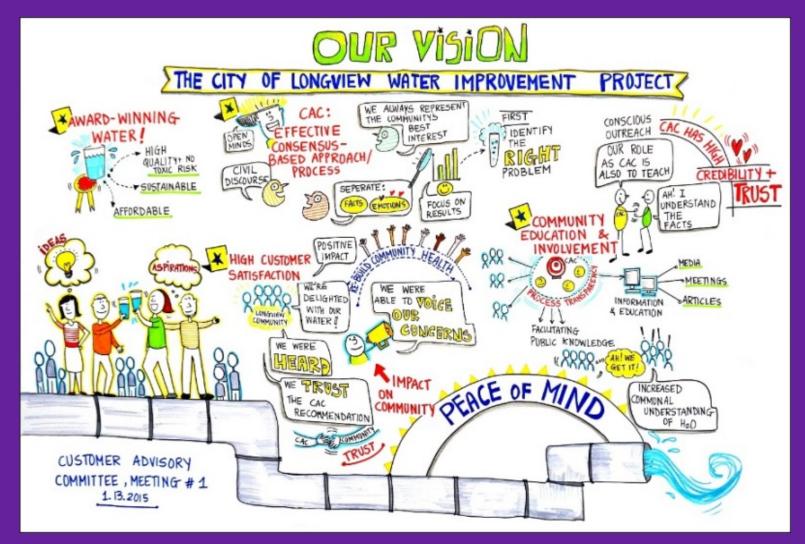
Water Supply Improvement Study – Phase II



October 8, 2015

Water Supply Improvement Study – Phase II AGENDA

- 1. Background
- 2. Exploratory Site Investigation
- 3. Detailed Aquifer Testing
- 4. Engineering & Conceptual Design
- 5. Community Involvement
- 6. Project Schedule
- 7. Project Costs
- 8. Optional Tasks
- 9. Discussion

Background

CAC recommendation:

 Develop new Cowlitz River source utilizing Ranney Collector wells



Ranney Well Collector system

Background

Project Concepts:

- Multiple treatment options based on water quality and classification
- Costs to implement range from \$29.5 M to 55.1 M (assumes North Lexington)
- 3-7 years to implement depending on treatment selection and ability to demonstrate riverbank filtration credit



Ranney Well Collector system

Exploratory Site Investigation

South Lexington 12,000 ft to Fishers Lane 32,000 ft to Mint Farm North Lexington 15,000 ft to Fishers Lane 37,000 ft to Mint Farm

Mint Farm WTP

Tour Guide

Fisher's Lane WTP 300 ft to Fishers Lane 2,000 ft to Mint Fatm Hall of Justice Dropped from consideration due to potential to influence Kelso

> Gerhart Gardens Dropped from consideration due to proximity to old landfill

> > Google earth

Imagery Date: 7/16/2014 46°08'32.16" N 122°58'23.65" W elev 10 ft eye alt 10.59 mi 🔘

Exploratory Site Investigation

- Objectives
 - Determine fatal flaws, basic hydrogeology and general water quality
 - Identify one preferred site for further evaluation
- Scope of Work
 - Drill small diameter test well
 - Conduct short duration, low rate pump test
 - Water quality sampling (primary and secondary IOC's and select analytes)



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Ranney Feasibility Study

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Site 1 – North Lexington



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Ranney Feasibility Study

Site 2 – South Lexington

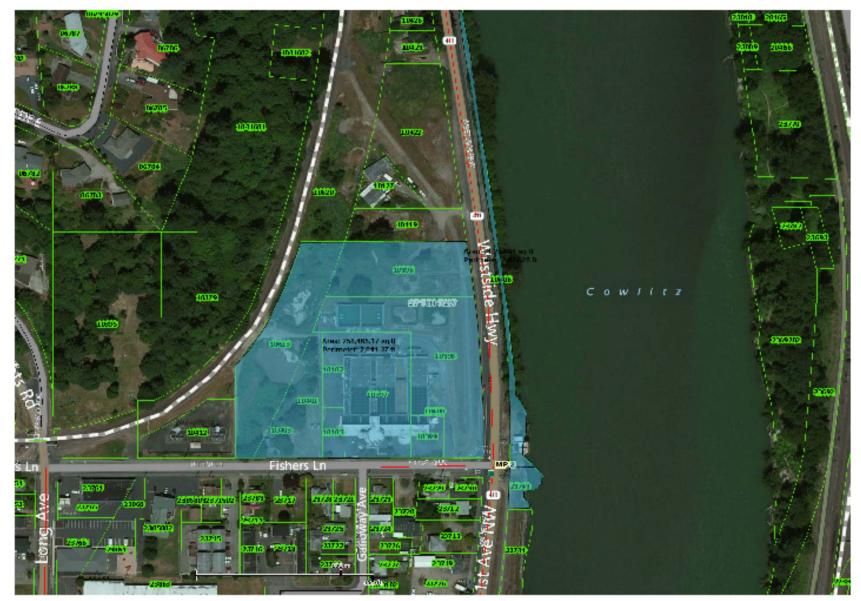


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Ranney Feasibility Study

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Site 3 – Fishers Lane RWTP



Detailed Aquifer Testing

- Objective
 - Determine specific aquifer properties and treatment requirements at preferred site
- Scope of Work
 - Drill larger diameter test well
 - Drill three observation wells
 - Conduct drawdown test and observe aquifer response
 - Conduct higher rate, longer duration pump test
 - Water quality sampling (Tier 1, 2, 3 parameters and extended analyte list)



Engineering & Conceptual Design

- Objective
 - Provide refined project concept and cost estimating
- Scope of Work
 - Report 1: Exploratory well drilling and preliminary WQ data
 - Report 2: Aquifer pump testing and detailed WQ data
 - Report 3: Concept level facility description and cost estimate
 - Water supply recommendation(s)
 - Preliminary collector well design
 - Pumping systems
 - Conveyance option(s)
 - Treatment requirements

Community Involvement

- Reconvene CAC to provide community checkpoints
 - Meeting 1: Review results of exploratory investigations
 - Meeting 2: Review results of detailed aquifer and water quality testing
- Maintain project website: <u>www.longviewwater.org</u>
- Distribute email notifications to stakeholder list
- Create project fact sheet
- Public Open House

Optional Task

- Additional Detailed Aquifer Testing (Second Site)
 - May be recommended if results of first aquifer test are unfavorable

Project Costs

- Base Fee \$327,550
- Optional Task \$119,150

Project Schedule

• Major milestones:

—	Execute contract amendment	Oct-2015
_	Drill exploratory test wells	Nov-2015
_	CAC Meeting #1	Jan-2016
_	City Council update	Jan-2016
_	Begin detailed aquifer testing	Feb-2016
_	CAC Meeting #2	Apr-2016
—	Public Open House	May-2016
_	Joint City Council / BHWSD Workshop	May-2016

Recommendation:

• Authorize contract amendment for CH2M to conduct the Water Supply Review Phase II feasibility study