

I/I Reduction Concepts E&P Recommendation Development

August 2, 2018

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King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Agenda

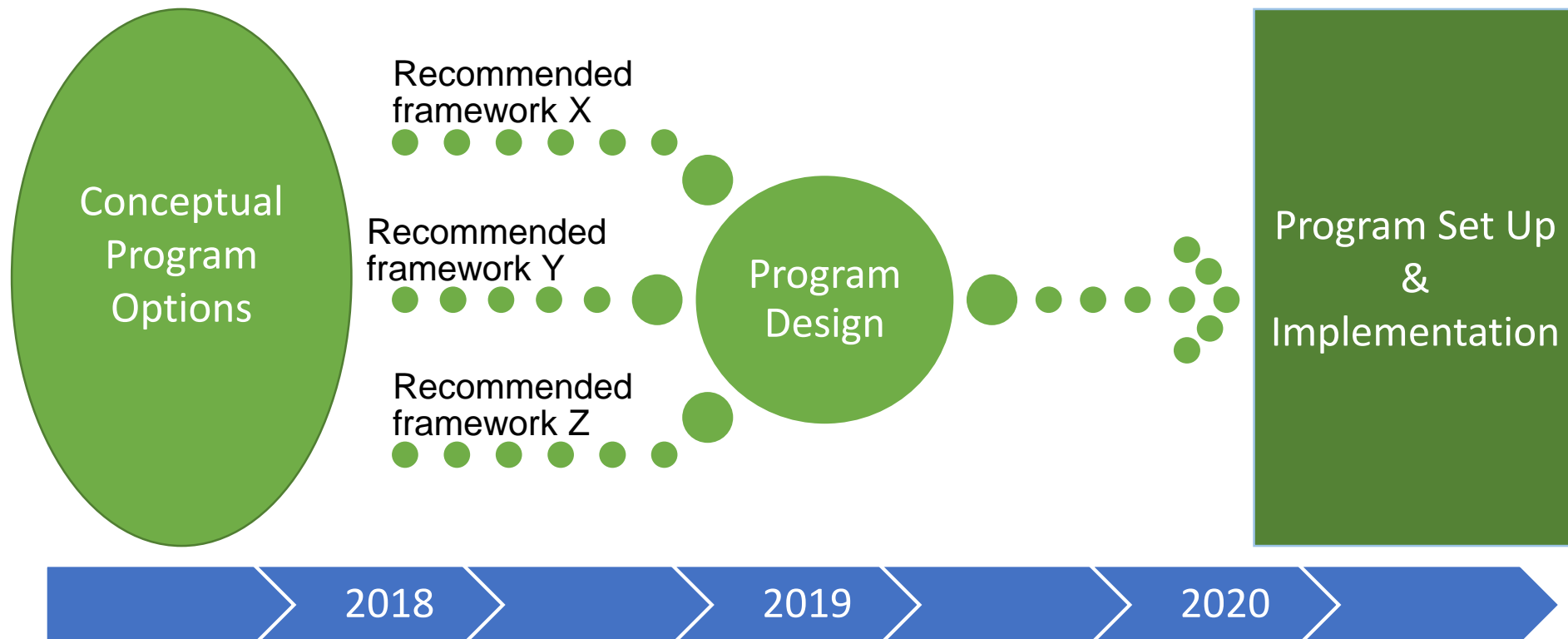
- I. Purpose and desired outcome
- II. Background to support discussion
 - A. Implementation planning overview
 - B. Review E&P input from June meeting
- III. Roundtable discussion
- IV. Next steps

Purpose and outcome of this meeting

- Purpose:
 - Choose program framework(s) to move forward to implementation planning
 - Develop a E&P recommendation to MWPAAC
- Desired outcomes:
 - Major components of a E&P recommendation to MWPAAC identified
 - Next steps to refine recommendation identified

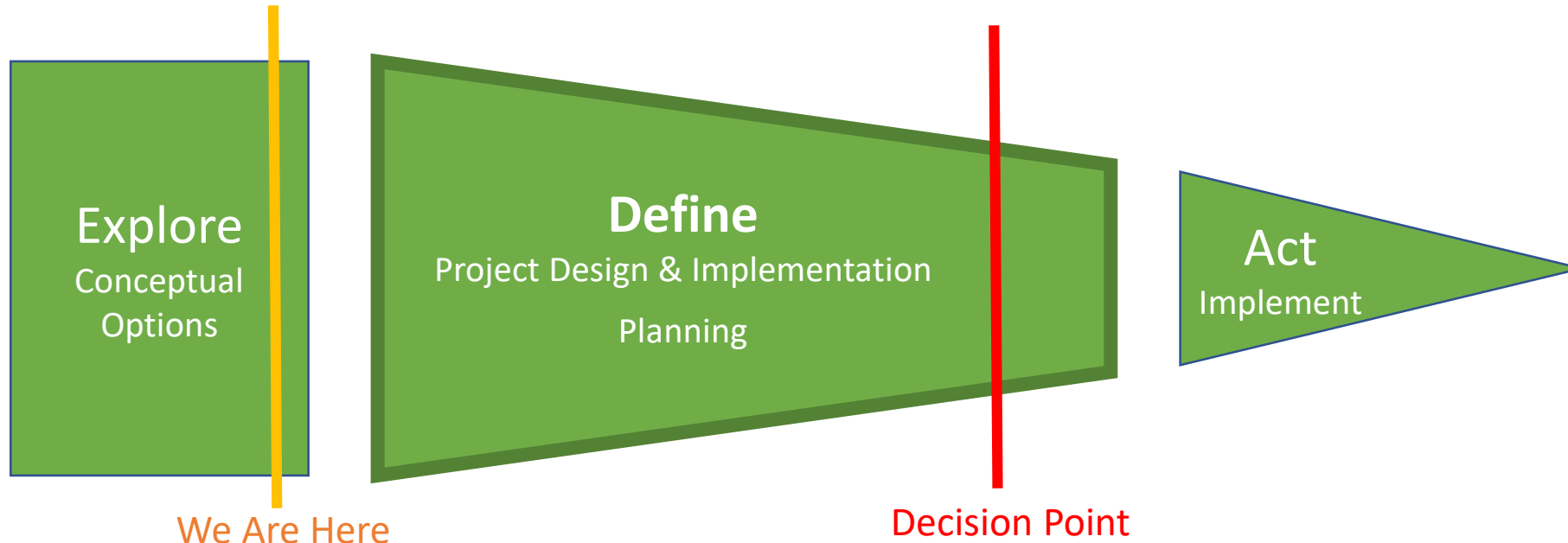
Current I/I Program Work

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 Design & Implementation Planning

- Define plan of action considering different configurations of program components
- Write a plan for operating the program



Example of Implementation Planning Considerations

Option 4: Regional Inspector Training and Certification

Define

- Define details
 - Determine whether an association or WTD will act as administrator
 - Estimate level of participation
 - Define roles and responsibilities
 - Estimate program costs
 - Develop implementation schedule
-
- Write plan to operate program
 - Develop supporting materials
 - Training packet, slides, videos, etc.
 - Notification method and materials
 - Certification tracking process

Decision Point

Example of Implementation Planning Considerations

Combo Option 6,7,8,9: Side Sewer Inspection Program

Define

- Define details
 - Inspection triggers and process
 - Certification process
 - Enforcement triggers and actions
 - Draft ordinance language
 - Define roles and responsibilities
 - e.g. administration by County, local agency or combination
 - Draft agreements
 - Estimate program costs
 - Consider fee schedule, cost effectiveness and financial assistance
 - Develop implementation schedule
-
- Write plan to operate program
 - Develop and implement outreach plan
 - Develop supporting materials
 - Management software and set up
 - Content to engage and support property owners via web or other means
 - Guidelines, forms and other materials to implement

Already Completed

National
review
of side sewer
programs

Assessment
of existing
local I/I
programs

Initial list of
cost
effectiveness
considerations

Initial
planning
assumptions

Decision Point/ Sign Agreements

We heard at the June 7 Meeting

- No need to weight options at current time
- Options 1-5 are preventative I/I programs
- Options 6-8 are proactive I/I reduction programs
- Options 9-10 are implementation support programs

We heard at the June 7 Meeting

Combine Options 6, 7, and 8 into one inspection program triggered by property transfer

- Detailed implementation planning would include
 - WTD-driven administration
 - Local agency-driven administration
 - Hybrid administration (both WTD and local agency)
- Consider a requirement that properties are inspected within a certain time frame regardless of sale
- Combine with Option 9 grant/loan program

We heard at the June 7 Meeting

- Input/Rationale included in tables of packet

Table 1. Summary of Possible Program Frameworks for Implementation Planning			
Implementation Option	Program	Short Description	Input/Rationale from E&P Committee
Approach to Common Side Sewer Standards			
Option 1	Focused regional BMP standardization	<ul style="list-style-type: none"> Identify 3–5 BMPs that all agencies agree should be a regional standard; document on the WTD's regional I/I website. Voluntary or mandatory adoption and implementation of BMPs needs to be defined in implementation planning. 	<ul style="list-style-type: none"> At the June 7, 2018, meeting, seven members in support of moving forward. Consider for implementation planning as a standalone option. Consider as a part of a package option of 1/4/7/9. This option addresses the prevention of I/I, not the reduction of existing I/I.
Standard Regional Inspection Training			
Option 4	Regional inspection training program with certification	<ul style="list-style-type: none"> Develop inspector training modules comprised of slides, informational materials and videos posted on WTD's regional I/I website. Implementation planning is expected to identify an outside organization/association (e.g., National Association Of Sewer Service Companies) to set up and/or conduct the program. Conduct live trainings annually at various locations with an emphasis on hands-on activities. Provide a certification for attendees; consider regional tracking of attendees/certifications. Voluntary or mandatory attendance and certification of local agency inspectors is to be defined during implementation planning. 	<ul style="list-style-type: none"> At the June 7, 2018, meeting, two members in support of moving forward. Consider for implementation planning as a standalone option. Consider as a part of a package option of 1/4/7/9. Inspections for both new and existing construction would be needed for a successful training program.
Private Side Sewer Inspection Program			
Combined Option 6, 7, 8, 9	Private side sewer inspection program triggered by property transfer and time frame with grant/loan program	<ul style="list-style-type: none"> Side sewer inspections and repair triggered by point of sale. A requirement that properties are inspected within a certain time frame regardless of sale will also be considered during implementation planning. Side sewer inspection includes an exfiltration test and internal inspection. Role of property owner's contractor at utility inspector to be defined during implementation planning. Certifications will be provided to inspected properties, and will remain valid for a specified time frame (e.g., 20 years). Changes to county and/or local agencies ordinances, codes, and standards would be required prior to program implementation. Implementation planning would consider administration that is WTD-driven, local agency-driven, and a hybrid of (both local and WTD administration). Implementation planning will consider inspectors that are employed by WTD, local agencies, and independent contractors. Incorporation of a grant and loan program with a side sewer program is expected. Implementation would assume that a grant or loan program will be administered regionally by WTD. 	<ul style="list-style-type: none"> Option 6 <ul style="list-style-type: none"> At the June 7, 2018, meeting, two members in support of moving forward. Consider adding a time element trigger to Option 7 and removing Option 6 for further implementation analysis. Option 7 <ul style="list-style-type: none"> At the June 7, 2018, meeting, six members in support of moving forward. Consider for implementation planning as a standalone option. Consider as a part of a package option of 1/4/7/9. Recommend combining with Option 8 and considering one detailed implementation analysis option that would include a variety of administrative options (WTD-driven, local agency-driven, and hybrid (both)). Include a time trigger for inspection as well as point of sale. Cost could be wrapped into the customer's costs of buying a home/mortgage. Need to consider those who have had their side sewers repaired at their own cost.

Roundtable Discussion

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Table 2. Possible Program Frameworks Not for Implementation Planning

Table 2. Summary of Possible Program Frameworks Not for Implementation Planning			
Implementation Option	Program	Short Description	Input/Rationale from E&P Committee
Approach to Common Side Sewer Standards			
Option 2	Scalable BMP program	Develop a full list of best-in-class BMPs, perform a gap analysis at individual agencies, and develop plans for BMP adoption and implementation at each agency.	<ul style="list-style-type: none"> At the June 7, 2018 meeting, members generally expressed a desire to remove from further consideration. One comment regarding keeping the option in “parking lot”.
Standard Regional Inspection Training			
Option 3	Voluntary regional inspection training program	Develop inspector training modules comprising slides and a materials handout posted on WTD’s website as a regional resource; develop videos and hands-on training materials. Conduct a live training session within the region (attendance voluntary).	<ul style="list-style-type: none"> At the June 7, 2018 meeting, members generally expressed a desire to remove from further consideration. General consensus to remove due to the voluntary nature of the program.
Regional I/I Support			
Option 5	Regional I/I support by WTD	WTD acts as a regional resource providing rainfall simulation toolkits, smoke testing kits, flow monitors, and rain gauges. WTD administers preferred vendor contracts to help agencies perform services (e.g., manhole and CCTV inspection, etc.).	<ul style="list-style-type: none"> At the June 7, 2018 meeting, members generally expressed a desire to remove from further consideration. One comment suggesting Options 1 and 5 be linked for standardization. General statement that King County could be a clearing house for expertise.
Grant/Loan Program			
Option 10	Grant/loan program without inspection	This grant and loan program is administered regionally by WTD, and is available for property owners to use to voluntarily inspect, replace, and/or repair their private side sewers.	<ul style="list-style-type: none"> At the June 7, 2018 meeting, members generally expressed a desire to remove from further consideration. There was only one person in support for keeping as standalone.

Next Steps to Refine Recommendation

- Prepare a document that presents E&P recommendation
- Finalize document with E&P (September)
- Present recommendation to MWPAAC (October)

Technical Memos

<https://www.kingcounty.gov/services/environment/wastewater/ii/resources.aspx>

Wastewater services

Infiltration and inflow control

What is I/I?

Why is I/I a problem?

Finding I/I

Fixing I/I

Program history

Library and resources

Home » Services » Environment » Wastewater services » Infiltration and inflow control » Library and resources

I/I library and resources

Below are a number of reports, studies, maps, and other resources related to the Regional Infiltration and Inflow Control program.

Files are in [Portable Document Format \(PDF\)](#). Files are also available on CD upon request.

For more information, please contact:

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✉ steve.tolzman@kingcounty.gov
☎ 206-477-5459

Reports

Evaluation of I/I Reduction Concepts to Improve the Regional I/I Program (2017 – 2018)

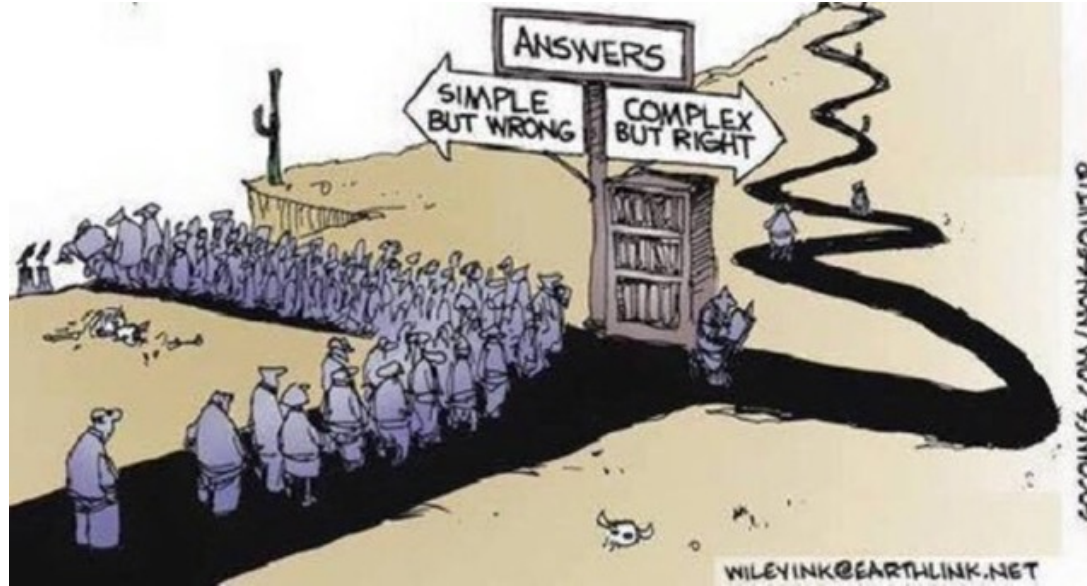
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These technical memos explore concepts to reduce I/I programmatically and with a focus on private side sewers. Concepts include region-wide side sewer standards and inspection training, interagency coordination to identify and manage I/I, side sewer inspection and repair programs, and side sewer grant/loan programs. This planning effort is in progress, and additional and final technical memos will be added to this page as they become available.

- [Final Verify 2004 King County Final Draft Regional I/I Control Standards, Procedures and Policies](#) October 2017
- [Final Assessment of Existing Local Agency Sewer and Side Sewer Standards](#) October 2017
- [Draft Approach to Achieve Common Sewer and Side Sewer/Lateral Standards](#) October 2017
- [Final Evaluation of Current Inspection Programs at Cities and Sewer Districts](#) October 2017
- [Draft Outline for a Standardized Regional Inspection Training Program](#) October 2017

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Questions?



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