Update on Evaluation of I/I Reduction Concepts

May 23, 2018

Lisa Tobin, Engineering & Planning Subcommittee

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
Agenda

I. Purpose of current I/I work

II. What has been accomplished?

III. Where are we now?

IV. What is the expected outcome?

V. Next steps
I/I in the Regional Wastewater System

- As much as 3/4 of pipe capacity used up by I/I
- 50-70% of I/I is from private side sewers
- Will have to spend $1.7B on new pipes through 2060 for growth and I/I

Components of Future Flows

- Additional future I/I = I/I degradation + additional sewered area
- Current I/I
- Water conservation reduction
- Future population and employment
- Current sewage flow
## Regional I/I Program History

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tr>
<td>1999</td>
<td>Program created as part of RSWP.</td>
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<td>2001-2002</td>
<td>Current levels of I/I defined for each local agency.</td>
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<td>2003-2004</td>
<td>Implement 10 pilot projects in 12 local agency jurisdictions to demonstrate the effectiveness of collection system rehabilitation projects, test technologies, and gain cost information.</td>
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<td>2004</td>
<td>Final draft model standards, procedures, policies, and guidelines developed for use by local agencies to reduce I/I in their systems.</td>
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<td>2005</td>
<td>Thorough benefit-cost analysis completed to determine the cost effectiveness of I/I reduction.</td>
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<td>2007-2009</td>
<td>Selection of initial I/I project areas.</td>
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<td>2011-2013</td>
<td>Initial I/I reduction project in Skyway Water and Sewer District constructed.</td>
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<td>2015</td>
<td>MWPAAC I/I Task Force recommended exploring potential non-project components of regional I/I program.</td>
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<td>2016-Present</td>
<td>Evaluation of programmatic I/I reduction concepts.</td>
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Current I/I Program Work

Explore and evaluate I/I Program concepts with the goal of adopting a strategy that will reduce I/I over time and reduce the need for capital projects in the separated sewer portion of the regional wastewater system.
## Program Frameworks

### Approach to Common Side Sewer Standards
- Focused standardization and voluntary implementation
- Scalable Best Management Practices (BMP) program

### Standard Regional Inspection Training
- Training modules + videos, hands-on sessions for voluntary use
- Training plus certification

### Regional I/I Support
- County-provided resources and vendors

### Regional Side Sewer Inspection Program
- Local agency-mandated inspections within time frame
- Point of Sale inspections administered by local agencies
- Point of Sale inspections administered by WTD

### Side Sewer Grant/Loan Program
- In tandem with inspection program
- Independent of inspection program
Evaluation Criteria

- Effectiveness of I/I reduction
- Legal and political implications
- Property owner impacts
- Local agency impacts
- WTD impacts
- Equity and social justice

E&P is reviewing Consultant’s initial rating of each framework
Local Agency Questionnaire

Asking each agency to fill out questionnaire about:

• Initial rating of each framework
• Criteria used in the rating
• If/how to weight the criteria
• Which frameworks or combinations of frameworks should be further evaluated

Bring completed questionnaire to June 7 meeting, or email to Nicole.Smith@KingCounty.gov
## Next Steps

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<tr>
<th>MONTH</th>
<th>I/I TOPIC</th>
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<tr>
<td>May</td>
<td>E&amp;P initial discussion on evaluated frameworks</td>
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<tr>
<td>June</td>
<td>E&amp;P final discussion on evaluated frameworks</td>
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<tr>
<td>July</td>
<td>None</td>
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<tr>
<td>August</td>
<td>E&amp;P selects preferred framework</td>
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<td>September - December</td>
<td>E&amp;P presents recommendation to full MWPAAC</td>
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Questions?

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