Pillar Point Harbor Water Quality Program Update

San Mateo County Harbor District Board of Commissioners Meeting
February 21\textsuperscript{st}, 2018
What have we been up to?

- Following up on next steps/recommendations
- Stormwater system mapping, cleaning, inspections
- Education/outreach
- First Flush
- Identifying sources of bacteria coming into harbor
<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Partners and Leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect stormwater &amp; sewer lines in priority areas then repair if needed</td>
<td>HD, RCD, County, GSD</td>
</tr>
<tr>
<td>Dye test connections &amp; drains if needed (ex: wash areas, toilets, sinks)</td>
<td>HD, RCD, GSD Business/property owners</td>
</tr>
<tr>
<td>Clean stormwater system on Capistrano Rd (not just catch basins &amp; outfall)</td>
<td>County</td>
</tr>
<tr>
<td>Education, outreach, assistance to businesses &amp; residences (watersheds, pet waste, best practices etc)</td>
<td>NRCS, SAM, County, HD, RCD</td>
</tr>
<tr>
<td>Water quality sample collection as needed and data integration</td>
<td>Surfrider (Yacht Club Fundraiser), HD, RCD</td>
</tr>
<tr>
<td><strong>Microbial Source Tracking</strong></td>
<td>C/CAG (Water Pollution Prevention Program), HD, RCD</td>
</tr>
<tr>
<td>Develop remediation measures and best management practices</td>
<td>NRCS, C/CAG, HD, RCD</td>
</tr>
</tbody>
</table>
What we found...

- Condition and layout of stormwater systems

- Found specific vectors & aggravators of pollution
  - HD system- washdown connection, broken pipes, FOG/debris, remnant lines
  - County system- groundwater infiltration and unknown connections and pipes

- Tested several sewer lines with dye and didn’t see evidence of leakage into stormwater system or harbor
Harbor District Inspection Results
Monitoring Sites

- Denniston Outfall
- Capistrano Street
- St. Augustine Creek
- Deer Creek
- El Granada Ditch
- Surfers South

Sample Site
First Flush Summary

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Exceedance Rates at Historic Sites (2008-2017)</th>
<th>Locations of most exceedances and highest values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacteria</td>
<td>98%</td>
<td>Capistrano Street, Surfers South</td>
</tr>
<tr>
<td>Orthophosphate</td>
<td>72%</td>
<td>West Point, El Granada Ditch</td>
</tr>
<tr>
<td>Copper</td>
<td>55%</td>
<td>West Point</td>
</tr>
<tr>
<td>Zinc</td>
<td>30%</td>
<td>West Point</td>
</tr>
</tbody>
</table>

*Lead, nitrate and TSS = 0%*
Some Findings

- **Denniston Outfall**
  - Bacteria from residential stormwater system into creek

- **Capistrano Outfall**
  - Groundwater infiltration contributes most water to outfall (from north side)- contamination mechanism?

- **St. Augustine Outfall**
  - Creek has some background bacteria but may be higher due to FOG/debris/sediment in harbor system

- **Microbial source tracking info in June**
Next Steps

• Fix broken/failing stormwater pipes & FOG/debris issues

• Map, clean, & inspect rest of harbor stormwater system

• Continue working w/ partners (County & Surfrider) to identify sources of bacteria entering the harbor

• Continue educating tenants & harbor staff about best practices

• Continue scoping and implementing solutions (ex: sealing washdown connection) and providing technical assistance
Budget Update

- Total Budget (FY17-FY19): $146,370

- FY17 Spent: $67,788

- FY18 Spent (through 12/31/17): $48,521
  - $15,200 of this was for inspection contractor

- Remaining Budget: $30,061

- Preparing SOW/Budget proposal for rest of FY18 & FY19
Thank you!

Brittani Bohlke
Brittani@sanmateorcd.org
650.712.7765
www.sanmateorcd.org
www.facebook.com/sanmateorcd