Project Overview
GOALS

➢ **DIVERT** flows from Colma Creek for treatment, beneficial reuse, and local flood reduction

➢ **CLEAN** contaminants from creek per MRP requirements using green infrastructure (settling, infiltration, reuse)
  ✓ Mercury
  ✓ PCB’s
  ✓ Trash

➢ **REUSE** treated water for irrigation, water trucks, and groundwater recharge

6,500+ acres across 7 jurisdictions
PROJECT BACKGROUND

• Original project concept is from San Mateo County Stormwater Resource Plan (SWRP)

• SWRP concept attracted $9.5M funding from Caltrans

• In September 2019, an additional $6M was procured from Caltrans for $15.5M total

• Construction began last month March 2021
Colma Creek Flood Control Channel

Upstream View at 1st Pedestrian Bridge

Downstream View at 1st Pedestrian Bridge
Alternatives Analysis
Development & Selection of Preferred Alternative

Alternative 1
Instream Treatment & Return

Alternative 2
Infiltration Chamber on Former Greenhouse Parcel (SWRP Concept)

Alternative 3
Water Reuse System with new Ballfields
Interagency Coordination

- Internal coordination with Public Works and Parks Department (landowner)

- San Mateo County Sea Level Rise and Resiliency District (canal owner)

- Cal Water and San Francisco Public Utilities Commission (water providers)
Preferred Alternative
Project Configuration
Project Layout

Project Elements

- Instream Diversion
- Grit/Trash Chamber
- Diversion Pipe
- Flow Splitter
- Cistern & Infiltration
  Gallery
- Water Quality
  Treatment Shed
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Water Quality Treatment Shed
Project Benefits
ESTIMATED BENEFITS

• Water quality treatment provided to 2,468 acres of equivalent area
• 640 acre-feet of water diverted and cleaned annually
• 15 MG of potable water offset per year; $140,000 annually in water savings
• 240 acre-feet of groundwater recharge annually
• 10 grams of PCBs removed annually
• 30 grams of mercury removed annually
Irrigation Areas

PROPOSED NON-POTABLE WATER USES
ORANGE MEMORIAL PARK WATER CAPTURE PROJECT

LEGEND

ON-SITE EXISTING LANDSCAPED AREA IRRIGATED WITH NPW
ON-SITE PROPOSED ARTIFICIAL TURF WASH DOWN WITH NPW
OFF-SITE EXISTING LANDSCAPED AREA IRRIGATED WITH NPW
NPW
NON-POTABLE WATER FILTERED & DISINFECTED (STORMWATER)
Monitoring and O&M
Permitting Requirements for Monitoring

- Established primarily by the 401 Permit and Waste Discharge Requirements administered by the Bay Area Regional Water Board
  - Water Quality Compliance Monitoring (many constituents)
  - Performance Monitoring (PCB and Hg removal)
  - Flow Monitoring (water balance with fate of treated waters)
- The water reuse system is regulated by the City itself
  - IAPMO 324 certification
## Operations & Maintenance

<table>
<thead>
<tr>
<th>Element</th>
<th>Intensity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instream Diversion</td>
<td>Low</td>
<td>After large storms</td>
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<tr>
<td>Grit/Trash Chamber</td>
<td>High</td>
<td>2 per year</td>
</tr>
<tr>
<td>Flow Splitter</td>
<td>Low</td>
<td>After large storms</td>
</tr>
<tr>
<td>Cistern</td>
<td>High</td>
<td>1 per year</td>
</tr>
<tr>
<td>Infiltration Gallery</td>
<td>High</td>
<td>1 per decade</td>
</tr>
<tr>
<td>Water Quality Treatment Building</td>
<td>Medium</td>
<td>Daily</td>
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Construction Update
Thank you!