

Horsley Witten Group

Sustainable Environmental Solutions

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MEMO

TO: Alison Branco, Peconic Estuary Program and Julie Nace, NYS Department of Environmental Conservation

FROM: Michelle West and Beth Kittila

DATE: November 8, 2013

RE: Draft Field Assessments for Two Peconic Estuary Subwatersheds

CC: Kim Shaw (East Hampton); Christine Fetten (Southampton)

The Horsley Witten Group (HW) is working with the Peconic Estuary Program to develop subwatershed management plans for North Sea Harbor in Southampton and Tanbark Creek in East Hampton. HW compiled GIS data from the towns, County, State, and the PEP to prepare draft field maps of each subwatershed including information such as soils, wetlands, topography, and stormwater infrastructure. These maps were used to identify potential restoration opportunities to further evaluate during the field reconnaissance. HW conducted the field reconnaissance the week of September 22, 2013. This work included meeting with stakeholders in each subwatershed; visiting pre-identified candidate stormwater retrofit and neighborhood sites as well as additional sites identified in the field that week; evaluating drainage conditions and possible pollution sources in neighborhoods and commercial areas; and confirming subwatershed boundaries.

HW has now compiled information collected in the field and performed preliminary calculations on the identified retrofit opportunities, including the drainage area delineations to each site in GIS (based on recently obtained topography and field observations); the amount of impervious area in each drainage area; and potential capture and treatment volumes. The location of each opportunity (see **Tables 1 and 2**) and neighborhood assessed can be seen on the reference maps for each subwatershed in **Appendix A** of this memo, and the description of each opportunity is included in our DRAFT field forms (downloaded from the iPad used in the field) in **Appendix B**. The field forms will be updated as concepts are refined based on feedback and/or additional information from the Towns and other stakeholders.

Please review the initial maps and descriptions, and provide comments. We also have specific questions on some of the sites that we will be to each Town to help us finalize concepts.

Table 1. Identified restoration opportunities in the North Sea Harbor Subwatershed

| | |
|---------|---|
| NSH-R1 | Fresh Pond Road End – Shallow Bioretention Area |
| NSH-R2 | Conscience Point Boat Landing/Trail Head – Buffer Planting/Restoration of Unnecessary Boat Launch |
| NSH-R3 | Conscience Point Marina South – Enhance Existing Swale |
| NSH-R4 | Conscience Point Marina North – Enhance Existing Swale |
| NSH-R5 | North Sea/Jennings Intersection – Roadside Dry Swale |
| NSH-R6 | North Sea/Noyak Intersection North – Bioretention Area |
| NSH-R7 | Noyak Bridge Leak Off North – Shallow Swale |
| NSH-R8 | Noyak Bridge Leak Off South – Shallow Swale |
| NSH-R9 | North Sea/Noyak Intersection South – Bioretention Area |
| NSH-R10 | North Sea Bridge – Roadside Dry Swales |
| NSH-R11 | Ball Field - Rain Garden |
| NSH-R12 | Community Building - Rain Garden |
| NSH-R13 | Shore Rd Parking Lot – Shallow Bioswale |
| NSH-R14 | Shore Road End – Rain Garden |
| NSH-R15 | Noyac/Towd Point Intersection – Bioretention Area in existing median |
| NSH-R16 | Towd Point Rd End – Remove impervious cover/Shallow Bioretention Area |
| NSH-R17 | Towd Point Parking Lot – Revegetation/Filter Strip |
| NSH-R18 | Cove Rd South – Reduce impervious cover/Wet Swale |
| NSH-R19 | Fish Cove Rd West – Reduce impervious cover/Shallow bioretention area |
| NSH-R20 | Fish Cove Rd East – Stabilize Outfall/Provide Pretreatment |
| NSH-R21 | Sandy Hollow/North Sea Intersection – Retrofit Existing Infiltration Basin |
| NSH-R22 | Little Fresh Pond Rd – Terraced Bioretention Area |
| NSH-R23 | Emma Rose Elliston Memorial Park – Rain Garden or Pocket Wetland |

Table 2. Identified restoration opportunities in the Tanbark Creek Subwatershed

| | |
|-------|---|
| TC-R1 | Breeze Hill Road End – Wet Swale |
| TC-R2 | Town Dock Parking Area – Bioretention in existing median |
| TC-R3 | Oyster Pond Road – Retrofit Existing Basin |
| TC-R4 | Springy Banks Rd – Provide Pretreatment |
| TC-R5 | Town Dock North – Bioswale or Dry Swale in existing open space |
| TC-R6 | Town Dock South – Bioswale or Dry Swale in existing open space |
| TC-R7 | Fairway Dr Cul-de-sac – Bioretention Area in existing island |
| TC-R8 | Gardiners Road End – Shallow Bioretention Area in existing open space |
| TC-R9 | Soakhide Dreen Rd – Reduce Impervious Cover/Swales |

Next Steps:

- Once the preliminary sites are reviewed and initial concepts approved, a ranking process (see below for more details) will be conducted to determine which of the retrofit design concepts should be further refined in each of the subwatershed plans.
- HW will then prepare schematic designs to the 10% concept level for the highest ranked structural stormwater management practices in each subwatershed – no more than eight per subwatershed.
- Draft Subwatershed Management Plans will then be developed, which will include:
 - Maps of watershed opportunities and constraints, and identified retrofit opportunities;
 - Tables ranking retrofit, source control, and other restoration opportunities;
 - Recommendations for source control and pollution prevention activities; and
 - Concept designs for the priority retrofit opportunities.

Ranking Process:

All of the sites will be ranked based on four main categories on a 100-point scale as described below:

- 1) **Pollutant Removal Potential (40 points)**--This category is allotted the highest number of possible points based on the main goal of addressing the two pollutants of concern under the Peconic Estuary 2006 Total Maximum Daily Load (TMDL) for pathogens and the 2007 TMDL for nitrogen. We will analyze this category based on water quality volume treated (with a goal of 1.2 inch per impervious acre), as well as the most currently accepted removal efficiencies for the proposed practices as documented in the 2010 Rhode Island Stormwater Design Manual (see Table 3). Note, the 2010 RI Manual will be used because it reflects the latest research results on pollutant removal capabilities within the northeastern region of the country.
 - Water Quality Volume Treated - The site with the maximum volume treated will receive 20 points, while the minimum will receive 10 points, and the remaining sites were ranked accordingly.
 - Pollutant Reduction – The practices will be ranked based on their removal efficiency for both bacteria and nitrogen, for a maximum of 20 points possible (10 points each pollutant).

Table 3. Pollutant Removal Efficiencies (Source: 2010 Rhode Island Stormwater Design Manual)

| Practice | % Bacteria Removal | %TN Removal |
|---------------------|--------------------|-------------|
| Constructed Wetland | 60 | 30 |
| Bioretention | 70 | 55 |
| Dry Swale | 70 | 55 |
| Wet Swale | 60 | 30 |
| Infiltration Basin | 95 | 65 |
| Infiltration Trench | 95 | 65 |

| Practice | % Bacteria Removal | %TN Removal |
|-----------------------|--------------------|-------------|
| Permeable Paving | 95 | 40 |
| Rain Garden | 70 | 55 |
| Stormwater Planters | 70 | 55 |
| Gravel Wetland | 85 | 55 |
| Subsurface Chambers | 40 | 90 |
| Sand Filter | 70 | 32 |
| Dry Well | 40 | 90 |
| O/G Separator | 0 | 0 |
| Wet ED Basin | 70 | 31 |
| Deep Sump Catch Basin | 0 | 0 |
| Sediment Forebay | 12 | 3 |
| Grass Channel | 0 | 40 |

- 2) Estimated Construction Cost (25 points)**— Preliminary construction costs will be roughly estimated on a unit cost per volume or area of the practice based on literature and HW's recent experience with implementation of local projects (see Table 4). Total estimated project cost will be then divided by the water quality volume treated by each retrofit. Next, relative scores will be assigned to each project, where the lowest cost per WQv unit is assigned 25 points and the highest cost is assigned 5 points.

Table 4. Construction Costs per Unit Treated

| Practice | \$/Unit |
|---------------------|-------------------|
| Constructed Wetland | \$ 9.45 per cu ft |
| Bioretention | \$27.00 per cu ft |
| Dry Swale | \$16.90 per cu ft |
| Wet Swale | \$16.90 per cu ft |
| Infiltration Basin | \$10.80 per cu ft |
| Infiltration Trench | \$21.60 per cu ft |
| Permeable Paving | \$40.50 per cu ft |
| Rain Garden | \$13.50 per cu ft |
| Stormwater Planters | \$35. per cu ft |
| Pavement Removal | \$0.5 per sq ft |
| Repaving | \$3 per sq ft |
| Sand Filter | \$125 per sq ft |
| O/G Separator | \$3 per gallon |

- 3) Ease of Implementation (20 points)**--This category compares the concepts based on the following implementation factors:
- Potential required permitting
 - Minimal to no permitting required = 5 points;
 - Some permitting likely = 2.5 points; and
 - Complicated permitting likely = 0 points.

- Access issues
 - Site easily accessed = 5 points;
 - Some difficulty getting equipment to the site = 2.5 points; and
 - Site is difficult to access = 0 points.
- Ownership issues
 - Publically-owned = 5 points;
 - Ownership potentially an issue = 2.5 points; and
 - Privately-owned = 0 points.
- Maintenance burden
 - Low = 5 points;
 - Medium = 2.5 points; and
 - High = 0 points.

4) Additional benefits/factors (15 points).

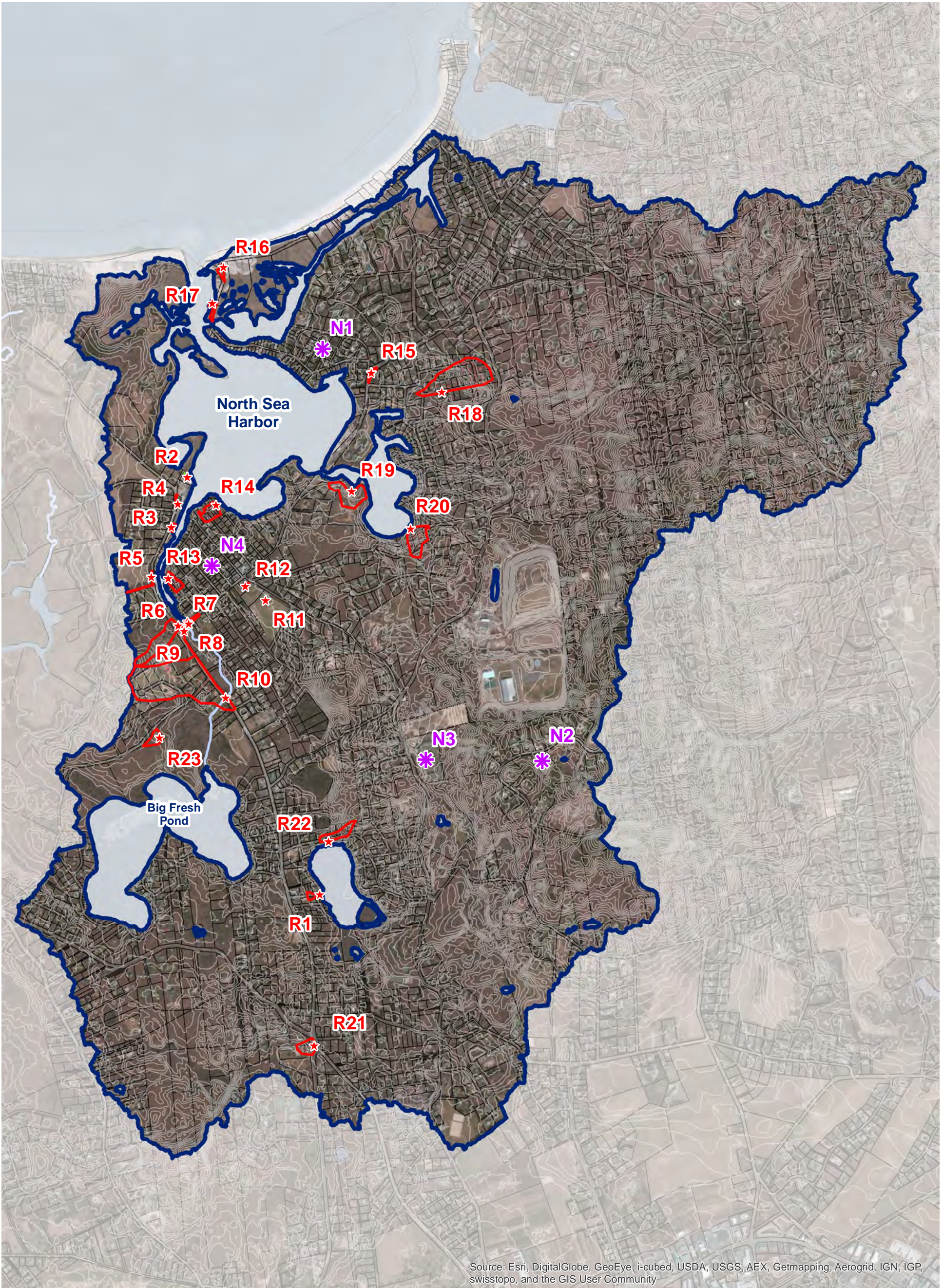
This category helps compare the proposed concepts based on additional factors of interest to this project, as listed below:

- Public Education/Demonstration
 - Site is located in a high visibility area and provides an excellent opportunity for reaching the public = 5 points;
 - Site provides moderate visibility and located where some portion of the public could benefit = 2.5 points; and
 - Site provides low visibility and is located in an area few people will visit = 0 points.
- Additional Stormwater Benefits
 - Concept provides additional flood abatement, runoff reduction, habitat benefits = 5 points;
 - Site provides moderate additional benefits = 2.5 points; and
 - Site provides little other benefits than water quality = 0 points.
- Available partners
 - Good opportunity for, or there are existing partners/funding/volunteers available for implementation = 5 points;
 - Some opportunity for implementation assistance = 2.5 points
 - Little to no opportunity for implementation assistance = 0 points

The eight retrofits with the highest total score will be preliminarily classified as “high priority” for each subwatershed. Remaining retrofits will be assigned “medium” or “low” priority ratings based on natural breaks in the total scores. Ranking categories will be listed in the narrative report in the retrofit summary tables. Point thresholds defining categories will vary between each subwatershed.

APPENDIX A:











SUBWATERSHED BASELINE MAPS

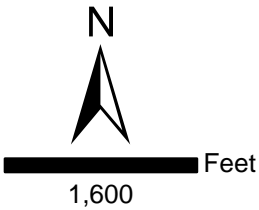


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: H:\Projects\2009\9072 Peconic-Sub WS Mgt Plans\GIS\Phase_II\Maps\North_Sea_Harbor\131018_NSH_RestOpps_11x17_9072.mxd

Legend

- | | |
|--|---|
|  North Sea Harbor Subwatershed |  Retrofit Impervious |
|  Parcels |  Neighborhoods |
|  Retrofit Sites |  5ft. Contours |
|  Retrofit Footprint |  Hydrography |
|  Retrofit Drainage Area |  Hydrography |

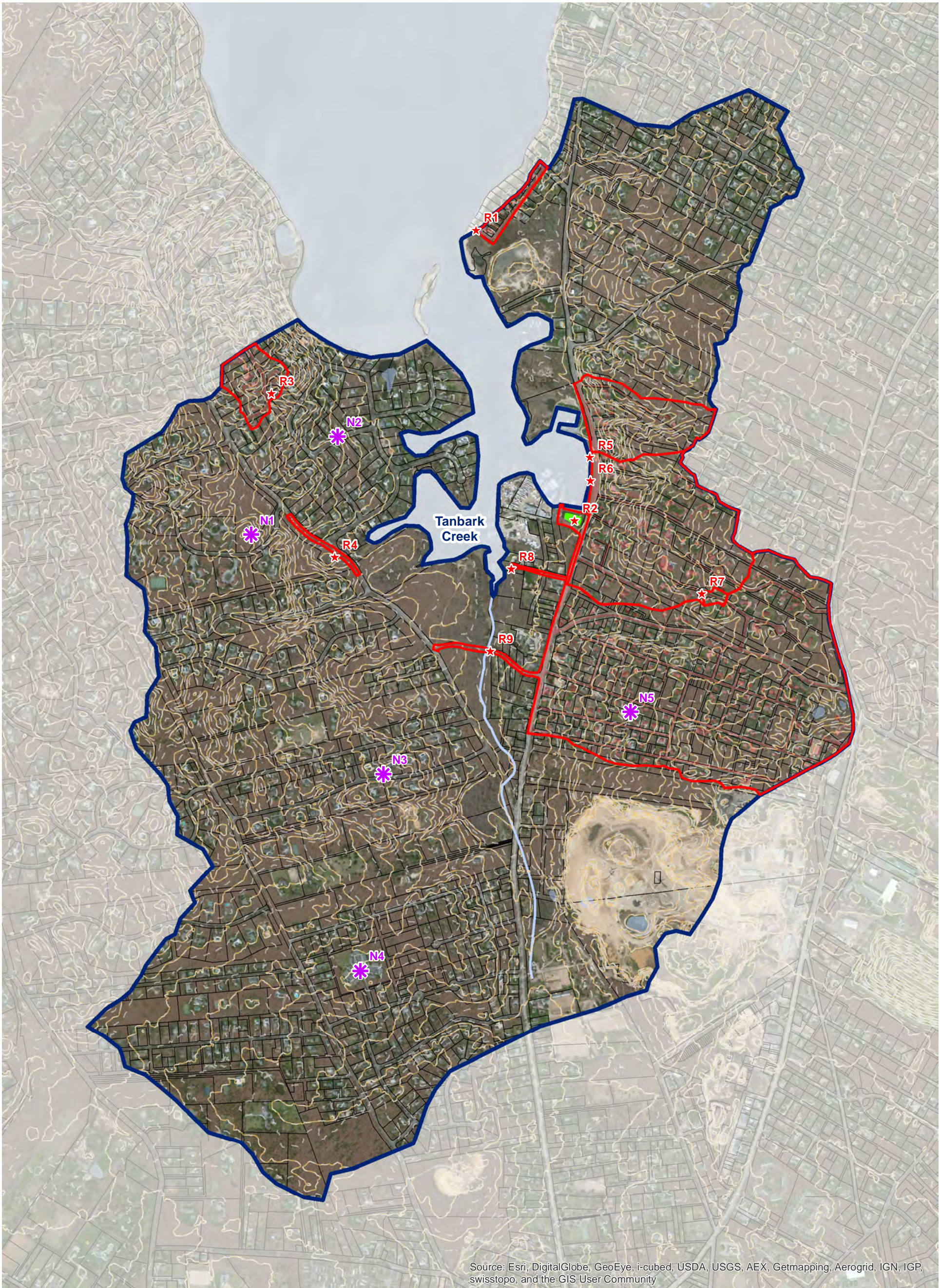


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Restoration Opportunities
North Sea Harbor
Subwatershed
Southampton, NY

Date: 11/7/2013






Figure 1



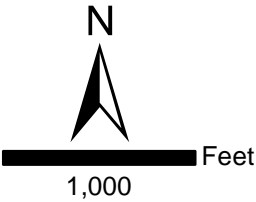
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: H:\Projects\2009\9072 Peconic-Sub WS Mgt Plans\GIS\Phase_II\Maps\Tanbark_Creek\131018_TC_RestOpps_11x17_9072.mxd

Legend

-  Tanbark Creek Subwatershed
-  Parcels
-  Retrofit Sites
-  Retrofit Footprint
-  Retrofit Drainage Area

-  Retrofit Impervious
-  Neighborhoods
-  5ft. Contours
-  10ft. Contours
-  Hydrography
-  Hydrography



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Restoration Opportunities
Tanbark Creek
Subwatershed
East Hampton, NY

Date: 11/7/2013

Figure 1

APPENDIX B:

FIELD FORMS AND SKETCHES

PECONIC WATERSHED

Site ID: NSH-R1

Subwatershed: North Sea Harbor

Name: Fresh Pond Road End

Site & Concept Description:

Remove pavement (10-15 feet) at the end of the road, leaving access for existing driveway. Install shallow bioretention with overflows from large storm events directed to existing drain inlets. If needed, could possibly extend another 10 feet past current edge of pavement (there is a guardrail off the edge of pavement).

Additional Notes/Feasibility:

It appears that this area is used for vehicle access to the pond. Recommend eliminating this or stabilizing access if it is to be allowed to continue.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|--|--|--|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public ROW | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: Buffer restoration | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment, leaf litter | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: OHW |
| SIZING INFO | | | |
| Drainage Area (ac): 0.37 | | | |
| Impervious Area (ac): 0.15 | | | |
| Practice Area Available (ac): 0.02 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? YES | | | |

Date Assessed: Sep 24, 2013, 8:57 AM

Assessed by: MW EK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 8:57 AM

Assessed by: MW EK

PECONIC WATERSHED

Site ID: NSH-R2

Subwatershed: North Sea Harbor

Name: Conscience Point Boat Landing/Trail Head

Site & Concept Description:

Restoration project. Remove dirt boat ramp (adjacent to the paved boat ramp) and restore natural vegetation. Trustees were onsite and noted that the dirt boat ramp was rarely used. Erosion was observed along side of the existing dirt boat ramp with recently placed rip rap. A vegetated buffer strip could be installed along the seawall. Parking could be removed near the trailhead, restoring with native vegetation (pulling back the trailhead).

Additional Notes/Feasibility:

The large dirt pile in front of the Sea Scouts building should be removed and/or stabilized.



| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|---|--|--|
| Site Contact Info: Trustees | Project Candidate: Yep, Love It | |
| | Retrofit of existing or new BMP: | |
| Ownership: Public | Proposed Retrofit Practices: | |
| Land Use: Parking Lot / Boat Ramp | Non-Structural Controls: Buffer restoration of salt marsh | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: YES Reuse: N/A Other: Habitat | Conflicts: Soils: NO Access: NO Land Use: YES Utilities: NO Polluted: NO High WT: YES Wetlands: YES Other: |
| SIZING INFO | | |
| Drainage Area (ac): NA | | |
| Impervious Area (ac): 0.00 | | |
| Practice Area Available (ac): 0.09 | | |
| Impervious Area Type: Dirt parking lot/launch | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 9:10 AM

Assessed by: MW EK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 9:10 AM

Assessed by: MW EK

PECONIC WATERSHED

Site ID: NSH-R3

Subwatershed: North Sea Harbor

Name: Conscience Point Marina South

Site & Concept Description:

Better utilize existing swale located between dirt parking lot and road. Remove section of curb in parking lot to direct half of parking lot into swale. Overflow to existing drain inlets (outfalls). Could possibly be modified to also take a portion of the roadway runoff.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|--|--|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Swale | |
| Land Use: Marina | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | | |
| SIZING INFO | | Benefits: Storage: YES Water Quality: YES Recharge: YES Demo: YES Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: NO Other: |
| Drainage Area (ac): 0.14 | | | |
| Impervious Area (ac): 0.08 | | | |
| Practice Area Available (ac): 0.03 | | | |
| Impervious Area Type: Parking Lot | | | |
| Existing Head Available? YES | | | |

Date Assessed: Sep 23, 2013, 1:13 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 23, 2013, 1:13 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R4

Subwatershed: North Sea Harbor

Name: Conscience Point Marina North

Site & Concept Description:

Formalize existing swale to treat a portion of road runoff.

Additional Notes/Feasibility:

Unknown future use of "club building." Question if existing septic system is failing and the location of the system?



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---|--|---|---|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Swale | |
| Land Use: Marina | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: No | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 0.07 | | | |
| Impervious Area (ac): 0.07 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? YES | | | |

Date Assessed: Sep 24, 2013, 1:36 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 1:36 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R5

Subwatershed: North Sea Harbor

Name: North Sea/Jennings Intersection

Site & Concept Description:

Propose dry swale to replace existing leaching catch basins.

Additional Notes/Feasibility:

Private property posted adjacent to road. OHW possible constraint. Pole located on corner of Jennings Street. Water line conflict? See mapping from Town and "water meter" observed in field.



| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|-------------------------------------|--|--|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Swale | |
| Land Use: Road | Non-Structural Controls: | |
| Existing BMP on site? Yes | | |
| Is site a hotspot? No | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 0.20 | | |
| Impervious Area (ac): 0.18 | | |
| Practice Area Available (ac): 0.005 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 10:13 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 10:13 AM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R6

Name: North Sea/Noyak Intersection North

Site & Concept Description:

Utilize existing park for bioretention area for road runoff from North Sea/Noyak Rd intersection.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|---------------------------------------|---|---|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Bioretention | |
| Land Use: Park | Non-Structural Controls: | |
| Existing BMP on site? -None Selected- | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Unknown | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: YES Other: |
| SIZING INFO | | |
| Drainage Area (ac): 5.10 | | |
| Impervious Area (ac): 0.27 | | |
| Practice Area Available (ac): 0.03 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 2:11 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 2:11 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R7

Subwatershed: North Sea Harbor

Name: Noyak Bridge Leak Off North

Site & Concept Description:

Swale along side of road up to bridge abutments. Existing inlets on bridge to remain.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|--|--|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Swale | |
| Land Use: Road | Non-Structural Controls: | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Unknown | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: YES Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: YES Other: |
| SIZING INFO | | |
| Drainage Area (ac): 0.16 | | |
| Impervious Area (ac): 0.16 | | |
| Practice Area Available (ac): 0.01 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 23, 2013, 4:08 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 23, 2013, 4:08 PM

Assessed by: MW/ERK



PECONIC WATERSHED

Site ID: NSH-R8

Subwatershed: North Sea Harbor

Name: Noyak Bridge Leak Off South

Site & Concept Description:

Swale along side of road up to bridge abutments.



Additional Notes/Feasibility:

GENERAL SITE INFORMATION

RETROFIT DETAILS

Site Contact Info:

Project Candidate: Ok

Retrofit of existing or new BMP: New BMP

Ownership: Public

Proposed Retrofit Practices: Swale

Land Use: Road

Non-Structural Controls:

Existing BMP on site? -None Selected-

Is site a hotspot? No

Maintenance Burden: Low

Pollutants Observed: Sediment

Soils: Unknown

Benefits:

Conflicts:

SIZING INFO

Drainage Area (ac): 0.18

Storage: NO
Water Quality: YES
Recharge: NO
Demo: NO
Repair: NO
Reuse: N/A
Other:

Soils: YES
Access: NO
Land Use: NO
Utilities: YES
Polluted: NO
High WT: NO
Wetlands: YES
Other:

Impervious Area (ac): 0.12

Practice Area Available (ac): 0.01

Impervious Area Type: Street

Existing Head Available? NO

Date Assessed: Sep 23, 2013, 4:32 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 23, 2013, 4:32 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R9

Name: North Sea/Noyak Intersection South

Site & Concept Description:

Cut back berm at existing drain inlet and install paved flume to bioretention area in open space adjacent to roadway (southeast corner of intersection).



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|---------------------------------------|--|--|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | Non-Structural Controls: | |
| Existing BMP on site? -None Selected- | | |
| Is site a hotspot? No | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment | | |
| Soils: Unknown | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: YES Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: YES Other: |
| SIZING INFO | | |
| Drainage Area (ac): 5.70 | | |
| Impervious Area (ac): 0.66 | | |
| Practice Area Available (ac): 0.01 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 23, 2013, 4:56 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 23, 2013, 4:56 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R10

Subwatershed: North Sea Harbor

Name: North Sea Bridge

Site & Concept Description:

Road is currently super elevated to the east and is in pretty bad condition. Propose Swales when road is resurfaced. Existing drain inlets are stenciled but outfalls were not observed.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|---|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Swale | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Unknown | | | |
| SIZING INFO | | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| Drainage Area (ac): 21.15 | | | |
| Impervious Area (ac): 2.63 | | | |
| Practice Area Available (ac): 0.16 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 23, 2013, 9:51 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 23, 2013, 9:51 AM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R11

Name: Ball Field Rain Garden

Site & Concept Description:

Install rain gardens in the front of the ball field building.
Existing OHWs, unknown water service or other utilities.
Great site for public education and possible signage.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|--|--|--|
| Site Contact Info: | Project Candidate: Yep, Love It | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Raingarden | |
| Land Use: Park | Non-Structural Controls: | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: Medium | |
| Pollutants Observed: No | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: NO Recharge: NO Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 0.01 | | |
| Impervious Area (ac): 0.01 | | |
| Practice Area Available (ac): 0.02 | | |
| Impervious Area Type: Individual Rooftop | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 11:46 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 11:46 AM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R12

Subwatershed: North Sea Harbor

Name: Community Bldg Rain Garden

Site & Concept Description:

North Sea Community Association building rain garden for roof and parking lot runoff. Great site for public education and possible signage.

Additional Notes/Feasibility:

Unknown existing utilities.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|--|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Rain garden | |
| Land Use: Park | | Non-Structural Controls: | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: Medium | |
| Pollutants Observed: None | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: YES Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 0.06 | | | |
| Impervious Area (ac): 0.06 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Parking Lot | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 12:15 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 12:15 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R13

Subwatershed: North Sea Harbor

Name: Shore Rd Parking Lot

Site & Concept Description:

Proposed bioswale along side of parking lot. Enlarge and reinforce the existing rip rap swale to the north of the parking area.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---------------------------------------|--|--|--|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Unknown | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? -None Selected- | | | |
| Is site a hotspot? -None Selected- | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: YES Utilities: YES Polluted: NO High WT: NO Wetlands: YES Other: Ownership unknown |
| SIZING INFO | | | |
| Drainage Area (ac): 1.06 | | | |
| Impervious Area (ac): 0.37 | | | |
| Practice Area Available (ac): 0.002 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 10:53 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 10:53 AM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R14

Subwatershed: North Sea Harbor

Name: Shore Road End

Site & Concept Description:

Proposed shallow bioretention area or rain garden at the end of the road. Plant with salt tolerant vegetation. Remove existing leaching structure.

Additional Notes/Feasibility:

Boat access for mostly sailboats; recommend eliminating or stabilizing. Resident noted flooding problems only during hurricanes and nor'easters.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---|--|--|---|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Unknown | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment, organics | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: YES Utilities: YES Polluted: NO High WT: YES Wetlands: YES Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 1.57 | | | |
| Impervious Area (ac): 0.52 | | | |
| Practice Area Available (ac): 0.004 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 11:23 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 11:23 AM

Assessed by: MW/ERK



PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R15

Name: Noyac/Towd Point Intersection

Site & Concept Description:

Utilize existing pervious island for stormwater treatment with a bioretention area. Remove some of the existing pavement from intersection (very wide travel lanes).

Additional Notes/Feasibility:

Existing utilities unknown.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: Pavement removal | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 0.33 | | | |
| Impervious Area (ac): 0.24 | | | |
| Practice Area Available (ac): 0.04 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 2:48 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 2:48 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R16

Subwatershed: North Sea Harbor

Name: Towd Point Rd End

Site & Concept Description:

Formalize parking and reduce impervious if possible.
Install "beach" bioretention area with split rail fence to prevent damage from vehicles.

Additional Notes/Feasibility:

Eliminate one or more beach vehicle access points and stabilize those vehicle access areas to remain.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Unknown | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: Impervious cover reduction | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Unknown | | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 0.38 | | | |
| Impervious Area (ac): 0.29 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 3:00 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 3:00 PM

Assessed by: MW/ERK

PECONIC WATERSHED

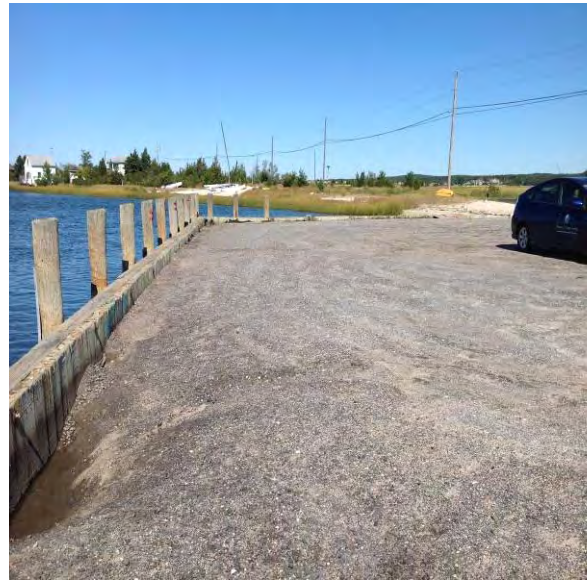
Site ID: NSH-R17

Subwatershed: North Sea Harbor

Name: Towd Point Parking Lot

Site & Concept Description:

Recommend reconfiguring / formalizing parking lot.
Possible vegetated filter strips along sea wall. Formalize kayak launch or eliminate and re-vegetate.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|---|--|
| Site Contact Info: | Project Candidate: Undecided | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Planter | |
| Land Use: Parking | Non-Structural Controls: | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: | |
| Pollutants Observed: Sediment | | |
| Soils: Unknown | Benefits: Storage: NO Water Quality: NO Recharge: NO Demo: YES Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: YES Utilities: NO Polluted: NO High WT: YES Wetlands: YES Other: |
| SIZING INFO | | |
| Drainage Area (ac): 0.47 | | |
| Impervious Area (ac): 0.38 | | |
| Practice Area Available (ac): 0.02 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 3:48 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 3:48 PM

Assessed by: MW/ERK

PECONIC WATERSHED

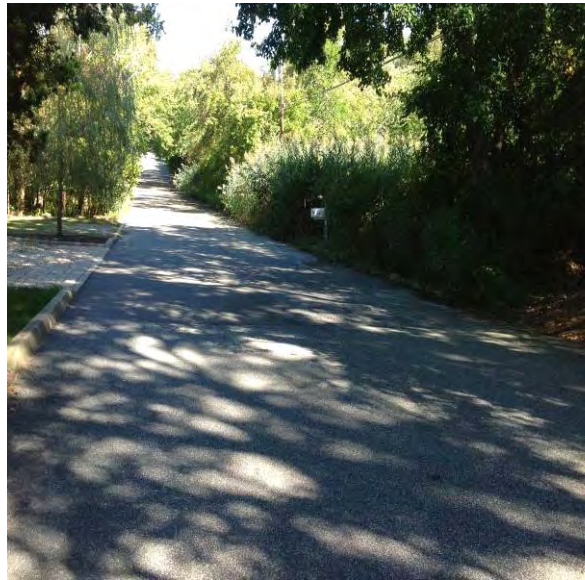
Site ID: NSH-R18

Subwatershed: North Sea Harbor

Name: Cove Rd South

Site & Concept Description:

There are multiple drain inlets and leaching pits along this road, with evidence of frequent flooding. Possibly remove existing pavement (down to one way - single lane) and install wet swale along side of road for stormwater management.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|--|--|---|---------------|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| Ownership: Public ROW | | Retrofit of existing or new BMP: New BMP | |
| Land Use: Road | | Proposed Retrofit Practices: Swale | |
| Existing BMP on site? Yes | | Non-Structural Controls: | |
| Is site a hotspot? No | | Maintenance Burden: | |
| Pollutants Observed: Sediment, organics | | | |
| Soils: Poor Infiltration | | | |
| SIZING INFO | | Benefits: | Conflicts: |
| Drainage Area (ac): 9.37 | | Storage: NO | Soils: NO |
| Impervious Area (ac): 2.25 | | Water Quality: YES | Access: NO |
| Practice Area Available (ac): 0.18 | | Recharge: NO | Land Use: NO |
| Impervious Area Type: Street | | Demo: NO | Utilities: NO |
| Existing Head Available? NO | | Repair: YES | Polluted: NO |
| | | Reuse: N/A | High WT: YES |
| | | Other: | Wetlands: YES |
| | | | Other: |

Date Assessed: Sep 24, 2013, 4:00 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 4:00 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R19

Name: Fish Cove Rd West

Site & Concept Description:

Newly paved road. Very narrow except at low point, possibly to accommodate the leaching structures. Recommend removing excess pavement and installing dry swale.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|---|---|
| Site Contact Info: | Project Candidate: OK | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Dry Swale | |
| Land Use: Road | Non-Structural Controls: Remove pavement | |
| Existing BMP on site? Yes | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 3.57 | | |
| Impervious Area (ac): 0.35 | | |
| Practice Area Available (ac): 0.01 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 24, 2013, 4:12 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 4:12 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R20

Name: Fish Cove Rd East

Site & Concept Description:

Repair existing eroded slope with stabilized outlet.



Additional Notes/Feasibility:

GENERAL SITE INFORMATION

Site Contact Info:

Ownership: Public

Land Use: Road

Existing BMP on site? Yes

Is site a hotspot? No

Pollutants Observed: Sediment, organics

Soils: Good Infiltration

SIZING INFO

Drainage Area (ac): 3.06

Impervious Area (ac): 0.61

Practice Area Available (ac): 0.00

Impervious Area Type: Street

Existing Head Available? NO

RETROFIT DETAILS

Project Candidate: OK

Retrofit of existing or new BMP: Retrofit

Proposed Retrofit Practices: Stabilized outfall

Non-Structural Controls:

Maintenance Burden: Low

Benefits:

Storage: NO
Water Quality: YES
Recharge: NO
Demo: NO
Repair: YES
Reuse: N/A
Other:

Conflicts:

Soils: NO
Access: NO
Land Use: NO
Utilities: NO
Polluted: NO
High WT: NO
Wetlands: NO
Other:

Date Assessed: Sep 24, 2013, 4:37 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 4:37 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Subwatershed: North Sea Harbor

Site ID: NSH-R21

Name: Sandy Hollow/North Sea Intersection

Site & Concept Description:

Install sediment forebay for pretreatment in existing infiltration basin.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Infiltration | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: NO Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 1.49 | | | |
| Impervious Area (ac): 0.34 | | | |
| Practice Area Available (ac): 0.00 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 4:46 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 4:46 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R22

Subwatershed: North Sea Harbor

Name: Little Fresh Pond Rd

Site & Concept Description:

Install terraced bioretention area with overflow to existing leaching catch basins.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|--|--|---|------------|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: | |
| Pollutants Observed: Sediment, organic | | | |
| Soils: Good Infiltration | | Benefits: | Conflicts: |
| SIZING INFO | | | |
| Drainage Area (ac): 1.69 | | | |
| Impervious Area (ac): 0.49 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 5:15 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 5:15 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: NSH-R23

Subwatershed: North Sea Harbor

Name: Emma Rose Elliston Memorial Park

Site & Concept Description:

Rain garden or pocket wetland at driveway entrance.
Good demonstration project location.

Additional Notes/Feasibility:

Install fence to protect existing tree. Possibly formalize parking. Possible UGE in area



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|---|------------|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Park | | Non-Structural Controls: | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | Benefits: | Conflicts: |
| SIZING INFO | | | |
| Drainage Area (ac): 1.03 | | | |
| Impervious Area (ac): 0.28 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 24, 2013, 5:30 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 24, 2013, 5:30 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: TC-R1

Subwatershed: Tanbak Creek

Name: Breeze Hill Road

Site & Concept Description:

Block existing drainage inlet on northern side of road. Install wet swale along one side of road as available (narrow road - remove pavement as necessary) to pocket wetland in existing open area at bend in road. Also second practice in area - pavement removal at road end with stabilization of beach driving access.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|--|--|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | Proposed Retrofit Practices: Swale | |
| Land Use: Road | Non-Structural Controls: | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: -None Selected- | |
| Pollutants Observed: Sediment | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: YES Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 1.65 | | |
| Impervious Area (ac): 1.46 | | |
| Practice Area Available (ac): 0.05 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 25, 2013, 3:01 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 25, 2013, 3:01 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: TC-R2

Subwatershed: Tanbark Creek

Name: Town Dock - Three Mile Harbor Boat Yard

Site & Concept Description:

Town Docks. There are existing drain inlets and leaching pits in the area with overflow into "junction box" with a 12" outfall that had dry weather flow (due to clogging). Proposed bioretention in center island of marina parking lot to treat runoff, reduce volumes, and provide some flood control.

Additional Notes/Feasibility:

Need to check on land use to make sure large open field is not used for functions.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---|--|--|--|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Unknown | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Marina | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? Unknown | | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment, organics | | | |
| Soils: Poor Infiltration | | Benefits: Storage: YES Water Quality: YES Recharge: NO Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: YES Access: NO Land Use: YES Utilities: NO Polluted: NO High WT: YES Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 1.42 | | | |
| Impervious Area (ac): 0.87 | | | |
| Practice Area Available (ac): 0.28 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 25, 2013, 1:41 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 25, 2013, 1:41 PM

Assessed by: MW/ERK



PECONIC WATERSHED

Site ID: TC-R3

Subwatershed: Tanbark Creek

Name: Oyster Pond Lane

Site & Concept Description:

Retrofit existing stormwater basin with sediment forebay and other enhanced features. Provide outlet protection and vegetation restoration.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|-------------------------------------|---|---|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | Proposed Retrofit Practices: Pond | |
| Land Use: Single Family Residential | Non-Structural Controls: | |
| Existing BMP on site? Yes | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Poor Infiltration | Benefits: Storage: YES Water Quality: YES Recharge: YES Demo: NO Repair: YES Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 8.53 | | |
| Impervious Area (ac): 1.84 | | |
| Practice Area Available (ac): 0.00 | | |
| Impervious Area Type: Road | | |
| Existing Head Available? YES | | |

Date Assessed: Sep 25, 2013, 3:06 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 25, 2013, 3:06 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: TC-R4

Subwatershed: Tanbark Creek

Name: Springy Banks Road

Site & Concept Description:

Existing "leak offs" to shallow wooded depression along road. Propose to install paved flumes to pretreatment forebays. If depression is not a regulated wetland, consider creating a stormwater wetland in this area.



Additional Notes/Feasibility:

| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|--|--|--|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Constructed Wetland | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment, organics, trash | | | |
| Soils: Poor Infiltration | | Benefits: Storage: YES Water Quality: YES Recharge: NO Demo: NO Repair: YES Reuse: N/A Other: | Conflicts: Soils: YES Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: YES Other: Possible wetlands |
| SIZING INFO | | | |
| Drainage Area (ac): 1.04 | | | |
| Impervious Area (ac): 0.61 | | | |
| Practice Area Available (ac): 0.00 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? YES | | | |

Date Assessed: Sep 25, 2013, 3:58 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 25, 2013, 3:58 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: TC-R5

Subwatershed: Tanbark Creek

Name: Town Dock North

Site & Concept Description:

Paved flumes at existing drain inlet to bioswale in grass strip between road and docks. Overflow to existing outfall. Unknown existing utilities or land use.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---|--|--|---------------|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| Ownership: Public | | Retrofit of existing or new BMP: Existing BMP | |
| Land Use: Marina | | Proposed Retrofit Practices: Bioretention | |
| Existing BMP on site? Yes | | Non-Structural Controls: | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | | |
| SIZING INFO | | Benefits: | Conflicts: |
| Drainage Area (ac): 19.73 | | Storage: NO | Soils: NO |
| Impervious Area (ac): 2.28 | | Water Quality: YES | Access: NO |
| Practice Area Available (ac): 0.03 | | Recharge: YES | Land Use: YES |
| Impervious Area Type: Street | | Demo: YES | Utilities: NO |
| Existing Head Available? NO | | Repair: NO | Polluted: NO |
| | | Reuse: N/A | High WT: NO |
| | | Other: | Wetlands: NO |
| | | | Other: |

Date Assessed: (null)

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: (null)

Assessed by: MW/ERK



PECONIC WATERSHED

Site ID: TC-R6

Subwatershed: Tanbark Creek

Name: Town Dock South

Site & Concept Description:

See Retrofit TC-R5 for description.



Additional Notes/Feasibility:

Outlet pipe - 15" RCP, had dry weather flow
52" invert to dock surface
Mid grass = 64"
MH = 78.5"

| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|--|--|
| Site Contact Info: | Project Candidate: -None Selected- | |
| | Retrofit of existing or new BMP: Existing BMP | |
| Ownership: Public | Proposed Retrofit Practices: Bioretention | |
| Land Use: Marina | Non-Structural Controls: | |
| Existing BMP on site? Yes | | |
| Is site a hotspot? No | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | |
| Soils: Good Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: YES Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 55.46 | | |
| Impervious Area (ac): 8.76 | | |
| Practice Area Available (ac): 0.01 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? YES | | |

Date Assessed: Sep 26, 2013, 11:36 AM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 26, 2013, 11:36 AM

Assessed by: MW/ERK



PECONIC WATERSHED

Site ID: TC-R7

Subwatershed: Tan bark Creek

Name: Fairway Dr Cul-de-sac

Site & Concept Description:

Bioretention in center of grassed cul-de-sac. Use speed bumps to direct water into bio. Use existing leaching pit for handling overflow from large storm events.

Additional Notes/Feasibility:

Neighborhood has high maintenance lawns.



| GENERAL SITE INFORMATION | RETROFIT DETAILS | |
|------------------------------------|---|--|
| Site Contact Info: | Project Candidate: Ok | |
| | Retrofit of existing or new BMP: New BMP | |
| Ownership: Unknown | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | Non-Structural Controls: Lawncare education | |
| Existing BMP on site? No | | |
| Is site a hotspot? No | Maintenance Burden: -None Selected- | |
| Pollutants Observed: Sediment | | |
| Soils: Poor Infiltration | Benefits: Storage: NO Water Quality: YES Recharge: NO Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: YES Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | |
| Drainage Area (ac): 0.85 | | |
| Impervious Area (ac): 0.34 | | |
| Practice Area Available (ac): 0.01 | | |
| Impervious Area Type: Street | | |
| Existing Head Available? NO | | |

Date Assessed: Sep 26, 2013, 12:58 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 26, 2013, 12:58 PM

Assessed by: MW/ERK



PECONIC WATERSHED

Site ID: TC-R8

Subwatershed: Tanbark Creek

Name: Gardiner's Cove Road

Site & Concept Description:

Road end bioretention. Remove existing drain inlet and replace with paved flume into practice. Direct overflows into existing leaching pit.

Additional Notes/Feasibility:



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|------------------------------------|--|--|---|
| Site Contact Info: | | Project Candidate: Ok | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Bioretention | |
| Land Use: Road | | Non-Structural Controls: | |
| Existing BMP on site? Yes | | | |
| Is site a hotspot? No | | Maintenance Burden: Low | |
| Pollutants Observed: Sediment | | | |
| Soils: Good Infiltration | | Benefits: Storage: NO Water Quality: YES Recharge: YES Demo: YES Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 0.43 | | | |
| Impervious Area (ac): 0.32 | | | |
| Practice Area Available (ac): 0.01 | | | |
| Impervious Area Type: Street | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 26, 2013, 2:33 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 26, 2013, 2:33 PM

Assessed by: MW/ERK

PECONIC WATERSHED

Site ID: TC-R9

Subwatershed: Tanbark Creek

Name: Soak Hide Dreen

Site & Concept Description:

Remove excess pavement near intersection and install a water quality swale. Size for water quality treatment and larger storm events.

Additional Notes/Feasibility:

This area experiences frequent flooding. Any retrofit here needs to be paired with other retrofits/education in the drainage area.



| GENERAL SITE INFORMATION | | RETROFIT DETAILS | |
|---|--|---|---|
| Site Contact Info: | | Project Candidate: Yep, Love It | |
| | | Retrofit of existing or new BMP: New BMP | |
| Ownership: Public | | Proposed Retrofit Practices: Swale | |
| Land Use: Road | | Non-Structural Controls: Pavement reduction | |
| Existing BMP on site? No | | | |
| Is site a hotspot? No | | Maintenance Burden: Medium | |
| Pollutants Observed: Sediment, organics | | | |
| Soils: Unknown | | Benefits: Storage: NO Water Quality: NO Recharge: NO Demo: NO Repair: NO Reuse: N/A Other: | Conflicts: Soils: NO Access: NO Land Use: NO Utilities: NO Polluted: NO High WT: NO Wetlands: NO Other: |
| SIZING INFO | | | |
| Drainage Area (ac): 141.13 | | | |
| Impervious Area (ac): 21.99 | | | |
| Practice Area Available (ac): | | | |
| Impervious Area Type: Road, Residential, Commercial | | | |
| Existing Head Available? NO | | | |

Date Assessed: Sep 26, 2013, 3:43 PM

Assessed by: MW/ERK



ADDITIONAL PHOTOS/SKETCHES

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Date Assessed: Sep 26, 2013, 3:43 PM

Assessed by: MW/ERK