Project Updates to the Board of Sewer Commissioners

CWMP Quarterly Update 3
Sewer Use Rules & Regulations
Cataumet Harbor WWTF Assessment

March 29, 2022
Quarterly Update 3: Work Completed

- Draft Needs Assessment Completed
- Kicked off Alternatives Analysis
  - Evaluating Technologies best suited for Bourne
- Created goals for collaborating with reactivated Wastewater Advisory Committee (WWAC)
Phase I: Needs Assessment Recap

- Study organized by watershed boundaries
- Analyzes current and future wastewater management needs using
  - Current zoning
  - Build-out based on current zoning
- Identifies nitrogen loading reduction requirements for all watersheds
  - With and without Nitrogen TMDLs

<table>
<thead>
<tr>
<th>Embayment</th>
<th>Total Nitrogen Load Values, kg-N/year</th>
<th>Total Watershed Threshold kg-N/year</th>
<th>Total Load to Remove kg-N/yr.</th>
<th>Bourne's % Responsibility for Removal</th>
<th>Bourne Total Removal (kg-N/yr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wastewater</td>
<td>Total Load</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Megansett-Squeteague Harbor</td>
<td>7,611</td>
<td>11,658</td>
<td>1,446</td>
<td>1,446</td>
<td>39%</td>
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<tr>
<td>Phinneys Harbor</td>
<td>5,948</td>
<td>8,730</td>
<td>7,024</td>
<td>1,706</td>
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<tr>
<td>Buttermilk Bay</td>
<td>4,058</td>
<td>5,610</td>
<td>4,208</td>
<td>1,402*</td>
<td>100%</td>
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<tr>
<td>Pocasset Harbor</td>
<td>7,958</td>
<td>12,479</td>
<td>9,359</td>
<td>3,120*</td>
<td>100%</td>
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<tr>
<td>Pocasset River</td>
<td>3,762</td>
<td>5,157</td>
<td>3,868</td>
<td>1,289*</td>
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<tr>
<td>Buzzards Bay</td>
<td>16,830</td>
<td>15,157</td>
<td>4,208*</td>
<td>TBD</td>
<td>TBD</td>
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<td>Cape Cod Canal</td>
<td>164,028</td>
<td>164,028</td>
<td>41,007*</td>
<td>TBD</td>
<td>TBD</td>
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<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>8,072</strong></td>
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</tbody>
</table>

*25% Removal assumed; Subject to change after MassDEP review
Phase II: Alternatives Analysis – Identifying Technologies

- Onsite Systems
  - Conventional Title 5 Systems
  - Innovative Alternative (IA) Onsite Systems
  - Cluster Systems
- Traditional Wastewater Treatment and Sewer Collection Systems
- Stormwater Controls
- Innovative & Alternative
  - Permeable Reactive Barriers
  - Aquaculture
  - Urine Recycling
- Policies & Bylaws

Image Sources: EPA, City of Cambridge MA
WWAC Collaboration Goals

• First workshop on Monday, April 11th
• Input on Alternatives Analysis
  • Evaluation Criteria
  • Preferred Technologies
• Input on final recommendations
Quarterly Update 3: Work Planned

• Meet with WWAC
  • Present Technology Matrix
  • Draft Evaluation Criteria
• Make Revisions to Draft Needs Assessment
• Draft Alternatives Analysis Memo
• Present Initial Results to community for Feedback in July
Next Steps:

Spring 2022
- Public Presentation of Alternatives Evaluation Criteria

Summer 2022
- Presentation of Alternatives Analysis
- Town wide workshop

Fall 2022
- Draft Recommended Plan

Winter 2023
- Submit Final Recommended Plan
Sewer Use Rules and Regulations

Status Update
Sewer Use Rules and Regulations Update

• Policy Subcommittee met on 3/24 to review updates
• Refining fee and fine schedules
  • To be aided with findings from the Sewer Rate Study
• Reviewing the construction and connections requirements
  • Matching the changes with sewer design standards
• Next Policy Subcommittee meeting is Thursday, April 14th
  • EP to review standards again with Town Staff prior to the next meeting
  • EP to review Construction requirements section with Town Staff before next meeting
Cataumet Harbor WWTF Assessment

Status Update
Cataumet Harbor WWTF Assessment Update

• Phase 1 Assessment is 70% complete
• Site visit and review of Operation and Maintenance Records is complete
• Currently in the process of drafting the Technical Memorandum
  • Goal is to outline considerations for next steps in a potential transition plan
• Expect a meeting to review Draft Technical Memorandum with Town Staff by Mid-April
THANK YOU