Anguilla Brook Bacteria
Trackdown and Watershed Based Plan Stakeholder Meeting

January 16, 2019
Judy Rondeau
Eastern CT Conservation District

Photo by Joel Stocker Courtesy of Avalonia Land Conservancy
Today’s Agenda

✓ Welcome & introductions
✓ Project overview
✓ Watershed values discussion
✓ Proposed monitoring plan review
✓ Water quality data
✓ Prospective project partners
✓ Next Meeting: April 10, 2019, Time/Location TBD
Introductions

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The Eastern Connecticut Conservation District, Inc.

A Non-Profit Natural Resource Conservation Organization, established by State Statute in 1945 to:

1. Conduct projects, watershed management investigations and test new conservation methods
2. Present workshops on natural resource topics
3. Assist Town Land Use Commissions with environmental reviews of development plans
4. Work with local citizens and towns to raise awareness of natural resource concerns
Funding

The Anguilla Brook Bacteria Trackdown and Watershed-based Plan project is funded in part by the Connecticut Department of Energy and Environmental Protection through a grant from the US Environmental Protection Agency Clean Water Act Section 319 Nonpoint Source Program.
**SO... why are we conducting this project?**

Source: CT DEEP 2016 Integrated Water Quality Report
Suspected causes:

Table 3-4, Connecticut Impaired Waters List (EPA Category 5)

<table>
<thead>
<tr>
<th>Waterbody Segment ID</th>
<th>Waterbody Name</th>
<th>Impaired Designated Use</th>
<th>Cause</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>CT-E1_002-S8</td>
<td>LIS EB Inner - Pawcatuck River (02), Stonington</td>
<td>Habitat for Marine Fish, Other Aquatic Life and Wildlife</td>
<td>Excess Algal Growth</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
</tr>
<tr>
<td>CT-E1_002-S8</td>
<td>LIS EB Inner - Pawcatuck River (02), Stonington</td>
<td>Habitat for Marine Fish, Other Aquatic Life and Wildlife</td>
<td>Nutrients/ Eutrophication Biological indicators</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<tr>
<td>CT-E1_002-S8</td>
<td>LIS EB Inner - Pawcatuck River (02), Stonington</td>
<td>Recreation</td>
<td>Estuarine Bioassessments</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<td>LIS EB Inner - Pawcatuck River (02), Stonington</td>
<td>Recreation</td>
<td>Excess Algal Growth</td>
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<tr>
<td>CT-E1_003</td>
<td>LIS EB Inner - Upper Wequetequock Cove, Stonington</td>
<td>Habitat for Marine Fish, Other Aquatic Life and Wildlife</td>
<td>Estuarine Bioassessments</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<td>CT-E1_003</td>
<td>LIS EB Inner - Upper Wequetequock Cove, Stonington</td>
<td>Habitat for Marine Fish, Other Aquatic Life and Wildlife</td>
<td>Excess Algal Growth</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<tr>
<td>CT-E1_003</td>
<td>LIS EB Inner - Upper Wequetequock Cove, Stonington</td>
<td>Recreation</td>
<td>Estuarine Bioassessments</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<tr>
<td>CT-E1_003</td>
<td>LIS EB Inner - Inner Wequetequock Cove, Stonington</td>
<td>Recreation</td>
<td>Excess Algal Growth</td>
<td>Potential sources include stormwater, agricultural activities, upstream sources</td>
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<tr>
<td>CT-E1_007-S8</td>
<td>LIS EB Inner - Mystic River (Mouth), Stonington</td>
<td>Commercial Shellfish Harvesting Where Authorized</td>
<td>Fecal Coliform</td>
<td>Potential sources include industrial discharges, municipal discharges, marinas, stormwater</td>
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<tr>
<td>CT-E1_014-S8</td>
<td>LIS EB Inner - Thames River (Mouth), New London</td>
<td>Habitat for Marine Fish, Other Aquatic Life and Wildlife</td>
<td>Dissolved oxygen saturation</td>
<td>Potential sources include industrial point discharges, municipal discharges, illicit discharges, remediation sites, groundwater impacts, stormwater</td>
</tr>
</tbody>
</table>

Source: CT DEEP 2016 Integrated Water Quality Report
Project Goals:

Conduct water quality investigation:

- Stream sampling for fecal bacteria content
- Stream corridor assessments
- Watershed assessment
- Land cover/land use assessment

Develop Watershed Management Plan

http://thumbpress.com
# Project Timeline:

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tr>
<td><strong>2019</strong></td>
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<tr>
<td>Prepare monitoring plan</td>
<td>Prepare QAPPS</td>
<td>Recruit bacteria monitoring volunteers</td>
<td>Conduct bacteria sample training</td>
<td>Conduct bacteria sampling</td>
<td>Recruit stream walk volunteers</td>
<td>Stream walk training</td>
<td>Conduct stream walks</td>
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<td>Qtly Stakeholder mtg (1)</td>
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<td>Begin 1st draft watershed plan</td>
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<td>2020</td>
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<tr>
<td>Qtly Stakeholder mtg (5)</td>
<td>Draft final watershed plan</td>
<td>QTly Stakeholder mtg (6)</td>
<td>Draft final watershed plan</td>
<td>QTly Stakeholder mtg (7)</td>
<td>Roll out watershed plan</td>
<td>Grant ends 9/30/2020</td>
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<td>Qtly Stakeholder mtg (6)</td>
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<td>QTly Stakeholder mtg (3)</td>
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<td>Qtly Stakeholder mtg (3)</td>
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<td>QTly Stakeholder mtg (4)</td>
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<tr>
<td>Qtly Stakeholder mtg (4)</td>
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<td>QTly Stakeholder mtg (5)</td>
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</tbody>
</table>

- **2019**: Prepare monitoring plan, Finalize monitoring plan, Conduct bacteria sample training, Conduct bacteria sampling, Recruit stream walk volunteers, Stream walk training, Conduct stream walks, Process field data, Draft watershed plan
- **2020**: Review draft watershed plan, Draft final watershed plan, QTly Stakeholder mtg (6), QTly Stakeholder mtg (7), Roll out watershed plan, Grant ends 9/30/2020
What do you value about Anguilla Brook and Wequetequock Cove?

Anguilla Brook:
• Are you familiar with Anguilla Brook?
• What about Anguilla Brook is important to you?
• Do you use Anguilla Brook? If so, how?
• What do you think the overall health of Anguilla Brook is?
• What do you think are the main challenges to Anguilla Brook?
• Anything you’d like to add?

Wequetequock Cove:
• Are you familiar with Wequetequock Cove?
• What about Wequetequock Cove is important to you?
• Do you use Wequetequock Cove? If so, how?
• What do you think the overall health of Anguilla Brook is?
• What do you think are the main challenges to Wequetequock Cove?
• Anything you’d like to add?
## Bacteria Monitoring Plan:

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Stream Name</th>
<th>Location/Description</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB-01</td>
<td>Anguilla Brook</td>
<td>Greenhaven Road - Downstream-most site; upstream of salt water limit</td>
<td>41°21'38.19&quot;N</td>
<td>71°52'35.71&quot;W</td>
</tr>
<tr>
<td>AB-02</td>
<td>Anguilla Brook</td>
<td>RT 1 – same as UConn PATH sampling site</td>
<td>41°21'56.21&quot;N</td>
<td>71°51'57.75&quot;W</td>
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<tr>
<td>AB-03</td>
<td>Anguilla Brook</td>
<td>Anguilla Brook Road – midway in watershed; downstream of residential, agriculture and athletic fields</td>
<td>41°23'0.72&quot;N</td>
<td>71°52'30.40&quot;W</td>
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<tr>
<td>AB-04</td>
<td>Anguilla Brook</td>
<td>RT 184 – upstream-most site</td>
<td>41°25'20.19&quot;N</td>
<td>71°52'47.18&quot;W</td>
</tr>
<tr>
<td>DB-01</td>
<td>Donahue Brook</td>
<td>US of confluence with Oxocossett Brook; trib to Wequetequock Cove</td>
<td>41°21'11.26&quot;N</td>
<td>71°53'38.43&quot;W</td>
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<tr>
<td>DB-02</td>
<td>Donahue Brook</td>
<td>Barnes Road – upstream-most site</td>
<td>41°22'0.45&quot;N</td>
<td>71°53'49.32&quot;W</td>
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<tr>
<td>WB-01</td>
<td>Wheeler Brook</td>
<td>Upstream of the confluence with Anguilla Brook</td>
<td>41°24'25.38&quot;N</td>
<td>71°52'38.49&quot;W</td>
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<tr>
<td>WB-02</td>
<td>Wheeler Brook</td>
<td>Taugwonk Road – upstream of the confluence with Stony Brook</td>
<td>41°24'15.21&quot;N</td>
<td>71°53'41.11&quot;W</td>
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<tr>
<td>WB-03</td>
<td>Wheeler Brook</td>
<td>RT 184 – upstream-most site</td>
<td>41°24'57.29&quot;N</td>
<td>71°54'19.33&quot;W</td>
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<tr>
<td>SB-01</td>
<td>Stony Brook</td>
<td>Upstream of confluence with Wheeler Brook</td>
<td>41°24'24.91&quot;N</td>
<td>71°53'24.36&quot;W</td>
</tr>
<tr>
<td>SB-02</td>
<td>Stony Brook</td>
<td>Stony Brook Rd – upstream-most site</td>
<td>41°24'52.62&quot;N</td>
<td>71°53'49.06&quot;W</td>
</tr>
</tbody>
</table>
Unresolved Sites:

Possible access: Wheeler property
329 North Anguilla Road

Possible access:
Wychwood Farms or Coast Guard Fnd.
394 Taugwonk Road
Unresolved Sites:

- Oxecossett Brook
- Brook
- Tidal Zone?
Water Quality Data

- CUSH – 2009-2018
- CT DEEP – 2012-2014
- UConn PATH Project - 2017 (AB-02 only)
- DOAG Bureau of Aquaculture – 2013-2018
- Yale University – Laura Brooks
- UConn Avery Point – ?
- Others?
Prospective Project Partners

• Stonington Sanitarian/Ledge Light Health District
• Water Pollution Control Authority (WPCA)
• Watershed businesses:
  o Vineyard(s)
  o golf course
• Fishermen/shellfishermen
• Others?
Next Meeting:

April 10, 2019
Time/Location TBD
Thank you!!