Implementation of AECOM Recommendations and Department of Ecology’s Administrative Order

Presented to the Metropolitan Water Pollution Abatement Advisory Committee
February 28, 2018
AECOM Recommendations

- AECOM Report completed July 2017 with 98 recommendations to prevent or minimize effects of flooding
- Recommendations fall into 4 categories:
  - Implementation of a Life Safety Management System
  - Improved emergency training
  - Evaluation of operational constraints and improve redundancy
  - Implementation of capital projects
    - Prioritize within WTD’s Six-Year Capital Improvement Plan (CIP)
# AECOM Recommendations - Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed/Ongoing</td>
<td>27</td>
</tr>
<tr>
<td>In progress</td>
<td>56</td>
</tr>
<tr>
<td>Not Incorporated</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>98</strong></td>
</tr>
</tbody>
</table>
Life Safety Management

- Life Safety Coordinator hired at West Point:
  - Evaluate and implement system-wide strategies
  - Improve existing management-of-change procedures
  - Evaluate operational impacts of future projects
- Timeline – complete initial evaluation mid-2018
  - Continuous improvement program
- Launch at other plants 2020
Life Safety

Management of Change (MOC)

Processes developed
West Point Life Safety Areas
Improve Emergency Training

- Improvements to emergency/wet weather response procedures
  - Expanded scope and increased frequency of emergency training
  - Updated existing standard operating procedures
  - Re-prioritization of control system alarms
  - Implementing hydraulic simulation program
Evaluate constraints and improve redundancy

- Two high priority evaluations in progress
  - Resolve existing hydraulic constraint by expanding capacity of raw sewage pumps
  - Construct an emergency bypass weir to mitigate or avoid future flooding
Evaluate constraints and improve redundancy

- Upgrade of power monitoring system
- Evaluating utility power reliability improvements
Prioritize WTD’s Six-Year CIP

- Some recommendations require a capital project to implement
- These projects are being weighed and prioritized against other capital improvement projects
  - Combined sewer overflow (CSO’s)
  - Capacity improvements to serve growth
  - Asset Management
  - Seismic resiliency
Ecology’s Administrative Order

- Issued November 15, 2017
- Total of six corrective actions
  - Add redundancy to effluent pump discharge valves
  - Improve alarm prioritization and critical alarm visibility
  - Evaluate plant constraints and redundancy
  - Implement emergency operations training program
  - Review and redevelop operator existing training programs
  - Collect representative raw sewage samples at influent control structure

Addressed in Response to AECOM Report
Questions?

Bruce Kessler, Assistant Division Director
Wastewater Treatment Division
bruce.kessler@kingcounty.gov