Fuss & O’Neill Overview

- At Fuss & O’Neill, we place great emphasis on collaboration; both within the company and with our clients. We are guided by what is best for the client and the project – in identifying client champions, naming project leaders, building project teams, and providing responsive service and quality deliverables.

- We strive to partner with our clients to understand their businesses and to be stewards of their resources as if they were our own, and aim to develop services and solutions that anticipate evolution of their unique business needs.
Mary Monahan
Associate,
Director of Business Development

- Mary is a municipal public works specialist well-versed in issues related to stormwater management; wastewater collection and treatment; drinking water supply, treatment, and distribution; solid waste management; and sustainable operations. Mary serves as a liaison between the public works project owner and the design team.

Are You an MVP Community?

Municipal Vulnerability Preparedness (MVP) Program

- MVP Designated Communities
- NEW MVP Planning Grant Recipients (FY19)
- Regional Partnerships
MVP – What’s It all About?

Brockton MVP Program - $47,000

- Grant supports Climate Change Vulnerability Assessments and Resiliency Planning
  - Comprehensive Approach
    - Infrastructure
    - Society
    - Environment
  - Scope and Process Use Guidance in the Community Resilience Building Workshop Guide
  - Municipalities that complete this process will be designated Municipal Vulnerability Preparedness (MVP) Municipalities

MVP Designation Leads to Enhanced Standing in Future Funding Opportunities

MVP – What’s It all About?

- Rising Temperatures: City of Brockton – Taunton Basin

<table>
<thead>
<tr>
<th>Taunton</th>
<th>Observed Baseline 1971-2000</th>
<th>Projected Change in 2030s</th>
<th>Projected Change in 2050s</th>
<th>Projected Change in 2070s</th>
<th>Projected Change in 2090s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Annual Temperature (°F)</td>
<td>49.85</td>
<td>2.03 to 3.77</td>
<td>2.68 to 5.94</td>
<td>3.12 to 8.62</td>
<td>3.43 to 10.49</td>
</tr>
<tr>
<td>Annual Days with Maximum Temperature over 90°F (Days)</td>
<td>7.43</td>
<td>5.38 to 14.58</td>
<td>7.20 to 29.31</td>
<td>9.27 to 49.91</td>
<td>11.88 to 65.46</td>
</tr>
<tr>
<td>Annual Days with Minimum Temperature below 32°F (Days)</td>
<td>129.76</td>
<td>-13.27 to -27.89</td>
<td>-18.99 to -43.59</td>
<td>-23.07 to -57.04</td>
<td>-24.79 to -67.94</td>
</tr>
</tbody>
</table>
MVP – What’s It all About?

- Changing Precipitation: City of Brockton – Taunton Basin

<table>
<thead>
<tr>
<th>Taunton</th>
<th>Observed Baseline 1975-2000</th>
<th>Projected Change in 2030s</th>
<th>Projected Change in 2050s</th>
<th>Projected Change in 2070s</th>
<th>Projected Change in 2090s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Annual Precipitation (inches)</td>
<td>47.48</td>
<td>-0.05 to 4.11</td>
<td>0.33 to 5.35</td>
<td>0.90 to 6.61</td>
<td>0.38 to 7.34</td>
</tr>
<tr>
<td>Annual Consecutive Dry Days (Days)</td>
<td>17.33</td>
<td>-0.23 to 1.29</td>
<td>-0.07 to 2.52</td>
<td>-0.90 to 2.80</td>
<td>-0.34 to 3.65</td>
</tr>
</tbody>
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MVP – What’s It all About? - The Magic of the Matrix

[Table and diagram content not transcribed, but inferred to focus on community resilience and building risk matrix with various factors and levels of impact.]
# MVP – What’s It All About? - The Magic of the Matrix

<table>
<thead>
<tr>
<th>Problem Category</th>
<th>MVP Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>City/White</td>
<td>Develop a coordinated approach to traffic and transportation issues.</td>
</tr>
<tr>
<td>Environment</td>
<td>City/White</td>
<td>Implement sustainable practices to reduce pollution and conserve natural resources.</td>
</tr>
<tr>
<td>Administration</td>
<td>City/White</td>
<td>Enhance efficiency and transparency in government operations.</td>
</tr>
</tbody>
</table>

**You Can Influence the Project!**

- Develop policies and regulations to support sustainable practices.
- Advocate for the allocation of funds for green infrastructure projects.
- Participate in community meetings to discuss transportation and environmental initiatives.

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- Improve local transportation systems to reduce congestion and promote alternative modes of travel.
- Implement energy-efficient technologies in public buildings.
- Advocate for the protection of natural habitats and biodiversity.

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- Participate in local environmental committees and groups.
- Support local businesses and organizations that promote sustainability.
- Volunteer for community service projects related to environmental protection.

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- Advocate for the development of green spaces and parks in urban areas.
- Support the implementation of recycling and waste reduction programs.
- Advocate for the protection of endangered species and habitats.
Funding – Where the Money Comes From

- MVP Action Grant
- GreenWorks
- Senate Bill 10
- FEMA
- Other State Grants
  - TIP, MassWorks, Chapter 90, Municipal Small Bridge Program, MassDEP 604b and 319

Infrastructure Improvements to Reduce Effects of Climate Change

Integrated Water Infrastructure Vulnerability Assessment:
Infrastructure Improvements to Reduce Effects of Climate Change

Culverts:

Bridges:
Infrastructure Improvements to Reduce Effects of Climate Change

Infiltration BMPs:

- Bioretention/Rain Gardens
- Permeable/Porous Pavement
- Subsurface Infiltration Systems

Underground Infiltration System

Leaching Catch Basins

Microgrids:

- GreenBus® Cloud Based Microgrid Controller
- Generator
- Wind Power
- Micro-Turbines
- Microgrid Overview
- Electric Vehicles
- Energy Storage
Discussion