Lessons learned from SF’s GSI O&M Programming

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Green Infrastructure Operation & Maintenance Summit
San Francisco’s Sewer System

- 3 Wastewater Treatment Plants
- 1,900 mi sewer mains
- 25,000 catch basins
- 20+ pump stations
- Transport storage tunnel network
San Francisco’s Sewer System…is getting greener!

- **2007**
  - Grant-Funded Pilot Projects

- **2010**
  - Stormwater Management Ordinance

- **2015**
  - Sewer System Improvement Program
Planning - GI Maintenance Model & Asset Management

<table>
<thead>
<tr>
<th>Ref #</th>
<th>BMP Type</th>
<th>BMP Sub-type</th>
<th>BMP Sub-sub-type</th>
<th>Spatial Distribution of BMP</th>
<th>BMP Unit of Measure</th>
<th>BMP Cost for which SFPCU has O&amp;M Responsibility (% of cost)</th>
<th>Cost Adjustment Factor (%)</th>
<th>Comments (text)</th>
<th>SFPCU Maintenance Start Date (YYYY)</th>
<th>SFPCU Maintenance End Date (YYYY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bioretention</td>
<td>Hard Edge (a.k.a. Planter)</td>
<td>Underdrained</td>
<td>Typical</td>
<td>4,508 square feet</td>
<td>100%</td>
<td>100%</td>
<td>ECDM Bulb-outs</td>
<td>2019</td>
<td></td>
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<tr>
<td>2</td>
<td>Bioretention</td>
<td>Hard Edge (a.k.a. Planter)</td>
<td>Underdrained</td>
<td>Typical</td>
<td>753 square feet</td>
<td>100%</td>
<td>100%</td>
<td>Bulbouts on Sea Cliff</td>
<td>2019</td>
<td></td>
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<tr>
<td>3</td>
<td>Pervious Paving</td>
<td>Infiltrative</td>
<td>Local Road</td>
<td>Typical</td>
<td>19,278 square feet</td>
<td>100%</td>
<td>100%</td>
<td>Sea Cliff Ave curb-to-curb b/t 25th &amp; 26th Aves,</td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Infiltration Gallery</td>
<td>none</td>
<td>none</td>
<td>Typical</td>
<td>9,801 square feet</td>
<td>100%</td>
<td>100%</td>
<td>Under ECDM b/t bulb-outs</td>
<td>2019</td>
<td></td>
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Education & Consistency
TRAINING – it starts upstream!
Integration – Disaster, Maintenance Sheets & Knowing Your Peeps
Stewardship

Visit rainguardians.org to adopt a rain garden and learn about tool and gear giveaway events.
Acknowledgements/References

GI Maintenance Model
- Contact wlogsdon@sfwater.org
- Instruction packet & Excel spreadsheet for customization

Other SF GI Info
- www.sfwater.org/greeninfrastructure

Educational Materials
- www.sfwater.org/smr

Rain Guardians
- www.rainguardians.org
Thank you!

Contact / pcrocker@stone-env.com