

WINNAPAUG POND, WESTERLY, RI AQUATIC ECOSYSTEM RESTORATION PROJECT

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US Army Corps
of Engineers®



PROJECT AUTHORITY



- USACE Continuing Authorities Program
 - Section 206 – Aquatic Ecosystem Restoration
- Sponsor: Rhode Island Coastal Resources Management Council
- Rhode Island South Coast Habitat Restoration
Final Feasibility Report and Environmental Assessment - June 2002
 - Ninigret Pond Eelgrass Restoration (Complete)
 - Quonochontaug Pond Eelgrass Restoration (Complete)
 - Winnapaug Pond Eelgrass Restoration (In progress)
 - Cross Mills Pond Fish Passage (Withdrawn)



WINNAPAUG POND PROJECT



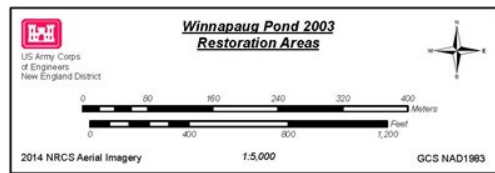
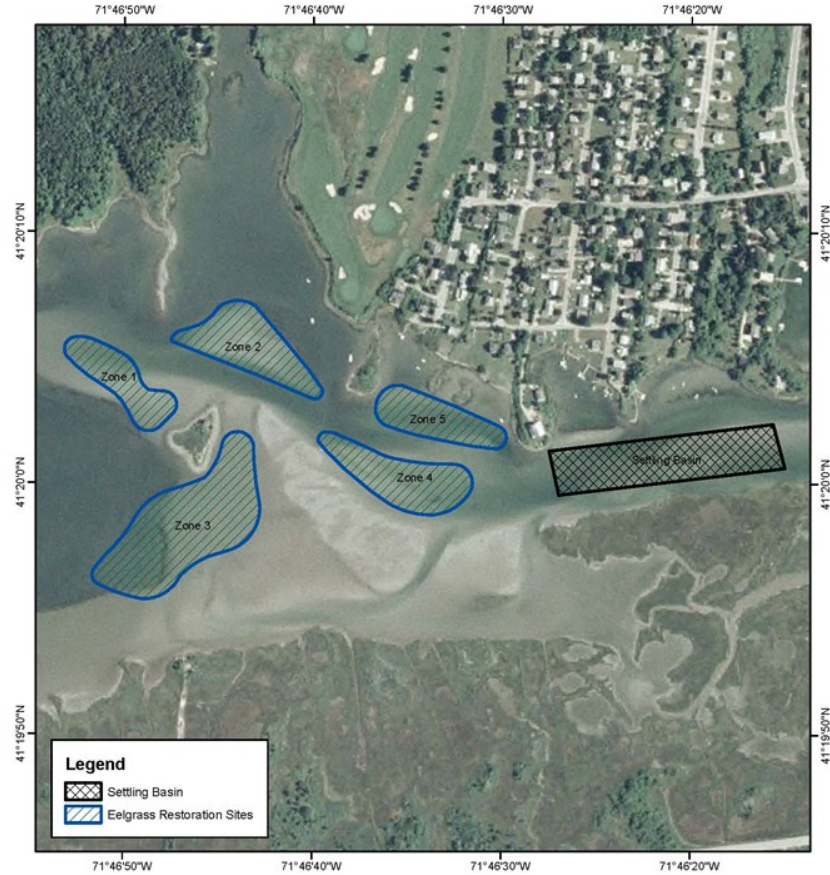
- Authorized 2002
- USACE began plans and specification in 2008 (suspended due to state funding)
- Funding in November 2019
- Updated survey of restoration area January/February 2020
- Updated sediment sampling January/May 2020
- Plans and specifications January-June, 2020
- Permitting July/August 2020

FIGURE 5 FROM THE 2002 RHODE ISLAND SOUTH COAST HABITAT RESTORATION FEASIBILITY REPORT/ ENVIRONMENTAL ASSESSMENT

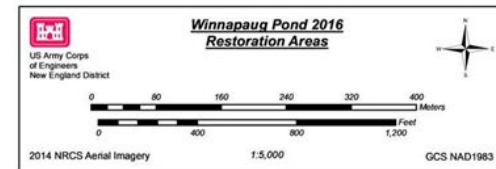




2003



2016





2020 SEDIMENT SAMPLING DATA

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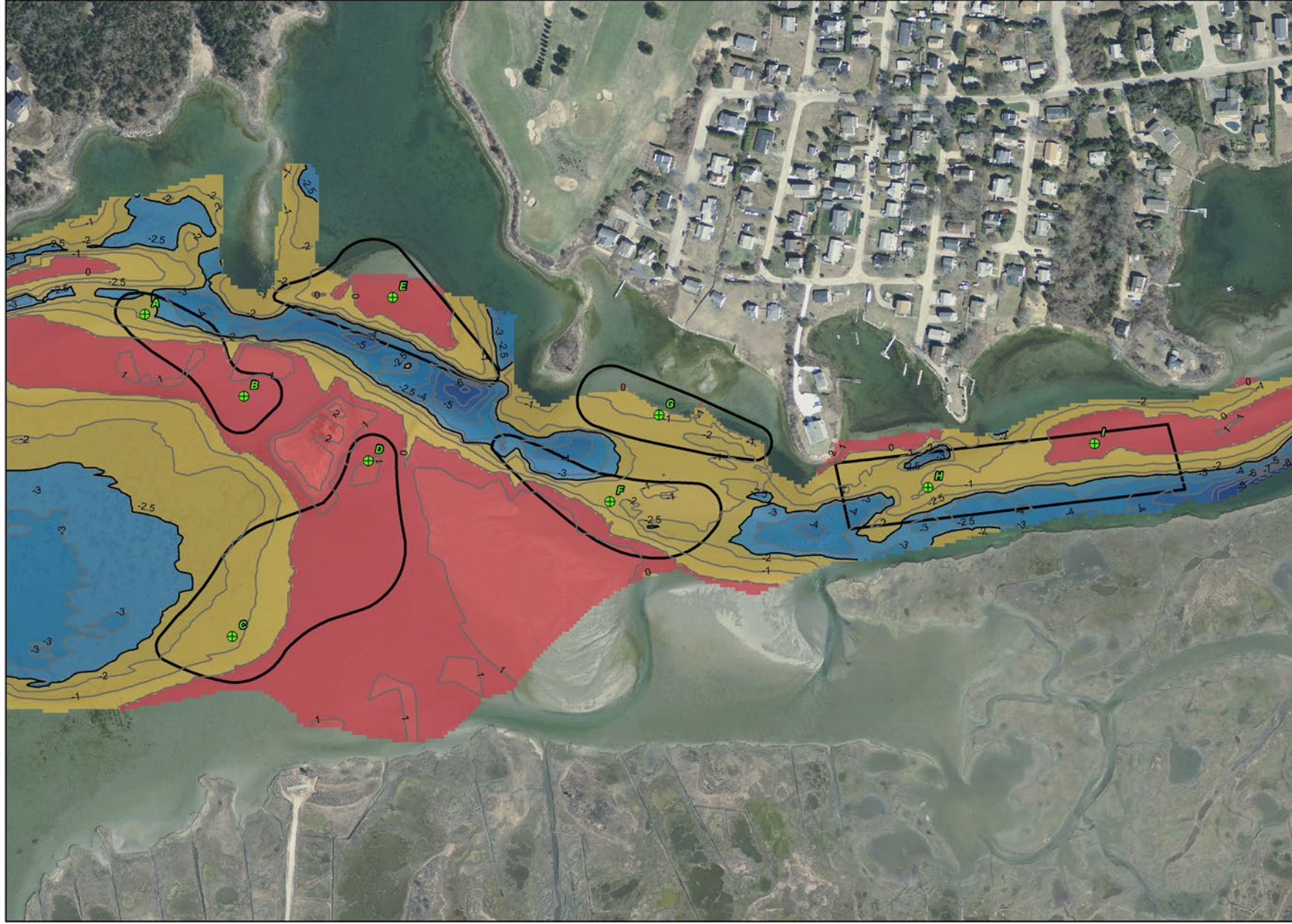
2020 SEDIMENT SAMPLING DATA

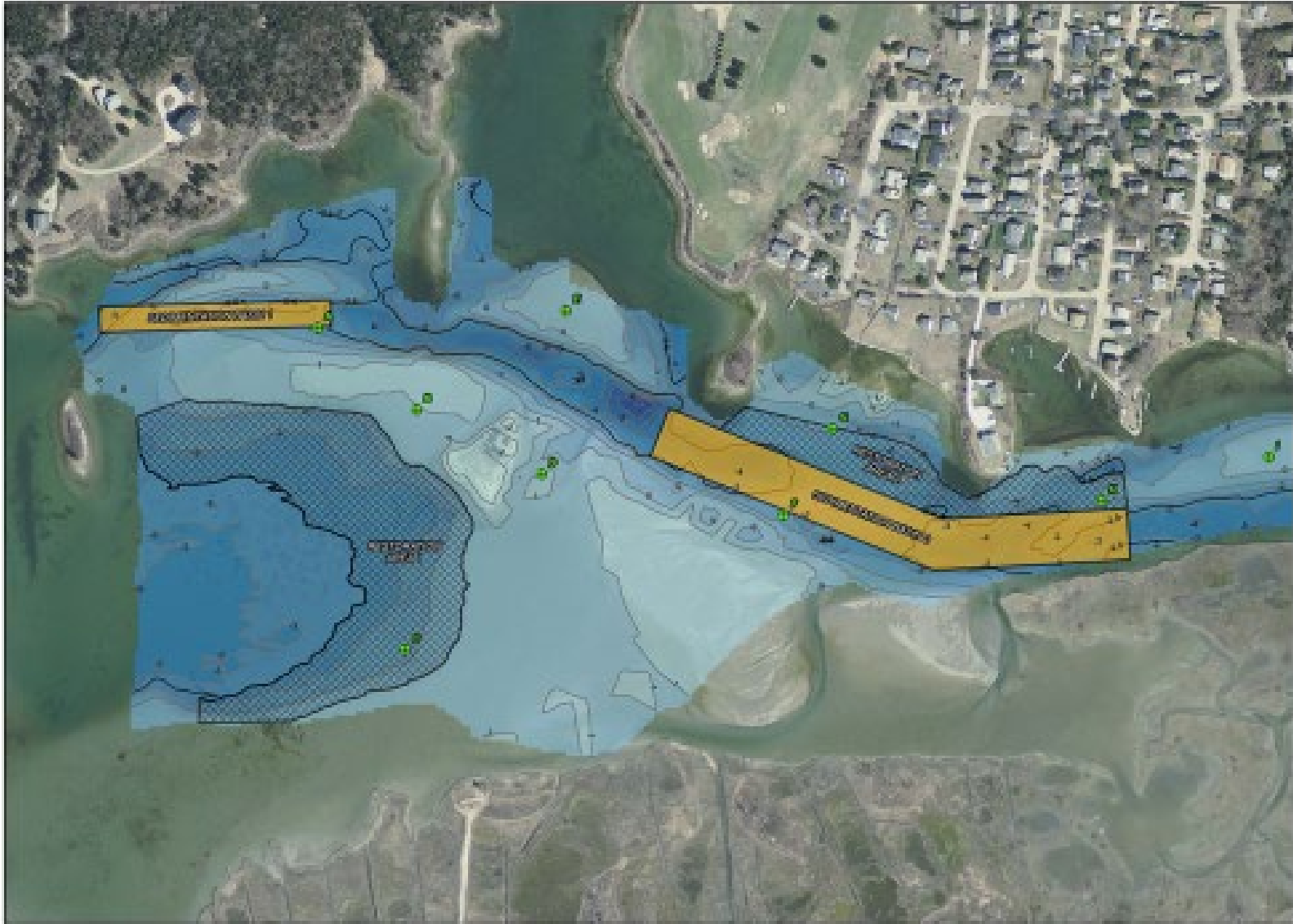
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- Zone 1
- Zone 3
- Zone 2
- Zone 4
- Zone 5
- Sedimentation Basin

Summary of Results:							
Sample ID	%Cobble	%Gravel		%Sand			%Fines
		Coarse	Fine	Coarse	Medium	Fine	
A (0-3.0)	0.0	0.0		0.6	4.5	89.8	5.1
B(0-4.6)	0.0	0.0		0.3	3.3	95.0	1.5
B (4.6-5.7)	0.0	0.1		1.8	5.4	48.1	44.6
D (0-3.1)	0.0	0.0		0.6	4.9	92.6	1.8
D (3.1-5.0)	0.0	2.2		0.0	6.4	55.3	36.0
E (0-3.9)	0.0	0.0		0.8	5.4	88.3	5.5
E (3.9-5.0)	0.0	0.0		0.0	8.1	72.6	19.3
F (0-3.4)	0.0	0.1		0.4	6.1	90.6	2.7
F (3.4-4.9)	0.0	0.0		0.4	10.2	61.6	27.8
G (0-3.0)	0.0	0.1		0.3	7.4	80.2	12.1
H (0-8.0)	0.0	0.0		0.2	15.4	84.0	0.4
I (0-6.0)	0.0	0.3		0.8	3.6	94.9	0.5









DREDGE DEPTHS



Eelgrass Restoration Areas

- Eelgrass Growth Model - ideal depth for coastal ponds is between 0.75 and 1.0 meter (MLW) to yield optimum eelgrass growth conditions

Sedimentation Basins

- Basin #1 – 9 feet (MLW) + 1
- Basin #2 – 5 feet (MLW) + 1



DREDGING TO A MINIMUM OF -2.5 FEET MLW WITH A 6 INCH OVERDEPTH ALLOWANCE



Feature	Area of Feature (Acres)	Dredged Material (Cubic Yards)	Placed Material (Cubic Yards)
Restoration Area 1	6.45	14,000	-
Restoration Area 2	3.06	11,000	-
Sedimentation Basin 1	0.52	4,600	-
Sedimentation Basin 2	3.00	41,000	-
Misquamicut Beach	10.00	-	58,300
Westerly Town Beach	1.30	-	7,000
Wuskenau Beach	0.81	-	5,300
Totals		70,800	70,800

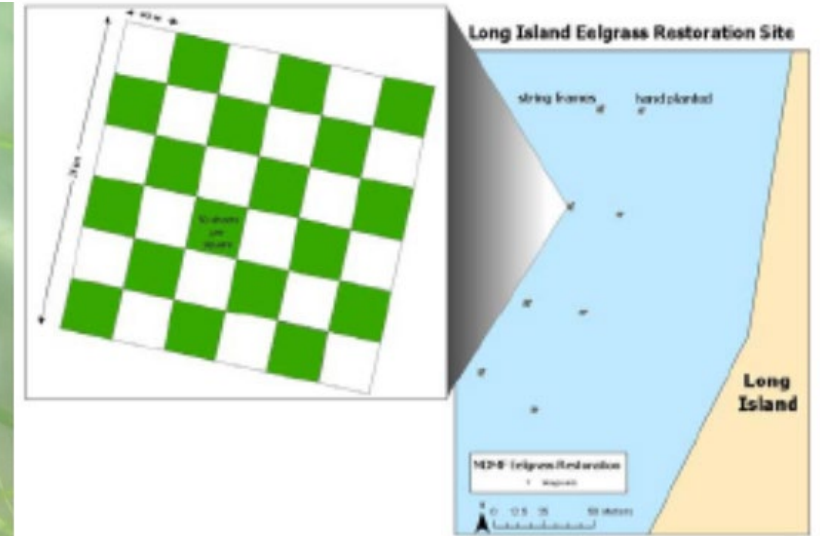
EELGRASS RESTORATION PROCESS



Dredge



Plant Test Plots & Monitor



Full Scale
Planting in Patterns & Monitoring



TENTATIVE TIMELINE



- Fall 2020 - Winter 2021 Dredging and Placement
- Spring 2021 Eelgrass Test Plots
- Summer 2021 - Spring 2022 Monitoring of Test Plots
- Spring 2022 or Fall 2022 Eelgrass Transplanting



QUESTIONS