

King County Infiltration/Inflow (I/I) Reduction Program: Background and 2016-2017 Work Plan



MWPAAC
October 28, 2015



King County

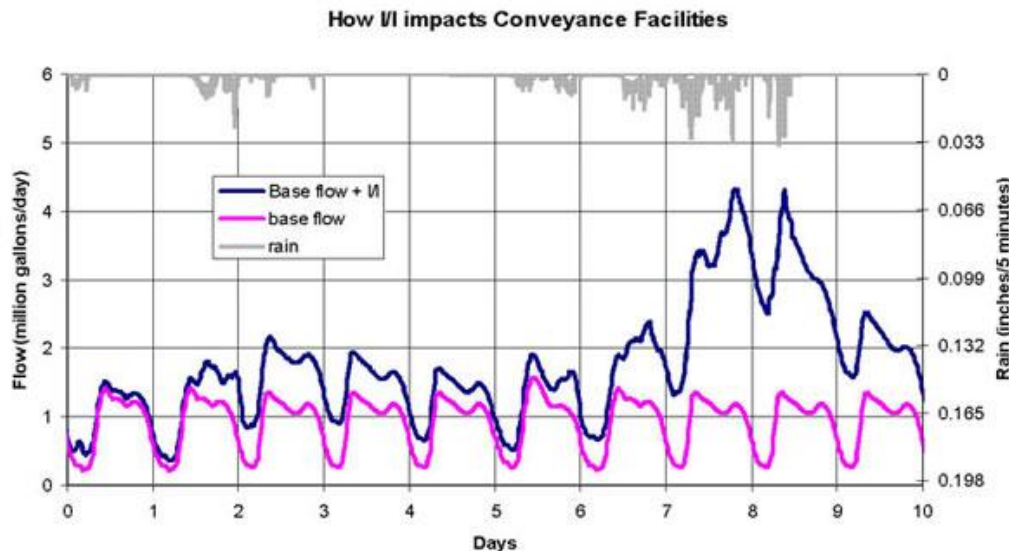
Department of Natural Resources and Parks
Wastewater Treatment Division

Today's Presentation

- Regional I/I program background
- MWPAAC I/I task force report out
- Overview of planned 2016-2017 I/I program activities

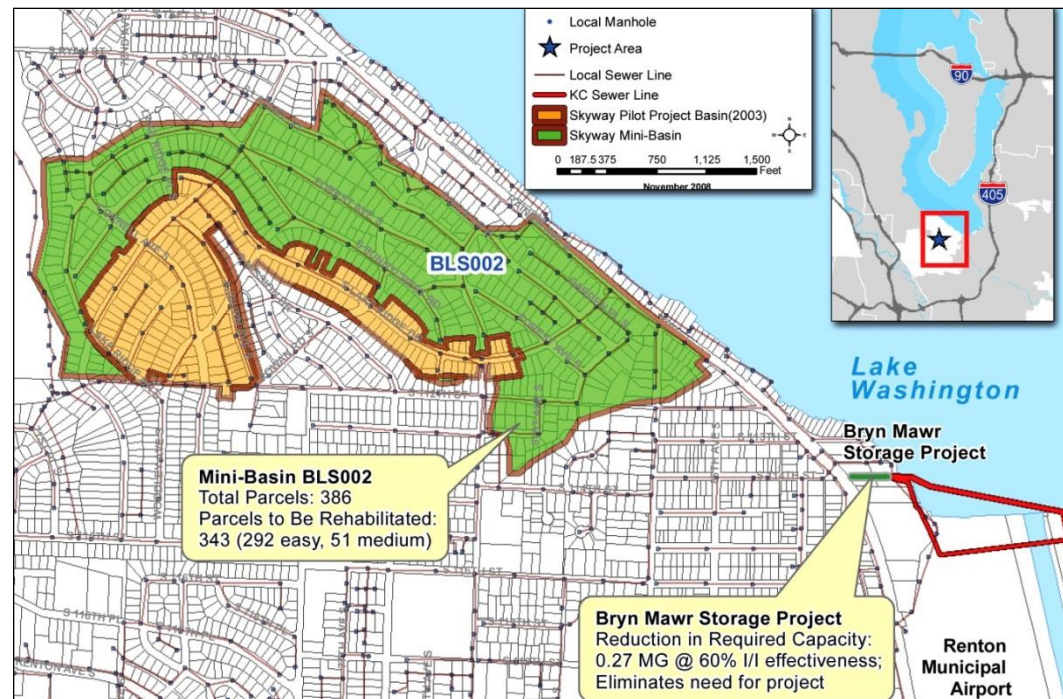
Regional I/I Program Background

- Program Created as part of RWSP in 1999
- Since then a number of activities have occurred including:
 - Extensive flow monitoring
 - National I/I Program Review
 - Private Property Local Agency Questionnaire



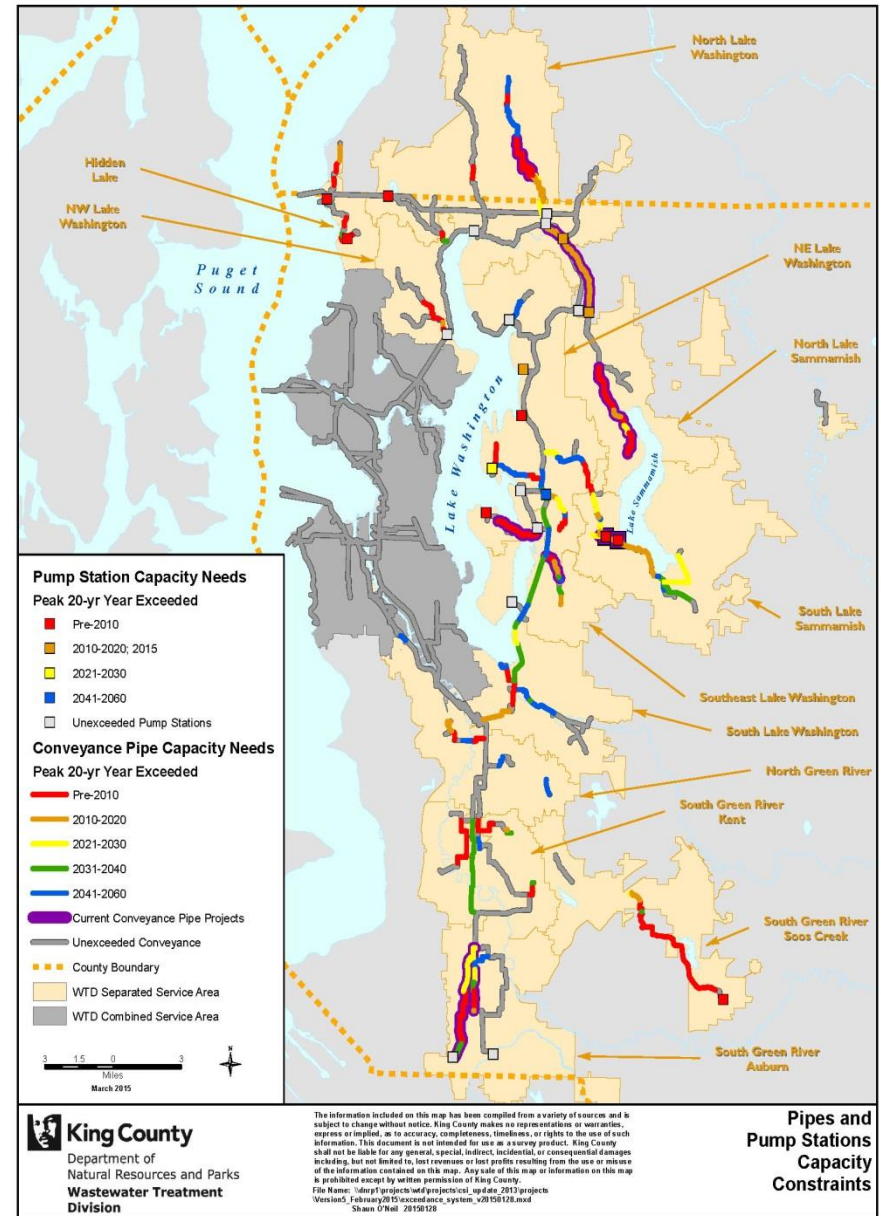
Regional I/I Program Background (cont.)

- More activities that have occurred:
 - Pilot projects
 - Benefit-cost analysis
 - Developed draft model standards, procedures, policies, and guidelines
 - Initial I/I project in Skyway

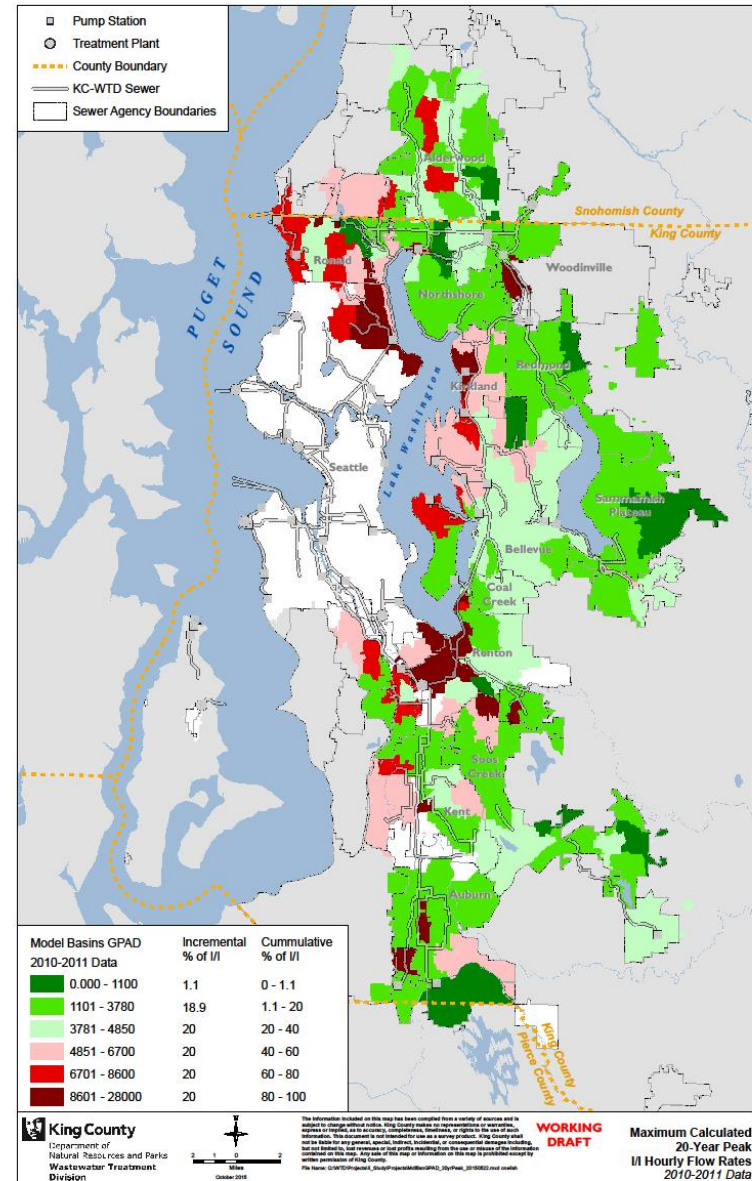
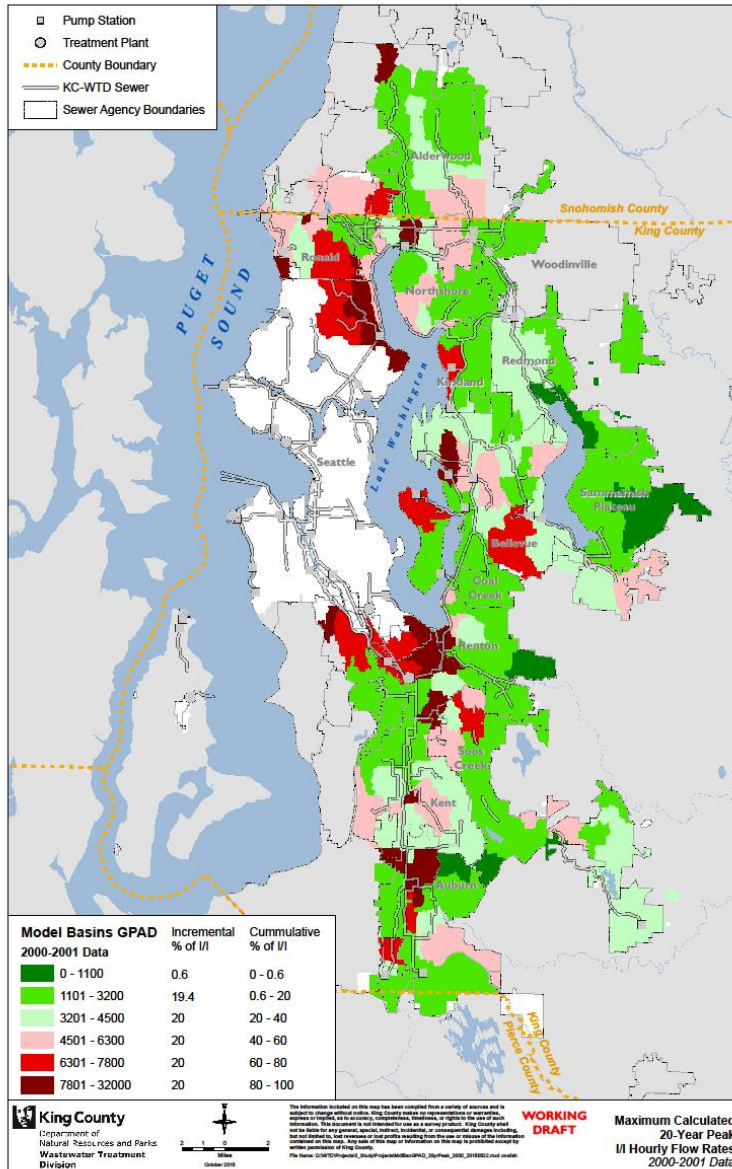


What the Region Has Learned

- I/I reduction projects can cost effectively delay or downsize a conveyance project
- I/I continues to drive capacity needs
 - 2007: ESI Sections **1 and 3** exceeding capacity before 2050
 - 2014: ESI Sections **1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11** exceeding capacity before 2060



I/I Rates System Wide



MWPAAC I/I Task Force

- Two meetings in 2015
- Objective: Brainstorm I/I program activities in addition to projects to delay or downsize conveyance system improvements that could benefit the regional wastewater system as whole by looking at long-term solution(s) to prevent and remove I/I from the entire system
- Representatives from: Alderwood Water and Wastewater District, Auburn, Bellevue, Northshore Utility District, Redmond, Seattle, and Tukwila

MWPAAC I/I Task Force (cont.)

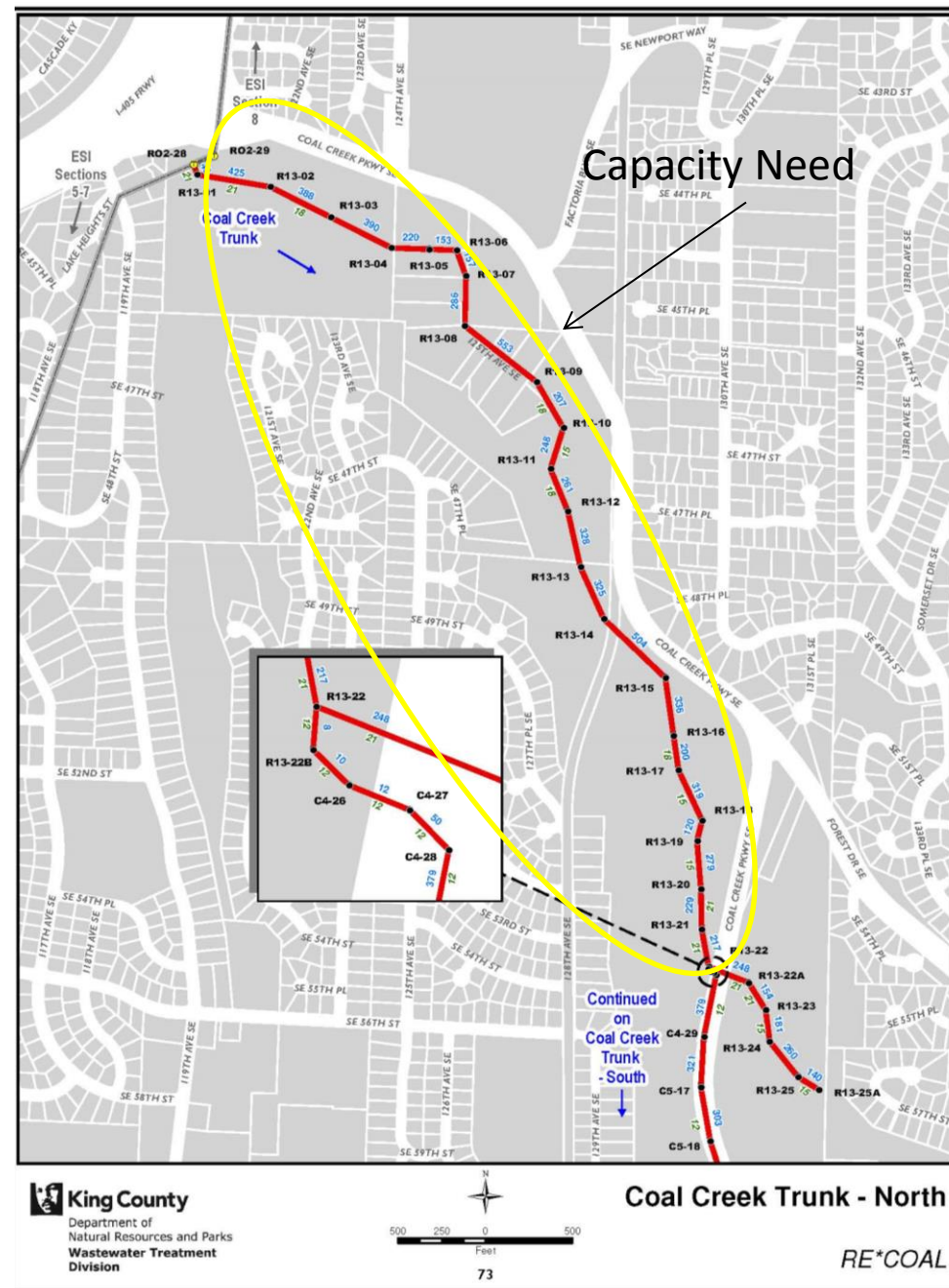
- I/I reduction concepts identified:
 - Sewer and side sewer standards
 - Evaluation of local agencies specifications
 - Best practices assessment and report card
 - Standardized sewer and side sewer inspection program
 - Private side sewer programs
 - Inspection (title transfer, remodel, or addition)
 - Insurance
 - Grant programs
 - Local agency education/funding
 - Review of 2000-2004 I/I program work
 - WTD long-term flow monitoring strategy
 - Grant programs

Next Steps

- I/I evaluation during conveyance system capital project planning
 - Evaluation of the potential of I/I reduction to cost effectively address capacity needs during Coal Creek Trunk CSI project planning (4th qtr. 2015)
- Evaluation of system wide I/I reduction concepts
 - Develop scope of work to explore potential applicability of MWPAAC I/I Task Force concepts in regional wastewater service area (1st - 2nd qtr. 2016)
 - Conduct evaluation per scope of work (2nd – 4th qtr. 2016)
 - Review evaluation results with MWPAAC and select concept(s) to move forward (1st – 2nd qtr. 2017)

Next Step: Conveyance System Capital Project Planning

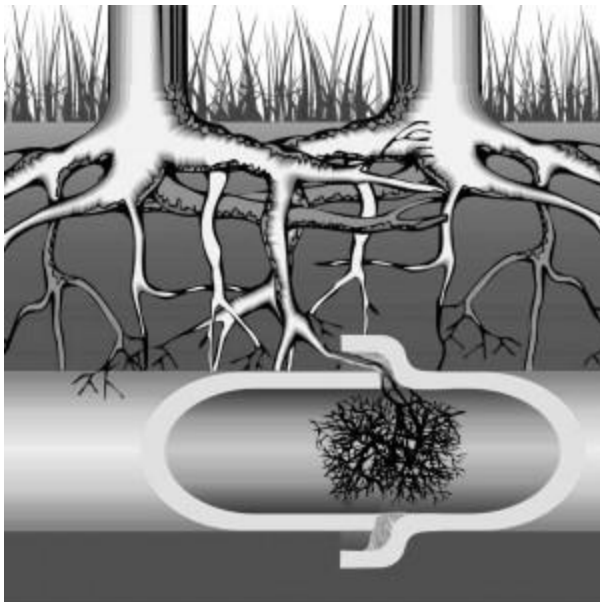
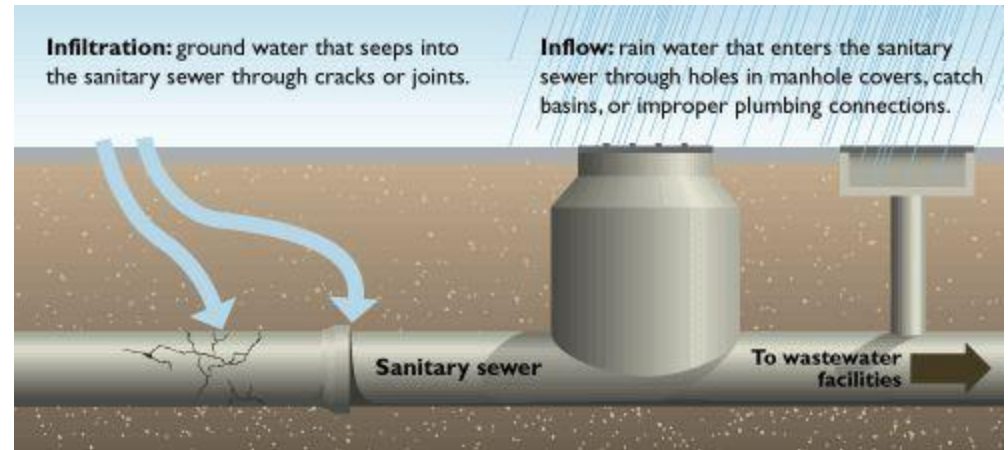
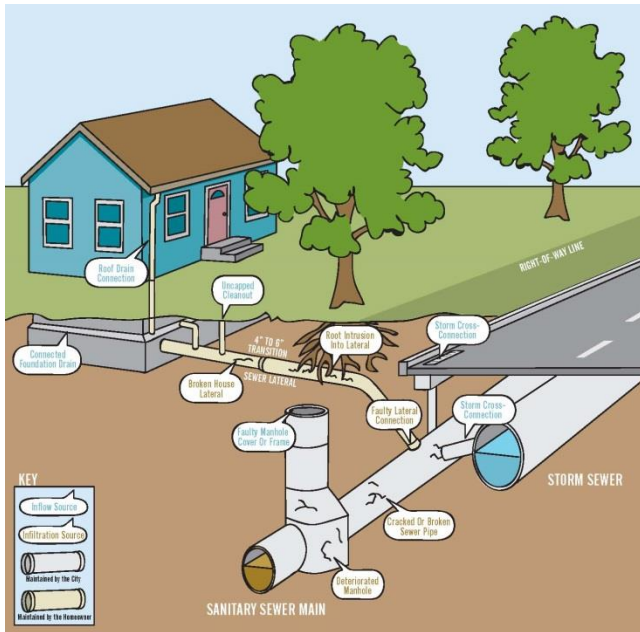
- Evaluate the potential of I/I reduction to cost effectively address capacity needs during conveyance system capital project problem definition
 - Coal Creek Trunk
 - Other future CSI projects



Next Step: Evaluation of System Wide I/I Reduction Concepts

- Concepts:
 - Sewer and side sewer standards
 - Standardized sewer and side sewer inspection program
 - Private side sewer programs
 - Local agency education/funding
- Scope of work expected to include:
 - Cost to implement concept
 - Potential for short and long term I/I reduction
 - Regional and local roles and responsibilities
- Anticipate evaluation will be done by a consultant
- MWPAAC will be consulted throughout the evaluation

Questions/Discussion



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