

Good Harbor Beach Ecosystem Restoration – Project sites description and figures



Figure 1. 1938 aerial image showing the Good Harbor Ecosystem before the construction of the Stop and Shop Plaza, small beach parking lot, larger beach, and some marshland east of Witham Street

1945 Topographic Map

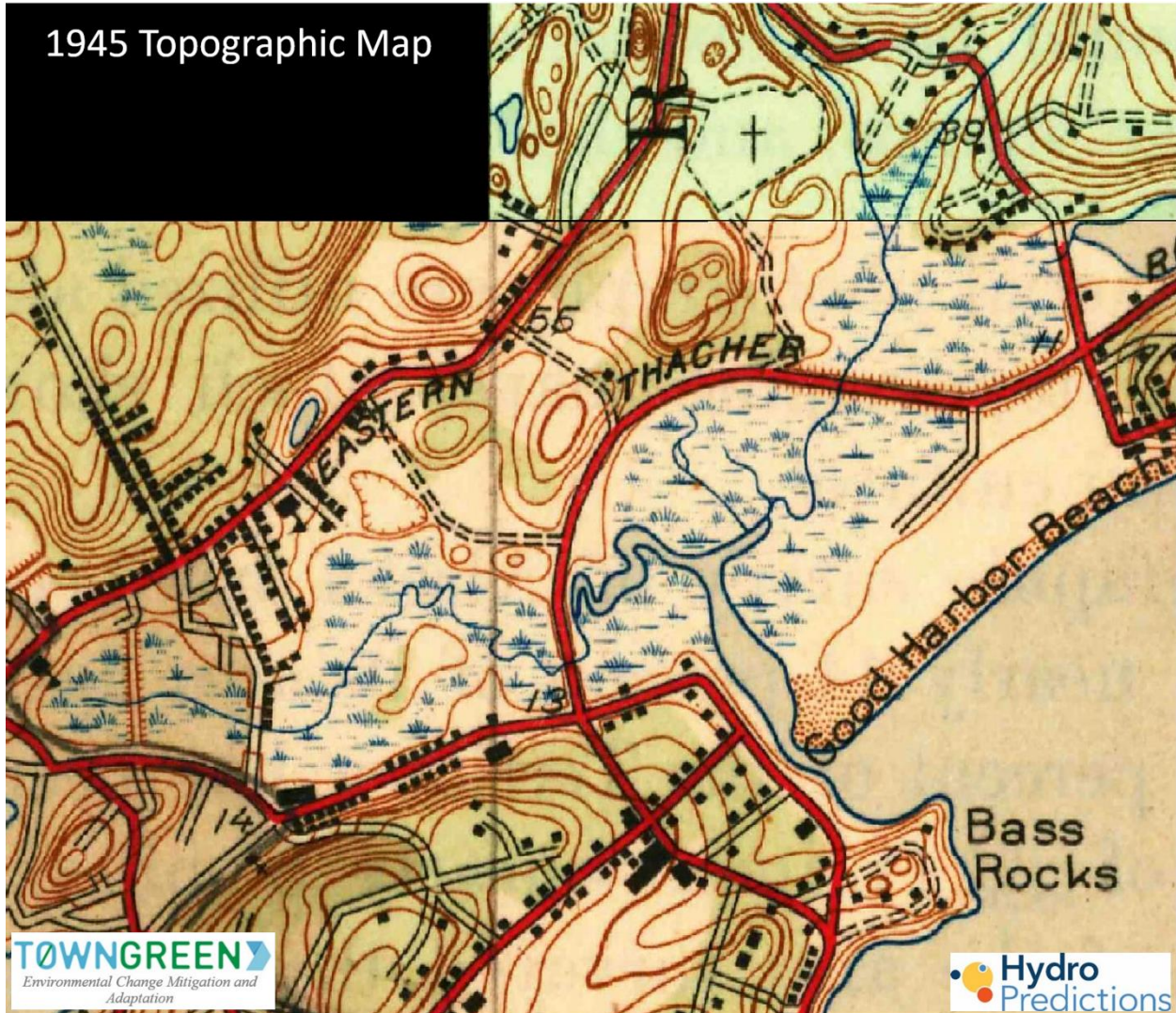


Figure 2. A 1945 topographic map showing the Good Harbor salt marsh prior to the development of the Stop n Shop Plaza and the filling of the salt march just north of Thatcher Road.

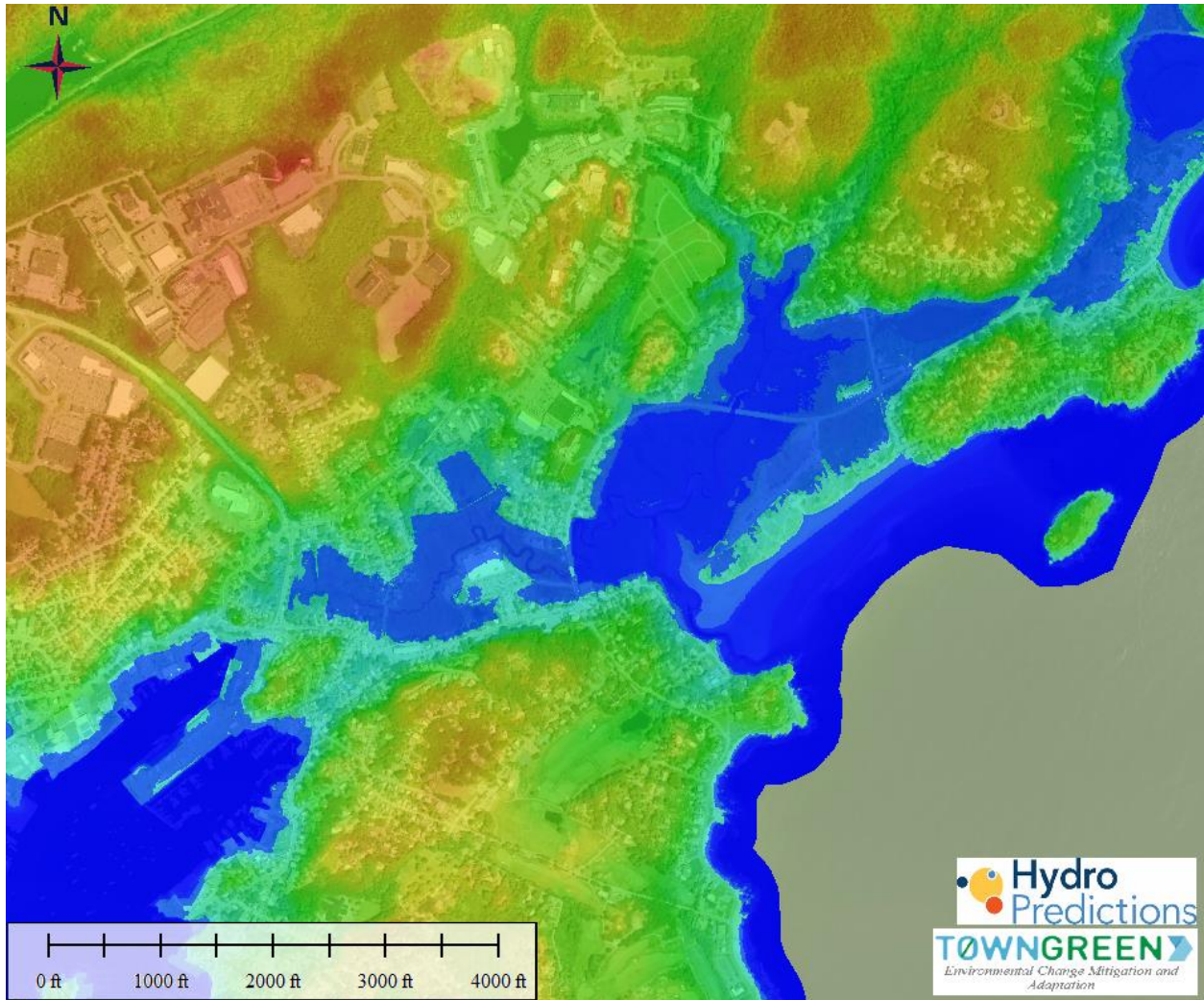


Figure 3. Projected surface water flooding with 5 feet of sea level rise over Mean Higher High Water (MHHW), or surface water flooding with a lower magnitude of sea level rise and storm surge.

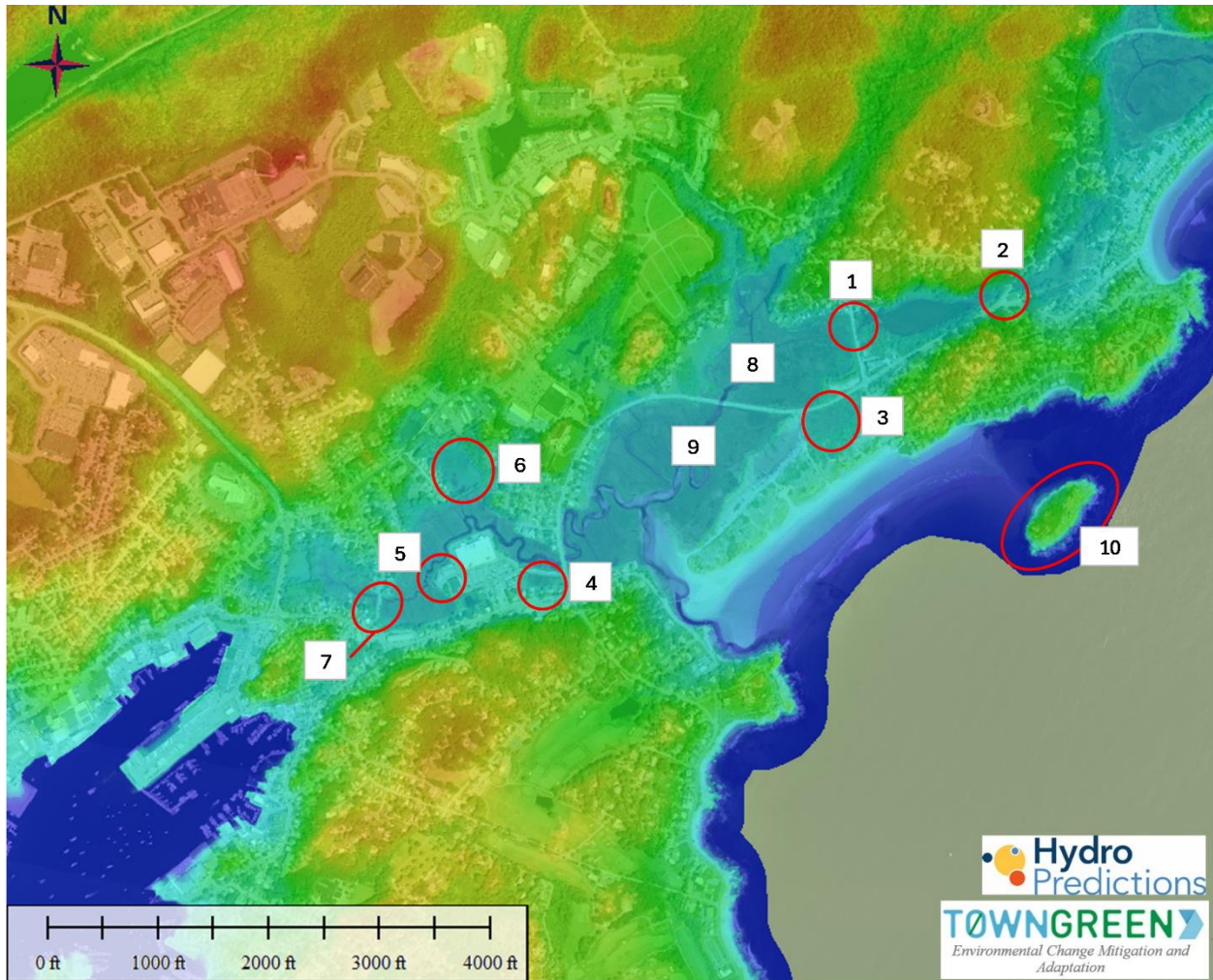


Figure 4. *Overview* - Ten potential project locations for ecological restoration/protection in the Good Harbor Ecosystem

The proposed individual projects within the Good Harbor Ecosystem are:

- #1 Witham Street Culvert Replacement and Hydrology Restoration (**Figure 5**)
- #2 Long Beach Salt Marsh Connection (**Figure 6**)
- #3 Good Harbor Beach Parking Lot Area (**Figure 7**)
- #4 Restoration of Salt Marsh Adjacent to Stop & Shop Access Road (**Figure 8**)
- #5 East Gloucester Plaza and Parking Lot Restoration (**Figure 9**)
- #6 Dam Removal and Wetland Restoration (**Figure 10**)
- #7 Evaluation of Hartz Street Culvert and Connection to Extended Salt Marsh (**Figure 11**)
- #8 Good Harbor Salt Marsh Monitoring Program (**Figure 4**)
- #9 Salt Marsh Ditch Remediation (**Figure 4**)
- #10 Salt Island Acquisition and Preservation (**Figure 12**)
- #11 Amalgamated Good Harbor Ecosystem Restoration Project (**Figures 4 and 13**)

The City of Gloucester parcels and ownership key are also shown in **Figure 13**.

Individual Project Figures:

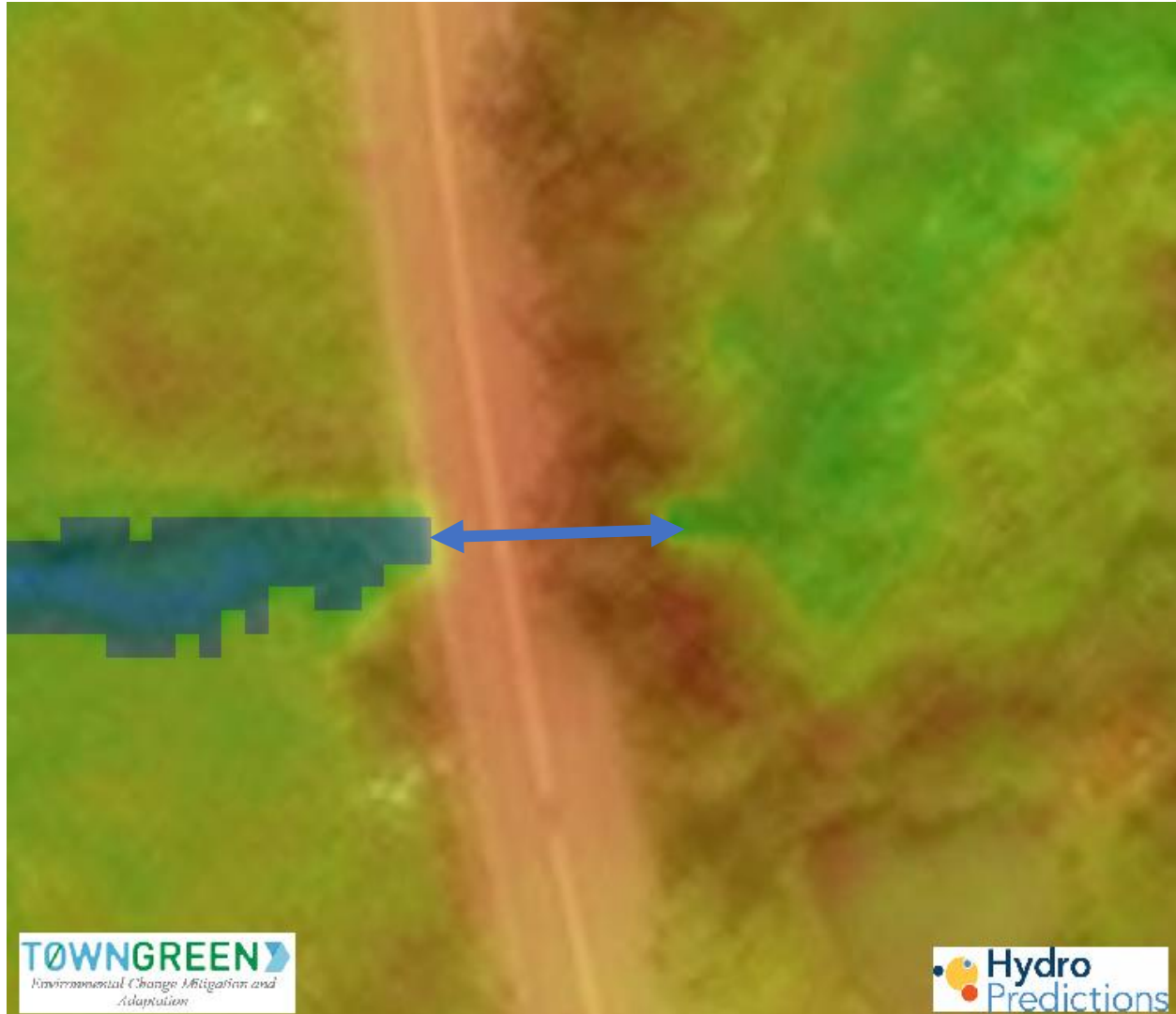


Figure 5. *Witham Street Culvert Replacement and Hydrology Restoration.* Enlarge the restrictive culvert beneath Witham Street that is set at the wrong elevation which results in substantial road flooding during storms and harms the ecosystems on both sides of the road. (Latitude: 42.524600; Longitude: -70.629841)



Figure 6 – *Long Beach Salt Marsh Connection* – Restore hydraulic connection between the Good Harbor Ecosystem and the Long Beach saltmarsh system adjacent to the Long Beach Dairy Maid. (Latitude: 42.625724°; Longitude: -70.624690°)



Figure 7. *Good Harbor Beach Parking Lot Area* - Restore degraded and filled saltmarsh adjacent to the Good Harbor Beach Parking lot east and west of the access road. Remove fill, restore natural tidal flow, and replace invasive species with natural vegetation. (GHBP-1 Latitude: 42.622312°; Longitude: -70.630980°; GHBP-2 Latitude: 42.621495°; Longitude: -70.633354°)



Figure 8. *Restoration of Salt Marsh Adjacent to Stop & Shop Access Road* – Restore degraded wetland to vibrant salt marsh habitat by restoring the hydrology, stopping mowing practices, and other restoration practices as needed. (Latitude: 42.618292°; Longitude: -70.640294°)



Figure 9. *East Gloucester Plaza Parking Lot Marsh Restoration* – Remove asphalt and restore salt marsh in an unused section of the parking lot for Stop n Shop and CVS Pharmacy. (Latitude: 42.618349°; Longitude: -70.643590°)



Figure 10. *Dam Removal and Wetland Restoration* - Remove the dam and restore the hydrology, wetland habitat, and vegetation. (Latitude: 42.620468°; Longitude: -70.642703°)

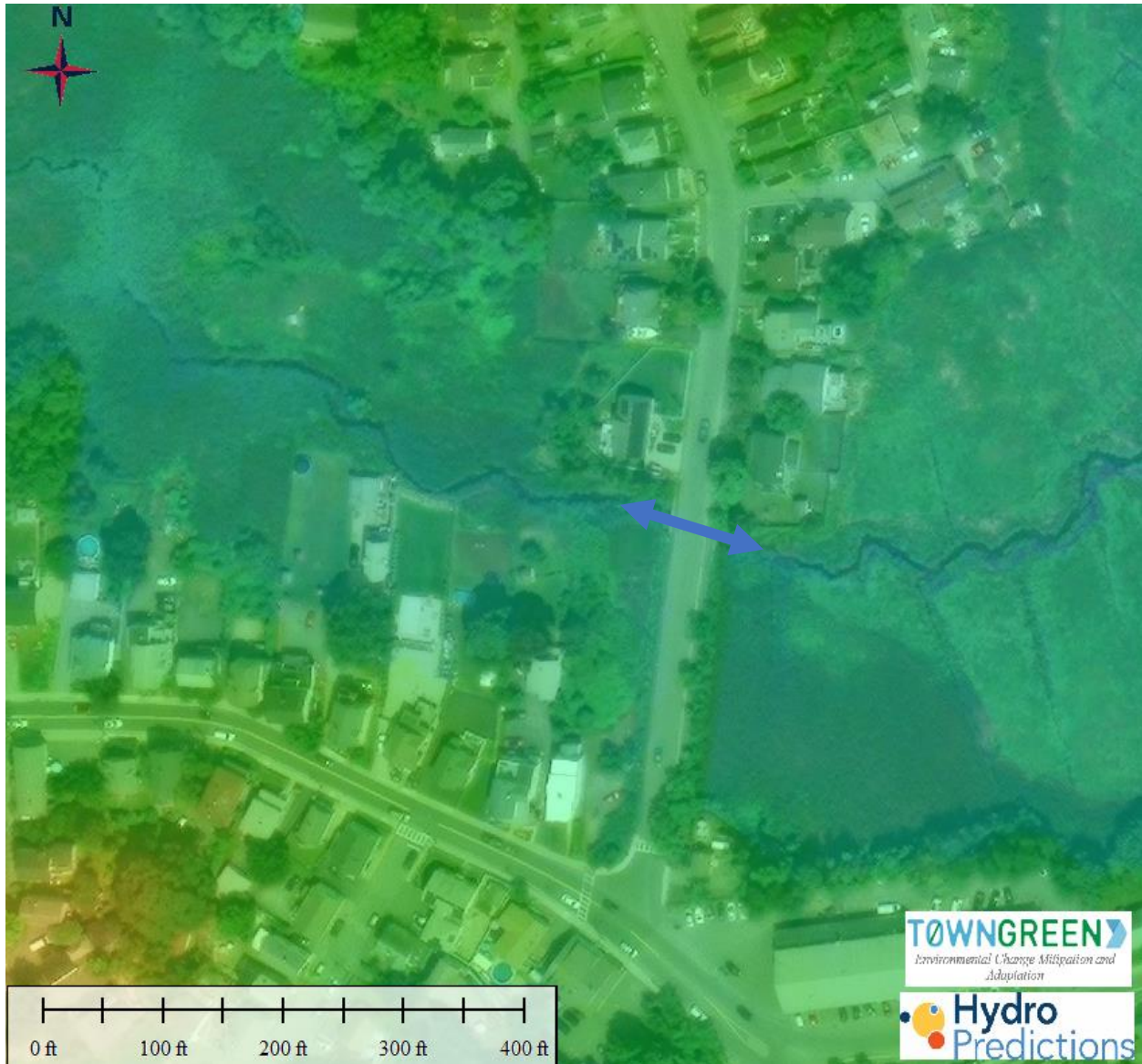


Figure 11. *Evaluation of Hartz Street Culvert Performance and Connection to Extended Salt Marsh* - Evaluate the Hartz Street culvert for size and elevation to be effective with rising sea levels and more intense storms and storm surge. Also, evaluate restoring a hydraulic connection between the Good Harbor Ecosystem and Gloucester Harbor (See Figure 4). (Latitude: 42.617780°; Longitude: -70.645592°)

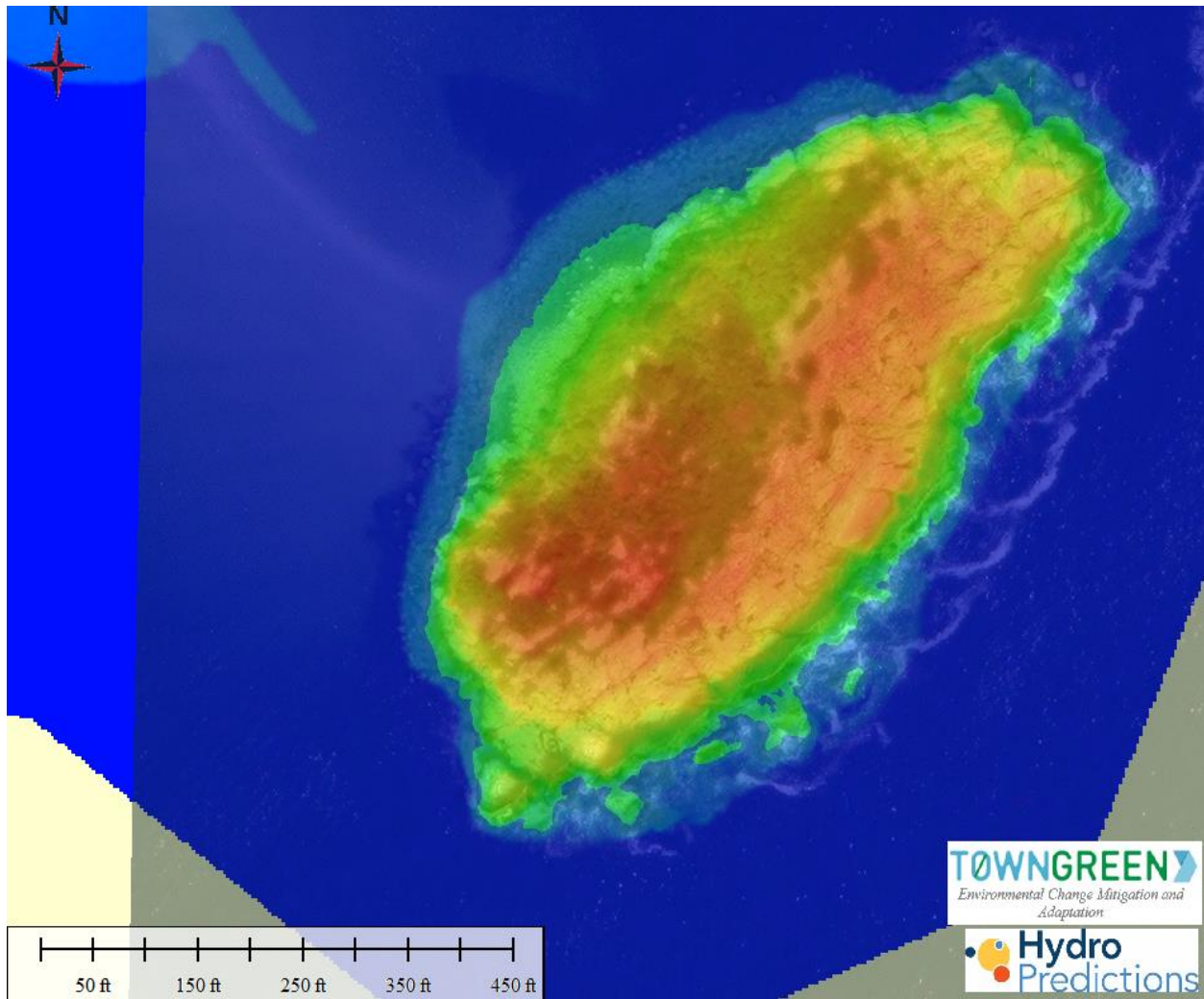


Figure 12. Salt Island Acquisition and Preservation - Salt Island is currently privately owned with potential future threats to public access and to the natural island habitat, flora, and fauna. This project would seek to purchase Salt Island and place it under a conservation restriction (or other) into perpetuity. (Latitude: 42.620233°; Longitude: -70.623237°)



Figure 13. City of Gloucester tax parcel numbers are shown in white boxes with the key shown in the lower right. Project locations are marked with blue stars.

Attachment – Tables of Property Owners in and around the Good Harbor Ecosystem

TABLE I. PROPERTY PARCELS AND OWNERS IN THE GOOD HARBOR ECOSYSTEM

This inventory identifies selected properties in the Good Harbor wetlands representing 45 parcels (lots) totaling 188.44 acres of land. Of the 45 parcels selected, 14 contain buildings (commercial and residential located on a portion of the land); 31 are vacant land. The parcels are grouped by geographical sections (central, east, west, etc.) and general types (marsh, buffer, etc.). Lot numbers, owners, assessed valuations, zoning, and addresses are also shown. This inventory is intended to serve as the potential cohort of parcels for conservation, restoration, and preservation of natural resources in the Good Harbor core area.

	Ref	Lot #	Owner	Acres	Valuation	Zoning	Location	Bldg	Section/Type	Proj	Notations
CENTRAL	1	184.3	City of Gloucester	54.90	12,655,900	R-10	99 Thatcher Rd	X	So Central/M/B	3	Article 97?
	2	185.22	City of Gloucester	7.67	23,000	R-10	Thatcher Rd		So Central/M	8	Article 97?
	3	160.4	Old Nugent Farm Condominium	56.2	?	R-10	ONF Road	X	No Central/M	8, 9	CR?
	4	184.5	Ocean View at GHB Condo Trust	.45	211,600	EB	70 Thatcher Rd		No Central/M		CR?
	5	184.9	Ocean View at GHB Condo Trust	5.49	228,600	EB	74 Thatcher Rd	X	No Central		CR?
	6	160.30	Days Francis M & Patton Sharon	1.2	26,600	R-10	R Witham St		No Central/M		
	7	160.42	Days Francis M & Patton Sharon	1.15	26,500	R-10	27 Witham St		No Central/M		
	8	160.60	51 Witham St Condo Trust (?)	0	?	R-10	51 Witham St	X	No Central		
	9	160.24	City of Gloucester	3.20	354,100	R-10	Witham St		No Central/M		
	10	160.25	Val C Sommers	1.10	26,400	R-10	25R Witham St		No Central/M		
	11	160.28	Rose Judith et.al.	2.20	19,400	R-10	27R Witham St		No Central/M		
EAST	12	179.2	Frontiero Sabastian J & Marian	1.17	14,000	R-10	5 Joppa Way		Witham/P/W	1	
	13	179.38	City of Gloucester	1.61	14,600	R-10	88 Thatcher Rd		Witham/P/W	1	
	14	179.6	The Patron's Museum & Education	.52	324,800	EB	92 Thatcher Rd	X	Witham/P/W	1	
	15	179.7	Suldenski John J	.15	110,800	R-10	98 Thatcher Rd		Witham/P/B	1	
	16	179.1	Cary Josephine M & Daniel R	.71	201,600	R-10	3 Joppa Way	X	Witham/P/B	1	Partial?
	17	179.33	Pierce Robert & Pierce Karen	.23	13,900	R-10	68 Witham St		Witham/P/B	1	
	18	179.34	Rodriguez Marina	.23	167,100	R-10	66 Witham St	X	Witham/P/B	1	
	19	161.72	Suldenski John J	2.87	16,400	R-10	16 Joppa Way		Witham/P/B	1	CR?
	20	179.3	Warren Violet M	.35	181,900	R-10	72 Witham St		Witham/E		
	21	179.35	City of Gloucester	.13	12,400	R-10	Witham St		Witham/E		
	22	179.36	City of Gloucester	.14	12,400	R-10	Witham St		Witham/E		
	23	179.4	Muzzey Janet & John R	.12	195,300	R-10	74 Witham St	X	Witham/E		
	24	179.5	City of Gloucester	.10	12,000	R-10	Witham St		Witham/E		
	25	184.6	Burke Henry J	.13	4,100	R-10	77 Witham St		Witham/W		
	26	184.7	Deisenroth Susan M Barr Beverl	.13	4,100	R-10	75 Witham St		Witham/W		
	27	184.8	Schlichte George A	.12	201,400	R-10	73 Witham St	X	Witham/W		
	28	161.55	Teague Stephen C & Karen J	.63	546,800	R-10	13 Starknaught	X	Witham/B/H		
	29	161.71	Murphy Maria	.00	190,000	R-10	4 Joppa Way	X	Witham/B/H		
	30	161.88	Piscitello Mary J & Bartolo	.47	362,700	R-10	6 Oxford Rd	X	Witham/B/H		
	31	161.93	Frontiero Sabastian J & Marian	.85	13,600	R-10	6 Joppa Way		Witham/B/H		
	32	161.94	Frontiero Sabastian J & Marian	.68	13,400	R-10	8 Joppa Way		Witham/B/H		
	33	161.95	Witcher Lise R	.53	13,200	R-10	14 Joppa Way		Witham/B/H		

	Ref	Lot #	Owner	Acres	Valuation	Zoning	Location	Bldg	Section/Type	Proj	Notations
WEST	34	185.52	WFG Realty (Ahold)	7.45	2,600,000	EB	Thatcher Rd	X	West	5	
	35	185.53	WFG Realty (Ahold)	7.37	8,000,000	EB	6 Thatcher Rd	X	West	5	
	36	185.127	NORAA Retsof Holdings LLC	7.67	1,668,000	R-10	107 Eastern Ave	X	West	6	Dam removal
	37	185.128	Braga Management Team LLC	.38	39,400	NB	103R Eastern "		West		Parking lot
	38	185.50	City of Gloucester	2.21	22,000	R-10	11 Abbott Rd		West	?	
	39	185.69	Poole Stanley R Trust, Country Club	1.13	8,600	R-10	12 Rio Drive		West	4	2 Farm Lane, Rkpt
	40	185.60	Marilyn Beard (104 Bass Ave)	0.7	98,800	EB	47 Thatcher Rd		West	4	104 Bass Ave, Gl
	41	185.23	City of Gloucester	6.21	12,900	R-10	3R Wise Place		West	7	
	42	50.53	Anderson Jennifer M & Pata Linda	2.52	9,800	R-10	14R Hartz St		West	7	11 Williams Ct, Gl
	43	50.70	City of Gloucester	2.20	224,900	R-10	State Hy		West	7	
	44	50.71	City of Gloucester	0.17	144,800	R-10	State Hy		West	7	
SO	45	344.1	Salt Island LLC	5.0	11,900	R-10	Salt Island		South	10	
Sums				188.44	15,867,500						

KEY & NOTES:

Ref Column: Lists reference numbers to GH parcels organized by sectional categories: Central (1-11), East (12-33), West (34-44), South (45)

Zoning Column: R-10 = Residential; EB = Business; Red font = Candidates for Conservancy (Prime and Other). Acreages are being verified by the Assessor's Office.

Sections/Types Column: So Central = South of Thatcher Rd; No Central = North of Thatcher Rd; Witham/PW = Witham Pond Water; Witham/P/B = Witham Pond Buffer; Witham/E = Witham Street Property East Side; Witham/W = Witham Street Property West Side; Witham/B/H = Witham Street Buffer Parcels with House or Building; West = Boundaries Eastern Ave, 128 Extension, Bass Ave, & Marina Dr; South = Salt Island.

Projects: Selected parcels are candidates as projects for Good Harbor Ecosystem Restoration (Natural Resource Restoration Settlement). Project numbers correlate with projects ideas submitted to the Trustees Council for the Natural Resource Restoration Settlement).

Note on Lot #160.4: Old Nugent Farm Condominium owns 38.9 AC north of Thatcher Road and 17.3 AC south of Thatcher Road

Special Notes: Names of owners are subject to change and updates. Additional parcels may be added to the inventory at a future date including additional Witham Pond Buffer parcels (e.g. 161.93, 161.94, 161.55, 161.81, 161.95, 161.73) and additional West Buffer Properties (e.g. 67.1, 50.26, 50.27, 50.28).

TABLE II. PROPOSED PARCELS FOR GOOD HARBOR ECOSYSTEM RESTORATION PROJECTS

This table correlates selected GH parcels (Lot #) with proposed projects (Project Numbers and Titles) for the Good Harbor Ecosystem Restoration under the (Natural Resource Restoration Settlement). The table also provides estimates of the acreage impacted by the projects in the short-term (3-5 years) and the long-term (5 years +).

Ref	Lot #	Owner	AC	Location	Section/Type	Proj	Project Title	AC/ST	AC/LT
1	184.3	City of Gloucester	54.90	99 Thatcher Rd	So Central/M/B	3	GH Beach Parking Lot	10.00	30
2	185.22	City of Gloucester	7.67	Thatcher Rd	So Central/M	9	Salt Marsh Ditch Remediation	20.00	30
3	160.4	Old Nugent Farm Condominium	56.2	ONF Road	No Central/M				
12	179.2	Frontiero Sabastian J & Marian	1.17	5 Joppa Way	Witham/P/W	1	Witham Street Culvert	7.49	10
13	179.38	City of Gloucester	1.61	88 Thatcher Rd	Witham/P/W				
14	179.6	The Patron’s Museum & Education	.52	92 Thatcher Rd	Witham/P/W				
15	179.7	Suldenski John J	.15	98 Thatcher Rd	Witham/P/B				
16	179.1	Cary Josephine M & Daniel R	.71	3 Joppa Way	Witham/P/B				
17	179.33	Pierce Robert & Pierce Karen	.23	68 Witham St	Witham/P/B				
18	179.34	Rodriguez Marina	.23	66 Witham St	Witham/P/B				
19	161.72	Suldenski John J	2.87	16 Joppa Way	Witham/P/B				
34	185.52	WFG Realty (Ahold)	7.45	Thatcher Rd	West				
35	185.53	WFG Realty (Ahold)	7.37	6 Thatcher Rd	West				
36	185.127	NORAA Retsof Holdings LLC	7.67	107 Eastern Ave	West	6	Marsh Barrier Restoration	9.88	9.88
38	185.50	City of Gloucester	2.21	11 Abbott Rd	West				
40	185.60	Marilyn Beard (104 Bass Ave)	0.7	47 Thatcher Rd	West	4	Degraded Salt Marsh	0.70	0.70
41	185.23	City of Gloucester	6.21	3R Wise Place	West	7	Hartz Street Culvert	11.10	11.10
42	50.53	Anderson Jennifer M & Pata Linda	2.52	14R Hartz St	West				
43	50.70	City of Gloucester	2.20	State Hy	West				
44	50.71	City of Gloucester	0.17	State Hy	West				
45	344.1	Salt Island LLC	5.0	Salt Island	South	10	Salt Island	5.00	5
							Remainder of Core Marsh		76.94
		Sums	167.76					65.17	188.44

KEY & NOTES:

“Ref” Column: Lists reference numbers to GH parcels organized by sectional categories: **Central, East, West, South** (see attached map).

“Proj” Column: Lists project numbers and titles submitted to the Council of Trustees for GH Ecosystem Restoration (Natural Resource Restoration Settlement). See also “Project Title” column.

“AC” Column: Actual acreage of each parcel. AC/ST: Net acreage impacted short-term by restoration projects. AC/LT: Total acreage impacted long-term by restoration projects.

“AC/ST< Columns: Projects 2 & 8 are not included in acreages of actual restoration as Project 2 acreage is unknown and Project 8 acreage overarches the entire marsh.

Note: Acreages impacted short-term are based upon the proportions of actual acreages that are and/or will be impacted by restoration activities.