

Summary of April 16th Engineering & Planning Committee Meeting

There were two items covered during the meeting:

Status Report on the four I/I Projects

Briefing on KC's sewer flow monitoring program – Not included below but is available on the KC MWPAAC website, Valerie sent link on 4/18/2008

The following is a brief summary of the I/I presentation given at the E& P meeting. The full presentation is available on the KC MWPAAC website.

Meeting Purpose

Inform the E & P Subcommittee about the status of I/I Reduction Efforts

Background information on I/I Program

Recent project revisions

Benefit/Cost Analysis Process

Specific Project Information

Respond to questions

Obtain input and direction from the E & P Subcommittee

Recap of the Purpose of Initial I/I Projects

- To Demonstrate & Test the Cost Effectiveness of I/I Removal on Large Scale
- To Test Planning Assumptions for Use in Future I/I Reduction Planning
- To Learn More from Working on Private Property
- To Provide Models for Successful Future Projects
- To Test Standards, Policies & Procedures

Recent Project Revisions

- County Budget Revisions Require a Reduction in Project Construction Costs from \$15 Million to \$8.5 Million
- Budget Reductions Accommodated in Predesign Approach by Evaluating Rehabilitation in Subsets of Available Basins
- Revisions to Specific Project Requirements, Timing and Capital Costs for Bryn Mawr Tube Storage (CSI costs went from \$8.5 to \$3.6 million do to previous I&I work)

Revisions to Bryn Mawr Storage Requirements

Project (Facility)	Local Agency	Exceedence Year	I/I Avail. (mgd)	Required I/I Reduction (mgd)	Benefit: CSI Cost Reduction	Cost: I/I Rehab	B/C Ratio	No. Private Prop.
South Renton Interceptor	Renton	2027	7.0	0.81	\$7,270,000	\$2,217,645	3.3	119
Issaquah Storage and Trunk	Issaquah	2022	5.4	1.05	\$5,770,000	\$3,964,850	1.5	395
Bryn Mawr Storage ¹	Skyway	2008 2022	16.2	2.04 1.63	\$8,510,000 \$3,680,000	\$6,018,534 ???	1.4 ???	557
Eastgate Storage and Trunk	Bellevue	2000	8.7	3.55	\$16,629,000	\$14,459,862	1.2	1,163

1. Storage requirement revised from 320,000 gallons to 78,000 gallons

Renton Project Findings

Field Observations During December 2007 Storm

- 7 Manholes in Wetland Area Parallel to SR 167 Subject to Inflow and Infiltration
- All 7 Manholes Show Signs of Infiltration (Based on Visual and CCTV Inspection)
- 6 Manholes Showed Signs of up to 2 Feet of Inundation by Surface Waters
- Basin flow response to December 3rd storm was significantly less than recorder earlier (3 cfs vs 6 cfs).

Renton Project Approach

Potential Approach for Renton Basin

- Implement Immediate Repairs to Correct Identified Deficiencies
- Grout and Line 7 Manholes
- Raise 6 Manholes
- Line Approximately 250 Lineal Feet of Sewer Main In Wetland Area
- Corrective Actions Implemented By City of Renton at an Approximate Cost of \$50k - \$60k Funded Through I/I Program
- County to Provide Continued Flow Monitoring During Subsequent Wet Seasons
- No Additional Investigation of Basin to Identify and Correct Other I/I Sources

Skyway Project Findings

- Cost for CSI was reduced from \$8.5 to \$3.7 million, this reduces the amount of I&I needing to be removed to eliminate the CSI project.
- Remaining Un-Rehabilitated Portions of Basin BLS002 Very Similar to Pilot
- Lateral and Side Sewer Rehabilitation Can Be Achieved at Less Cost With Higher I/I Removal per Property in BLS002 vs. BLS001 and BLS003

Skyway Project Approach

Approach for Skyway Project Area

- Continue Evaluating Skyway Project Area Considering Revised Regional Conveyance System
- Include BLS002 in Predesign Evaluation of Skyway Project Area
- Perform Smoke Testing in BLS002 and CCTV Approximately 10% of Mains, Laterals and Side Sewers To Assess Condition and Materials of Construction

Eastgate Project Area Summary

In General, All Eastgate Basins Present Difficult Rehabilitation Challenges

- Nearly Half of Mains Are Located in Backyards
- Many Areas with Difficult Access Constraints
- Challenges Will Result in Higher Rehabilitation Costs

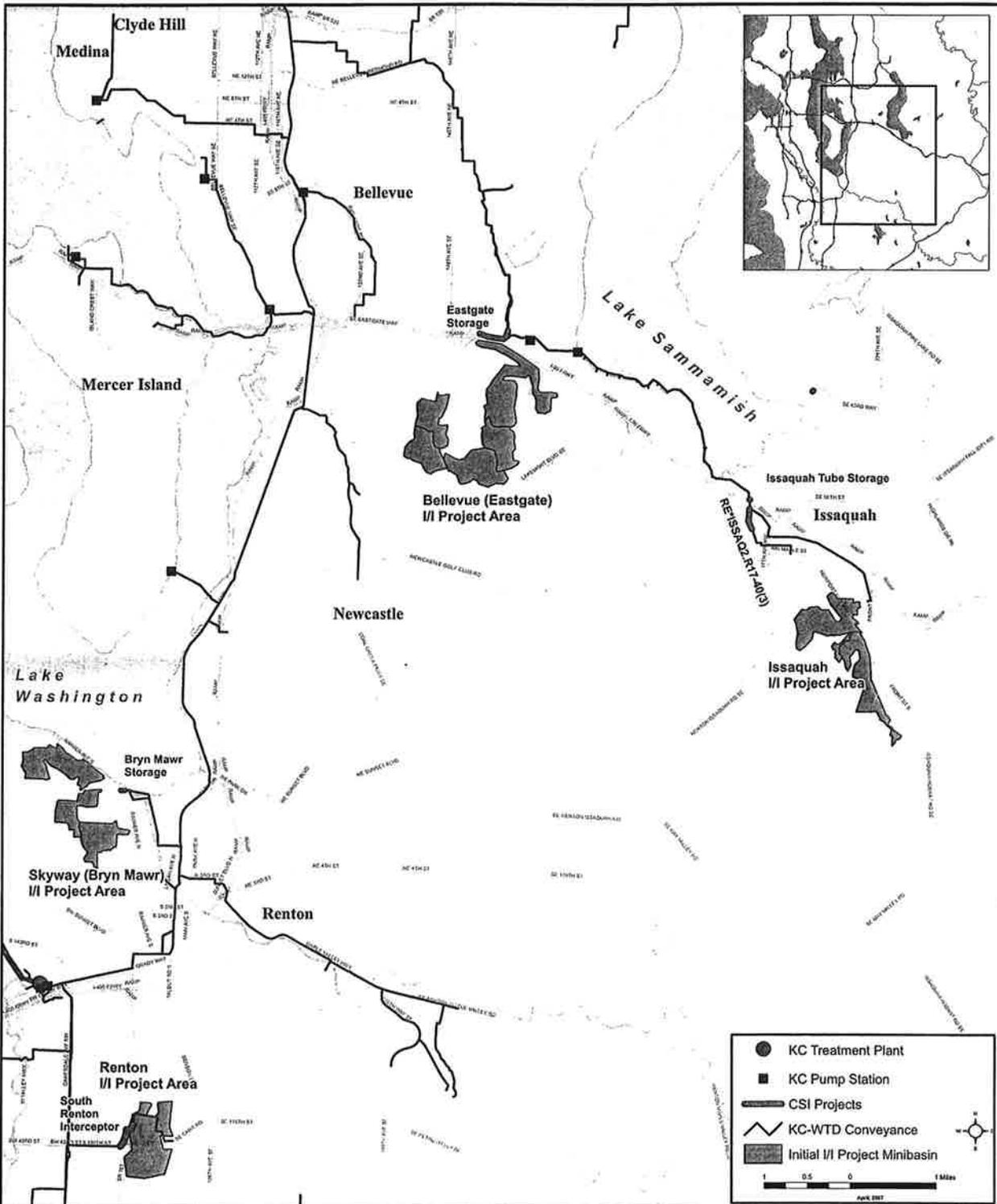
Approach for Eastgate Project Area

- Remove BEL014 From Further Analysis and Consideration for Main, Lateral and Side Sewer Rehabilitation
- Continue Evaluation of Disconnecting Inflow Sources in Basin BEL014
- Continue Evaluating BEL011, BEL012, BEL031 and BEL032
- Recognizing Higher Construction Costs Are Likely

Issaquah Project Summary

Approach for Issaquah Project Area

- Continue Evaluating ISS003 and ISS004 Recognizing Higher Construction Costs Are Likely
- Eastgate and Issaquah Areas Exhibit Similar Challenges and will be Evaluated Concurrently
- Rehabilitation Alternatives May Include Work in One of the Two Issaquah Basins and May Be Combined with Eastgate Rehabilitation



King County
 Department of
 Natural Resources and Parks
 Wastewater Treatment
 Division

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Initial I/I Project Candidate Locations