

Puget Sound Beach Combined Sewer Overflow (CSO) Control Projects

North Beach Basin

Public Meeting Summary

March 30, 2010, 6:00-8:30 pm

Loyal Heights Community Center, 2101 NW 77th St, Seattle, WA 98117

Overview

On March 30, 2010, the King County Wastewater Treatment Division (WTD) hosted a public meeting for the Puget Sound Beach Combined Sewer Overflow (CSO) Control Projects in the North Beach basin. Approximately 15 members of the public attended the meeting.

Meeting Purpose

The meeting was intended to –

- Present three alternative means for CSO control in the North Beach basin
- Present how these alternatives were developed
- Explain why the three alternatives are being considered for further evaluation
- Hear from the community about the alternatives

Public Meeting Approach

Shahrzad Namini, King County project manager, started the meeting and introduced the team. John Phillips, King County CSO Program; Monica Van der Vieren, King County WTD Community Relations; Brian Matson, consultant team project manager; Karl Hadler, lead engineer for the North Beach basin; and Bob Wheeler, meeting facilitator, gave a PowerPoint presentation that included the following topics:

- CSO Control Program Overview
- CSO Beaches Projects Objectives
- CSO Control Approaches
- North Beach Basin Requirements
- North Beach Basin Alternatives
- Next Steps

Following the presentation, there was a period for meeting attendees to ask questions of the project team and to provide input on the alternative means of CSO control.

Afterwards, meeting attendees were encouraged to view informational posters that were set up around the meeting room and talk with members of the project team. Flip charts were available to record questions and input.

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Meeting attendees were informed of and encouraged to use a variety of methods for submitting questions and input, which include the following:

- Web: www.kingcounty.gov/csobeachprojects
- E-mail: CSOBeachProjects@kingcounty.gov
- Phone: 206-263-7301
- Feedback forms (available at the public meeting)

Because of the project schedule, meeting attendees were encouraged to provide input by mid-April, 2010. Input received by then will provide the best opportunity to inform the evaluation of the three alternatives. Input is always welcome and will be used throughout the facility planning process.

List of Informational Posters

- Basin Map showing City System/County System & Combined System/Separated System
- Map of each alternative with basin inset (3 boards)
- Map of all three alternatives
- “What is a Combined Sewer Overflow?”
- CSO Control approaches overview
- Factors used for alternatives evaluation
- Decision Process graphic

List of Handouts Available

- Information Packet
 - Meeting agenda
 - Public Information Document
 - Map and aerial photo of basin
 - Feedback form
- Dept. of Ecology CSO fact sheet
- Ratepayer report
- “Don’t Flush Trouble” flier
- RainWise brochure (City of Seattle)
- “Natural Drainage Systems” (City of Seattle)

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Summary of Questions and Input

Questions and input from the public are summarized below.

There were multiple questions and remarks on the following topics.

Design and siting of potential facilities in Blue Ridge Park

- How tall would the above grade facilities be?
- Would the above grade facilities be located right on the bluff? Could you move them farther west?
- Is it possible to show a rendering of the above ground facilities so we have an idea how the facilities might impact our view? That would help us provide informed input.
- Could WTD sink the above grade facilities a few feet in the ground to make the above grade portion shorter?
- Is there flexibility in how the odor control and electrical facilities are designed? Will the design team include an architect?
- The above grade facilities could be moved into the hillside at the south end of the park. Then the facilities would no longer be visible.
- Would the storage tank be below grade? Could you put grass on top of it? Would you be able to see it after construction?
- Is the diversion structure below grade? Could you put grass on top of it?
- I am concerned about how much of the park and which parts of the park would be occupied by this project. How close must the above ground structure be to the below grade structure?
- There is a property for sale next to the park. Has it been considered for potential acquisition as a site for facilities? A property to the east of the existing North Beach Pump Station will likely be available for sale soon.
- For the alternative with a pump station in Blue Ridge Park, could the new pump station be located where the existing pump station is now?

Response: The above grade odor control and electrical facilities will be about one story high, or a maximum of fifteen feet. The current drawings show one possible location for the above ground facilities, but there is flexibility in where they could go.

The storage tank and the diversion structure would be located below grade. An access hatch big enough for a person to fit through would be needed for the diversion structure.

The specifics of where facilities will be located and how the construction site will be restored will be determined with public input during the design phase for the proposed alternative. King County will work with the community during design to refine the appearance of any above grade facilities. The design team will include an architect and a landscape architect. King County has completed several examples of above grade facilities that have been designed to blend in with the surrounding area.

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The project team will need to discuss the possibility of producing a rendering of above grade facilities.

It is early in the project planning process to be in direct discussions about property issues. As WTD moves forward with a proposed alternative, we will consider the availability of properties and options for siting specific facilities.

A new pump station at the bottom of the basin could not be located on the site of the existing North Beach Pump Station because the existing pump station would need to remain in service until the new pump station is complete.

Construction impacts

- For the alternative with pipeline storage in Triton Dr NW and NW Blue Ridge alternative, how would you deal with the underground power and other utilities that are already located in the street right-of-way?
- How long will construction last and how will WTD assist residents with access to their homes?

Response:

Underground utilities would be avoided or relocated.

Construction would last about 12-18 months for the alternatives with tank storage in or near Blue Ridge Park and for the alternative with pipe storage in the street right-of-way. Construction would last about 18-24 months for the alternative with a pump station in Blue Ridge Park and a pipeline connecting to the 8th Ave interceptor pipeline. King County works with residents closely during the design phase to anticipate and reduce construction impacts. King County puts requirements for limiting construction impacts into contractors' contracts. King County staff are available via a 24-hour hotline during construction.

Rectangular underground storage alternative with pump station in Blue Ridge Park with conveyance to 8th avenue interceptor

- What is the area called where the drop structure and odor control facility are shown?
- What is a drop structure and what does it look like?
- What is the purpose of this alternative, if there is still storage in Blue Ridge Park?
- How long would it be before the existing North Beach pump station and the North Beach force main would needed to be replaced?
- How old was the pipeline in Lincoln Park that failed?
- Could the North Beach force main be re-lined to increase its longevity?
- How close can structures be built to the property line or to residential buildings? There is a federal development covenant for the Crown Hill site and multifamily housing next door.
- Could the drop structure and odor facility be located on a different property at the top of the basin? There are other properties that are not as restricted by a federal covenant.
- Would the 20 foot by 15 foot structure in Crown Hill Park be above ground?

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Response: The area where the drop structure and odor control facility are shown is a utility easement in Crown Hill Park. A drop structure is where a pressurized force main transitions to a gravity pipe. Two eight inch pipes would come above grade and “gooseneck” to a box about five feet by five feet in size that provides a transition to the gravity sewer.

Building a new pump station and pumping flows directly to the 8th Ave interceptor pipeline would eliminate the need for the existing North Beach pump station and the North Beach force main, which runs along the beach from the pump station to Carkeek Park. The existing pump station and the North Beach force main were built in the 1960s. This alternative would eliminate the need to upgrade or replace the North Beach pump station and the North Beach force main in the future if needed.

During final design, King County will perform additional inspections to better understand the condition and expected lifespan of the existing North Beach pump station and the North Beach force main. These inspections will help determine the options for rehabilitating or replacing the North Beach force main. One consideration with re-lining is that it would reduce the capacity of the force main.

The minimum distance between new facilities and the property line or residences is governed by city code.

An approximately 20 foot by 15 foot structure, as shown in Crown Hill Park area, would be above ground. If this is the alternative that is proposed for environmental review, the project team will work to minimize the above ground structure.

Decision process

- Does King County have a preferred alternative at this point?
- Are King County’s internal reports available for review? It would be helpful to know what the County is considering.

Response: King County does not have a preferred alternative at this time. All three alternatives are being refined and they will be evaluated using the selection factors that were described in the presentation.

Please submit any requests for reports or documentation from King County in writing, and we will be happy to provide information through our public disclosure process.

How storage for combined sewer overflow control works

- Do CSO events last just one day?
- Would the storage facility be designed to flow out by gravity so sludge is not left at the bottom?
- Could the CSO control facility be overwhelmed by a storm event?

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Response: CSO storage facilities operate intermittently, only about ten times a year. The amount of time it takes for storage to fill depends on the intensity of the storm event. On average, the storage facility will be full of water for six hours, though it could be up to a maximum of 24 hours. It will then take about six to twelve hours for the storage facility to empty. The facility will be designed with a slope and a bottom sump that can be dewatered at the end of a CSO event. The storage tank would also include flushing capabilities for cleaning after the CSO event.

If storage were to reach capacity during a storm event, there would be an overflow similar to what happens now at the pump station. The requirement is to have no more than one overflow per year on a 20 year average.

Environmental considerations

- What are the energy requirements to build and operate each alternative? Sometimes we overlook the use of energy during construction. Total energy use seems like an important element to consider while evaluating the alternatives.
- How vulnerable are these facilities to earthquakes?
- The proposed odor control facilities are similar to existing King County odor control facilities. Are there incident reports that would indicate how reliable these facilities are? Should neighbors worry about odor?

Response: The storage facilities operate intermittently, only about ten times a year when there are major storm events, and they do not use a great deal of energy. WTD encourages contractors to recycle, salvage materials, use biodiesel and take other measure to operate sustainably. The environmental review process will consider overall energy use for construction and operation of facilities.

The Pacific Northwest is a seismically vulnerable area. All facilities will be constructed to International Building Code (IBC) standards for seismic safety. Geotechnical analysis of sites will be performed to inform design.

There are many King County odor control facilities that people generally don't notice, for example at Seattle Center, in Carkeek Park, and in a residential area on Mercer Island. King County considers installing odor control for new facilities. Odor control works by filtering air to remove hydrogen sulfide gas. King County routinely tests and inspects the odor control facilities to make sure they are working. King County maintains a 24-hour a day hotline for odor complaints, with a commitment to respond to complaints within two hours.

Additional questions and input from the public included the following:

- Rats and raccoons use the storm system. If they are displaced they will run through the neighborhood. How will your project affect the animals in the sewer system? (Response: There is a brochure about deal with rats in sewers. Contact King County community relations staff, Monica Van der Vieren for a copy.

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- How are you dealing with natural creeks that are coming down the hill? There are two creeks on the property behind mine that flow into a pipe that goes under the street into Blue Ridge Park. (Response: We will look into where that water goes.)
- If we could get rid of infiltration and inflow into the combined sewer system, would this project still be necessary? (Response: There is a relatively small amount of inflow in this basin compared to the amount of infiltration that occurs through cracked pipes. The project team looked at combinations of infiltration and inflow reduction in various parts of the basin to reduce or eliminate the need for storage. This approach is not being considered at this time because of the potential for groundwater and surface water impacts, such as increase in flooding and the potential to exacerbate problems with slope stability in the area. If you “tighten up” the sewer system, groundwater levels will rise. When we were out the public open house last fall and at briefings for community groups, we heard concern about flooding and slope stability in this basin.)
- Do King County projects have an art component? (Response: Yes, state law governs the budget of the art component of King County projects.)

Attendance

Puget Sound Beach CSO Control Project Team

King County Wastewater Treatment Division

Shahzad Namini, Project Manager; Linda Sullivan, Capital Projects Managing Supervisor; John Phillips, CSO Control Program; Mary Wohleb, Assistant Project Manager; Bill Wilbert, Environmental Programs Managing Supervisor; Hien Dung, Real Estate Services; Sue Meyer, Environmental Planning ; Martha Tuttle, Community Relations; Monica Van der Vieren, Community Relations

Carollo Engineers

Brian Matson, consultant team project manager; Karl Hadler, lead engineer for North Beach basin

Triangle Associates, Inc.

Bob Wheeler, facilitator; Ellen Blair, community relations support

Seattle Public Utilities

Sahba Mohandessi