King County
Department of Natural Resources and Parks
Wastewater Treatment Division

SOUTH MAGNOLIA CSO CONTROL PROJECT

COMMUNITY WORKSHOP SUMMARY- Landscape and Architecture Design
October 20, 2012, 12:00 p.m. - 2:00 p.m.
Discovery Park Environmental Learning Center

Overview and Purpose

King County's South Magnolia CSO Control Project hosted a community meeting at the Discovery Park Environmental Learning Center on October 20, 2012, to provide a project update and information about the design concept for the new Combined Sewer Overflow (CSO) control facility at the Port of Seattle's West Yard. This meeting was planned in response to the June 13, 2012 community meeting where attendees provided feedback and suggestions on design and had requested additional public involvement opportunities.

Shahrzad Namini, King County Project Manager, opened the afternoon session. Shahrzad reminded the audience that the County must submit a design to the Washington State Department Ecology by the end of December 2012. She emphasized that King County will continue to be actively involved with the community throughout the project and another community meeting will be held in January.

Presentation

Monica Van der Vieren, King County Community Services, outlined the afternoon workshop agenda, which included the following topics:

- Summary of design process to date
- Operations and maintenance at the West Yard
- Sustainable elements in site design
- Architectural options and discussion
- Landscape update, fencing options and discussion
- Next steps

Background on King County's public outreach during siting and design

After the storage option for CSO control was identified by King County in March 2010, the project team began working with the Port of Seattle, Seattle Parks Department and the Seattle Department of Transportation to identify a preferred tank location. At that time, the Port of Seattle's Terminal 91 Neighbors Advisory Committee proposed that a historic proposal for a land swap between the City of Seattle and Port of Seattle should be revived, exchanging the Smith Cove Athletic Field parcel for the West Yard.

- On March 3, 2011, the Port, Parks, and County co-hosted a community meeting to describe possible development and tank siting scenarios in the current land use situation, and in the event that a land swap should occur.
- On October 20, 2011, King County presented the preferred tank location and indicated the next steps were to configure facilities at the site, using project constraints and taking input from the Port of Seattle and Seattle Parks. After this recommendation was made, future land use discussions shifted to focus on the potential for acquisition of the property as a City of Seattle Park, with King County as an interim owner during the CSO Control Project. While discussions continue, King County has proceeded with work to ensure that the facility can be constructed at this location.

- February 15, 2012, a facility configuration at the West Yard was presented to the community, including an above ground equipment facility positioned on top of the tank in order to reduce facility footprint. Updated information on system operations was provided.
- June 13, 2012, a landscape and architecture concept was presented to the community and input was taken. The project team reviewed all input and the current meeting is focused on responding to this input.

Summary of Siting and Design Process
Monica explained the history of the South Magnolia CSO Project beginning with the outfall location, which is at the street end of 32nd Ave West as it meets Elliott Bay. King County is required by Washington State Department of Ecology to limit CSOs from the south Magnolia drainage basin to no more than one untreated CSO per year based on a long term average.

Several project decision factors are used in siting and designing a CSO facility:
- Environmental
- Operations and maintenance
- Technical (design and construction)
- Community
- Cost
- Land use and permitting

Summary of Operations and Maintenance Needs
Karl Zimmer, West section off site supervisor, provided information on King County's West Section. He is responsible for overseeing operations and maintenance of 21 pump stations, 4 CSO treatment plants, and 19 regulator stations that send wastewater to West Point Treatment Plant.

Karl explained his role on the design team was to analyze how the O & M staff would need to access and service the components of the CSO facility. He continued on to describe activities expected at the South Magnolia site

Stormwater Management and other sustainable elements incorporated in facility design
Jeff Lykken, project manager for Tetra Tech described how facility design at the West Yard responds to City of Seattle stormwater management requirements for 21,600 square feet of new impervious surface created by this project.

Jeff presented additional sustainable elements included in the facility design to reduce water and energy use, and the amount of building materials needed to construct the project.

Architecture Design Update
Andrew Diehl, architectural designer reviewed architectural guiding principles and summarized sustainable elements in building design. Andrew presented four color themes for the equipment building, and Monica facilitated discussion of the themes and architectural design.

Landscape Update and Options
Nate Cormier, landscape architect, reminded attendees of the guiding principles for the landscape design. He responded to previous community suggestions and comments with updates on:
- Fence options
- Plant palette
- Additional pervious surfaces

Future Considerations: Blending the Facility into a Public Park

Project Manager Shahrzad Namini presented options for fence configurations that could be considered if a future park is developed at the West Yard site. Shahrzad indicated that these options would need to be discussed with Seattle Parks Department, which would lead a public process to develop a new park on site.

Additional Presentation

Mr. Bruce Carter and Mr. Tom Tanner, representing the Friends of Smith Cove Park Coalition, presented a rendering of the potential use and appearance of a future waterfront park located at the West Yard. Councilmember Phillips summarized the history of land use in the area and reiterated the benefits of a future park.

Summary of Questions and Discussion Following the Presentation

Is there a particular "drop dead" date for input?

Shahrzad answered that King County is expecting that community input will be an iterative process throughout the design, that the project is currently in the permitting process and King County must have the plans for this facility fairly established for permitting purposes and that bids will likely be let next summer for the storage facility.

How often does County operations and maintenance staff access the site for repair or maintenance?

- All sites are visited once a week
- 24/7 response may occur in the event of an emergency
- Staff conducts monthly testing and preventative maintenance
- Facilities are cleaned annually, requiring access through lift slabs
- Every 3-5 years slabs are lifted for preventative maintenance activities

How often do you remove the concrete lift slabs?

Some slabs must be removed every year, others every 3-5 years. Any slab may need removal at any time if there is a problem.

Why are the lift slabs so heavy? Is there an alternative to the heavy covers?

The lift slabs need to be sufficiently strong to support loads from boom and vactor trucks, and to protect the equipment below. These vehicles place heavy loads on the structures.

Is most access made through the hatches?

The answer was yes.

Sustainable elements in Facility Design/Stormwater Management

Can solar panels be used as a sustainable element of facility design? (This question was incorrectly captured on June 13).

- Power capacities often needed during storm seasons make it infeasible to use solar power as a single nonredundant power source ; however, the design team will respond to the suggestion for utilizing roof space for solar panels to provide electricity for other uses.

What about reusing stormwater on site?

- It is not feasible because the four 1,200 gallon tipping buckets would require an additional storage tank on site (roughly 10,000 gallons) which would require a larger facility footprint.
- Getting stored water from the tank to the tipping buckets would require pumping, which needs additional power/electricity.

What about reusing the excavated soils?

- Soils will be reused to the extent possible to backfill the tank.

- Due to potential contamination which requires appropriate disposal, soil reuse on site may be limited.

How about adding permeable pavement?

- The design team has identified areas where grasscrete may be used to provide infiltration as well as improve site aesthetics.
- Permeable pavement is not cost-effective in areas where heavy loading may occur.
- Permeable pavement will not replace the need for bioswales to manage surface water volumes and quality.

Can the facility be reoriented to position the tipping buckets and lift slabs on the west side?

- This was considered during early design, and is not possible due to hydraulic considerations for both the new gravity sewer line and the flushing mechanism in the tank.

Could more of the building be underground, or located under a bunker type structure?

- The building contains an odor control mechanism, an emergency generator, and electrical and mechanical rooms.
- The King County team has reduced the size of the above ground structure from the original Engineering Report; however, some elements are required to be above ground, and other elements such as electrical and mechanical equipment, need to be protected from water intrusion. .
- Creating a bunker type structure would expand the facility footprint and may not be feasible with the underlying tank because of additional soil loading on the structure.

How much rain will it take to make runoff from the scupper on the building visible?

- The scupper on the building will be visible from 23rd Avenue West.
- Runoff would be visible in most rain events. The rainy season extends from Fall to Spring; however, summer storms do occur.

Could a "sunny weather" feature be incorporated into the design? People use parks during the summer.

- King County WTD's mission is to protect water quality. The new CSO facility will address a water quality issue created by stormwater, and the design reflects this goal.
- The scupper design is intended to effectively manage roof runoff at this site, which would be accomplished with gutters in a conventional roof design. The distinctive design provides a visible educational element to help people understand how everyone can help manage stormwater.
- A "sunny weather" feature might be incorporated as part of a future park, or perhaps reflected in public art elements if they are included in the project

What type of lighting will be used at the storage facility?

- Lighting will be associated with the building. In the current design, the perimeter fence provides security so no additional site lighting is needed.
- One light pole in the right-of-way will be relocated. Seattle Department of Transportation may require additional lighting as part of the right-of-way restoration requirements.

Summary of Comments and Suggestions (by Category)

Please consider offering education so people can make changes in their own landscaping to help solve this problem.

- King County is already partnering with the City of Seattle on the City's Residential Rainwise Program in target areas to help property owners control stormwater that is entering the sewer system and Puget Sound.

- Monica said that WTD did not identify Magnolia as a feasible location for CSO control using green stormwater infrastructure (GSI), but that WTD could look for opportunities to provide education in Magnolia on keeping stormwater out of the sewer system.

Color Themes
Several audience members indicated a preference for the "cool" palette; one attendee preferred this option, but with a green roof. The "crisp" color theme was the least favorite option.

Building Design
Several attendees encouraged revisiting the building design to introduce "softer", more "natural" or "organic" lines and materials, and either introducing a thematic design to the scupper (for example, a Native American design) or reducing its size in relationship to the building. One attendee encouraged softening and screening the building with vegetation.

Fencing
The fence types presented did not elicit a lot of discussion. One attendee felt that chain link was the best option, and another indicated that interpretive panels installed in the fence would only provide value if they could contain substantial information or visuals. While some felt that the fencing should be eliminated, one attendee expressed a preference for it to stay in order to protect the plantings and potential wildlife use of the site from people and pets that may use the surrounding area if a future park is built.

Trees
One attendee felt that the trees shown at the east end of the site might provide an "enclosed" look, but another preferred the trees and a third said the trees provided habitat value. Nate Cormier responded to these comments indicating the trees could be pruned to provide views into the site.

Design Team Attendees

King County
Shahrzad Namini, P.E., Project Manager
Monica Van der Vieren, Community Services Lead
Hillary Schafer, Community Services
Terry L. Smith, Real Property Agent

TetraTech, Inc.
Jeffrey Lykken, Project Manager
Andrew Diehl, Architectural Designer
Nate Cormier, Landscape Architect, SvR
Leslie Rankin, Community Relations Consultant, Rankin Consulting
Martha Tuttle, Community Relations Consultant, Tuttle Consulting

King County Council
Larry Phillips, Councilmember

City of Seattle Parks Department
Donald Harris