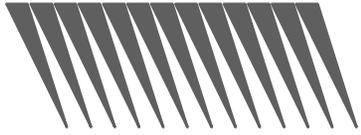
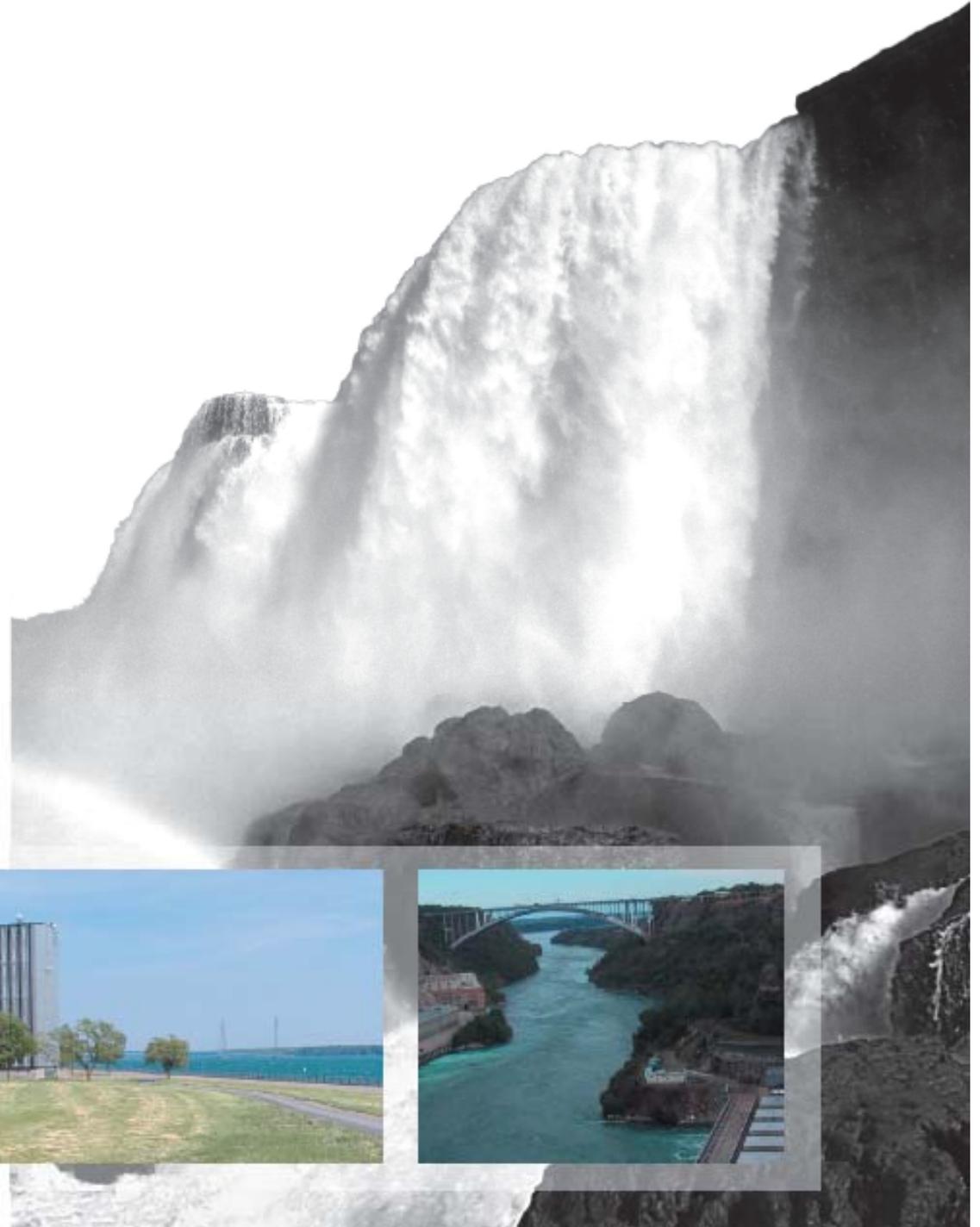


NIAGARA POWER PROJECT



RELICENSING IMPLEMENTATION

# Ecological Standing Committee Meeting



March 18, 2009

# Agenda

- Anticipated Habitat Improvement Projects (HIPs) activities for 2009
  - Invasive Species Control Plans
  - Osprey Nesting Platform
  - Common Tern Nesting Enhancements
  - Motor Island Shoreline Protection
  - Little Beaver Island Wetland Restoration
  - Fish Attraction Structures
  - Wetland Creation Upstream of Motor Island
- Review Action Items from 12/10/2008 meeting
- Meeting Wrap Up / Action Items

# Invasives Control at Buckhorn and Tifft

## *Objective*

“Control invasive wetland species in targeted areas of Buckhorn and Tifft Marshes in order to promote the growth of functionally valuable wetlands characterized by a diverse community of native wetland vegetation”

# Accomplished Last Two Quarters

- Complete Draft Actions Plans for both Buckhorn and Tifft
- Calls with Dave Spiering to discuss overall approach and regulatory issues for Tifft Marsh

# Invasives Control - Plans for 2009

- Distribute Draft Action Plans to Parks, DEC and Buffalo Museum of Science (Participants in Action Plan Development) (Q1)
- Meet with above parties (Q2)
- Revise Action Plans per input from Parks, DEC and BMS (Q2)
- Distribute Action Plans for ESC input (Q2-Q3)
- Permitting (Q3-Q4)
- Scope Development for Implementation (RFPs) (Q3-Q4)

# Action Plan: Priority Species

**Phragmites  
(primary)**



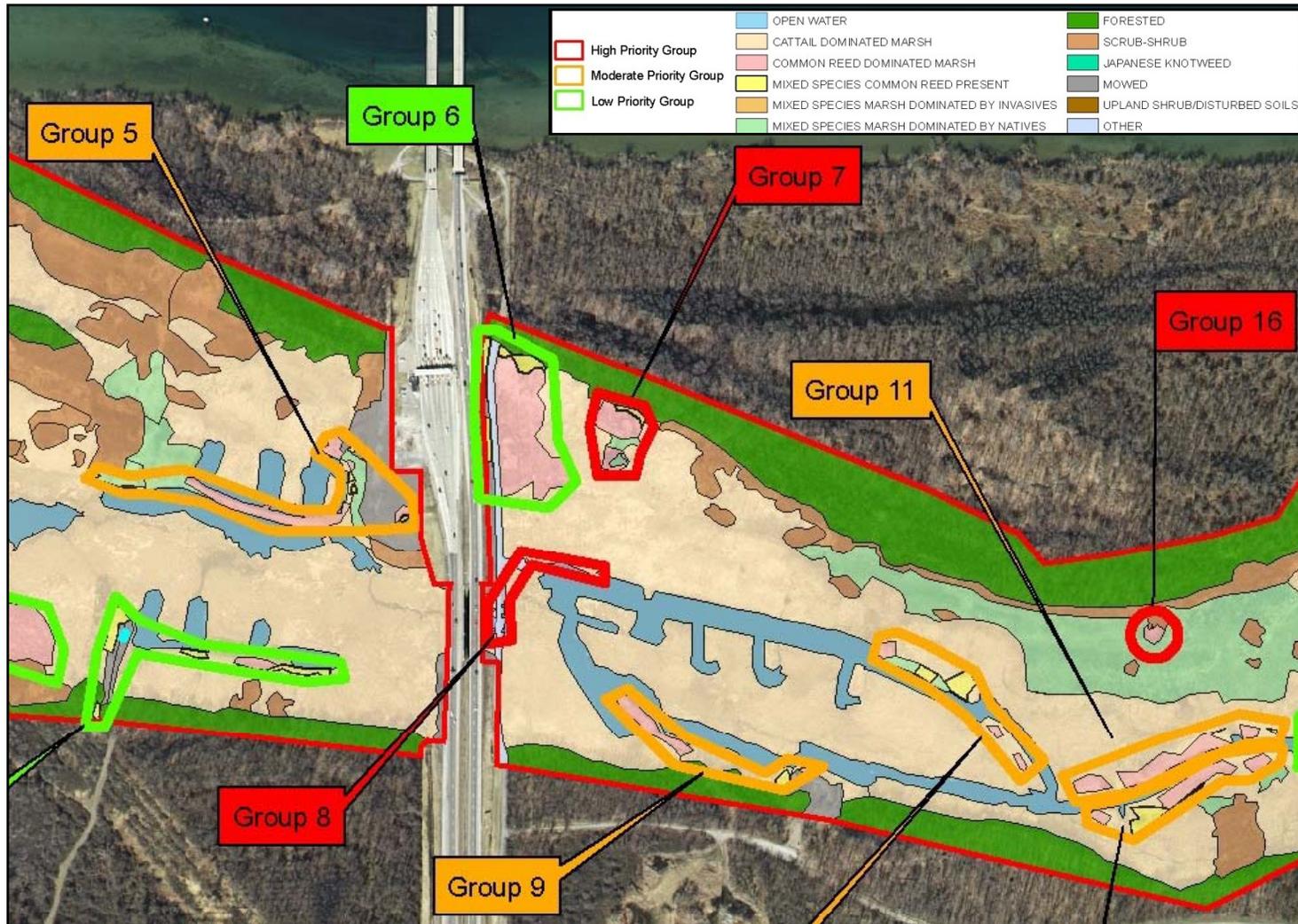
**Japanese Knotweed  
(secondary)**



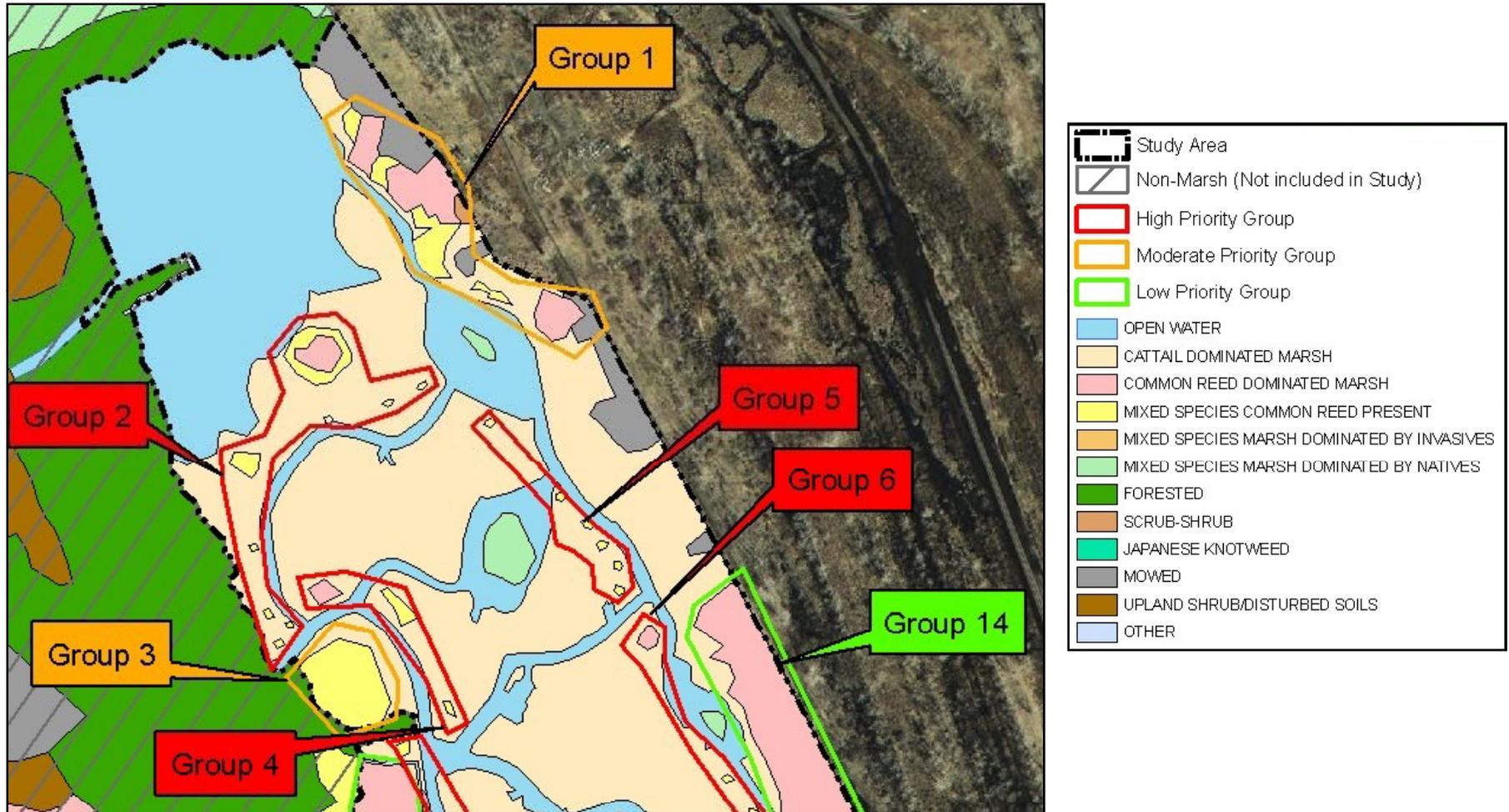
# Different Methods for Different Stands



# Buckhorn Group Ranks - DRAFT



# Tifft Group Ranks - DRAFT

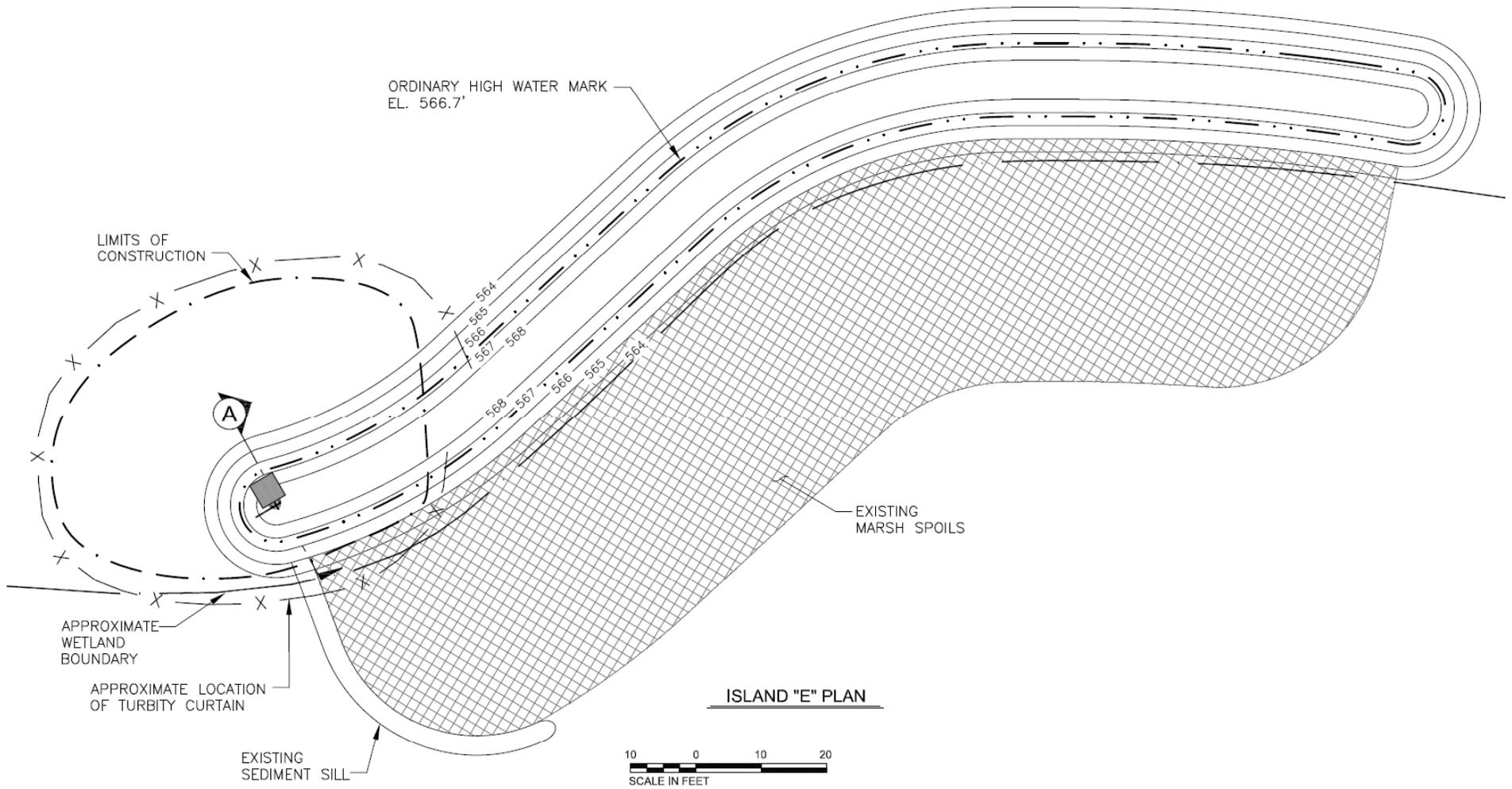


# Osprey Nesting Platform -2009

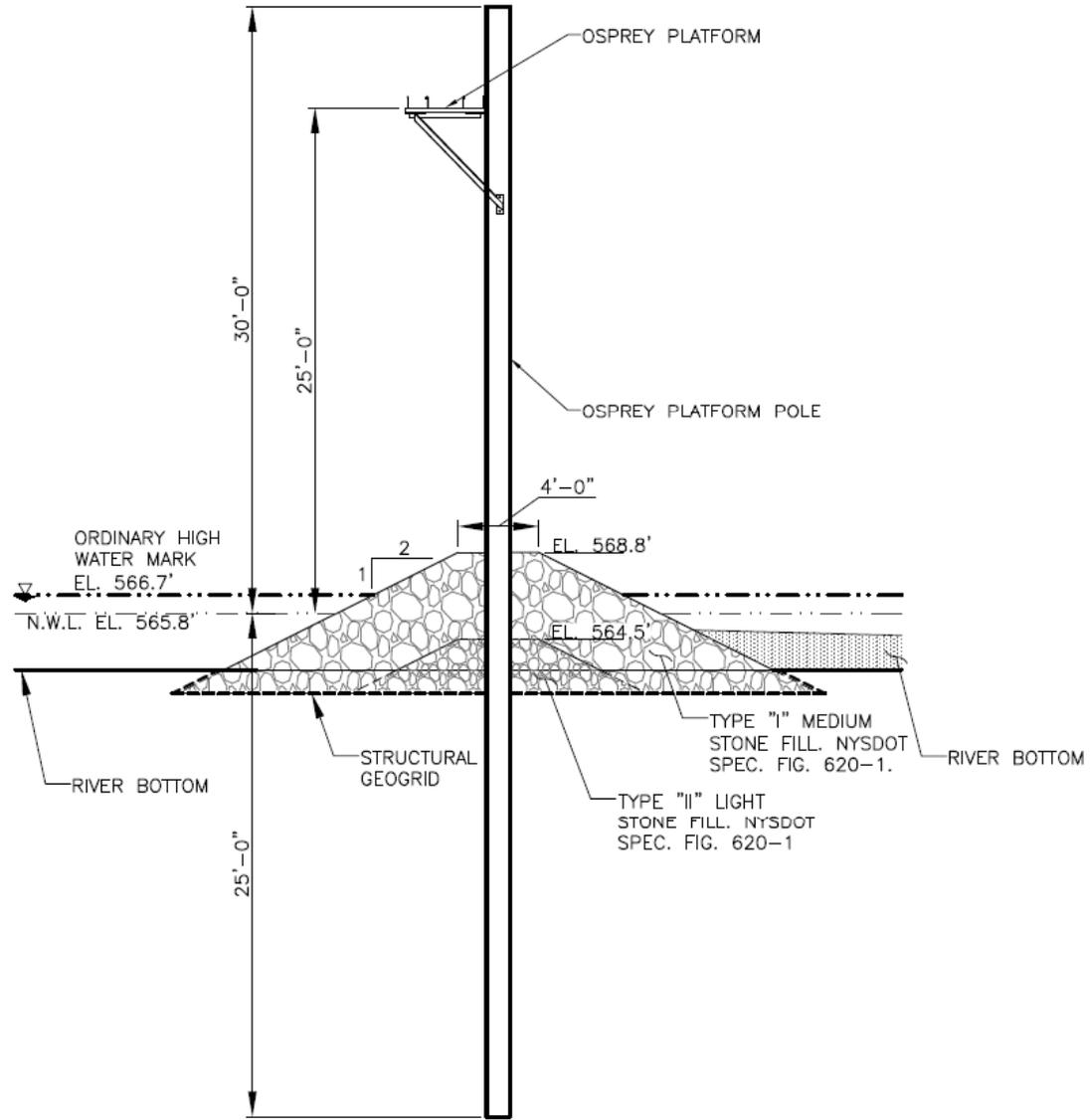
Installation, Additional Site Selection, and Monitoring



# Pole Location on Island E



# Osprey Pole Section



ISLAND SECTION (A)

# Osprey Pole Installation East River Marsh

- RFQ Issued Feb 16
- Bids due March 18
- Permit Applications
  - OPRHP Work Permit
  - USACE Nationwide Permit
  - DEC Freshwater Wetland permit
- Evaluate bids and award contract (April)
- Install platform by June 30



# Osprey Nesting Platforms - Additional Site Selection

- Identify four additional installation locations
  - Review suitability of suggested locations
    - Strawberry Island
    - Bird Island Pier
    - Tifft Farm Nature Preserve (2)
  - Consider new potential locations
    - NYPA team to develop list of candidate sites
    - Opportunity for public to suggest sites
  - Develop revised list of potential installation locations

# Osprey Nesting Platform Site Selection Criteria

Criteria	More Desirable <span style="font-size: 2em;">→</span> Less Desirable		
	Distance from water or foraging areas	Near (On shoreline)	Moderate
Proximity to other raptors (Bald Eagle, Peregrine Falcon, other Osprey)	Osprey observed in area and no other raptors known to nest nearby	Osprey observed in area but other raptors known to nest nearby	No Osprey nearby but other raptors known to nest nearby
Proximity to thickly forested woodlands	Far	Moderate	Near
Height of nearest adjacent trees	Low	Moderate	High
Ease of public viewing	Excellent from land or water	Good	Limited
Potential disturbance by people, industry, or pets	Low	Moderate	High
Land ownership	Public	Private with easement or not-for-profit conservation organization	Purchase Private Land
Condition of soils at site	Firm, clean upland soils	Potentially contaminated or moderately unstable soils	Very unstable soils or high potential for contaminants
Ease of access to pole installation location	Easy	Moderate	Difficult
Potential impacts to sensitive areas from installation (wetlands; rare, threatened, endangered species; cultural resources)	Low	Moderate	High



Photos courtesy Ian Cristine and Bud Andress, St. Lawrence Islands National Park

# Osprey Nesting Platform Site Suggestion Card

- Send in by April 24<sup>th</sup> (email or mail)
- NYPA will compile and consider all sites
- Develop prioritized list of sites
- Select 4 for Osprey HIP
- Additional sites are potential future opportunities for HERF or for others

<p><b>Osprey Nesting Platform Site Suggestion Card</b> <i>Niagara Power Project</i> <i>Osprey Habitat Improvement Project – March 2009</i></p>	<p><b>Suggestion No.:</b> _____ <i>(For NYPA use only)</i></p>
<p><b>Location of Site</b> (address, street, nearest cross-street, property owner, etc.): _____ _____ _____</p>	
<p><b>Description of Site</b> (sketch on back): _____ _____ _____</p>	
<p><b>Internet Map Link to Site</b> (see instruction sheet for details):</p>	
<p>Link: _____ Latitude: ___ ° ___ ' ___ . ___ " N Longitude: ___ ° ___ ' ___ . ___ " W</p>	
<p>Please provide the following contact information should we have questions regarding your suggestion:</p>	
<p>Name: _____</p>	
<p>Phone: _____</p>	<p>Email: _____</p>

# Osprey Nesting Platform Monitoring Outlined in Settlement Agreement

- Maintenance monitoring for life of license (2057)
- Monitor all platforms for Osprey use for five years
- Monitor monthly May to September (five months)
- Record and report observations
  - Presence or absence of nest
  - Number of adults or young
  - Behaviors observed (e.g., nest building, incubation)
  - Notes and observations (platform condition, nest condition, photographs, etc)



Photo credit: Jeff Gerlach, NYPA

# Common Tern Nesting – 2009

- ❑ Objective: Improve or create nesting habitat for the threatened Common Tern
- ❑ Breakwater end cell modification (Short Breakwater) and tern nesting habitat barge (North [or Donnelly's] Breakwater)
  - ❑ Discussions with the USACE and DEC (Q1 - done)
  - ❑ Engineering design/permit applications (Q1 - done)
    - ❑ USACE Nationwide & Real Estate Permits
  - ❑ Issue RFQ for end cell design and tern habitat barge (Q1 – done)
  - ❑ Bids due March 9<sup>th</sup>; now under evaluation
  - ❑ Award contract
  - ❑ Modify end cell and install barge when permits issued (early Q2)
  - ❑ DEC says stop by April 20<sup>th</sup>; finish after nesting season (if necessary)
- ❑ Monitor nesting (Q2-Q3)



# Framework and Perimeter Fence

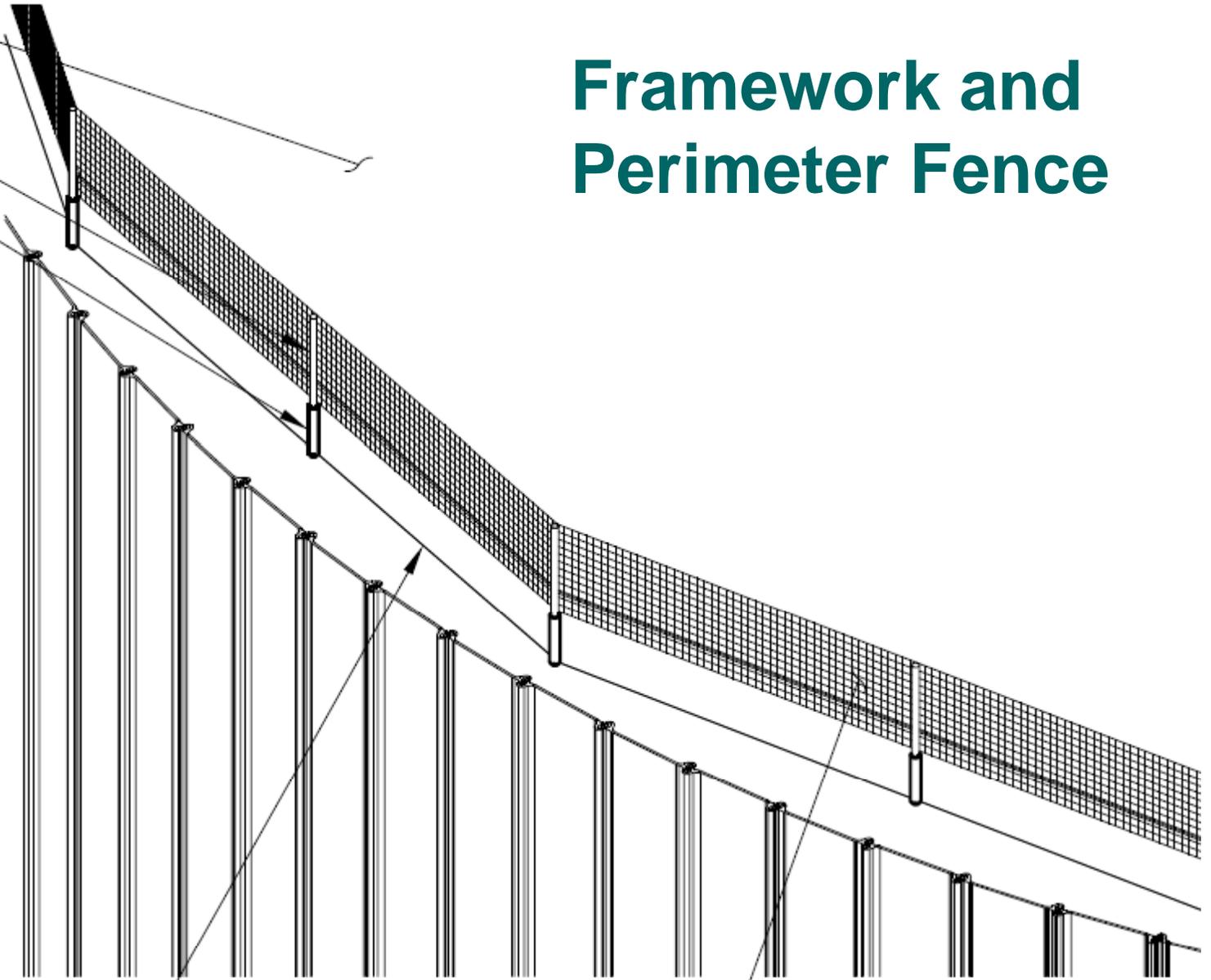
6" PEA STONE  
NESTING SURFACE

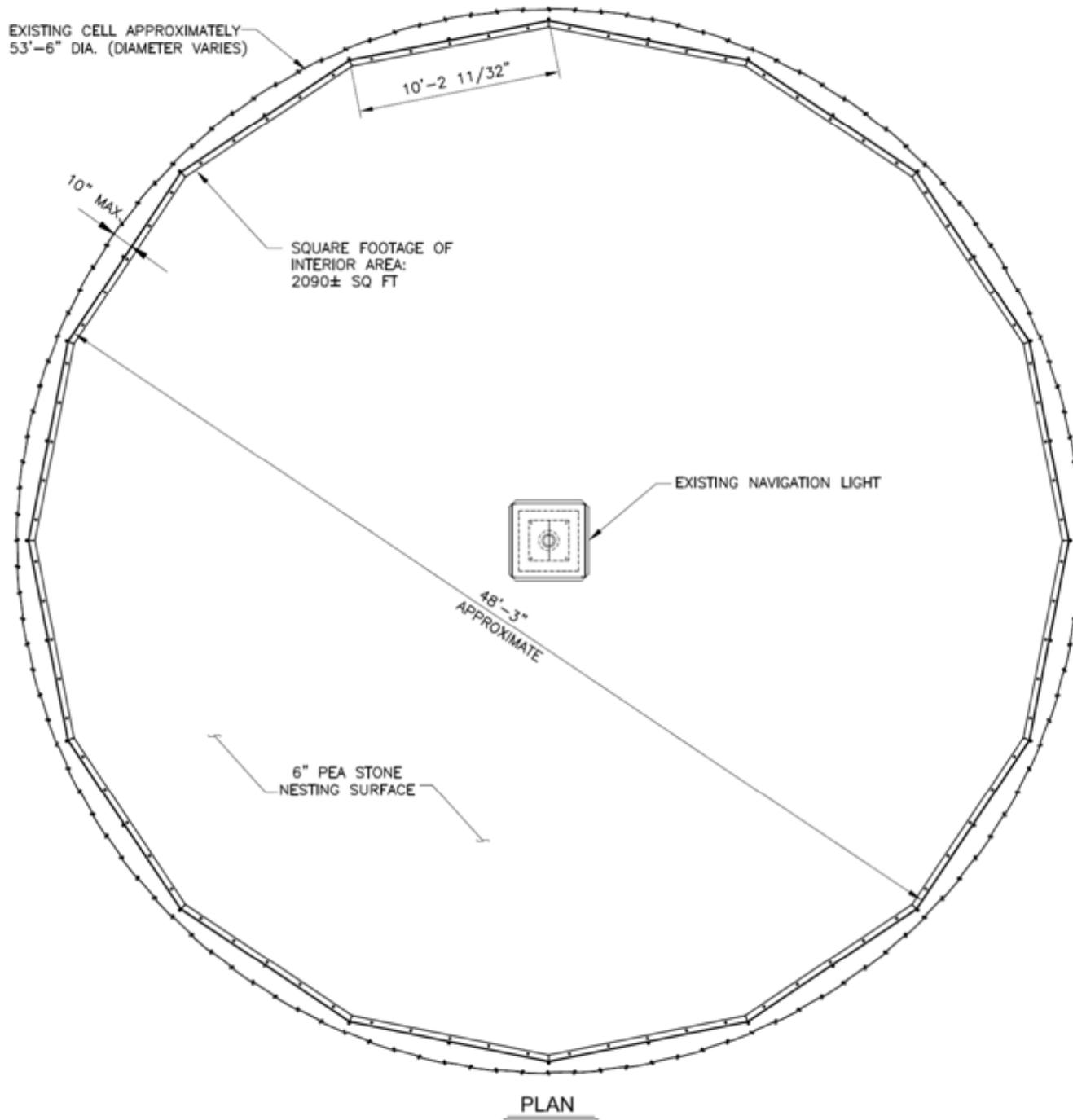
STEEL PIN

PIPE SOCKET

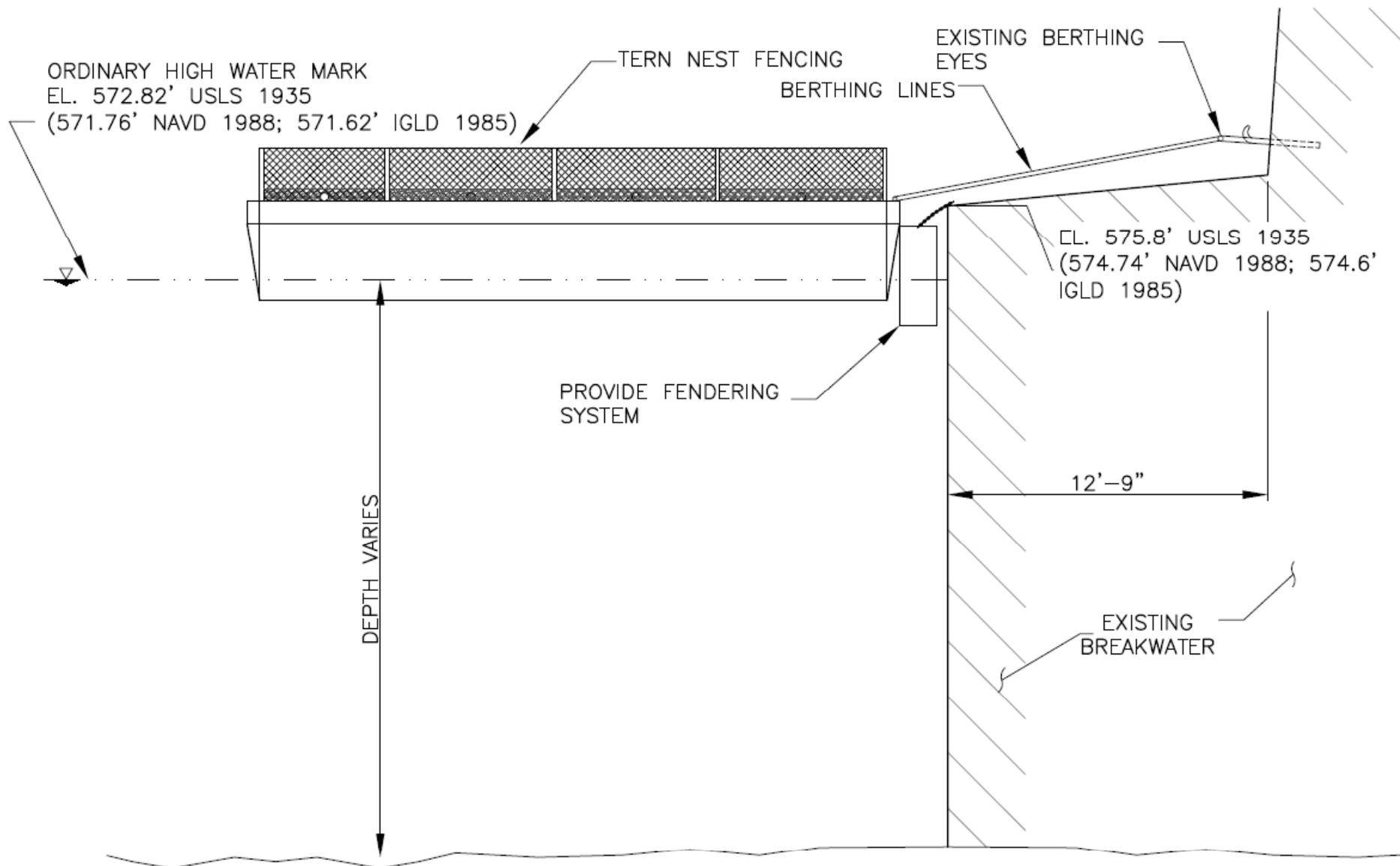
3/8" BENT PLATE

SEASONAL PLASTIC MESH



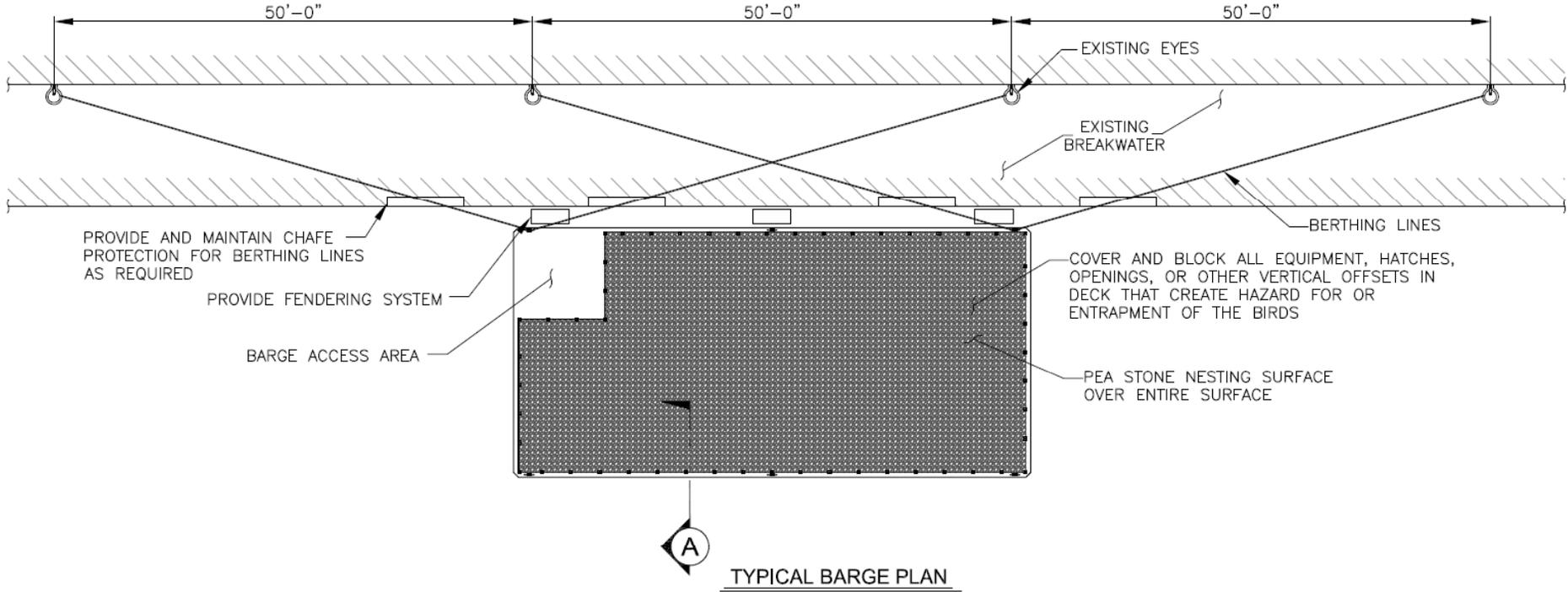


# Perimeter Fence for End Cell Modification



# Nesting Barge at Donnelly's Breakwater

# Newly Created Tern Habitat on Floating Barge



Plan (aerial) view

# Common Tern Nesting Monitoring - 2009



- Monitor tern nesting on the end cell and barge from late April to July
- Survey approximately once per week (weather/conditions permitting)
- Use established DEC survey protocols (*e.g.* NYSDEC, 2004; Harper *et al.*, 2008)

# Common Tern Nesting Monitoring 2009 continued



- On each survey, record the number of nests, eggs, and chicks
- Calculate productivity (chicks fledged per nest)
- Prepare report
- Determine future course of action
- Update the ESC with results and potential future plans

# Motor Island Shoreline Protection

## Revised Approach –

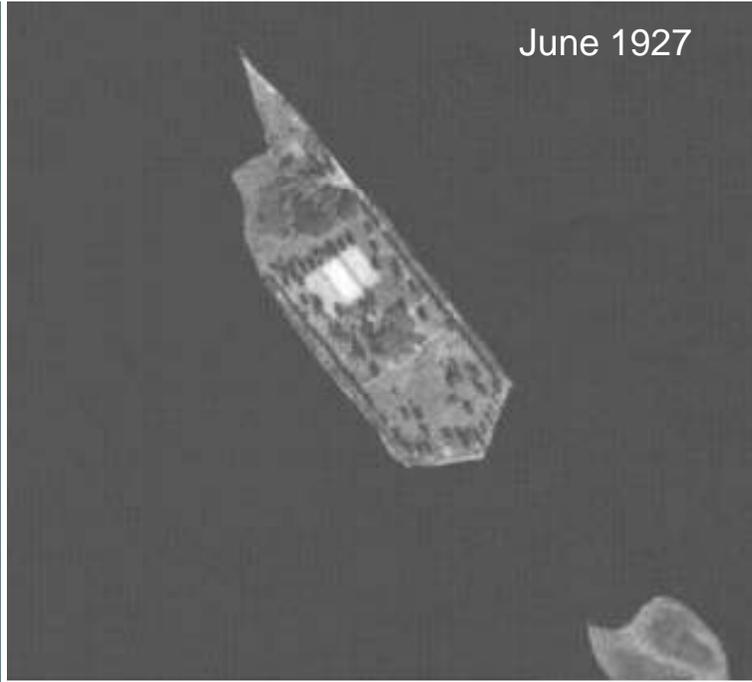
- Use softer bioengineering approach
- Create series of low-profile, breakwater islands to help attenuate erosive energies.
- Excavate scalloped shoreline to provide habitat diversity (wetlands and protected pools) and create smoother transition to the island.



Motor Island - Current



June 1927



# Motor Island Plan View



SHEETPILE WITH  
BIOENGINEERED RIPRAP

ROCK VANE WITH HOOK

LINE EXISTING  
CRIB WITH ROCK

GRAVEL ACCESS  
AREA WITH TIE-OFF

POOL WITH ELONGATED BREAKWATER ISLAND

NEWLY ADDED FISH ATTRACTION  
ROCK SLOPE STRUCTURE

COBBLE BEACH

POOL WITH NARROW OPENING

COBBLE BEACH

POOL WITH BOULDER BREAKWATER

COBBLE BEACH

POOL WITH SHORT  
BREAKWATER ISLAND

COBBLE BEACH

POOL WITH NARROW OPENING

SPOILS AREA  
2 1/2' ± DEEP  
OVER 17600 ± SQ FT  
(OLD TENNIS COURTS)

POOL WITH BOULDER BREAKWATER

POOL WITH ELONGATED  
BREAKWATER ISLAND

COBBLE BEACH

POOL WITH ELONGATED  
BREAKWATER ISLAND

POOL WITH NARROW OPENING

COBBLE BEACH

POOL WITH SHORT  
BREAKWATER ISLAND

COBBLE BEACH

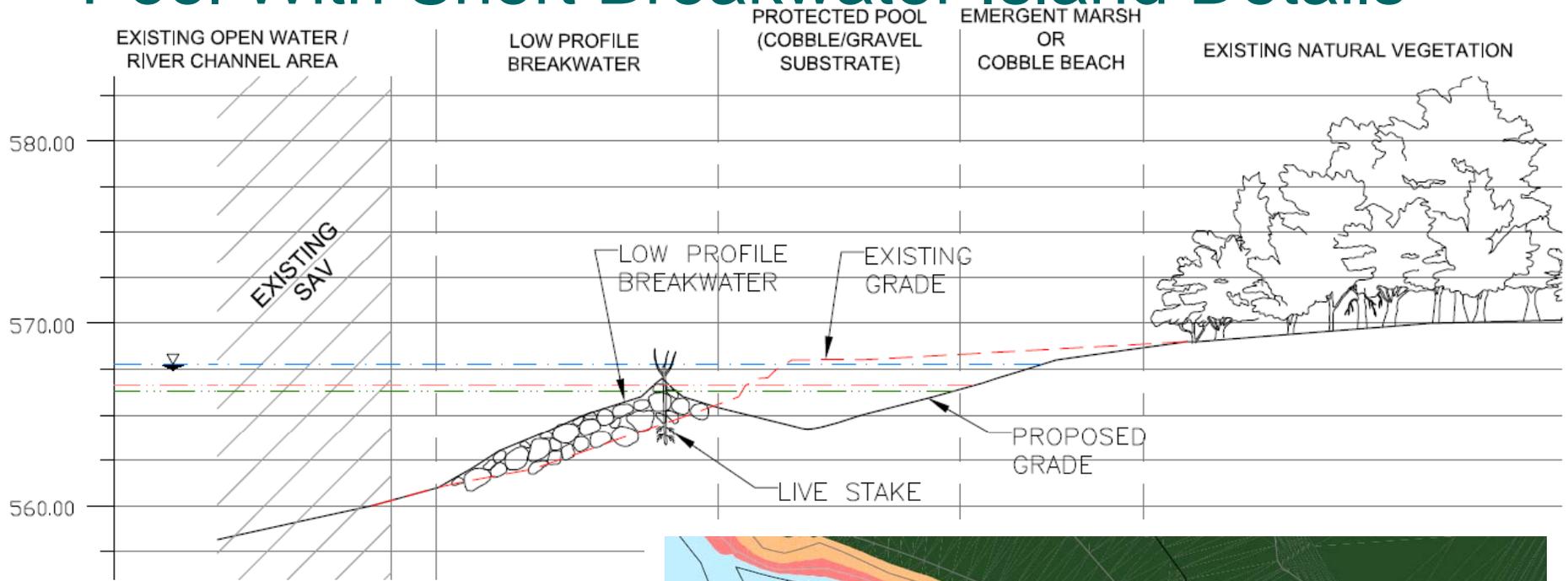
EXISTING SHORELINE

POOL WITH BOULDER BREAKWATER

ELEVATIONS TABLE

EXCEEDENCE	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
>90%	<565.6'	565.6'	Light Blue
90%–50%	565.6'	566.4'	Red
50%–10%	566.4'	567.4'	Orange
<10%	567.4'	>567.4'	Green

# Pool With Short Breakwater Island Details

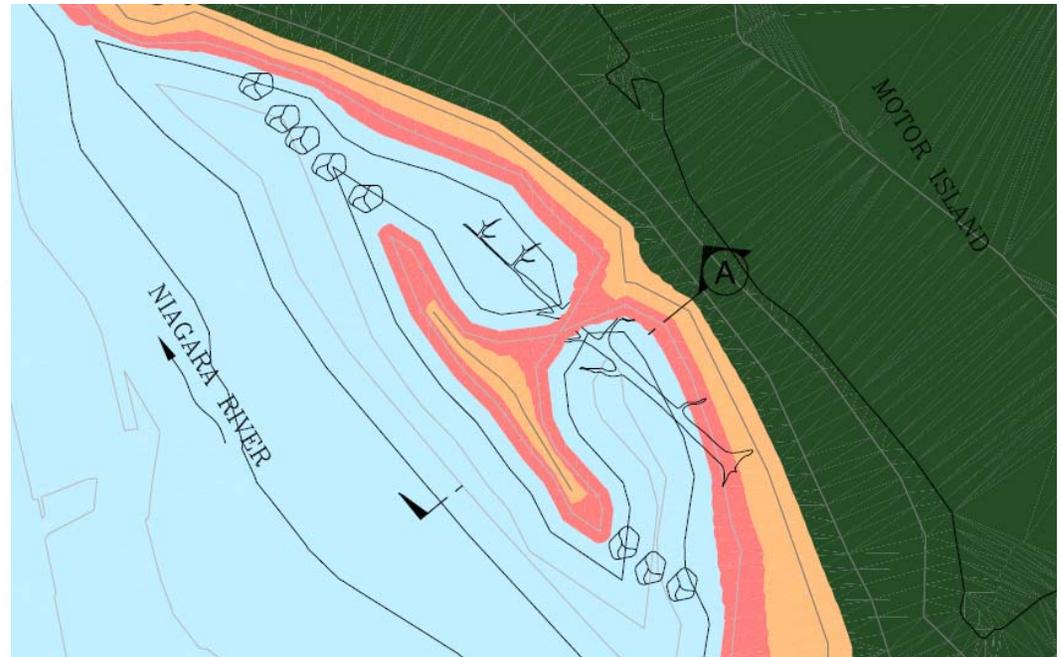


SECTION **A**

**SECTION ELEVATION LINETYPE KEY**

- EL. 567.67' ORDINARY HIGH WATER
- - - EL. 566.6' AVERAGE SUMMER WATER LEVEL
- ... EL. 566.3' AVERAGE WINTER WATER LEVEL

ELEVATIONS TABLE			
EXCEEDENCE	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
>90%	<565.6'	565.6'	Light Blue
90%-50%	565.6'	566.4'	Red
50%-10%	566.4'	567.4'	Orange
<10%	567.4'	>567.4'	Dark Green



POOL WITH SHORT BREAKWATER ISLAND PLAN

# Pool With Short Breakwater Island



POOL WITH SHORT BREAKWATER ISLAND PHOTO RENDITION  
SHOWN AT 50% EXCEEDENCE OR TYPICAL WATER LEVEL

## PHOTO RENDITION COLOR KEY

EXISTING NATURAL VEGETATION (WOODED SHORELINE)



COARSE SUBSTRATE BEACH (COBBLE/GRAVEL)



PROTECTED POOL (COBBLE/GRAVEL SUBSTRATE)



LOW PROFILE BREAKWATER



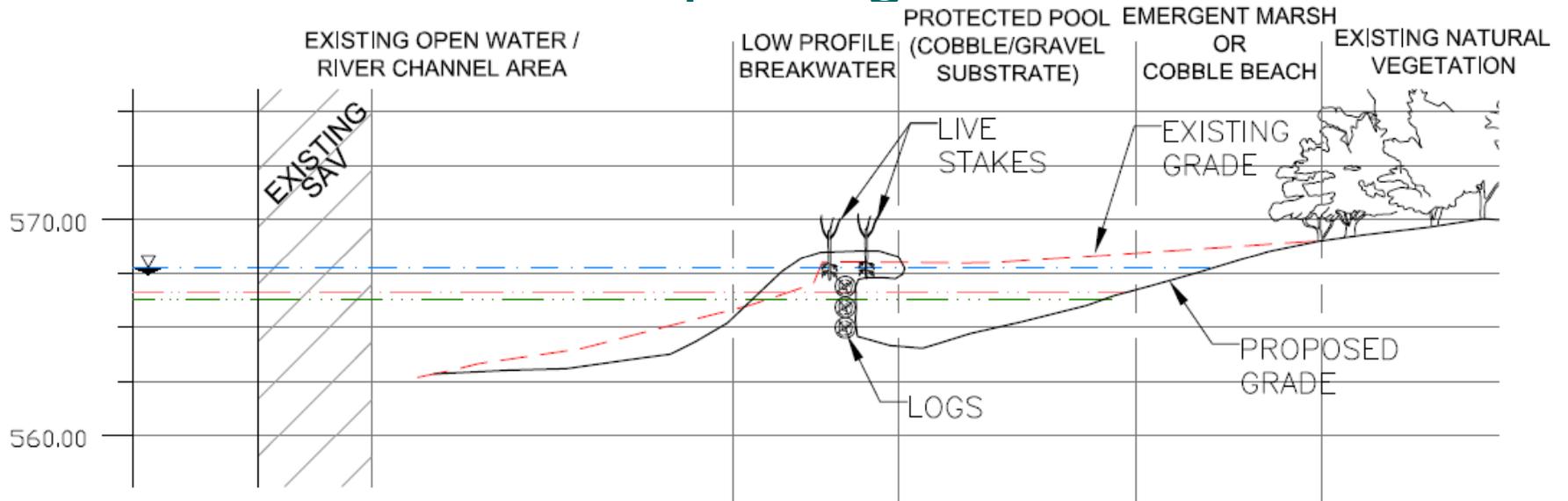
BOULDER



OPEN WATER / RIVER CHANNEL



# Pool With Narrow Opening

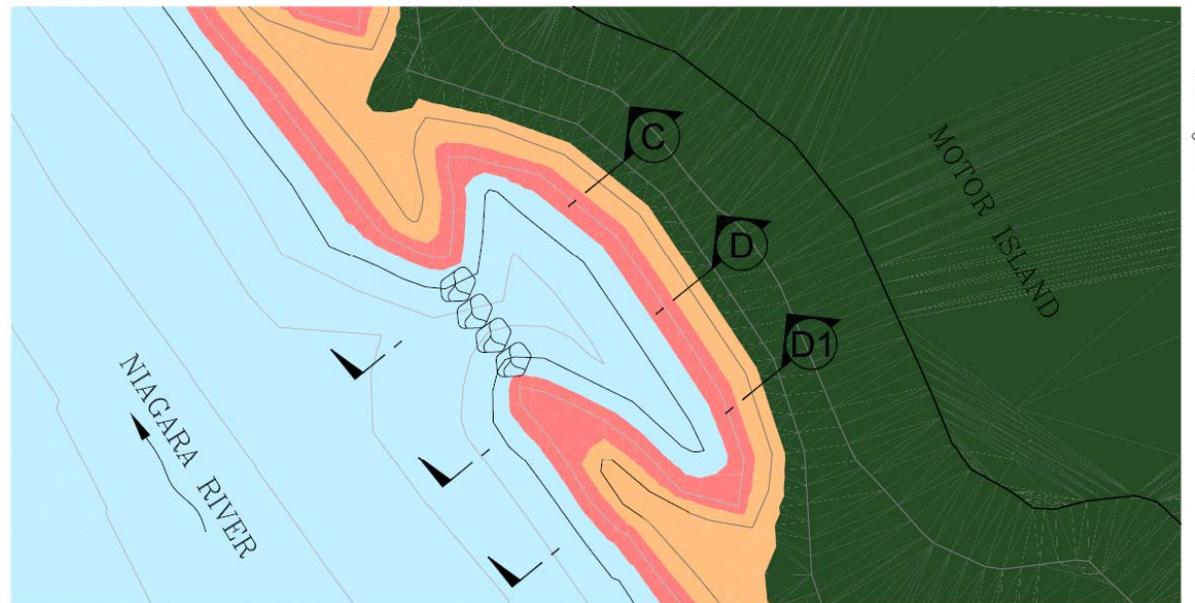


SECTION **D1**

## SECTION ELEVATION LINETYPE KEY

- EL. 567.67' ORDINARY HIGH WATER
- EL. 566.6' AVERAGE SUMMER WATER LEVEL
- EL. 566.3' AVERAGE WINTER WATER LEVEL

ELEVATIONS TABLE			
EXCEEDENCE	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
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50%-10%	566.4'	567.4'	
<10%	567.4'	>567.4'	



POOL WITH NARROW OPENING PLAN

# Pool With Narrow Opening

SHOWN WITH BOULDER OPTION



SHOWN WITH ROOTWAD/LOG OPTION

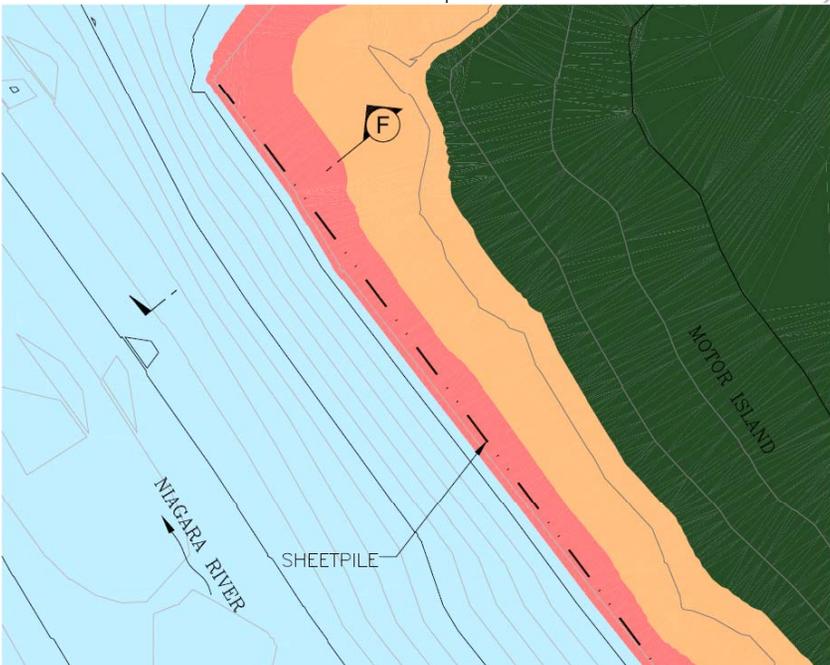
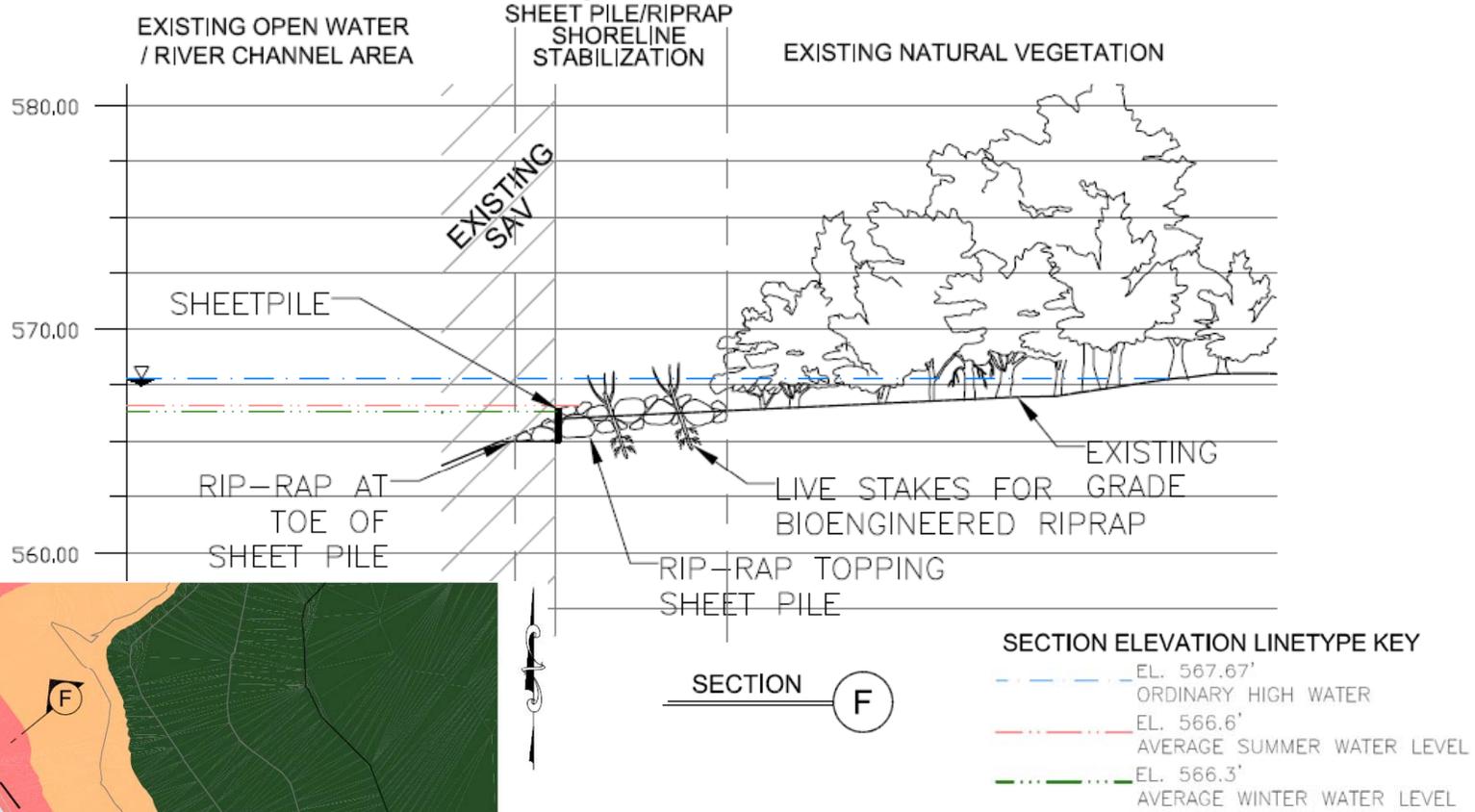


## PHOTO RENDITION COLOR KEY

- EXISTING NATURAL VEGETATION (WOODED SHORELINE) 
- COARSE SUBSTRATE BEACH (COBBLE/GRAVEL) 
- PROTECTED POOL (COBBLE/GRAVEL SUBSTRATE) 
- LOW PROFILE BREAKWATER 
- BOULDER 
- OPEN WATER / RIVER CHANNEL 
- EMERGENT MARSH 

POOL WITH NARROW OPENING PHOTO RENDITIONS  
SHOWN AT 50% EXCEEDENCE OR TYPICAL WATER LEVEL

# Sheetpile With Bioengineered RipRap



**SHEETPILE WITH BIOENGINEERED RIPRAP PLAN**

ELEVATIONS TABLE			
EXCEEDENCE	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
>90%	<565.6'	565.6'	Light Blue
90%-50%	565.6'	566.4'	Red
50%-10%	566.4'	567.4'	Orange
<10%	567.4'	>567.4'	Dark Green

# Sheetpile With Bioengineered RipRap



## PHOTO RENDITION COLOR KEY

EXISTING NATURAL VEGETATION (WOODED SHORELINE)



RIPRAP



SUBMERGED SHEETPILE

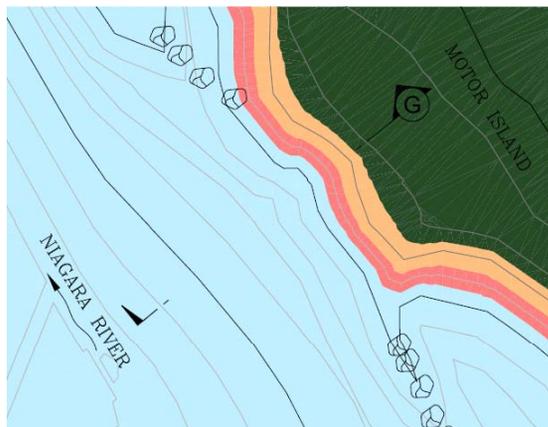
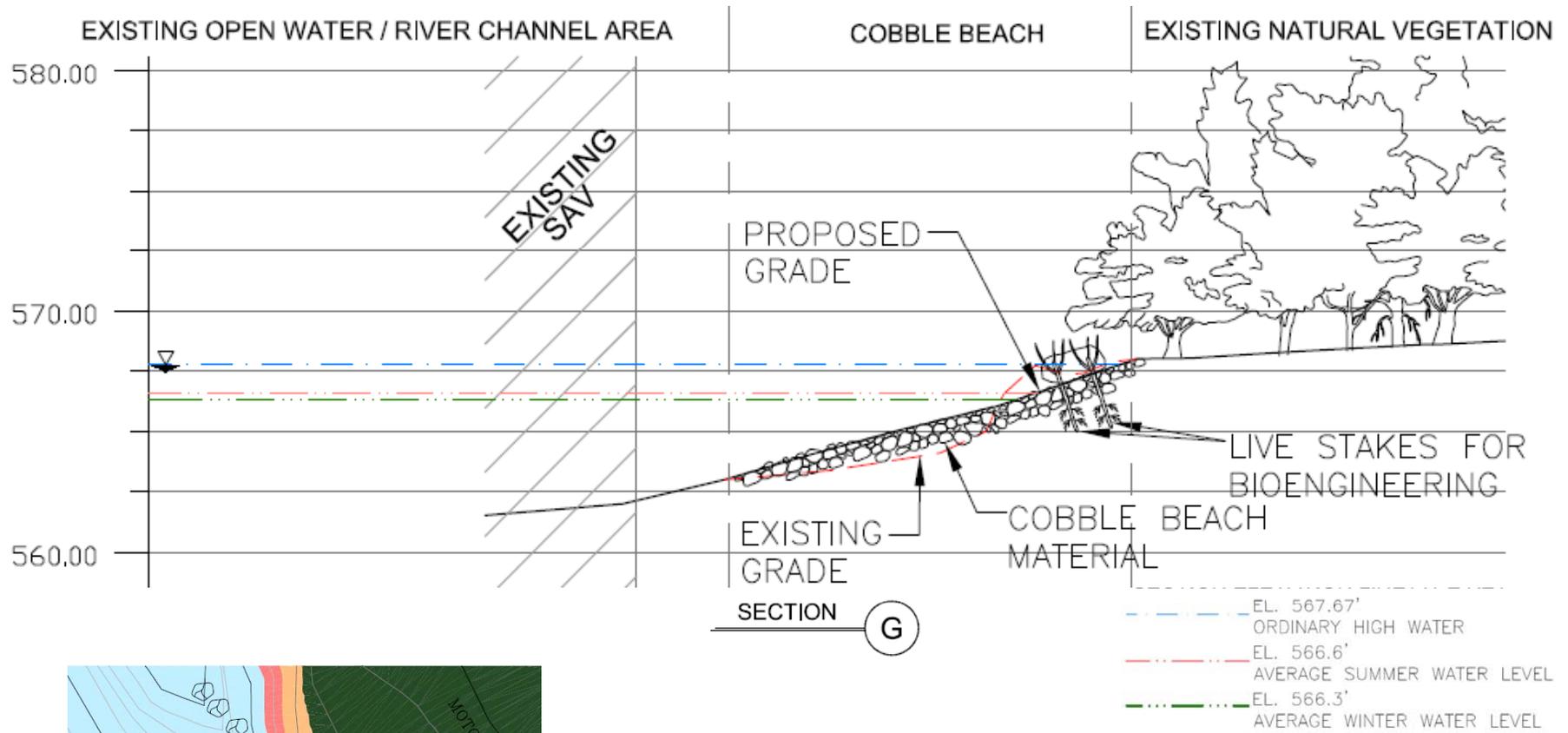


OPEN WATER / RIVER CHANNEL



SHEETPILE WITH BIOENGINEERED RIPRAP PHOTO RENDITION  
SHOWN AT 50% EXCEEDENCE OR TYPICAL WATER LEVEL

# Cobble Beach



COBBLE BEACH PLAN

ELEVATIONS TABLE			
EXCEEDENCE	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
>90%	<565.6'	565.6'	Light Blue
90%-50%	565.6'	566.4'	Red
50%-10%	566.4'	567.4'	Orange
<10%	567.4'	>567.4'	Dark Green

# Cobble Beach



## PHOTO RENDITION COLOR KEY

- EXISTING NATURAL VEGETATION (WOODED SHORELINE) 
- COARSE SUBSTRATE BEACH (COBBLE/GRAVEL) 
- PROTECTED POOL (COBBLE/GRAVEL SUBSTRATE) 
- LOW PROFILE BREAKWATER 
- BOULDER 
- OPEN WATER / RIVER CHANNEL 

COBBLE BEACH PHOTO RENDITION  
SHOWN AT 50% EXCEEDENCE OR TYPICAL WATER LEVEL

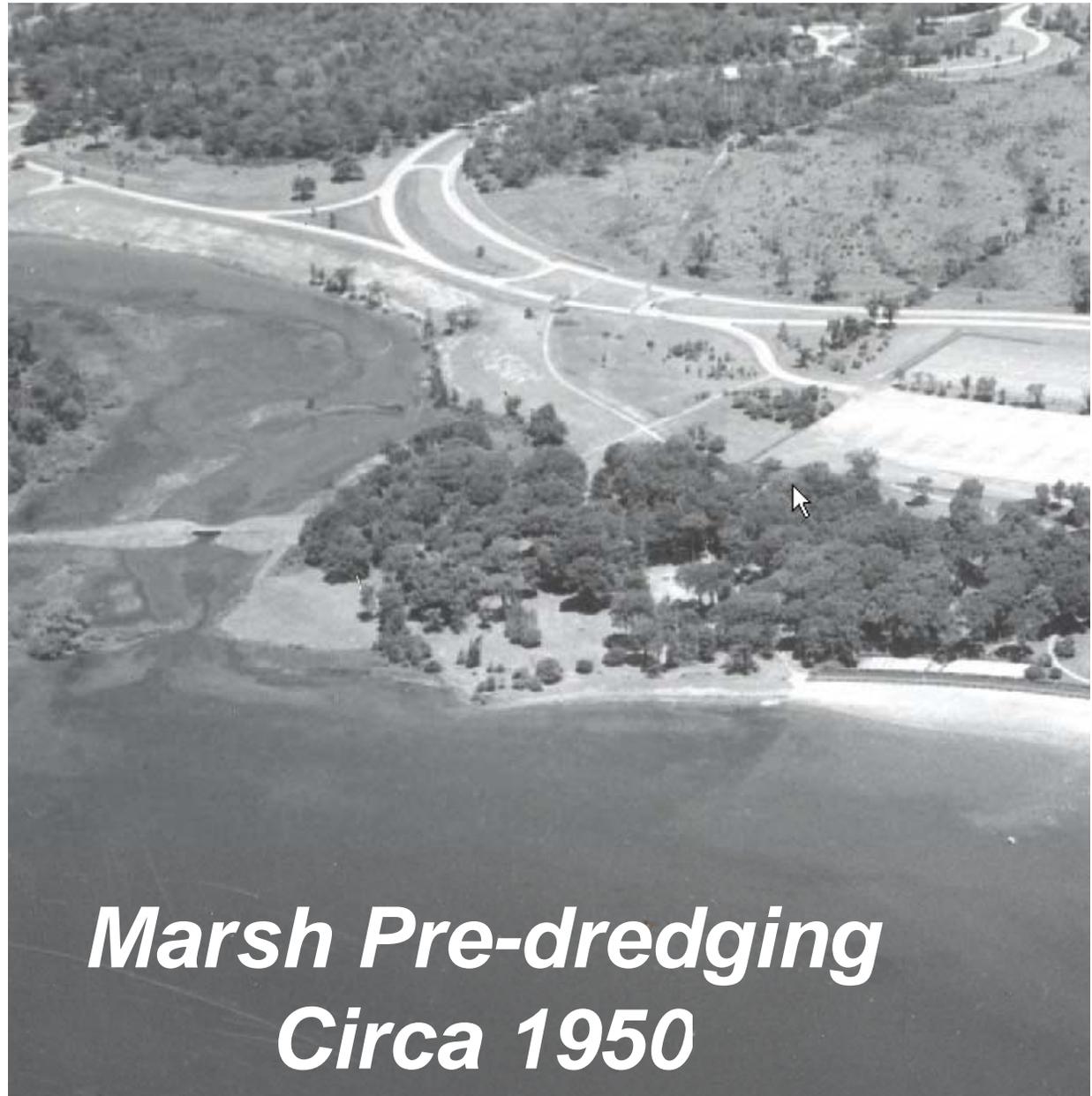
# Motor Island – 2009 Activities

- Incorporate feedback from ESC into Conceptual Designs (2Q)
- Incorporate flow and ice modeling results into designs (2Q-3Q)
  - Evaluate low-profile breakwater elevations
  - Adjust rock sizes as needed
- Collect additional data needed for design and permitting (2Q-3Q)
  - Delineate wetlands, large trees and key plant communities
  - Soil testing
  - Cultural resources

# Little Beaver Island Wetland Restoration



# Little Beaver Island



*Marsh Pre-dredging  
Circa 1950*

# Little Beaver Island Marsh – pre 1950



# Objective: Enhance/restore wetland structure and function by modifying the topography and planting with native wetland vegetation



Primary Target Species – waterfowl, terns, wading birds, herptiles, and native wetland plants

Secondary Target Species – passerines, muskrats, native fishes

# Little Beaver Island Wetland Restoration Activities

- Consultation with Parks on Conceptual Design
- Wetland Study
- RTE Reconnaissance Survey
- Additional Bathymetry and Topography
- Rough Quantities of Fill to Be Removed
- Investigation of Different Spoil Disposal Alternatives
- Tree Survey

# Wetland Study Components

- ✓ Map Existing Conditions
  - ✓ invasive species
  - ✓ marsh boundary
- ✓ Determine Plant and Habitat Elevations
- ✓ Biologists developed list of native wetland plants and their targeted zone



# Geotechnical Investigation of Little Beaver Island

## Fill Thickness Contours



# Spoil Disposal Alternatives

- Onsite
- Barge to USACE's CDF Facility
- Trucking to Various Offsite Locations

# Tree Survey

Location

Species

Trunk

Diameter

Formation

Health

Canopy

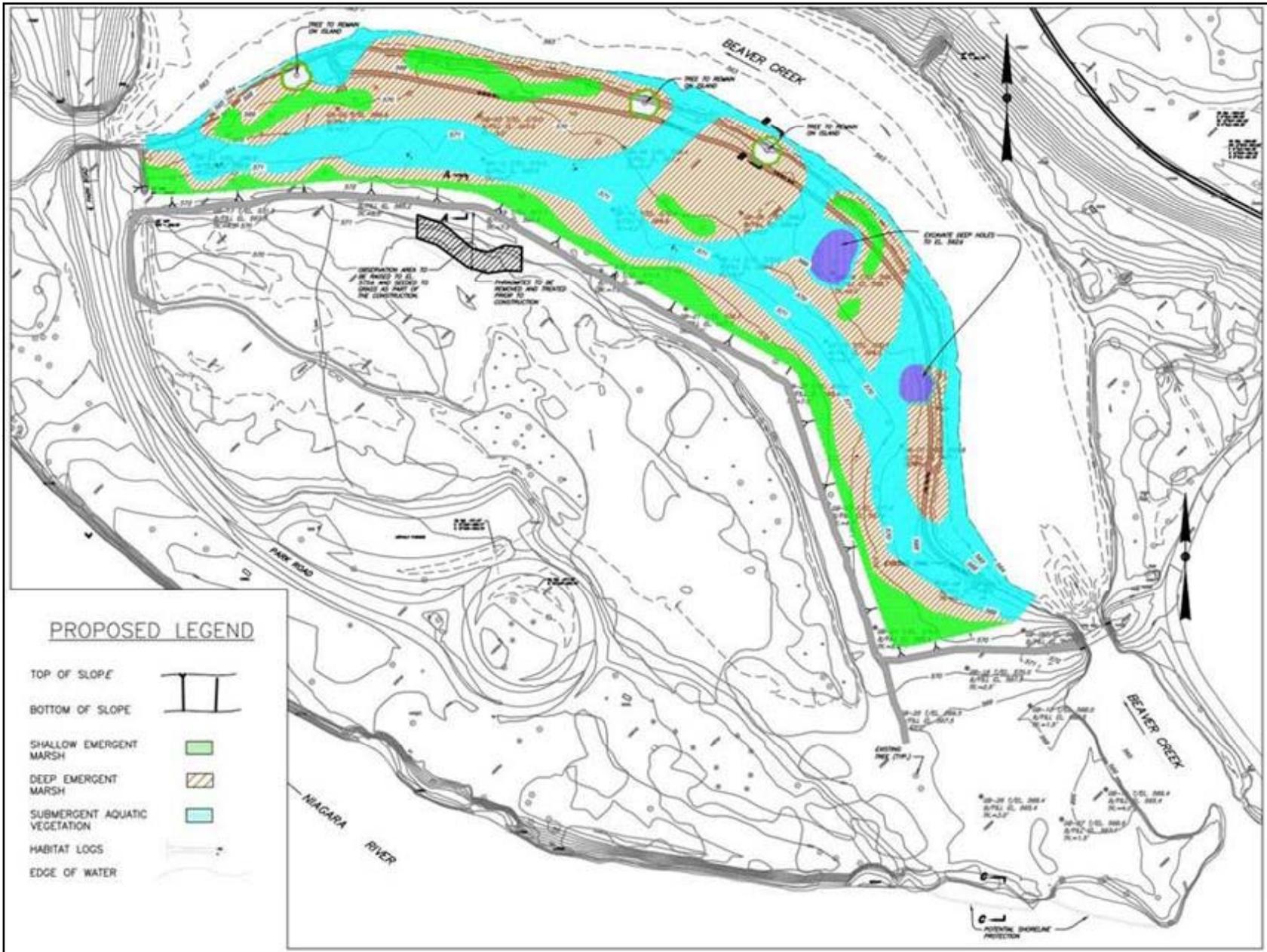


# Design Considerations



**Habitat Elevations**  
**Spoil Disposal**  
**Construction Sequencing**  
**Construction Scheduling**  
**Control Spread of Invasive Species**  
**Avoid impact to RTE species**  
**Recreational Use**

05/23/2007



# Little Beaver Island HIP Habitat Area

Habitat Type	Area (AC)
Shallow Emergent Marsh	1.3
Deep Emergent Marsh	3.7
Submergent Aquatic Vegetation (SAV)	3.6
<b><u>Total</u></b>	<b><u>8.6</u></b>

# Elevation Ranges for Wetland Cover Types

<i>Beaver Island &amp; East River Marsh</i>		
<b>Elevation Range</b>	<b>Habitat Type</b>	<b>Planting Zone</b>
566.1- Higher Elevations	Wet meadow*	A
562-566	Hemi-marsh**	(includes B-D)
565.2-566.1	Shallow Emergent	B
564.0-565.2	Deep Emergent	C
Lower Elevations-564.0	Submerged Aquatic Vegetation (SAV)	D

# Native Marsh Planting Plan

## Deep Marsh

- Softstem Bulrush
- Burreed
- Arrowhead
- Three-square
- Pickerelweed

## Shallow Marsh

- River Bulrush
- Tussock Sedge
- Soft rush
- Softstem bulrush
- Burreed

## Scrub-shrub

- Red-osier Dogwood
- Willow
- Buttonbush
- Arrowwood
- Swamp rose
- Blue vervain
- White boneset

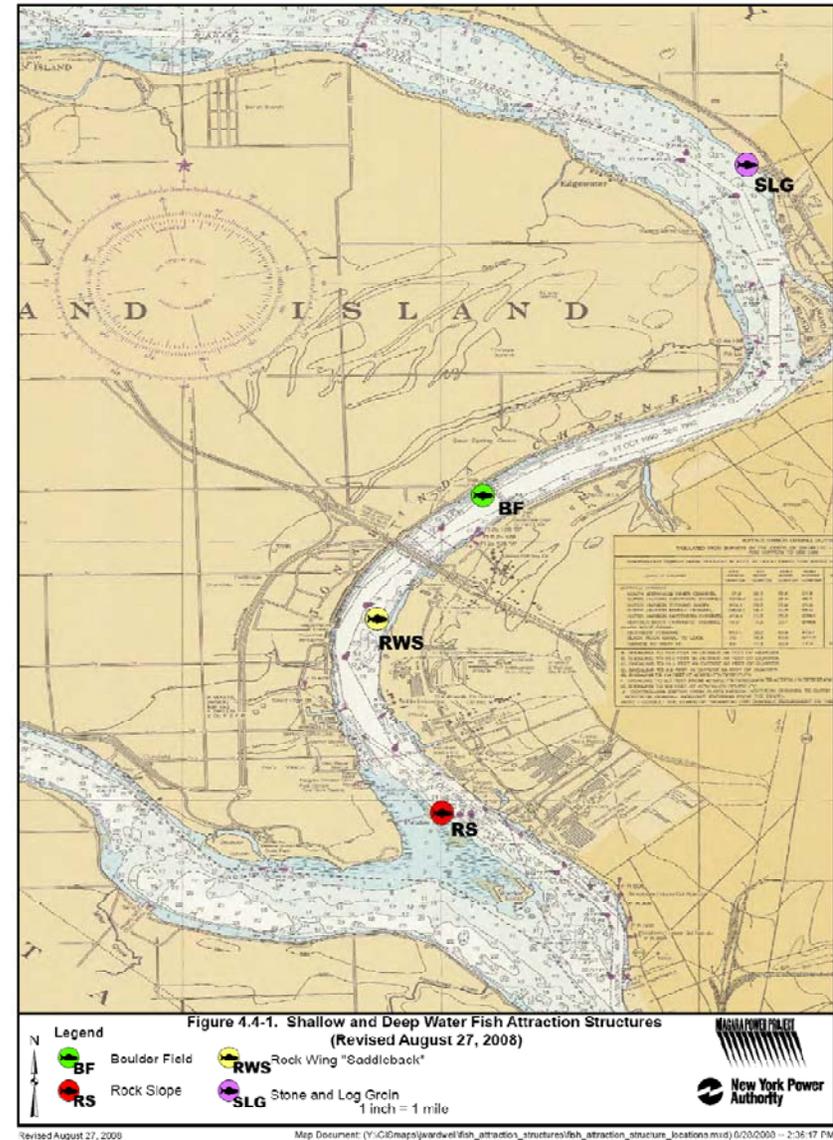
# Progress & Schedule

- 2006-2008: Pre-Construction Studies
- 2008: Conceptual Design (10%)
- 2009: Conceptual Design (10%), Additional Pre-Construction Studies Preliminary Design (50%)
- 2010: Final Design & Permitting
- 2011-2012: Construction



# Fish Attraction Structures

- Post-Construction Monitoring outlined in Settlement Agreement
  - Qualitative monitoring using SCUBA divers 4 times over first 10 years (years 1, 4, 7 & 10)
    - Installed October 2008
    - Monitor in: 2009, 2012, 2015, and 2018



# Fish Attraction Structure Monitoring

- Divers will visually inspect structures in late summer or early fall
- Observed variables include
  - Structural integrity (movement of structure, invasive zebra mussels in interstitial spaces, etc).
  - Presence or absence of fish
    - Species present and estimated number (e.g., 0, 1-10, 10-20, 20-50, 50-100, 100+)
- Summary included with Annual Report

# Fish Attraction Structure Monitoring

- Public Observation
  - Liability
  - Data management
    - Accuracy and consistency
    - Collation
    - Analysis and discussion

# Wetland Creation Upstream of Motor Island

- General design criteria
  - No trees
  - Maximize flow through
  - Tern nesting area
- Preliminary Design activities - 2009
  - Develop detailed cross sections (Q2)
  - Add details of key features (plantings, substrate size, etc.) (Q3)
  - Begin to develop specs for soils and plantings (Q3)
  - Develop construction scope and sequence (Q3)
  - Analyze island performance (ice, wind, low water) (Q3)
  - Review constructability (Q4)
  - Update cost opinion (Q4)
  - Internal engineering review (Q4)
  - ESC review and input (Q4)



# Action Items from Dec. 10, 2008 ESC Meeting

- Group to discuss community donation of goods and services towards HIPs.
- NYPA will compile a list of criteria for identifying additional HIP osprey pole locations.
- NYPA will develop a list of potential osprey pole locations by the first quarter of 2009.
- NYPA will place Little Beaver Island RTE reconnaissance report on relicensing website.
- NYPA will put meeting presentation on the website.

# Relicensing Settlement Agreement Addressing New License Terms and Conditions

## 4.1.2. Habitat Improvement Project Funds

“Within ninety (90) days of the effective date of the New License or license issuance, whichever is later, the Power Authority shall establish a Habitat Improvement Project Funds (“HIPs Fund”) in the amount of \$12,000,000 (NPV 2007), . . . . Should the cost of the HIPs exceed the amount in the HIPs Fund, the Power Authority will cover additional expenses.”

SECTION 4 ECOLOGICAL MEASURES	
<b>4.1 HABITAT IMPROVEMENT PROJECTS</b>	
<b>4.1.1 Ecological Standing Committee</b>	
<p>Within one hundred twenty (120) days after the effective date of this Relicensing Agreement, the Power Authority will convene an Ecological Standing Committee ("ESC"), consisting of a representative from the Power Authority, DEC, the Service, NRI, TM, TSN, NYRU, and NREC, which shall establish: (1) the organization and administration of the funds established in Sections 4.1.2 and 4.1.3 herein; (2) a cash flow schedule for fund expenditures; (3) measures to track and recover administrative costs; (4) associated auditing and reporting requirements; and (5) all other necessary and appropriate tasks consistent with Section 4.1.2 and 4.1.3 herein, including the development of a schedule for future ESC meetings.</p> <p>Once convened, the ESC shall periodically assess, and amend as necessary, the membership of the ESC. The ESC also may consult with technical advisors as necessary. The ESC shall have an Executive Committee, consisting of one representative each from the Power Authority, DEC, and the Service, which shall make decisions in circumstances where consensus cannot be reached by the ESC. The Executive Committee shall operate on a consensus basis and provide a clear written record identifying any criteria and justifications for its decisions.</p> <p>The Power Authority will serve as the coordinator of the ESC and provide for its administrative support. Members of the ESC, however, serve without compensation and will not be reimbursed for their expenses.</p>	
<b>4.1.2 Habitat Improvement Projects Fund</b>	
<p>(a) Within ninety (90) days of the effective date of the New License or license issuance, whichever is later, the Power Authority shall establish a Habitat Improvement Projects Fund ("HIPs Fund") in the amount of \$12,000,000 (NPV 2007), in an interest bearing account at an accredited bank in the State of New York. The HIPs Fund, including any accrued interest, shall be used for the following proposed Habitat Improvement Projects ("HIPs"):</p>	
<ul style="list-style-type: none"><li>(i) Strawberry Island Wetland Restoration</li><li>(ii) Frog Island Restoration</li><li>(iii) Motor Island Shoreline Protection</li><li>(iv) Beaver Island Wetland Restoration</li><li>(v) Control of Invasive Species-Buckhorn and Tift Marshes</li><li>(vi) Osprey Nesting</li><li>(vii) Common Tern Nesting</li></ul>	

NIAGARA POWER PROJECT, FERC PROJECT NO. 2216
<b>RELICENSING SETTLEMENT AGREEMENT ADDRESSING NEW LICENSE TERMS AND CONDITIONS</b>
<i>Including</i> PROPOSED LICENSE ARTICLES

March 18, 2009

July 18, 2005

# Relicensing Settlement Agreement Addressing New License Terms and Conditions

## 4.1.2. Habitat Improvement Project Funds

“... For any HIPs that the DEC determines should not be constructed, or otherwise cannot be constructed, the proposed funding for those particular HIPs will be transferred to the Fish and Wildlife Habitat Enhancement and Restoration Fund established in Section 4.1.3 of this relicensing Agreement. ...”

(viii) Installation of Fish Habitat/Attraction Structures

Current cost estimates for individual proposed HIPs are set forth in Appendix C. Utilizing monies from the HIPs Fund, the Power Authority shall be responsible for constructing the proposed HIPs, consistent with the relicensing study entitled "Investigation of Habitat Improvement for the Niagara Power Project" (June 2005) and the proposed implementation schedule set forth in Appendix B. The Power Authority's construction of the proposed HIPs shall be a one-time obligation occurring outside of the FERC Project boundary. DEC shall undertake the monitoring, operation and maintenance of the identified HIPs, using monies from the HIPs Fund. Should the cost of the HIPs exceed the amount in the HIPs Fund, the Power Authority will cover additional expenses.

The ESC shall provide guidance with regard to the construction, operation, maintenance, and monitoring of the HIPs. For any HIPs that the DEC determines should not be constructed, or otherwise cannot be constructed, the proposed funding for those particular HIPs will be transferred to the Fish and Wildlife Habitat Enhancement and Restoration Fund established in Section 4.1.3 of this Relicensing Agreement. The Power Authority shall determine, with the agreement of the ESC established pursuant to Section 4.1.1, the amount to be transferred based on cost data available at the time of the transfer. All transferred funds shall be in addition to the funding established in Section 4.1.3 of this Relicensing Agreement. Further, should any matching funds or resources provided in-kind reduce the amount of expenditures needed to construct a particular HIP, the Power Authority shall transfer, with the agreement of the ESC, an equivalent amount of funds to the Fish and Wildlife Habitat Enhancement and Restoration Fund; provided, however, the total cost of the HIP does not exceed the estimate set forth in Appendix C.

(9) The Power Authority shall consult with appropriate landowners prior to undertaking any construction-related activities, including consulting with OPRHP for the Strawberry Island, Buckhorn Marsh, and Tuff Marsh HIPs.

### 4.1.3 Fish and Wildlife Habitat Enhancement and Restoration Fund

(a) Within ninety (90) days of the effective date of the New License or license issuance, whichever is later, the Power Authority shall establish a Fish and Wildlife Habitat Enhancement and Restoration Fund ("HEREF"), in the amount of \$16,179,645 (NYP 2007), in an interest-bearing account at an accredited bank in the State of New York.

(b) The HEREF, including any accrued interest, shall be used exclusively to fund ESC-approved projects, including but not limited to future HIPs, land acquisition, habitat improvement, habitat research, fish, wildlife, and indigenous plant species restoration, and stewardship activities throughout the Niagara River including within the Niagara Gorge, its headwaters at Lake Erie, the mouth of the river at

NIAGARA POWER PROJECT,  
FERC PROJECT NO. 2216

## RELICENSING SETTLEMENT AGREEMENT ADDRESSING NEW LICENSE TERMS AND CONDITIONS

Including  
PROPOSED LICENSE ARTICLES

March 18, 2009

July 18, 2005

# Relicensing Settlement Agreement Addressing New License Terms and Conditions

## 4.1.2. Habitat Improvement Project Funds

“... Further, should any matching funds or resources provided in-kind reduce the amount of expenditures needed to construct a particular HIP, the Power Authority shall transfer, with the agreement of the ESC, an equivalent amount of funds to the Fish and Wildlife Habitat Enhancement and Restoration Fund; *provided, however,* the total cost of the HIPS does not exceed the estimate set forth in Appendix C.”

(viii) Installation of Fish Habitat /Attraction Structures

Current cost estimates for individual proposed HIPs are set forth in Appendix C. Utilizing monies from the HIPs Fund, the Power Authority shall be responsible for constructing the proposed HIPs, consistent with the relicensing study entitled "Investigation of the Niagara Power Project" (June 2005) and the proposed implementation schedule set forth in Appendix B. The Power Authority's construction of the proposed HIP shall be a one-time obligation occurring outside of the FERC Project Boundary. DEC shall undertake the monitoring, operation and maintenance of the identified HIPs, using monies from the HIPs Fund. Should the cost of the HIPs exceed the amount in the HIPs Fund, the Power Authority will cover additional expenses.

The ESC shall provide guidance with regard to the construction, operation, maintenance, and monitoring of the HIPs. For any HIPs that the DEC determines should not be constructed, or otherwise cannot be constructed, the proposed funding for those particular HIPs will be transferred to the Fish and Wildlife Habitat Enhancement and Restoration Fund established in Section 4.1.3 of this Relicensing Agreement. The Power Authority shall determine, with the agreement of the ESC established pursuant to Section 4.1.1, the amount to be transferred based on cost data available at the time of the transfer. All transferred funds shall be in addition to the funding established in Section 4.1.3 of this Relicensing Agreement. Further, should any matching funds or resources provided in-kind reduce the amount of expenditures needed to construct a particular HIP, the Power Authority shall transfer, with the agreement of the ESC, an equivalent amount of funds to the Fish and Wildlife Habitat Enhancement and Restoration Fund; *provided, however,* the total cost of the HIP does not exceed the estimate set forth in Appendix C.

(9) The Power Authority shall consult with appropriate landowners prior to undertaking any construction-related activities, including consulting with OPRHP for the Strawberry Island, Buckhorn Marsh, and Tuff Marsh HIPs.

### 4.1.3 Fish and Wildlife Habitat Enhancement and Restoration Fund

(a) Within ninety (90) days of the effective date of the New License or license issuance, whichever is later, the Power Authority shall establish a Fish and Wildlife Habitat Enhancement and Restoration Fund ("HEREF"), in the amount of \$16,179,945 (NYP 2007), in an interest-bearing account at an accredited bank in the State of New York.

(b) The HEREF, including any accrued interest, shall be used exclusively to fund ESC-approved projects, including but not limited to future HIPs, land acquisition, habitat improvement, habitat research, fish, wildlife, and indigenous plant species restoration, and stewardship activities throughout the Niagara River including within the Niagara Gorge, its headwaters at Lake Erie, the mouth of the river at

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RELICENSING  
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# Action Items from Dec. 10, 2008 ESC Meeting

- Group to discuss community donation of goods and services towards HIPs.
- NYPA will compile a list of criteria for identifying additional HIP osprey pole locations.
- NYPA will develop a list of potential osprey pole locations by the first quarter of 2009.
- NYPA will place Little Beaver Island RTE reconnaissance report on relicensing website.
- NYPA will put meeting presentation on the website.

# Review Action Items