

I/I Reduction Concepts E&P Draft Recommendation Refinement

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King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Agenda

I. Purpose and desired outcome

II. Background

I. Results of August meeting

II. Consideration of Cost Effectiveness

III. Roundtable discussion

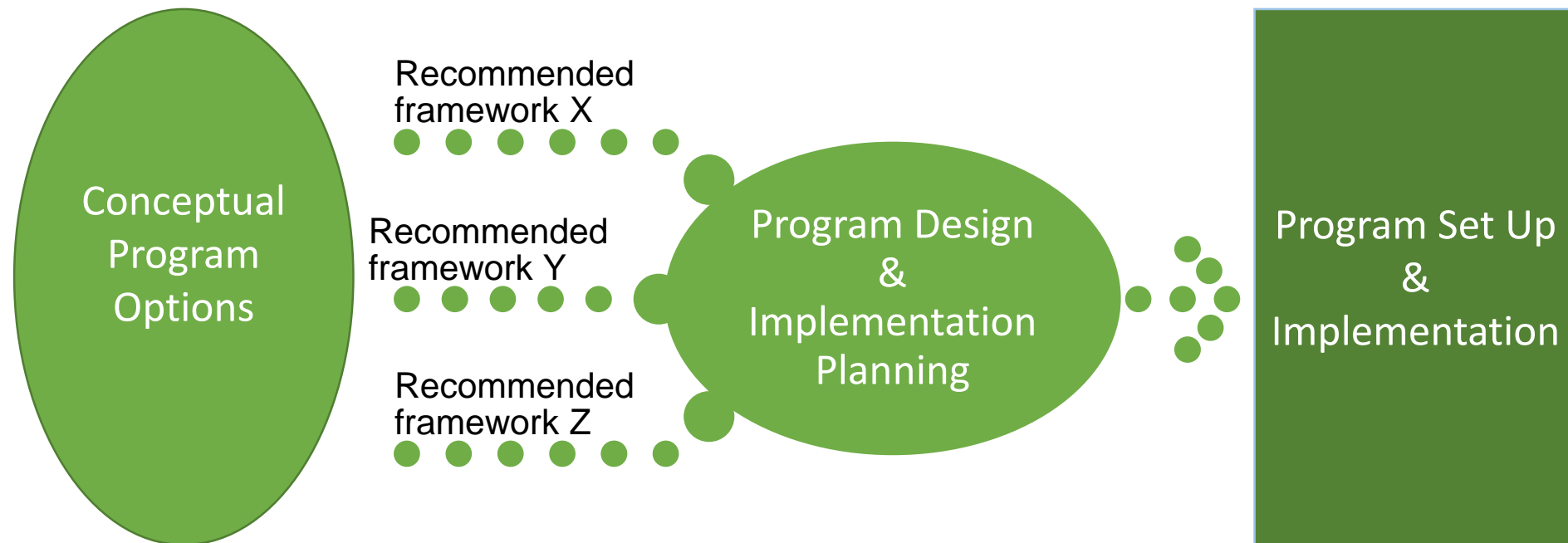
IV. Next steps

Purpose and outcome of this meeting

- Purpose:
 - Introduce draft E&P recommendation to MWPAAC
 - Initiate discussion of draft recommendation prior to review
- Desired outcomes:
 - Receive initial input to refine recommendation
 - Prepare members to conduct review with their staff

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



Result of August meeting

- The programs suggested for continued review at June E&P meeting were discussed in a round table format.
- From the round table discussion, the E&P recommended:
 - Focused Regional Standard Best Management Practices (BMPs)
 - Regional Inspection Training and Certification Program
 - Private Side Sewer Inspection Program

Result of August meeting

- E&P members also requested additional information on how cost effectiveness would be explored in implementation planning.

Consideration of Cost and Benefit During Implementation Planning

- Don't want to miss an opportunity to save rate payer \$
- Programs are considered to be beneficial in that reduction of I/I is positive
- Further exploration of the potential for cost/benefit analysis of I/I programs is needed
- Costs of program and who bears the cost will be discussed as part of any recommendation

Cost/Benefit Concept

Costs:

- Direct
- Indirect

Benefits:

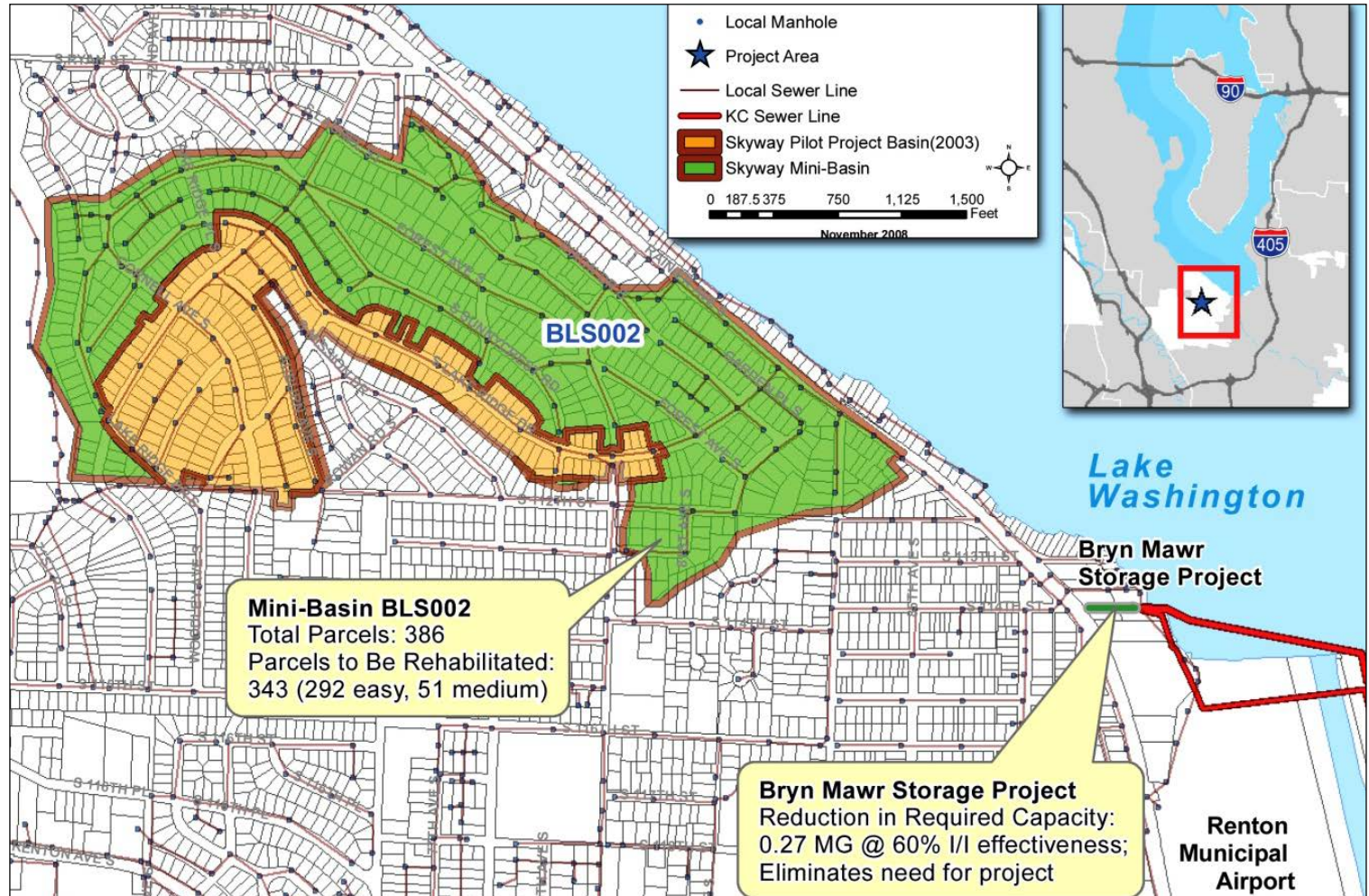
- Monetary
- Non-monetary

Note: Time value of money
not illustrated here.

Is I/I Reduction Cost Effective?

- Does I/I Reduction Eliminate the Need for Capital Project(s) Downstream?
- Does I/I Reduction Lessen the Size of Downstream Capital Project(s)?
- How Does I/I Reduction Cost Compared to Downstream Capacity?
Regional and Municipal Considerations
- Which I/I Reduction Costs Need to be Considered?
 - WTD
 - Municipal
 - Private lateral/system owners
- Life Cycle vs. Capital Cost Comparison
- How Should Long Term System Maintenance Needs be Factored In?
 - These system elements will need replacement at some point in the future, so why not do it now when it can influence a capacity need?
- Benefits to I/I reduction can also include: avoidance of building sewer backup costs, reduction in lateral owner root maintenance, and risk reduction related to property sale

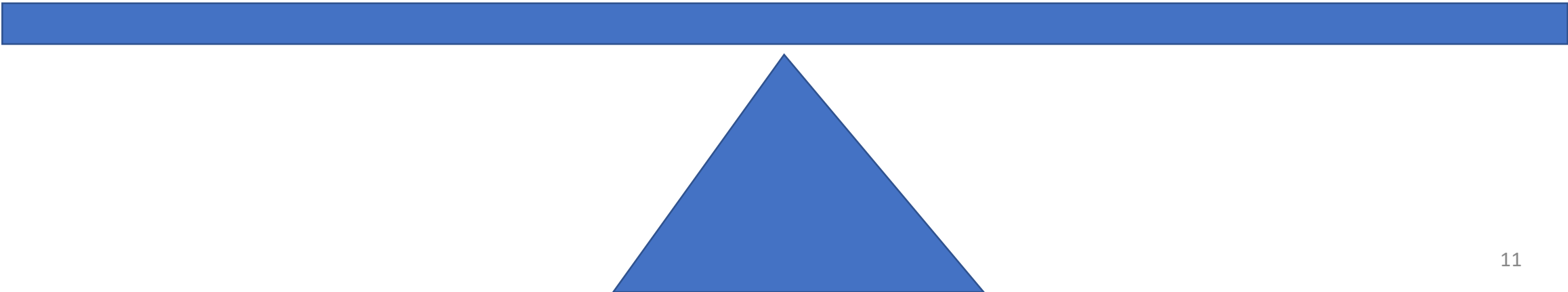
Example 1: CSI Project Specific I/I Reduction



Costs	Source
I/I Reduction Costs <ul style="list-style-type: none"> Side sewer replacements Collection system improvements 	<ul style="list-style-type: none"> I/I Pilot and demonstration project cost data

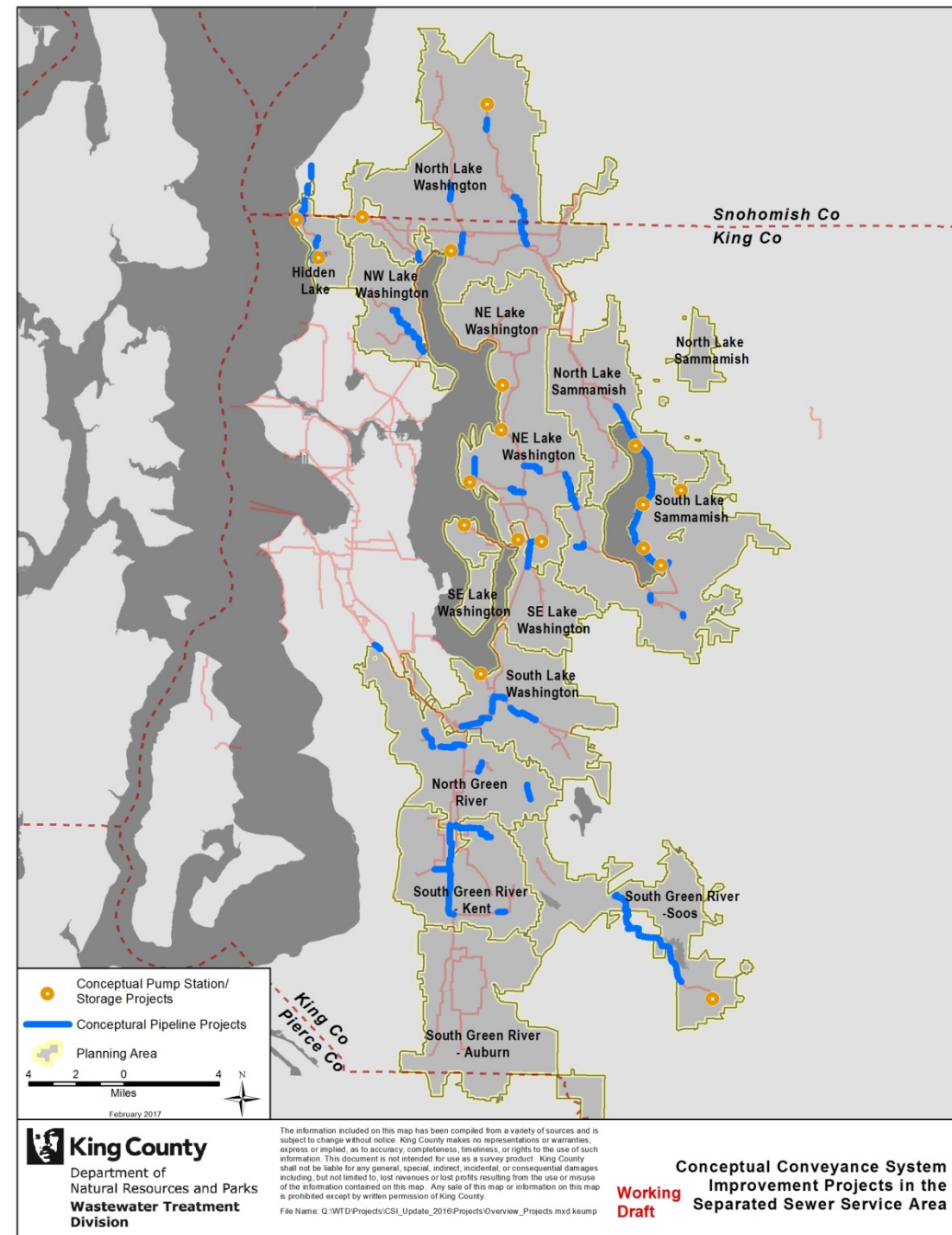
Example 1: CSI Project Specific I/I Reduction Project

Benefit	Source
CSI Project Cost Reduction <ul style="list-style-type: none"> Reduction in size Delay project Eliminate project 	<ul style="list-style-type: none"> Conveyance system project cost estimate data



Example 2: Private Side Sewer Program

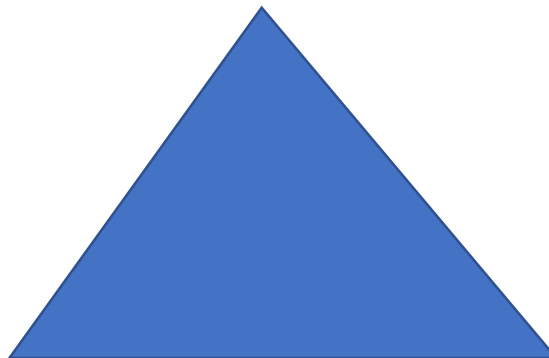
- I/I reduction throughout regional wastewater service area



Costs	Source
Program Start-up (public or private dollars)	Estimate, basis could be development of similar programs
Program administration (public or private dollars)	Estimate, basis could be development of similar programs
Side sewer inspections (private dollars)	Assumption of annual home sales in service area
Side sewer replacements (private dollars)	Assumption of how many side sewers inspected are replaced

Example 2: Private Side Sewer Program

Benefit	Source
I/I reduction amounts	Flow monitoring data over decades
Reduction in CSI Project costs	Conveyance system modeling and project cost estimating



Roundtable Discussion on Draft Recommendation

Recommendation Outline

- Recommendation for Implementation Planning
 - Summary of Recommendation
 - What is Implementation Planning?
- Rationale for Recommendation
 - Focused Regional Standard BMPs
 - Regional Inspection Training and Certification Program
 - Private Side Sewer Inspection Program
- Background
 - Summary of Process
 - Programs Not Recommended for Implementation Planning

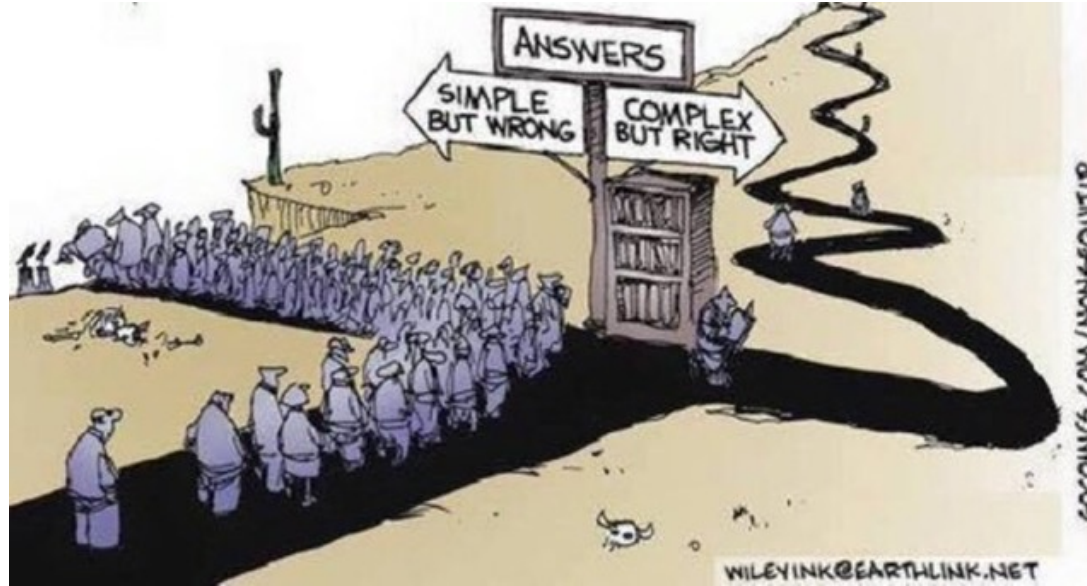
Roundtable Discussion

- What are your thoughts on the outline of the recommendation?
- What are initial impressions?
- Is anything missing?

Next Steps to Finalize Recommendation

- Written comments due by 9/21 to Nicole.Smith@kingcounty.gov
- Discussion and finalization of recommendation by E&P in October
- Final recommendation to full MWPAAC in October
 - Presentation by Lisa Tobin and WTD
 - Provide written recommendation day of
 - Ask for MWPAAC discussion and direction

Questions?



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