



NORTH HENDERSON CSO REDUCTION PROJECT COMMUNITY WORKSHOP #3 SUMMARY REPORT

January 19, 2011

6:00-8:00 p.m.

Rainier Community Center

4600 38th Avenue S, Seattle

Seattle Public Utilities (SPU) hosted a community workshop on January 19, 2011 for the North Henderson Combined Sewer Overflow (CSO) reduction project. This report provides a detailed summary of workshop outcomes.

KEY POINTS

- Potential project impacts on private property were the foremost concern of a majority of workshop participants.
- Participants do not support the project alternatives that require building on or under private property.
- Participants indicated a preference for a Distributed Storage option that would construct an underground storage tank under Seward Park in Basin 44 and under Martha Washington Park in Basin 45.
- While participants indicated support for constructing CSO reduction facilities in Seward Park and Martha Washington Park, they feel it is important that the use and character of the parks is preserved or even enhanced.
- Participants do not support alternatives that require tunneling under private property.
- Participants are concerned about visual, noise, and odor impacts of the project, and want more information about what these impacts would be both during and after construction.
- While Distributed Storage is emerging as a preferred alternative based on its performance against community evaluation and cost criteria, some participants remain supportive of Complete Separation, which would bring green stormwater infrastructure to the community.
- There is a need for more information about the project decision-making process and a desire for more opportunities for future public involvement.

PROJECT OVERVIEW

Combined sewer overflows (CSOs) happen when pipes that carry both sewage and stormwater overflow into our waterways during heavy rain. Seattle Public Utilities is working to control CSOs throughout Seattle to protect property, human health and the environment and to comply with state and federal regulations.

Combined sewer overflows (CSOs) happen up to 17 times year in the North Henderson basins, on average. In 2009, the outfalls in North Henderson overflowed 27 times, pouring 8.5 million gallons of combined sewage and stormwater into Lake Washington. The overflows happened after as little as one-half inch of rain.

The North Henderson Project will reduce the amount of untreated sewage and polluted stormwater that is overflowing into Lake Washington combined sewer overflow outfalls near Seward Park (CSO Outfall #44) and Martha Washington Park (CSO Outfall #45).

EVENT OVERVIEW

On Wednesday, January 19, 2011 from 6:00 – 8:00 p.m., SPU hosted the third in a series of three community workshops to inform the early planning and site selection phase of the project. A total of 54 participants signed in, though staff estimate that approximately 65 people attended the workshop.

This three-workshop series was progressive, meaning that each workshop built upon the outcomes of the previous workshops. At Workshop #1, held on November 18, 2010, participants learned about different methods of reducing CSOs and the suitability of



**Trish Rhay, SPU Drainage and Wastewater Systems
Management Division Director**

each method in the North Henderson basins. At Workshop #2, held on December 14, 2010, participants learned about site-specific CSO reduction alternatives and identified and weighted community evaluation criteria. At this third workshop, participants applied the criteria developed at Workshop #2 to the project alternatives. The goal of the three workshops is to identify community preferences to help SPU identify a short list of alternatives to advance for further design and evaluation.

Public Notification

SPU advertised the workshop through a variety of methods including the North Henderson project website, a postcard announcement mailed to approximately 1,700 households in the North Henderson basins and to about 100 people representing organizations that have reserved facilities in Seward Park over the last three years, a posting on the City's online public outreach and engagement calendar, a meeting advertisement in the Rainier Valley Post, two messages to the North Henderson listserv, phone calls to community organizations in the project area, and by delivering meeting flyers to gathering places throughout the project area, including community centers, libraries, Synagogues and post offices.

Workshop Format

Trish Rhay, SPU Drainage and Wastewater Systems Management Division Director, gave a brief introductory presentation to explain the CSO program purpose, the need for the project in the North Henderson basins, and to provide a recap of previous workshops. She also introduced the evaluation criteria SPU staff developed



Participants discuss community evaluation criteria

based on community input provided to date. Andrew Lee, SPU CSO Reduction Program Manager, described the CSO reduction alternatives that SPU is considering and responded to participant questions.

Participants then broke into work groups to engage in the Multi-Objective Decision Analysis (MODA) exercise. MODA is a tool that SPU is using to evaluate project alternatives against community preferences. MODA uses a two part process.

- **Part 1 – Criteria Weighting**

Participants indicated the relative importance of each evaluation criteria by dividing 100 points among 15 criteria.

- **Part 2 – Scoring the Alternatives**

Participants were then asked to review scoring SPU assigned to each alternative to measure how well it meets the evaluation criteria. Each alternative was assigned a score of 1, 2, or 3 (3=best, 2=medium, 1=worst). For example, for Criterion E2, Preserves use of Seward Park and character of park design, a score of 3 (best) indicates that the alternative does not impact Seward Park; a score of 2 (medium) indicates that the alternative has minor impact to Seward Park; and a score of 1 (worst) indicates that the alternative will result in a permanent change to Seward Park. Participants were asked to make changes to the scoring if they disagreed with the pre-assigned scoring. Please note that due to time constraints, most participants did not have the opportunity to provide feedback on the scoring. As a result, the MODA results provided in this report are based on SPU’s initial score assignments. The alternatives score sheet used at the workshop is provided in Appendix C.

Community Evaluation Criteria

- A. Increase open space in the neighborhood
- B. Provides environmental benefit or limits impact to the environment
 - b1) Provide comprehensive solution to all environmental needs (i.e. stormwater treatment and CSO)
 - b2) Create other environmental benefit (beyond water quality) or limit environmental impact
 - b3) Preserve tree quantity and quality
- C. Limit short-term construction impacts
 - c1) Disproportionate short-term impacts to property owners (noise, odor, visual, access to property)
 - c2) Short-term neighborhood traffic impacts including LW Boulevard
 - c3) Short-term park impacts
- D. Preserve homes and private property
- E. Preserve park use and character of design
 - e1) Preserve use of Martha Washington Park and character of park design
 - e2) Preserve use of Seward Park and character of park design
 - e3) Preserve use of Lake Washington Blvd. and character of park design
- F. Limit impact from operation and maintenance (noise, odor, traffic, duration and frequency of maintenance and operation, scale of equipment)

The community evaluation criteria used in the MODA analysis were identified by community members at a community workshop hosted by SPU on December 14, 2010.

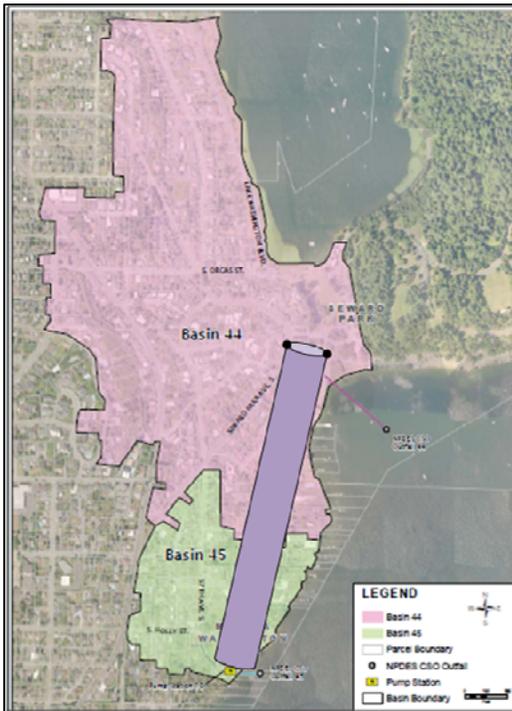
THE ALTERNATIVES

Tunnel Storage

SPU would construct a tunnel to hold 2.6 million gallons of overflow underneath private property between Seward Park and Martha Washington Park. This alternative requires a tunnel launch shaft and receiving shaft.

Considerations:

- Inherent risks associated with tunneling technologies
- Cost Range: \$45 - \$96 million



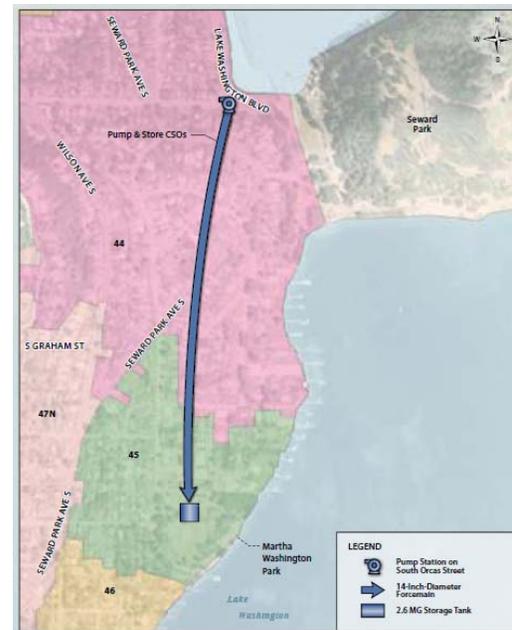
**Tunnel
Storage
Alternative**

Convey and Store

This alternative would send flows through a pipeline from Basin 44 to Basin 45 to be stored in a 2.6 million gallon underground tank near Martha Washington Park.

Considerations:

- May require new pump station
- Requires conveyance piping
- 2.6 million gallon underground storage tank could be located in park or underneath private properties
- Cost Range: \$43 - \$92 million



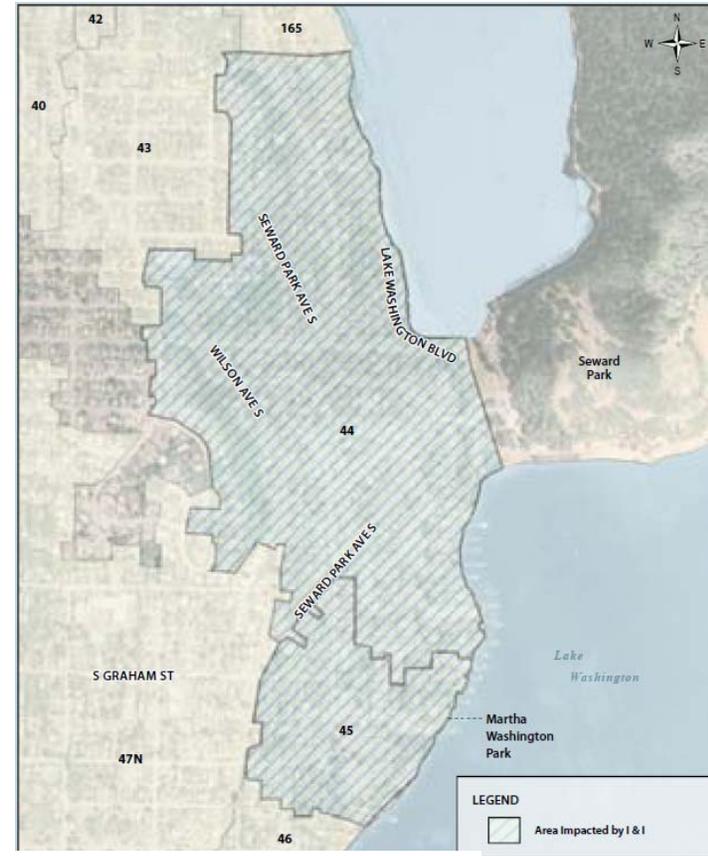
**Convey and Store Alternative
(Orcas Pump Station +
Tank in Martha Washington Park)**

Complete Separation

Complete separation prevents stormwater runoff and groundwater from entering the combined system. All properties would need to disconnect roof and foundation drains from their existing side sewer and install new separated stormwater pipelines from their properties to convey in flow to the stormwater main in the street. All properties would need to repair or replace side sewers that allow infiltration of groundwater and the city would need to repair or replace any mainlines that contribute to infiltration. The City would also need to extend stormwater mains on streets where there currently are none.

Considerations:

- Requires 75% participation of residences in Basin 45 in order to reduce volumes to the regulatory standard.
- Requires 100% participation of residences in Basin 44
- Involves significant repaving of all streets in the neighborhoods.
- Cost Range: \$57 - \$122 million



**Complete Separation Alternative
Map of Basins 44 and 45**

Distributed Storage

Requires construction of two underground storage tanks to hold approximately 2.4 million gallons of overflow in Basin 44 and 200,000 gallons in Basin 45.

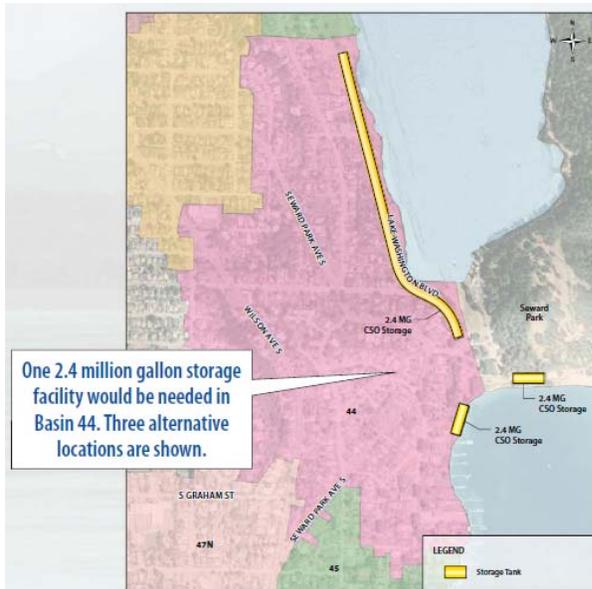
Considerations:

- Cost range: \$35-\$75 million

Basin 44

SPU is considering three alternative tank locations for the 2.4 million gallon storage tank in Basin 44:

- Tank under Seward Park
- Pipe under Lake Washington Boulevard
- Tank under private property

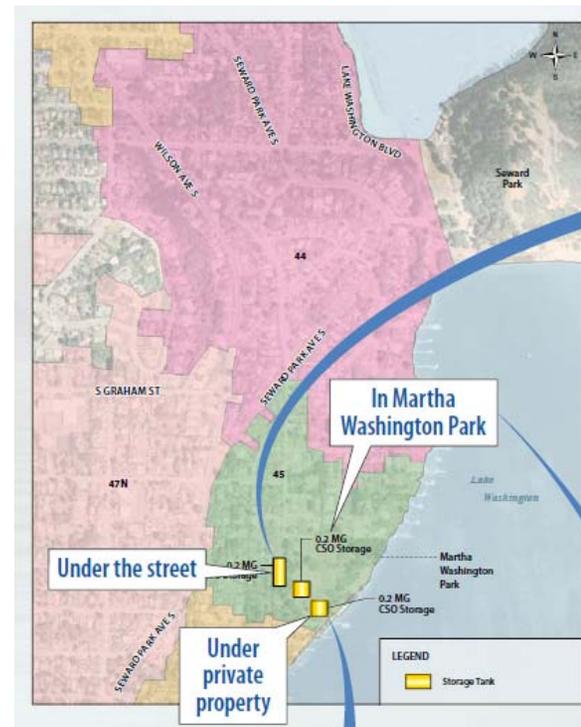


Map of Basin 44 Tank Alternatives

Basin 45

SPU is considering three alternate locations for the 200,000 gallon storage tank in Basin 45:

- Tank under Martha Washington Park
- Pipe under 57th Avenue
- Tank under private property



Map of Basin 45 Tank Alternatives

MODA RESULTS

Overall, Criterion D – Preserving homes and private property – was identified by participants as the most important criterion in relation to the other evaluation criteria under consideration, receiving 46.47% of all points assigned.

Other top criterion were B1 – Provide comprehensive solution to all environmental needs (receiving 10.71% of all points), E2 – Preserve use of Seward Park and character of park design (receiving 6.87% of all points), and C1 – Limit disproportionate short-term impacts to property owners (receiving 6.30% of all points).

Criterion A, Increasing open space in the neighborhood, received less than 1% of all points. Other lower weighted criteria included C2, Limit short-term neighborhood traffic impacts including Lake Washington Boulevard (2.70%), B3, Preserve tree quantity and quality (3.64%), and B2, Create other environmental benefit (beyond water quality) or limit environmental impact (3.44%).

Criteria Weighting Results

The following table summarizes the results of the criteria weighting exercise, showing results for all participants and by work groups.

Value Hierarchy	Average% of All	Relative Importance Weight		
		Team A	Team B	Team D
II. Maximize non-monetary value resulting from alternatives				
A. Increase open space in the neighborhood	0.43%	1.3%	0.0%	0.0%
B. Provides environmental benefit or limits impact to the environment				
b1). Provide comprehensive solution to all environmental needs (i.e. stormwater treatment and CSO)	10.71%	5.4%	7.0%	19.7%
b2). Create other environmental benefit (beyond water quality) or limit environmental impact	3.44%	5.4%	3.0%	1.9%
b3). Preserve tree quantity and quality	3.64%	5.4%	4.0%	1.5%
C. Limit short-term construction impacts				
c1). Disproportionate short-term impacts to property owners (noise, odor, visual, access to property)	6.30%	2.7%	13.0%	3.2%
c2). Short-term neighborhood traffic impacts including LW Boulevard	2.70%	2.7%	4.0%	1.4%
c3). Short-term park impacts	4.00%	2.7%	8.0%	1.3%
D. Preserve homes and private property	46.47%	53.1%	31.0%	55.3%
E. Preserve Park use and character of design				
e1). Preserve use of Martha Washington Park and character of park design	5.00%	4.6%	6.0%	4.4%
e2). Preserve use of Seward Park and character of park design	6.87%	4.6%	8.0%	8.0%
e3). Preserve use of Lake Washington Blvd. and character of park design	4.73%	4.6%	8.0%	1.6%
F. Limit impact from operation and maintenance (noise, odor, traffic, duration and frequency of maintenance and operation, scale of equipment)	6.10%	7.5%	9.0%	1.8%

Team Discussion Summary

Team A

Preserving private property (Criterion D) was the most important criterion for Team A, receiving 53.1% of Team A's points, followed by Criterion F – Limit impact from operation and maintenance (7.5%).

With regard to protection of private property, participants expressed concerns about the long-term effects of tunneling under private property. Participants also expressed concern about noise, odor, and visual impacts to nearby residences, whether the facility was constructed on park property or in the right-of-way. Participants did not want any residents displaced as a result of the project.

While private property impacts were the most important consideration to a large number of Team A participants, other team members were equally concerned about how the alternatives would affect Seward Park and Martha Washington Park. Their concerns were similar, in that participants want to understand what the CSO facility would look, smell, and sound like if constructed in the parks, and want to see that the current use and character of the parks would be preserved. One participant asked if there would be opportunity to address drainage issues with the open field at Seward Park, as mitigation for constructing an underground tank in Seward Park.

Increasing open space in the neighborhood (Criterion A) received just 1.3% of Team A's points. Participants questioned whether or

not creating more open space was necessary, citing the opinion that the City of Seattle is already struggling to maintain existing park land.

Some participants questioned the need for the project, while others felt that SPU has an obligation to preserve water quality and meet regulatory obligations.

Team B

Criterion D – Preserving private property – was the most important criterion for Team B, receiving 31% of Team B's points, followed by Criterion C1 – Disproportionate short-term impacts to property owners (13%) and Criterion F – Limit impact from operation and maintenance (9%). Preserving the use and character of Seward Park (Criterion E2) and Lake Washington Boulevard (Criterion E3) each received 8% of Team B's votes.

Team B participants indicated that Distributed Storage was their preferred alternative, with Distributed Storage under Seward Park viewed as the best option and under Martha Washington Park as the second best option. Participants urged SPU to drop the private property alternatives from consideration and questioned why private property was not mentioned as an alternative at previous meetings and briefings. Team B participants felt that tunneling was the worst option.

While Team B participants were supportive of the Distributed Storage alternatives proposed for construction under park land, they requested the opportunity review and comment on design plans as they were being developed.

Participants also expressed concern about the odors that would be associated with the all of the options under consideration.

Team D

Similar to Teams A and B, Team D identified Criterion D – Preserve private property – as the most important criterion, assigning 55.3% of its total points to it. Criterion B1 – Provide comprehensive solution to all environmental needs, was second, receiving 19.7% of Team D’s point. Preserve use of Seward Park and character of park design (Criterion E2) was third with 8.0% of all Points. The remaining criteria each received less than 5% of the available points.

Team D participants also urged SPU to drop the private property options from further consideration. Participants expressed a desire for soil studies to ensure the project is feasible, practical, and seismically sound. Team D participants expressed concern about the impact of the project on Lake Washington Boulevard and asked whether or not the project would limit access to homes.

Team D concluded that the Complete Separation option appears to be the most environmentally friendly, permanent, and cost effective of the alternatives.



Participants engage in MODA exercise.

Putting it all Together

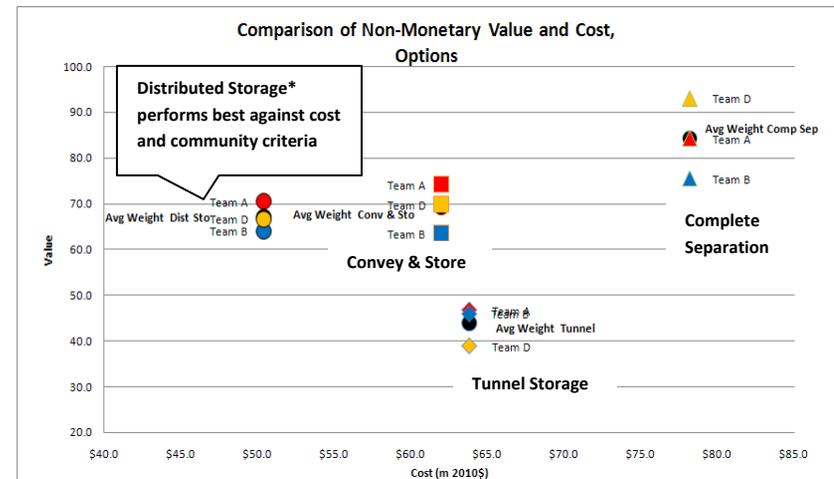
Distributed Storage Emerges as the Preferred Alternative

The MODA model concluded that Distributed Storage, with a storage tank underneath Seward Park in Basin 44 and a storage tank underneath Martha Washington Park in Basin 45, performed the best against community evaluation and cost criteria.

Complete Separation received the highest rating against community evaluation criteria, but is rated lower overall because it is the most expensive alternative, nearly double the cost of the Distributed Storage alternative.

The Convey and Store alternative performed as well as the Distributed Storage option against the community evaluation criteria, but is rated lower than Distributed Storage because it is a more expensive alternative.

The Tunnel Storage option performed the worst against the community evaluation criteria. It is also second most expensive alternative, making it perform poorly overall.



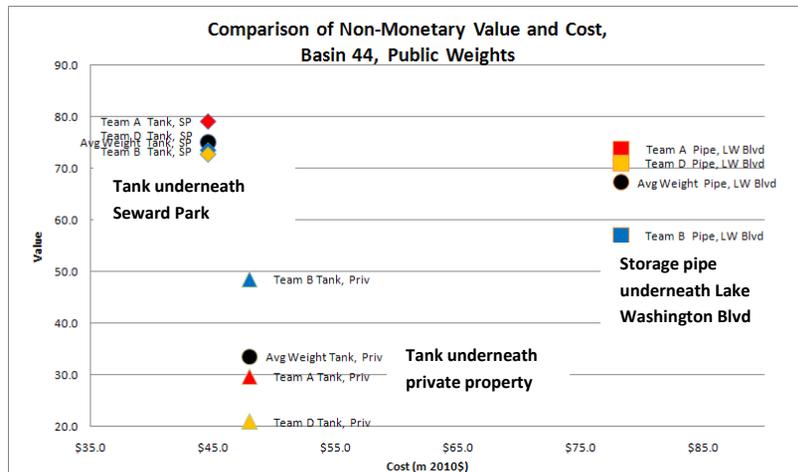
*Distributed Storage uses Seward Park and Martha Washington Park options

Basin 44 Distributed Storage Results

The MODA model concluded that constructing a storage tank underneath Seward Park is the preferred Distributed Storage option in Basin 44 as it performs the best against community evaluation and cost criteria.

The storage tank under Lake Washington Boulevard option performed well against community evaluation criteria, but is also the most expensive Distributed Storage option in Basin 44.

The storage tank under private property option is the second least expensive Distributed Storage option in Basin 44, but it performed poorly against community evaluation criteria.

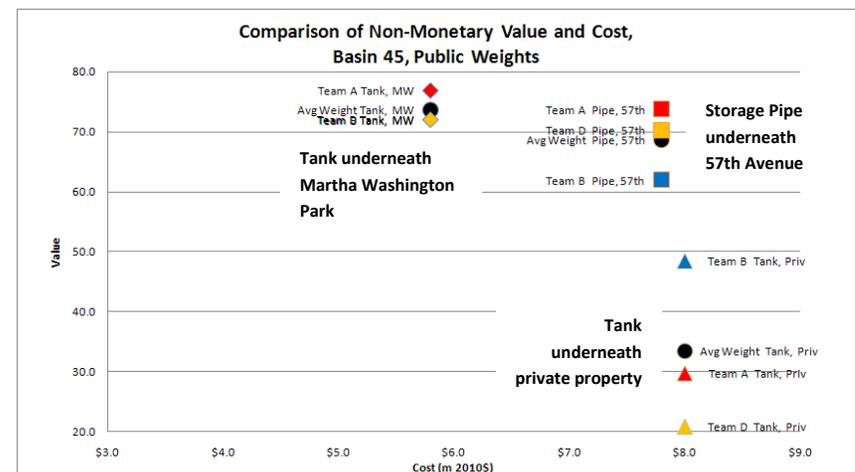


Basin 45 Distributed Storage Results

The MODA model concluded that constructing a storage tank underneath Martha Washington Park is the preferred Distributed Storage option in Basin 45 as it performs the best against community evaluation and cost criteria.

While the storage pipe underneath 57th Avenue option scored well against community evaluation criteria, it is the most costly Basin 45 Distributed Storage option.

The tank underneath private property option scored poorly against community evaluation criteria and is the most costly of the Basin 45 alternatives, making it the least desirable alternative overall in Basin 45.



Team C (Discussion Group)

Team C chose to engage in a question and answer session with the SPU team instead of completing the MODA exercise. Below is a list of questions and comments.

- Who would be responsible for the cost of replacing side sewers with the Complete Separation alternative?
 - How is this project being funded?
 - What are the consequences of not doing this project? (i.e. the consequences of failing to meet State and Federal regulations)
 - What is the cost-value analysis related to CSO discharges?
 - Many of Seattle's waters are considered impaired due to levels of pollutants.
 - Does the State or Federal government offer funding for CSO reduction projects?
 - Has the city done other CSO reduction projects?
 - What are the soil conditions in the project area?
 - What are the risks associated with tunneling? What is the history of failure?
 - How do you handle springs/underground tunneling?
 - There seems to be enough space in parks, why is SPU considering private property?
 - Park impacts seem temporary compared to taking private property
 - Need to get questionnaires out to the entire basin area
 - The people outside the Rainier community seem to not know about these projects
 - How are you getting the word out to people without access to email?
- Why isn't SPU considering other locations within Seward Park?
 - Sample size seems too small to make any decisions.
 - Why are we spending \$1 billion to clean up an already clean lake?
 - Why isn't SPU telling people you are spending this money?

Opening Presentation Questions

Below is a list of questions and comments raised during the opening presentation:

- The community is not aware that SPU is about to spend millions of dollars on this project.
- Concern about soil stability
- The meeting format is too structured
- How is creating open space a relevant criterion?
- Will tunnel options be built under private homes?
- Under what conditions would SPU take private property?
- We need to know how the project will work –will soil move? We must know this before we know how to provide comment on values.
- Orthodox Jews must live in community to ensure they can walk to Synagogue.
- More open space doesn't do any good. Parking is already scarce near Lake Washington.
- Why wasn't the possibility of taking private property mentioned at past public meetings?
- Tunneling threatens private property – cracked foundations; etc. Tunnel building has a poor track record.

- Taking private property deprives city/county of the future tax revenue.
- Not fair to put burden on few properties.
- Clarify outcome tonight's meeting? Is the purpose to select an alternative?
- Lack of information about cost which is needed in order to select an alt. at this point.
- When will the City Council select a preferred alternative?

COMMENT FORM SUMMARY

Following is a summary of the 19 comment forms SPU received as of January 28, 2011.

Do you have a preference for any of the project alternatives?

- No one indicated a preference for Tunnel Storage
- One person indicated a preference for Convey and Store
- Five people indicated a preference for Complete Separation
- Fifteen people indicated a preference for Distributed Storage
 - In Basin 44, 16 people indicated a preference for a tank underneath Seward Park
 - In Basin 45, 14 people indicated a preference for a tank underneath Martha Washington Park; two people indicated a preference for a pipe 57th Avenue.

One respondent chose Distributed Storage as second choice, with Tank under Seward Park and Tank under MWP as the preferred Distributed Storage options within the basins.

Two participants indicated that Convey and Store was their second choice.

Do you have any thoughts or comments for the project team?

- *I would vote for distributed storage if the private property option is removed.*
- *Why consider using private property when public property is available and its impact does not have to be catastrophic.*
- *Use complete separation to what extent possible. Continue to use this as an incentive for homeowners to participate. Consider the extent of confusion regarding the idea that private property would be taken even with the two tank solution. Ratings reflected this confusion.*
- *It is misleading to "score" the alternatives from 1 to 3 based on the city staff's internal opinions –they are not relevant if the meeting is seeking the public's opinion. Leave the boxes blank.*
- *Tunnel – unknown property value diminishing of private property. Lawsuits.*
- *Complete separation – exhausting to police, potential lawsuits.*
- *Disappointed in the approach to tonight's meeting. We don't need open space. We have two enormous parks already that are more than enough. I have 3 kids and we use them all the time. Don't take private property + property tax from the state forever.*
- *Tunnel storage – absolutely not*
- *Our first preferred alternative is to do nothing.*
- *What you saw at the 3rd meeting was the most important issue for people. "Don't tread on me." I was at the 1st meeting. You've done a good job of presenting. If you want a good turnout at a first meeting, put in the announcement that the project "could affect private property." Then they won't sabotage the meetings down the road when the rumors get out of hand. People are scared of losing \$\$ and property and they don't trust*

government. If we think of 200 years ahead we would be glad we did a "complete separation system."

- *The cost does not justify the benefits. I don't feel anything needs to be done.*