Contaminants of Emerging Concern in Water Supplies

Barnstable County Response Update

County Commissioners’ Mtg
July 1, 2015

Tom Cambareri, LSP
Director of Watershed Management

Covering

• Recap
• Field Work
• Short Term Measure
• Next Steps
Sampling Dates:
- Nov 2013
- Aug 2014
- June 2014
- March 2015
- April 2015

**PFOS (µg/L) in Groundwater**

<table>
<thead>
<tr>
<th>Date</th>
<th>PFW 1</th>
<th>PFW 2</th>
<th>PFW 3</th>
<th>PFW 4</th>
<th>PFW 5</th>
<th>PFW 6</th>
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<tbody>
<tr>
<td>Nov 2013</td>
<td>1.3</td>
<td></td>
<td></td>
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<tr>
<td>Aug 2014</td>
<td>4.9</td>
<td>3.1</td>
<td>3.3</td>
<td>4.4</td>
<td>2.7</td>
<td>2.0</td>
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<td>June 2014</td>
<td>1.1</td>
<td>3.1</td>
<td>2.7</td>
<td>2.1</td>
<td>4.8</td>
<td>3.1</td>
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<td>March 2015</td>
<td>2.7</td>
<td>5.7</td>
<td>0.60</td>
<td>22.0</td>
<td>0.52</td>
<td>0.79</td>
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<td>April 2015</td>
<td>2.7</td>
<td>3.4</td>
<td>1.4</td>
<td>5.7</td>
<td>0.06</td>
<td>1.3</td>
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**Final Boring Locations**

**April 2015**

**Soil Boring/Core**

- Soil Boring/Core - Well Installation
- Soil Boring/Core Only
- Well Only
- Runoff Delta Sediment Core
- Pond Sediment Core

**Description**

- Soil Boring/Core - Well Installation
- Soil Boring/Core Only
- Well Only
- Runoff Delta Sediment Core
- Pond Sediment Core

**Boring No.**

- B3
- PFW 1
- PFW 2
Resources to Date

- $30,000 Initial Hydrogeological Assessment
- $10,000 Data Gap Assessment
- $21,500 For Short Term Measure
- 500 Hours Labor
Short Term Measure

• Refurbish Treatment Building
• Carbon Delivery
• Electrical System
• Testing System – July 2 to 6
Town Activities

- Met With Town on June 4th
- Town has nearly completed Carbon Treatment
- Town has conducted some groundwater investigation for 1-4 Dioxane
- Town submitted “White Paper” for review
Next Steps

- Review Water Quality Data Gap Results
- Evaluate effectiveness of Short Term Measure
- Request Funding for Operation and Maintenance
- Prepare funding request for FY16

FY 16

- Groundwater Capture and Treatment
- Hot Spot Treatment
- Operation and Maintenance
- Monitoring and Assessment
- Soil Treatment Pilot
- Stormwater Management
- Barnstable Negotiations
- Lab Capabilities for PFCs
<table>
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<tr>
<th><strong>DRAFT FY16 Cost</strong></th>
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<tbody>
<tr>
<td>Pond/Groundwater Assessment</td>
<td>$15,000</td>
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<td>Operation and maintenance</td>
<td>$1,500  monthly</td>
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<td>Soil Pilot</td>
<td>$75,000</td>
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<td>Hot Spot Treatment</td>
<td>$15,000</td>
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<td>Monitoring Costs (sampling) 10/month</td>
<td>$2,500  monthly</td>
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<td>Oversight</td>
<td>$75,000</td>
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**Total Costs:** $232,000