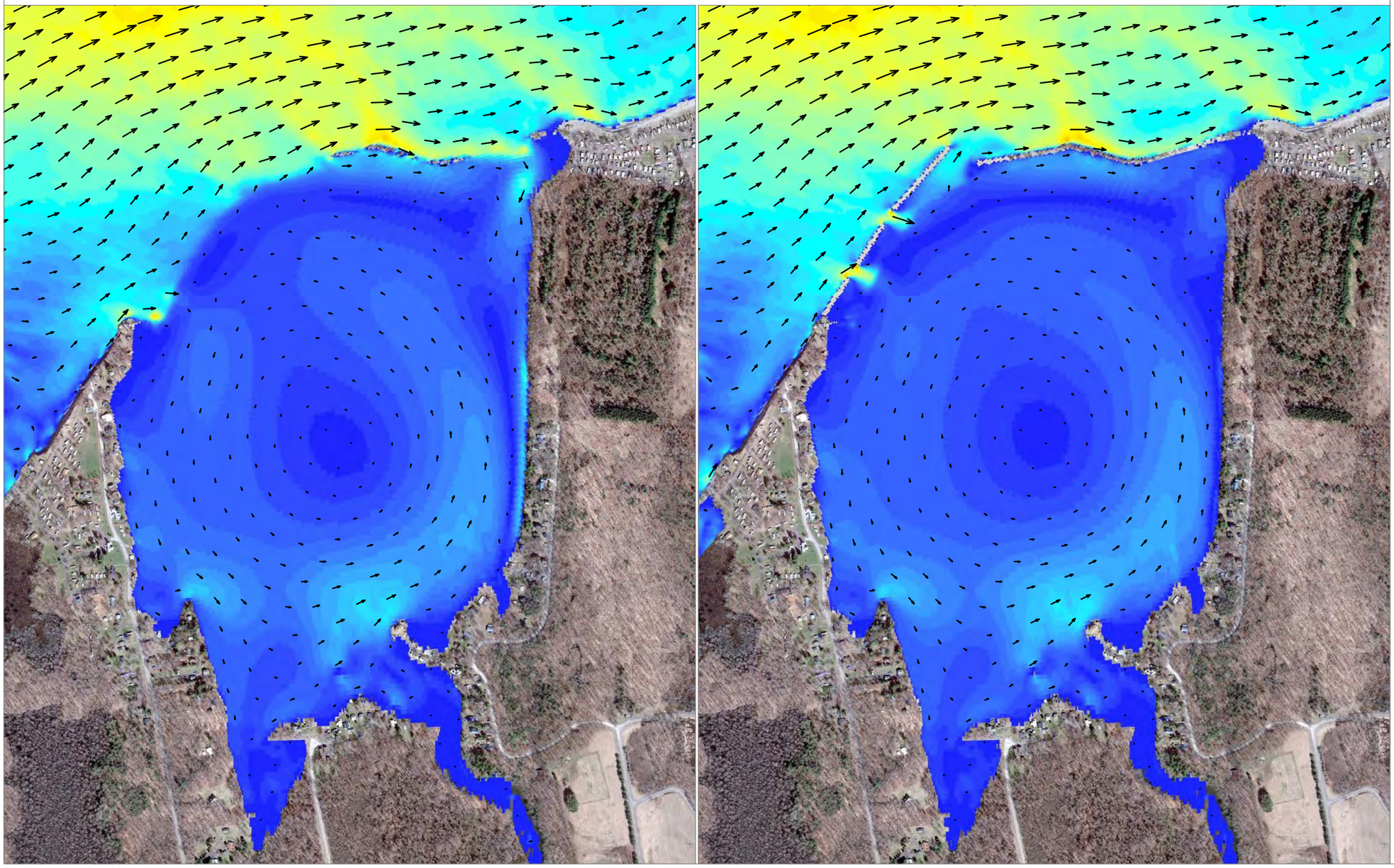
Flow Velocity Results: 1-Year West-Northwest Wind, 2019 Peak Water Level Scenario

Basis of Design Supplemental Information
Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 11:53 AM | User: aq_user

Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_14\Figure_14.mxd

ANCHOR QEA

Figure 17

Flow Velocity Results: 100-Year West-Northwest Wind, Post-2016 Median Water Level Scenario

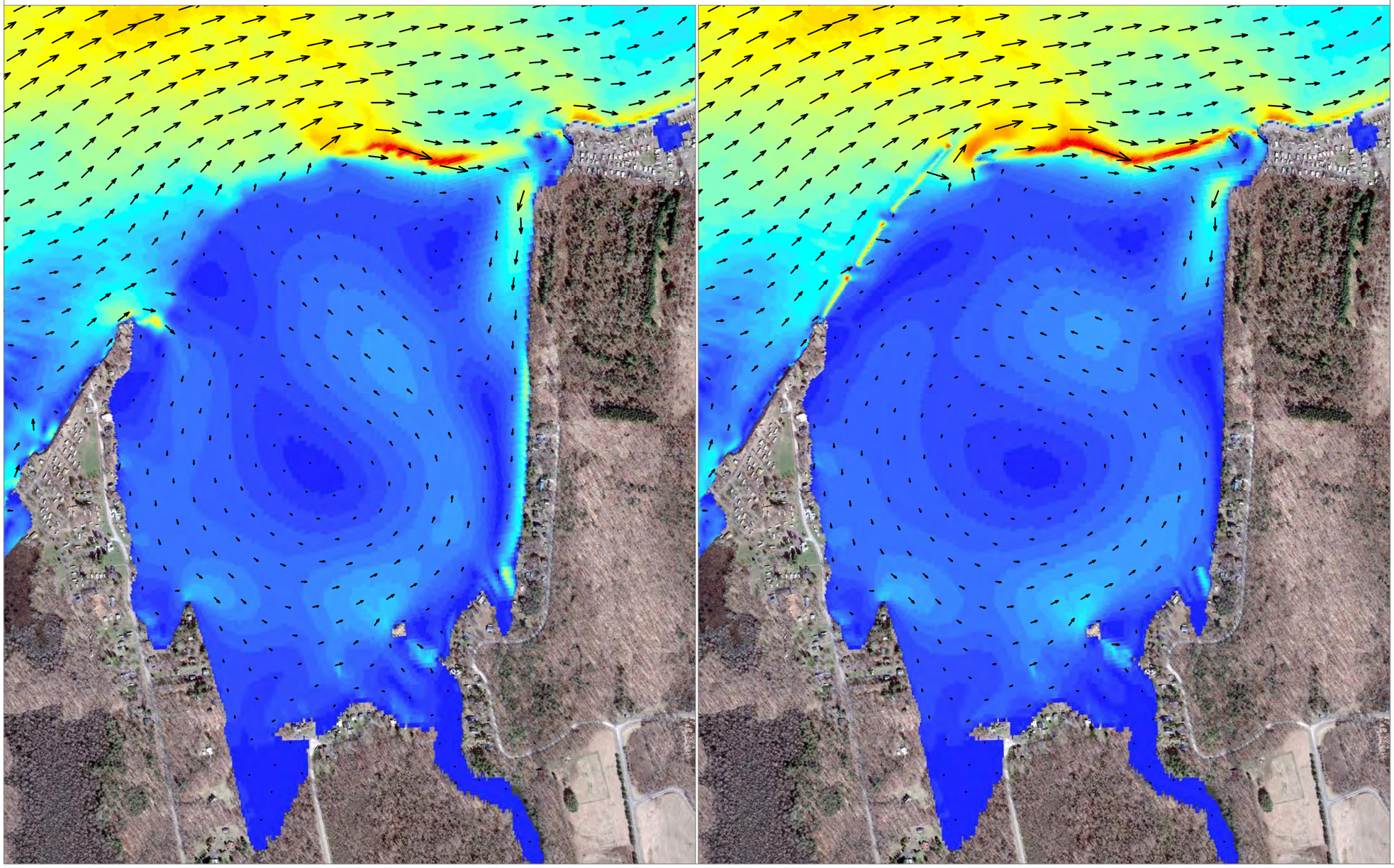
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 11:57 AM | User: aq_user

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ANCHOR QEA

Figure 18

Flow Velocity Results: 100-Year West-Northwest Wind, 2019 Peak Water Level Scenario

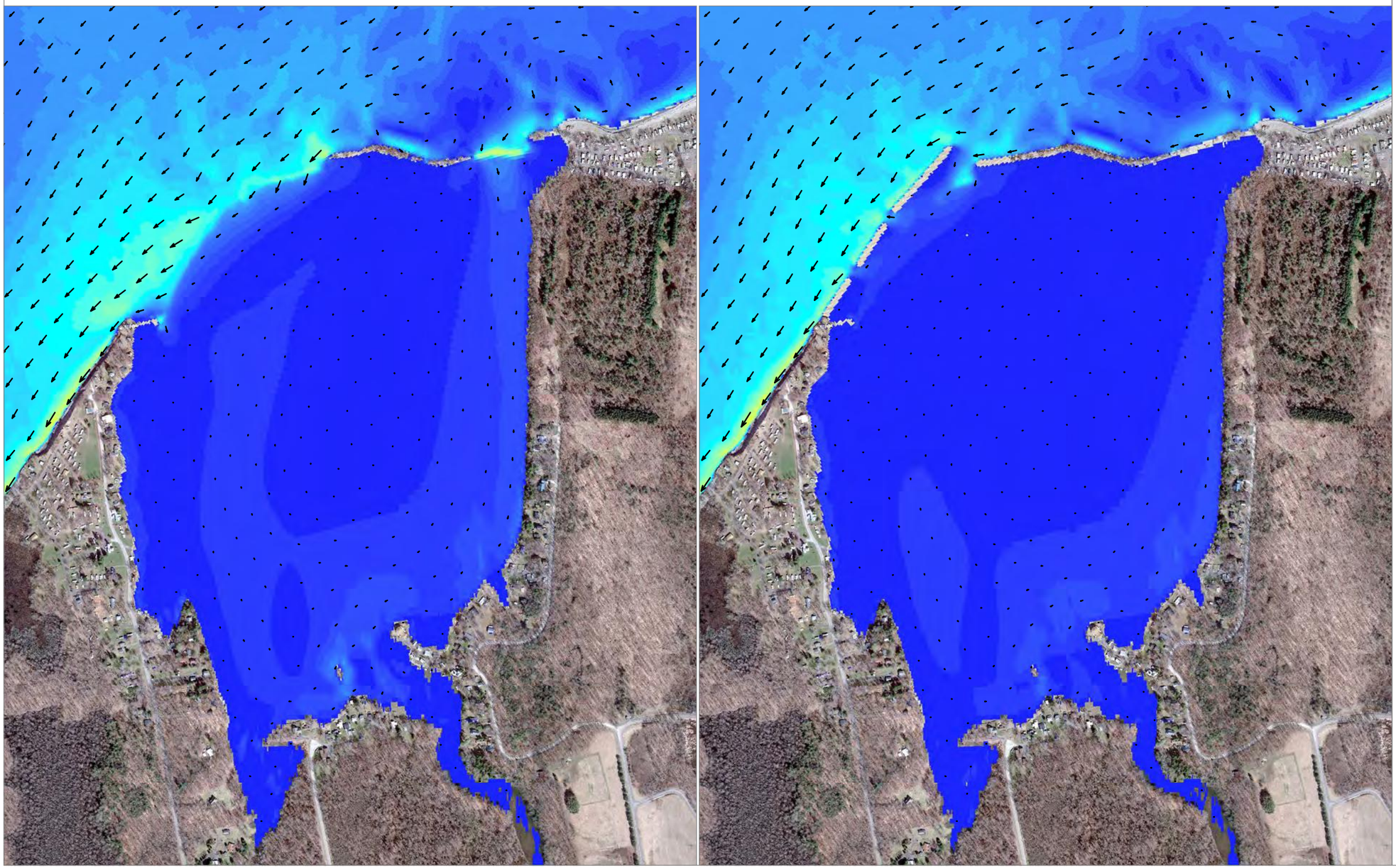
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 12:01 PM | User: aq_user

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ANCHOR QEA

Figure 19

Flow Velocity Results: 1-Year North-Northeast Wind, Post-2016 Median Water Level Scenario

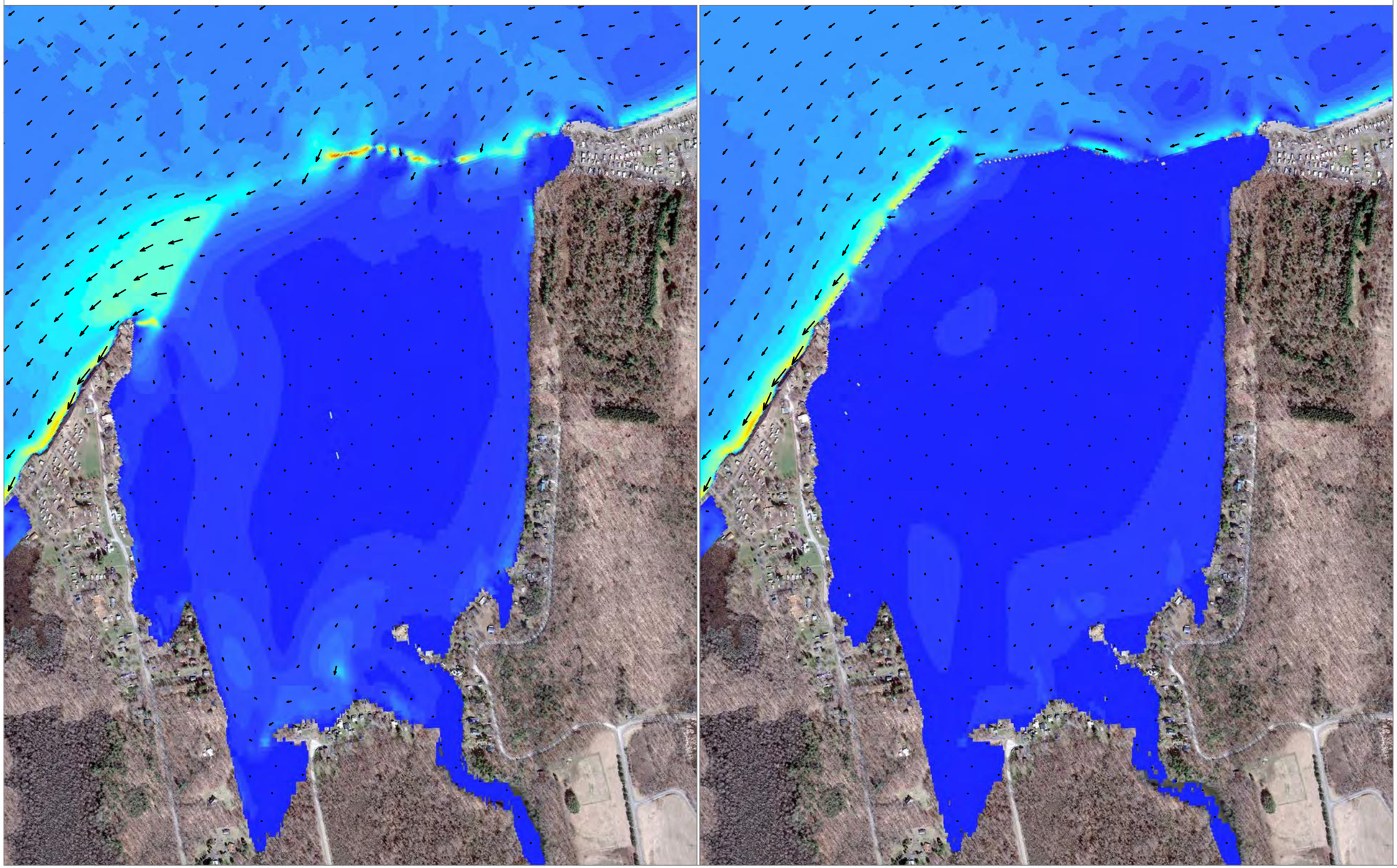
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 12:06 PM | User: aq_user

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ANCHOR QEA

Figure 20

Flow Velocity Results: 1-Year North-Northeast Wind, 2019 Peak Water Level Scenario

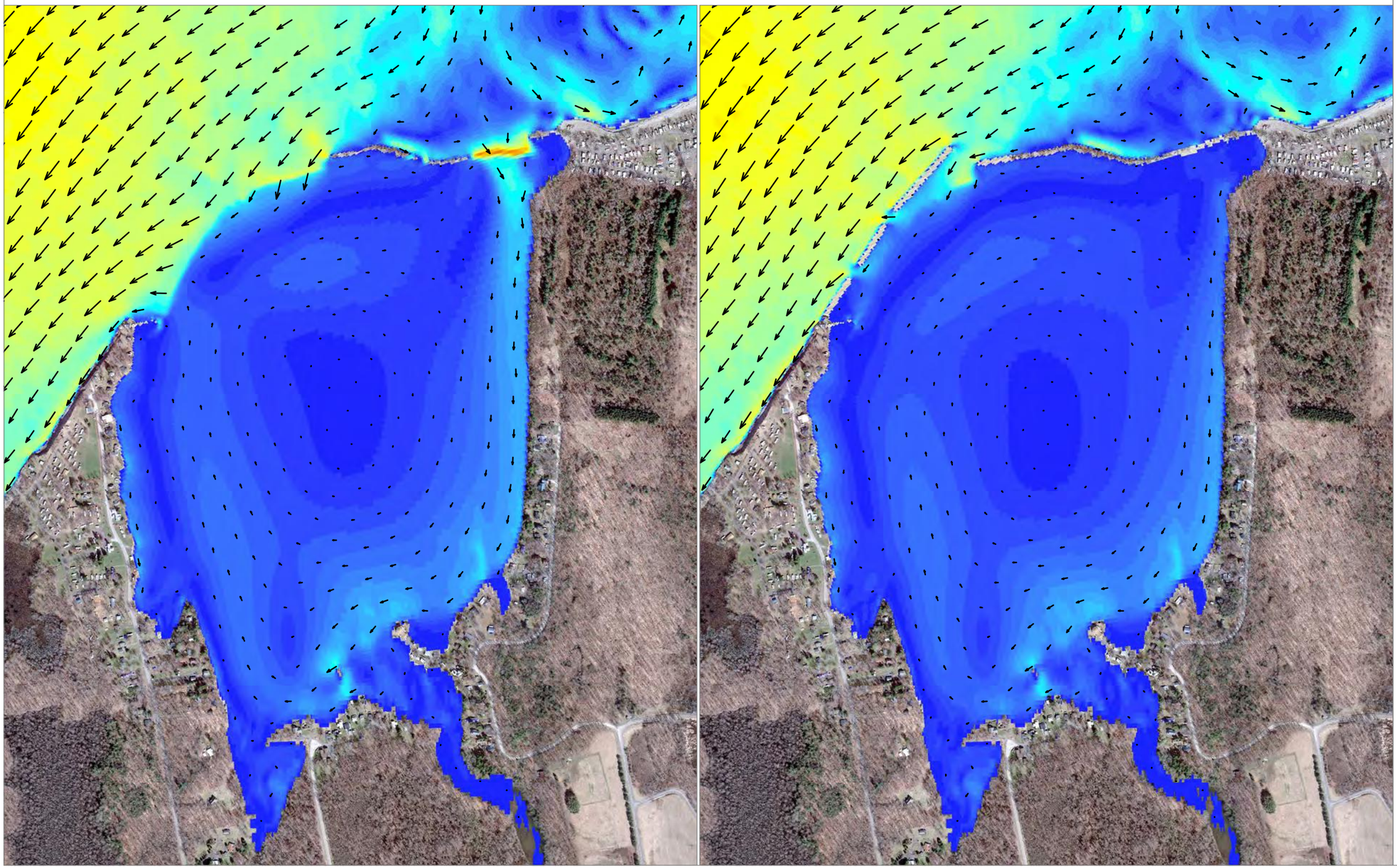
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 12:10 PM | User: aq_user

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ANCHOR QEA

Figure 21

Flow Velocity Results: 100-Year North-Northeast Wind, Post-2016 Median Water Level Scenario

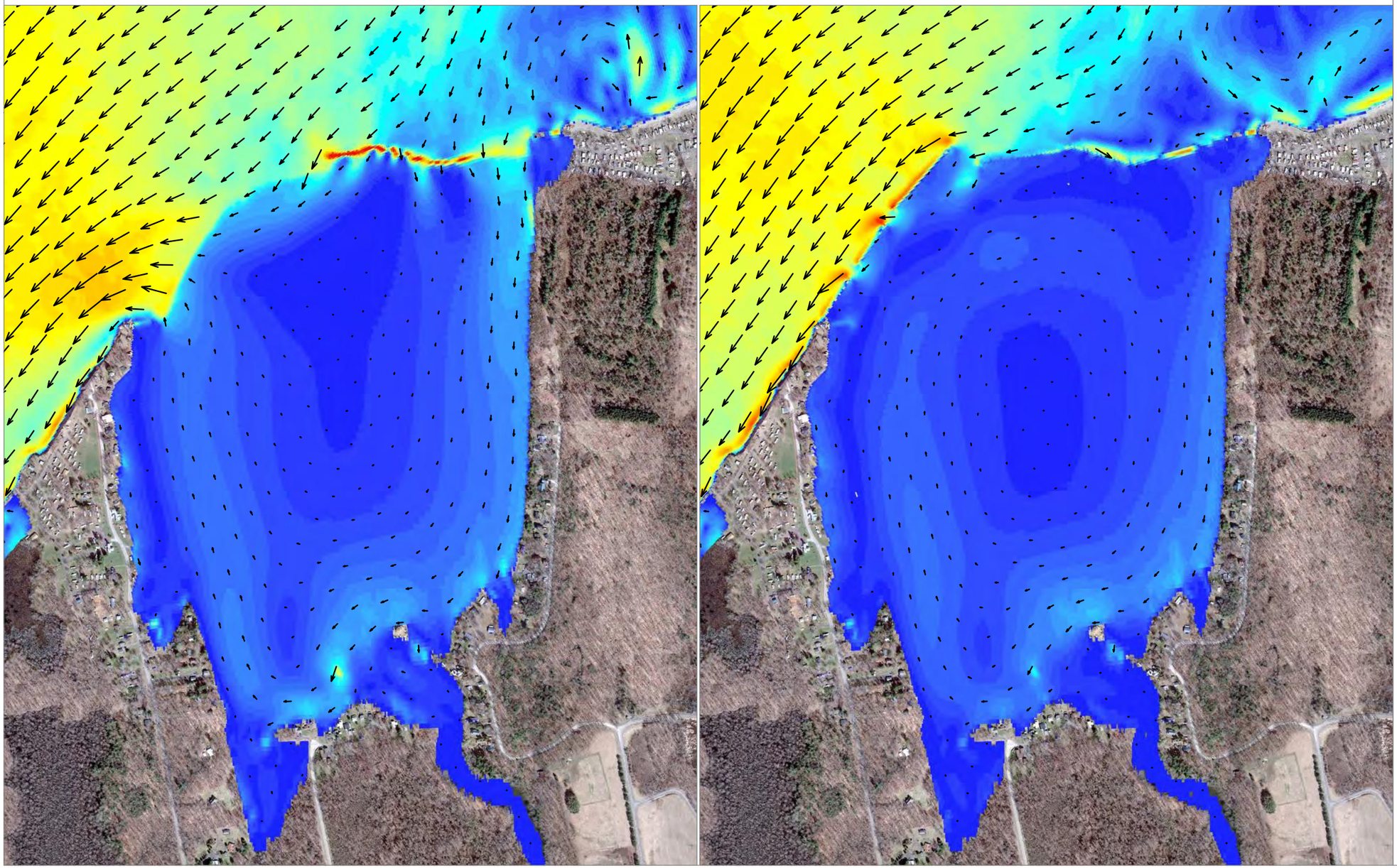
Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

DRAFT

Existing Condition

Proposed Condition



LEGEND:

Depth-Averaged Flow Velocity (Feet Per Second)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 0.9
- 0.9 - 1.0
- 1.0 - 1.1
- 1.1 - 1.2
- 1.2 - 1.3
- 1.3 - 1.4
- 1.4 - 1.5
- 1.5 - 1.6
- 1.6 - 1.7
- 1.7 - 1.8
- 1.8 - 1.9
- 1.9 - 2.0
- 2.0 - 2.1
- 2.1 - 2.2
- 2.2 - 2.3
- 2.3 - 2.4
- 2.4 - 2.5
- 2.5 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 2.9
- 2.9 - 3.0
- 3.0 - 3.1
- 3.1 - 3.2
- 3.2 - 3.3
- 3.3 - 3.4
- 3.4 - 3.5
- > 3.5

NOTES:

Basemap Source: Google Satellite Imagery

0 1,000

Feet

Publish Date: 2021/07/22, 12:13 PM | User: aq_user

Filepath: \\wcl-ny1\Helios\D_Drive\Projects\Wayne_County_NY_SWCD\Blind_Sodus_Bay_(E01125-02.01)\Deliverables\SEQR_BOD_Supplement\Figures\Figure_19\Figure_19.mxd

ANCHOR QEA

Figure 22

Flow Velocity Results: 100-Year North-Northeast Wind, 2019 Peak Water Level Scenario

Basis of Design Supplemental Information

Blind Sodus Bay REDI Project

The experience to
listen
The power to
solve℠

Barton & Loguidice

www.bartonandloguidice.com

Appendix B

Coordinated Review Responses

ANDREW M. CUOMO
Governor

ALFONSO L. CARNEY, JR.
Chair

REUBEN R. MCDANIEL, III
President & CEO

February 4, 2021

Ms. Lindsey Gerstenslager
District Manager
Wayne County Soil and Water Conservation District
7312 Route 31
Lyons, New York 14489

Mr. Grete L. Day
Staff Environmental Scientist
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, New York 13088

Sent Via Electronic Mail Only to: lindsey@wayneNYswcd.org
gday@bartonandloguidice.com

Re: The Wayne County Soil and Water Conservation District's *State Environmental Quality Review* Lead Agency Request Letter for the New York State Resiliency and Economic Development Initiatives Funded *Blind Sodus Bay Barrier Bar Project,* Town of Wolcott, Wayne County and Town of Sterling, Cayuga County, New York

Ms. Gerstenslager and Mr. Day:

The Dormitory Authority of the State of New York ("DASNY") is in receipt of the Wayne County Soil and Water Conservation District's ("WCSWCD's") *State Environmental Quality Review ("SEQR")* lead agency request letter for its REDI funded *Blind Sodus Bay Barrier Bar Project* (REDI Project №. 19380 WA-37). DASNY has no objection to the WCSWCD assuming lead agency status for purposes of conducting a coordinated *SEQR* for the above-referenced project. It should be noted that DASNY's jurisdiction regarding the proposed action would be that of a funding agency. The location of the proposed project is a portion of the Lake Ontario coastal area within the Town of Wolcott, Wayne County, and Town of Sterling, Cayuga County, New York.

As part of its approval process, DASNY is required to coordinate its *SEQR* reviews with the New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") consistent with New York State's *Article 14; §14.09 of the New York State Parks, Recreation and Historic Preservation Law* and relevant implementing regulations.

Accordingly, DASNY respectfully requests that OPRHP also be included as an Interested Party for the subject project. The appropriate contact at OPRHP is ***Mr. John A. Bonafide, Director, Technical Preservation Services Bureau, New York State Office of Parks, Recreation and Historic Preservation, Peebles Island, P.O. Box 189, Waterford, New York 12188-0189***. Mr. Bonafide has been copied on this correspondence. It is recommended that you enter the project information into OPRHP's *Cultural Resource Information System ("CRIS")* portal at their website (https://parks.ny.gov/shpo/online-tools/) to help expedite OPRHP's required review.

Please direct all project related questions, correspondence, and documentation directly to: ***Mr. Matthew A. Stanley, A.I.C.P., Senior Environmental Manager, Office of Environmental Affairs, DASNY, 515 Broadway, Albany, New York 12207*** or via electronic mail at ***mstanley@dasny.org*** or call Mr. Stanley at ***(212) 273-5097***.

Respectfully,

Robert S. Derico, R.A.
Director, Office of Environmental Affairs

cc: John Bonafide, OPRHP
Sara P. Richards, Esq.
Matthew A. Stanley, A.I.C.P.
Ann M. Shaw
Sean Rosney
SEQR File

SEQRA LEAD AGENCY DESIGNATION

ACTION: Blind Sodus Bay REDI Project

The undersigned involved or interested agency hereby:

☑ Received the coordinated review package for the above-referenced action; AND

☑ Consents; OR

☐ Does not consent

to the designation of the Wayne County Soil & Water Conservation District as Lead Agency for the above-referenced action.

Dormitory Authority of the State of New York

(Name of Involved or Interested Agency)

Robert S. Derico, R.A.

(Printed Name of Representative)

(Electronic/Digital Signature of Representative)

Form must be received before the end of the coordinated review period: March 3, 2021

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5400 | F: (585) 226-2830
www.dec.ny.gov

March 3, 2021

Lindsey Gerstenslager
Wayne Co SWCD
7312 St Rte 31
Lyons, NY 14489

Re: Blind Sodus Bay Barrier Bar Project – REDI WA-37
Town of Wolcott, Wayne Co
DEC ID No. 8-5448-00387/00001

SEQR LEAD AGENCY COORDINATION

Ms. Gerstenslager,

The Department of Environmental Conservation (the Department) has reviewed the SEQR Lead Agency Coordination request for the Blind Sodus Bay Barrier Bar (East Bar) project (REDI WA-37). The Department consents to the Wayne County Soil and Water Conservation District (SWCD) being deemed Lead Agency for the State Environmental Quality Review (SEQR).

The Department has the following comments on the full Environmental Assessment Form (fEAF):

- The 'Brief Description of Proposed Action (include purpose or need)' only states that the project will protect private property from erosion. The story board says the breach " has had significant implications for the water quality and wildlife habitats of the Bay". The project purpose should include a discussion on all the benefits the project will provide, including protection of water quality and fish and wildlife habitats in the Bay.

- Item D.2.r. on page 8 is not completed.

- Item E.2.p. on page 12 lists the spiny softshell turtle as a species of special concern which occurs in the area. It appears that the current project design does not provide any suitable turtle nesting habitat. Proper nesting habitat would include areas of deep sand/gravel on the Bay side with no or sparse vegetation.

We look forward to continuing to work with the Wayne County SWCD in the design and review of this project. Please feel free to contact me with any questions at kristine.carlson@dec.ny.gov or 585-226-5392.

Sincerely,

Kris Carlson
Environmental Analyst

Ecc: G. Day, Barton & Loguidice
J. Lacko, NYSOGS
K. Sorbaro, NYSOGS
M. Maraglio, NYSDOS

Grete L. Day

From: Haight, Terra (DOS) <Terra.Haight@dos.ny.gov>
Sent: Monday, February 1, 2021 3:19 PM
To: Grete L. Day
Subject: Re: Blind Sodus Bay REDI Project SEQRA

ATTENTION --> This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello Grete-

DOS has no objection to Wayne County Soil & Water Conservation District assuming lead agency for the referenced project.

From: Grete L. Day <gday@bartonandloguidice.com>
Sent: Monday, February 1, 2021 2:16 PM
To: Haight, Terra (DOS) <Terra.Haight@dos.ny.gov>
Subject: Blind Sodus Bay REDI Project SEQRA

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good afternoon,

On behalf of the Wayne County Soil & Water Conservation District, please see the attached State Environmental Quality Review Act (SEQRA) documents for the proposed Blind Sodus Bay REDI Project. Your agency meets the definition of an Involved or Interested Agency for the project's SEQRA review.

The attached coordinated review package includes a letter, Lead Agency consent form, Part 1 of the Full Environmental Assessment Form, and conceptual design figures. Hard copies of these documents will not be mailed. The coordinated review period ends on March 3, 2021. Please return the Lead Agency consent form as soon as possible, along with any further comments or questions you may have regarding the project.

Sincerely,
Grete Day

Grete L. Day
Staff Environmental Scientist
Environmental

Barton&Loguidice
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Email: gday@bartonandloguidice.com
Website | LinkedIn | Twitter | Facebook | Vimeo

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NEW YORK STATE OF OPPORTUNITY. | Office of General Services

ANDREW M. CUOMO
Governor

ROANN M. DESTITO
Commissioner

February 12, 2021

Lindsey Gerstenslager
Wayne County Soil and Water Conservation District
7312 Route 31
Lyons, New York 14489

Re: Lead Agency Coordination Response
I-4240 REDI Project WA.37 Blind Sodus Bay
(T) Wolcott & Sterling, (C) Wayne & Cayuga

This letter is in response to the communication dated February 1, 2020, regarding the State Environmental Quality Review (SEQR) requirements under Article 8 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 617 for the projects listed above.

Name of Actions	I-4240 REDI Project WA.37 Blind Sodus Bay
OGS Contact Person	Jamie Lacko, Environmental Analyst 2
OGS Authorization(s)	The use of State-owned land underwater is subject to Article 6, Section 75, of the Public Lands Law.

Comments:

New York State Office of General Services (OGS) has no objection to your agency assuming lead agency status for this action. Pursuant to the Public Lands Law OGS is responsible for activities which affect New York State owned lands under water or formerly underwater, as well as State owned uplands. The applicant will need to seek appropriate authorization(s) from OGS.

Please continue to keep OGS apprised of the progress in both the project and the environmental reviews. Do not hesitate to contact me at (518) 474-6238, if you have questions regarding the above information. Thank you.

Sincerely,

Jamie Lacko

Jamie G. Lacko
Environmental Analyst II
State Asset and Land Management

Negative Declaration Resolution

WAYNE COUNTY
SOIL & WATER
CONSERVATION DISTRICT

7312 Route 31, Lyons, New York 14489
Telephone (315) 946-7200
Fax (315) 946-7205
waynecountyNYsoilandwater.org

RESOLUTION DETERMINING THAT THE PROPOSED BLIND SODUS BAY REDI PROJECT IS A TYPE 1 ACTION AND WILL NOT HAVE A SIGNIFICANT ADVERSE IMPACT ON THE ENVIRONMENT

WHEREAS, the Wayne County Soil & Water Conservation District (SWCD) is proposing the Blind Sodus Bay REDI Project (Project), located in the Town of Wolcott, Wayne County and the Town of Sterling, Cayuga County, New York; and

WHEREAS, pursuant to Article 8 of the Environmental Conservation Law, as amended, the New York State Environmental Quality Review Act ("SEQRA") and the implementing regulations at 6 NYCRR Part 617 (the "Regulations"), the Wayne County SWCD Board of Directors desires to comply with SEQRA and the Regulations; and

WHEREAS, the Project has been classified as a "Type I Action" as defined by the State Environmental Quality Review Act (SEQRA) in 6 NYCRR Part 617.2(aj);

WHEREAS, a letter and Part 1 of a Full Environmental Assessment Form (FEAF) were sent to other potentially "Interested Agencies" and "Involved Agencies" (as these terms are defined in the SEQRA Regulations found at 6 NYCRR Part 617.2), indicating the Wayne County SWCD Board of Directors' desire to serve as the "Lead Agency" (as this quoted term is defined in the SEQRA Regulations) and to complete a coordinated review of the Project (in accordance with 6 NYCRR Part 617.6); and

WHEREAS, responses from Interested and Involved Agencies were requested, and each of the potentially Interested and Involved Agencies has agreed to, or raised no objections to, the Wayne County SWCD Board of Directors serving as Lead Agency for the Project; and

WHEREAS, pursuant to the Regulations, the Wayne County SWCD Board of Directors has considered the significance of the potential environmental impacts of the Project by (a) using the criteria specified in Section 617.7 of the SEQRA Regulations, and (b) examining the FEAF for the Project, including the facts and conclusions in Parts 1, 2 and 3 of the FEAF, together with other available supporting information, to identify the relevant areas of environmental concern;

NOW, THEREFORE, BE IT

RESOLVED that, the Wayne County SWCD Board of Directors hereby establishes itself as Lead Agency for the Project; and

RESOLVED, pursuant to and in accordance with the review requirements for Type I Actions in the SEQRA Regulations, the Wayne County SWCD Board of Directors hereby confirms that the proposed Action meets the criteria for classification as a Type I Action; and

BE IT FURTHER RESOLVED, that based upon an examination of the FEAF – Parts 1, 2, and 3, the Part 3 Supporting Information document, and the 60% Basis of Design Report, along with other available

supporting information, and considering both the magnitude and importance of each relevant area of environmental concern, the Wayne County SWCD Board of Directors makes the following findings and determinations:

1. No potential small or moderate to large environmental impacts were identified in Part 2 of the FEAF for Geological Features, Groundwater, Air, Agricultural Resources, Critical Environmental Areas, Transportation, Energy, Human Health, or Consistency with Community Plans. These topics were not further considered in Part 3 of the FEAF due to their lack of potential adverse effects and relationships to the Project.
2. Potential small or moderate to large environmental impacts were identified in Part 2 of the FEAF for Land, Surface Water, Flooding, Plants and Animals, Aesthetic Resources, Historic and Archeological Resources, Open Space and Recreation, Noise, Odor and Light, and Consistency with Community Character.

3. An evaluation of the magnitude and importance of Project impacts has been completed by the Wayne County Board of Supervisors. Expanded supporting information is provided with the Part 3 FEAF, but summarized findings for each potential area of Project impact is detailed as follows:

   a. Impact on Land

   - The proposed action will involve construction on land where the depth to water table is less than 3 feet.
   - The proposed action may involve construction that continues for more than one year or in multiple phases.
   - The proposed action may result in increased erosion.
   - The proposed action is, or may be, located within a Coastal Erosion Hazard Area.

   The work within the Lake and Bay will involve the placement of stone, sand, and natural features such as woody habitat features and plantings. Erosion and sediment control measures will be detailed in the Project's design plans, which will be followed during construction. Construction activities are expected to continue for approximately 10 months, and will not be continuous due to in-water work timing restrictions, seasonal weather conditions, and fluctuating Lake water levels. Necessary local, state and federal permits will be obtained prior to construction. The breakwaters and re-established/enhanced barrier bar will reduce incoming wave heights and velocities, which will reduce future erosion along the shoreline of Blind Sodus Bay. The Project intends to re-establish and enhance much of the pre-existing barrier bar to improve water quality and restore wildlife habitat in Blind Sodus Bay. No significant adverse impacts to land are anticipated.

   b. Impacts on Surface Water

- The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.
- The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.
- The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.

The proposed breakwaters and barrier bar enhancement/re-establishment will involve a total of approximately 62,000 CY of fill within the Lake and Bay, which is considered small compared to the total volume of the Lake (393 cubic miles). Necessary local, state, and federal permits will be obtained prior to construction. The conditions of received permits would be followed during construction to ensure that adverse impacts to the Lake are minimized. The breakwaters and reconstructed barrier bar will result in a small loss of the current surface area in Lake Ontario and Blind Sodus Bay, however, the area above the OHWE will be similar to the extent of the former barrier bar before it eroded. The Project is not anticipated to alter water quality or increase sedimentation long-term/post-construction; temporary increases of turbidity within the work area may occur during active construction but will be managed. No significant adverse impacts to surface waters are anticipated.

c. Impact on Flooding

- The proposed action may result in development within a 100-year floodplain.

The project area is located within the 100-year floodplain of Lake Ontario and Blind Sodus Bay. The proposed amount of fill within the Lake and Bay is very minor compared to their total area; any changes to the flood flow storage capacity of the Lake and Bay will be *de minimis*. Local floodplain development permits will be obtained from the Towns of Wolcott and Sterling, and conditions that the Towns impose upon the Project to avoid and minimize impacts to floodplains will be followed. The Project is not anticipated to increase the amount of development within 100-year floodplain areas. Development in these mapped areas is managed by the Towns. No significant adverse effects on flooding will result from the proposed Project.

d. Impact on Plants and Animals

- The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.

- The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.
- The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.

A habitat assessment was completed in December 2020 to determine whether suitable habitat for any state or federal-protected species is present within the project area. The Project is not likely to adversely affect any of the threatened, endangered, or rare species, or species of special concern, reported within the project area. The predominant wildlife species that occupy the project area include a number of fish and aquatic species and shorebirds. Although the Project will require the placement of fill material within Lake Ontario and Blind Sodus Bay, this change is not expected to adversely affect nesting or foraging opportunities for species that utilize the project area. In fact, the breakwaters and re-established/enhanced barrier bar will restore habitat that was recently lost due to high water levels and storm events. No nesting records for state or federal-listed shorebird species were documented for the project area. No significant adverse impacts on plants and animals are anticipated.

e. Impact on Aesthetic Resources

- Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.
- The proposed action may be visible from publicly accessible vantage points: seasonally and year round.
- The situation or activity in which viewers are engaged while viewing the proposed action is: routine travel by residents and recreational or tourism based activities.
- The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.
- There are similar projects visible within the following distance of the proposed project: 0-1/2 mile, ½-3 miles, 3-5 miles, 5+ miles.

The barrier bar and breakwaters are likely to be visible from Blind Sodus Bay, surrounding portions of Lake Ontario, and from nearby parks. The crests of the breakwaters and re-established/enhanced barrier bar are proposed be constructed above the Ordinary High Water Elevation of Lake Ontario (247.3 IGLD85). The breakwaters and barrier bar would likely be visible year-round; visibility would vary depending on water levels. The breakwaters and re-established/enhanced barrier bar will be constructed of natural stone material, and are not expected to result in significant adverse visual changes to the local viewshed. Visual conditions are intended to be similar to what they were before the former barrier bar was eroded in 2017. The Project will not diminish the community's or public's use and/or

enjoyment of Lake Ontario, Blind Sodus Bay, and the recreational opportunities they offer. No significant adverse impact on aesthetic resources is anticipated.

f. Impact on Historic and Archaeological Resources

- The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.

The Project was submitted to the SHPO for review through the Cultural Resource Information System (CRIS) in January 2021. The project area is located within an archaeologically sensitive area. SHPO issued a letter on February 11, 2021, indicating their opinion that the Project would not affect any historic or archaeological resources. No further consultation with the SHPO is required. No significant adverse impacts to historic and archaeological resources are anticipated to occur as a result of the Project.

g. Impact on Open Space and Recreation

- The proposed action may result in the loss of a current or future recreational resource.

Although the Project will result in the placement of fill within Lake Ontario and Blind Sodus Bay, the proposed amount of fill is minimal compared to the total volume and surface coverage of the Lake and Bay. The navigational channel between the Lake and Bay will be relocated to its historic location, and gaps will be left between the breakwaters to allow circulation through the system that will maintain recreational use and access, allowing for the continued enjoyment of the Lake and Bay. Proper navigational markers and aids will be installed in accordance with local, state, and federal permit conditions, to maintain public safety. No permanent or long-term significant adverse impacts to open space and recreation are anticipated.

h. Impact on Noise, Odor, and Light

- The proposed action may produce sound above levels established by local regulation.
- Other: The barrier bar will require navigational marker lights, which will be placed offshore (Lakeward) of the breakwaters and barrier bar.

Elevated noise conditions will be temporary and will end once construction is complete. Construction activities will be planned for daylight hours on weekdays. Navigational markers to warn incoming watercraft from Lake Ontario about the locations of the installed features are expected to be required for the Project. Markers are anticipated to consist of flashing amber lights mounted on buoys that

would be placed offshore (Lakeward) of the breakwaters and barrier bar. The lights would be similar to existing navigational markers in Lake Ontario. While they may be visible from the shoreline, they are not expected to shine onto nearby properties. No long-term significant adverse impacts to noise levels or light are expected to result from the Project.

i. Consistency with Community Character

- The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.

During construction, recreational activities within the project area may be temporarily restricted to maintain public safety as well as safe working conditions and access for the contractor. Access to the project area will be fully restored upon completion of construction. Visual conditions are intended to be similar to what they were before the former barrier bar was eroded in 2017. The breakwaters and barrier bar re-establishment/enhancements are not anticipated to result in a significant adverse change to community character. The Project aims to preserve the Blind Sodus Bay community and ecosystem by reducing shoreline erosion and enhancing wildlife habitat. Significant adverse impacts to community character are not expected.

4. The Project will not have a significant adverse environmental impact on the topics evaluated in Parts 2 and 3 of the FEAF, or on any additional area of concern, and will not require the preparation of a Draft Environmental Impact Statement (DEIS) with respect to the proposed action; and

BE IT FURTHER RESOLVED, that as a consequence of such determination and in compliance with the requirements of SEQRA and the Regulations in 6 NYCRR Part 617, the Wayne County SWCD directs the Wayne County SWCD District Manager to sign and complete Part 3 of the FEAF for the Project, and to complete noticing requirements in accordance with the Regulations; and be it further

RESOLVED, that this Resolution shall take effect immediately.

The question of the adoption of the foregoing resolution was duly put to a vote, and upon roll call, the vote was as follows:

The foregoing resolution was thereupon declared duly adopted.

I hereby certify that this resolution was adopted on September15, 2021 and is recorded in the Meeting Minutes of the Wayne County SWCD Board of Directors.

Wayne County SWCD Board Representative

Date: 9/15/2021