Appendix A SEPA Notification

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Determination of Significance and Request for comments on Scope of EIS (DS)

City of Seattle
Seattle Public Utilities

Determination of Significance and Request for Comments on Scope of EIS
Henderson Basin 44 CSO Reduction Project

Description of Proposal: The City of Seattle is required to reduce the number of untreated overflows from its combined sewer system to meet State and Federal regulations. In a combined sewer system, wastewater (from homes and businesses) and stormwater (from rooftops and streets) flow into a single pipeline. During heavy rains, wastewater and stormwater volumes can exceed the system's capacity, causing a combined sewer overflow (CSO) into the nearest waterway. CSOs are a public health concern because they carry pollutants—primarily untreated sewage and stormwater runoff—into the receiving water bodies.

Reducing CSOs from Henderson Basin 44 is one of the highest priorities for Seattle Public Utilities (SPU), the department that operates and maintains the City's sewer system. In 2010, there were 16 overflow events from Henderson Basin 44, discharging a total of approximately 9.9 million gallons of sewage and stormwater into Lake Washington, just south of Seward Park. SPU's objectives are to reduce the volume and frequency of Basin 44 CSOs and to meet State law and regulations that limit CSOs to a long-term average of no more than one untreated discharge per outfall per year.

Three alternatives have been identified and will be evaluated in an environmental impact statement (EIS):

Alternative 1 – Storage under Seward Park Parking Lot. SPU would construct a 2.4-million-gallon tank under a parking lot on the south side of Seward Park and associated pipelines that would store and convey excess combined sewer flows until the flows could be gradually released back into the sewer system as system capacity becomes available. When construction is complete, the parking lot would be restored to its current size and function.

Alternative 2 – Storage under Seward Park Tennis Courts. SPU would construct a 2.4-million-gallon tank under the Seward Park tennis courts and adjacent parking lot and associated pipelines that would store and convey excess combined sewer flows until the flows could be gradually released back into the sewer system as system capacity becomes available. When construction is complete, the parking lot and tennis courts would be restored to their current size and function.

No Action Alternative – The project would not be built.

Proponent and Lead Agency: Seattle Public Utilities is the project proponent and is serving as the SEPA lead agency.

Henderson Basin 44 DS 5/19/2011

Location of Proposal. The Henderson Basin 44 area extends along the west shoreline of Lake Washington adjacent to Andrews Bay and Seward Park. Basin 44's boundaries are defined by the geographic area that contributes CSOs from Basin 44 to Lake Washington. The east boundary is Lake Washington. Basin 44's other boundaries vary, but are approximately 52nd Avenue South on the west side, approximately South Hudson Street on the north side, and approximately South Morgan Street on the south side. The proposed project would be located at one of two sites in Seward Park, which is located within the boundaries of Basin 44.

EIS Will Be Prepared. SPU, as the lead agency, has determined that this proposal may have a significant adverse impact on the environment. Although it may be shown that the impacts would be temporary or could be mitigated, SPU has voluntarily decided to prepare an environmental impact statement (EIS).

SPU has identified the following areas for discussion in the EIS:

- Recreation
  - Park use and access
  - Parking
  - Special events
  - Safety
- Transportation
  - Construction traffic
  - Emergency services
  - Community cohesion/disruption

In addition, SPU has identified the following environmental elements for brief discussion or summary in the EIS: Earth, Air, Water, Plants and Animals, Energy, Environmental Health, Land and Shoreline Use, Cultural Resources, and Other Public Services and Utilities.

Scoping. SPU invites agencies, affected tribes, and members of the public to comment on the scope of the EIS. You may comment on alternatives, probable significant adverse impacts, mitigation measures, and licenses or other approvals that may be required. The methods and deadline for submitting comments on the scope of the EIS are as follows:

Respond via e-mail or in writing postmarked by June 16, 2011, to:

Seattle Public Utilities
Attention: Betty Meyer, SEPA Responsible Official
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018
betty.meyer@seattle.gov

Respond in person at the public scoping meeting to be held at the following time and location:

June 7, 2011
6:00 p.m. – 8:00 p.m.

Seward Park Environmental & Audubon Center
5902 Lake Washington Boulevard South
Seattle, WA 98118

Project-related information can be reviewed on SPU's website:
http://www.seattle.gov/CSO. Click on "Henderson Basin" under Large Storage Projects.

SEPA Responsible Official:

Betty Meyer
Seattle Public Utilities
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018
(206) 386-1999
betty.meyer@seattle.gov

Signature: Betty Meyer Issue Date: May 26, 2011
Betty Meyer

For interpretation services please call **206-733-9396**
Para servicios de interpretación por favor llame al **206-733-9396**
Về dịch vụ phiên dịch xin gọi 206-733-9396

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DS Distribution List

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DS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	Allyson Brooks, PhD		WA State Dept of Archaeology and Historic Preservation	P.O. Box 48343	Olympia	WA	98504-8343	1 STATE	7/27/200
✓	Bernard Jones	NW Regional Office	WA State Dept of Ecology	3190-160th Ave SE	Bellevue	WA	98008-5452	1 STATE	6/25/200
✓	SEPA UNIT	NW Regional Office	WA State Dept of Ecology	3190 160th Ave SE	Bellevue	WA	98008-5452	1 STATE	1/28/201
✓		Environmental Review Section	WA State Dept of Ecology	P.O. Box 47703	Olympia	WA	98504-7703	1 STATE	6/25/200
✓		SEPA/GMA Coordinator	WA State Dept of Ecology	P.O. Box 47600	Olympia	WA	98504-7600	1 STATE	7/27/200
✓	Ginger Holser	Area Habitat Biologist-SEPA Coordinator	WA State Dept of Fish Svs, Region 4	16018 Mill Creek Blvd.	Mill Creek	WA	98012-1296	1 STATE	6/25/200
✓	SEPA Coordinator	Habitat Management Division	WA State Dept of Fish.	P.O. Box 43155	Olympia	WA	98504	1 STATE	6/25/200
✓	SEPA Review	South Puget Sound Region	WA State Dept of Natural Res.	950 Farman Ave N	Enumclaw	WA	98022	1 STATE	6/25/200
✓		SEPA Center	WA State Dept of Natural Res.	P.O. Box 47015	Olympia	WA	98504-7015	1 STATE	6/25/200
✓		Environmental Quality/Compliance	WA State Dept of Natural Res.	1111 Washington St SE MS 47037	Olympia	WA	98504-7037	1 STATE	3/3/2010
✓		SEPA Review	WA State Dept of Public Health	101 Israel Road SE	Tumwater	WA	98501	1 STATE	6/25/200
✓	Kelly Cooper	Environmental Health Div.	WA State Dept of Health	P.O. Box 47820	Olympia	WA	98504-7820	1 STATE	11/10/201
✓		Environmental Affairs Office	WA State Dept of Transportation	P.O. Box 47331	Olympia	WA	98504	1 STATE	6/25/2009
✓		Planning Division	WA State Dept of Transportation	P.O. Box 330310	Seattle	WA	98133-9710	1 STATE	6/25/2009
✓	Ramin Pazooki	WSDOT NW Region	15700 Dayton Ave N		Seattle	WA	98133	1 STATE	5/20/2011
✓		WA Division Area Engineer	Federal Highway Administration	711 Capitol Way, Suite 501	Olympia	WA	98501-0943	2 FEDERAL	6/25/2009
✓		Transportation Program Specialist	Federal Transit Administration	915 2nd Ave. Suite 3142	Seattle	WA	98174-1002	2 FEDERAL	6/25/2009
✓		SEPA Review	National Marine Fisheries Services	510 Desmond Drive SE	Lacey	WA	98503	2 FEDERAL	6/25/2009
✓			US Ad Council Historic Preservation	Old Post Office Bldg - 1100 Pennsylvania Ave NW	Washington	DC	20004	2 FEDERAL	6/25/2009
✓		Regulatory	US Army Corps of Engineers	P.O. Box C-3755	Seattle	WA	98124-3755	2 FEDERAL	6/25/2009
✓	Alisa Ralph	Seattle District	US Army Corps of Engineers	4735 E. Marginal Way S.	Seattle	WA	98134-2384	2 FEDERAL	6/25/2009
✓	Laurence Schafer	Wildlife Services Director	US Dept. of Agriculture	720 O'Leary Street NW	Olympia	WA	98502	2 FEDERAL	6/25/2009

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Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	NEPA Review Unit	US Environmental Protection Agency	1200 Sixth Avenue	ETPA 088	Seattle	WA	98101	2 FEDERAL	7/13/2010
✓		Western WA Fish & Wildlife Office	US Fish & Wildlife Service	510 Desmond Dr. SE Suite 102	Lacey	WA	98503-1263	2 FEDERAL	6/25/2009
✓		EIS Reviews	US Fish & Wildlife Service	16018 Mill Creek Blvd.	Mill Creek	WA	98012	2 FEDERAL	6/25/2009
✓	Jim Muck	USFWS & NOAA	US Fish & Wildlife Service	7600 Sandpoint Way	Seattle	W	98115	2 FEDERAL	6/25/2009
✓			Cascade Water Alliance	11400 SE 8th St, Suite 440	Bellevue	WA	98004	3 REGIONAL	6/25/2009
✓		Environmental Management	Port of Seattle	P.O. Box 1209	Seattle	WA	98111	3 REGIONAL	6/25/2009
✓		SEPA Review	Puget Sound Clean Air Agency	1904 Third Ave Suite 105	Seattle	WA	98101-3417	3 REGIONAL	7/27/2009
✓	Environmental Planning-OAP	Wastewater Treatment Div.	KC Dept of Natural Resources	201 S Jackson St - MS KCS NR 0505	Seattle	WA	98104	4 KING CO	6/25/2009
✓		Parks Environmental Review	KC Dept of Natural Resources	201 S. Jackson St	Seattle	WA	98104-3856	4 KING CO	6/25/2009
✓		Land Use Services Division	KC Dept of Natural Resources	900 Oaksdale Ave SW	Renton	WA	98057-5212	4 KING CO	7/27/2009
✓			KC Dept of Public Health	401 5th Avenue, Suite 1300	Seattle	WA	98104	4 KING CO	6/25/2009
✓		Drinking Water Program	KC Dept of Public Health	900 Oaksdale SW, Suite 100	Renton	WA	98057	4 KING CO	6/25/2009
✓	Rosemary Byrne		CNK-PH-1100	401 5th Avenue, 11th Floor	Seattle	WA	98104-1818	4 KING CO	1/26/2011
✓		Roads & Engineering	KC Dept of Transportation	201 S Jackson St - MS KCS 0313	Seattle	WA	98104	4 KING CO	6/25/2009
✓	Gary Kriedt	Environmental Planning	KC Dept of Transportation	201 S. Jackson St - MS KSC TR 0431	Seattle	WA	98104-3856	4 KING CO	6/25/2009
✓	Charlie Sundberg	Historic Preservation Program	KC Office of Strategic Planning	400 Yesler Way Suite 510	Seattle	WA	98104	4 KING CO	1/28/2010
✓			KC Regional Water Quality Committee	201 S Jackson St	Seattle	WA	98104	4 KING CO	6/25/2009
✓	John Rasmussen	Cultural Resources	Duwamish Tribe	4705 W. Marginal Way SW	Seattle	WA	98106	5 TRIBES	5/18/2010
✓	The Honorable Cecile Hansen	Chair	Duwamish Tribe	4705 W. Marginal Way SW	Seattle	WA	98106	5 TRIBES	5/18/2010
✓	Melissa Calvert	Wildlife & Cultural Resources Div.	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763	5 TRIBES	7/27/2009
✓	Environmental Reviewer	Fisheries Division	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763	5 TRIBES	2/4/2010
✓	Laura Murphy	Fisheries Division	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763	5 TRIBES	2/4/2010

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Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	The Honorable John Daniels Jr.	Chair, Muckelshoot Tribal Council	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092	5 TRIBES	4/1/2009
✓	The Honorable Mike Evans	Chair, Snohomish Tribe	11014 19th Ave SE	Suite #8 PMB #101	Edmonds	WA	98208	5 TRIBES	12/16/201
✓		SEPA Review	Snoqualmie Tribe	P.O. Box 969	Snoqualmie	WA	98063	5 TRIBES	6/25/200
✓	The Honorable Bill Sweet	Chair, Snoqualmie Tribe of Indians	Snoqualmie Tribe	P.O. Box 280	Carnation	WA	98014	5 TRIBES	4/1/2009
✓	Earngy Sandstrom	Chair	Snoqualmoo Tribe	2613 Pacific St	Bellingham	WA	98226	5 TRIBES	4/1/2009
✓		SEPA Review	Suquamish Tribe	18490 Suquamish Way	Suquamish	WA	98392	5 TRIBES	6/25/200
✓			Suquamish Tribe	P.O. Box 498	Suquamish	WA	98392	5 TRIBES	6/25/200
✓	The Honorable Leonard Forsman	Chair, Suquamish Trible Council	Suquamish Tribe	P.O. Box 498	Suquamish	WA	98392	5 TRIBES	4/1/2009
✓		SEPA Review	Tulalip Tribes of WA	6700 Totem Beach Road	Tulalip	WA	98271-9714	5 TRIBES	5/22/201
✓	The Honorable Stanley G. Jones Sr.	Chair, Tulalip Board of Director	Tulalip Tribes of WA	6700 Totem Beach Road	Tulalip	WA	98271-9714	5 TRIBES	5/22/201
✓			United Indians of All Tribes	P.O. Box 99100	Seattle	WA	98199	5 TRIBES	6/25/200
✓	John Sheets	General Reference Services	Seattle Public Library	1000 4th Avenue	Seattle	WA	98104-1109	6 LIBRARY	6/30/201
✓		Governmental Publications Section	City of Seattle/Seattle Public Library	1000 4th Avenue	Seattle	WA	98104-1109	6 LIBRARY	6/25/200
✓		Governmental Publications	UW Library	P.O. Box 353900	Seattle	WA	98195-2900	6 LIBRARY	6/25/200
✓	Wei Cai	Beacon Hill Branch	City of Seattle/Seattle Public Library	2821 Beacon Ave S	Seattle	WA	98144-5813	6 LIBRARY	6/25/200
✓	Steve Del Vecchio	Columbia Branch	City of Seattle/Seattle Public Library	4721 Rainier Ave S	Seattle	WA	98118-1657	6 LIBRARY	6/25/200
✓	Valerie Garrett-Turner	Douglass-Truth Branch	City of Seattle/Seattle Public Library	2300 E Yesler Way	Seattle	WA	98122-6061	6 LIBRARY	6/25/200
✓	Dave Valencia	Madrona-Sally Goodmark Branch	City of Seattle/Seattle Public Library	1134 33rd Avenue	Seattle	WA	98122-5120	6 LIBRARY	6/25/200
✓	Daria Cal	New Holly Branch	City of Seattle/Seattle Public Library	7058 32nd Ave S	Seattle	WA	98118-6401	6 LIBRARY	6/25/200
✓	Daria Cal	Rainier Beach Branch	City of Seattle/Seattle Public Library	9125 Rainier Ave S	Seattle	WA	98118-5026	6 LIBRARY	6/25/200
✓		Andrea Faste	Groundswell Northwest	P.O. Box 17163	Seattle	WA	98127	7 COMMUNITY	9/16/200
✓			Central District Council	2301 S. Jackson St #208	Seattle	WA	98144	7 COMMUNITY	6/30/201
✓	Rob Martin		Columbia City Business Assoc	3827A So Edmunds St.	Seattle	WA	98118	7 COMMUNITY	6/25/200

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Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	Brooks R. Kolb, President	Friends of Seattle's Olmstead Parks	P.O. Box 9884		Seattle	WA	98109-0884	7 COMMUNITY	5/20/2011
✓	Bill Farmer	Friends of Athletic Fields	P.O. Box 27575		Seattle	WA	98125	7 COMMUNITY	5/20/2011
✓	Thatcher Bailey	Seattle Parks Foundation	105 S. Main St. #235		Seattle	WA	98104	7 COMMUNITY	5/20/2011
✓	Rob Matson	Coordinator	Ballard Dist Council	5604 22nd Ave NW	Seattle	WA	98107	8 NEIGHBOR-HOOD	2/4/2010
✓	Jose Cervantes	Coordinator	Capitol Hill Dist Council	425 Harvard Avenue E	Seattle	WA	98102	8 NEIGHBOR-HOOD	2/4/2010
✓	Ted Divina	NDC Supervisor	Central Dist Council	2301 S. Jackson St #208	Seattle	WA	98144	8 NEIGHBOR-HOOD	6/30/2010
✓	Ron Angeles	Coordinator	Delridge Dist Council	5405 Delridge Way SW	Seattle	WA	98106	8 NEIGHBOR-HOOD	2/4/2010
✓	~~Sara Wysocki~~	~~Coordinator~~	Downtown Dist Council	201 Yesler Way Suite B	Seattle	WA	98104	8 NEIGHBOR-HOOD	2/4/2010
✓	Tim Durkan	Coordinator	Fremont Dist Council	908 N. 34th	Seattle	WA	98103-8815	8 NEIGHBOR-HOOD	2/4/2010
✓	Steve Louie, NDC	Grt Duwamish/	Beacon Hill Dist Council	2821 Beacon Ave S	Seattle	WA	98144	8 NEIGHBOR-HOOD	2/4/2010
✓	Beth Pflug	Coordinator	Greenwood Dist Council	8515 Greenwood Ave N	Seattle	WA	98103-3613	8 NEIGHBOR-HOOD	2/4/2010
✓	Ed Pottharst	Coordinator	Lake City Dist Council	12525 28th Ave NE	Seattle	WA	98125-4403	8 NEIGHBOR-HOOD	2/4/2010
✓	Christa Dumpys	NDC Supervisor	Queen Anne/Magnolia Dist Council	160 Roy St. Ste 100	Seattle	WA	98109	8 NEIGHBOR-HOOD	2/4/2010
✓	Yun Pitre	Coordinator	Southeast Dist Council	3815 S. Othello St Ste 105	Seattle	WA	98118	8 NEIGHBOR-HOOD	2/4/2010
✓	Karen Ko	NDC	University Dist Council	4534 University Way NE	Seattle	WA	98105-4511	8 NEIGHBOR-HOOD	2/4/2010
✓	Stan Lock	NDC	W. Seattle Dist Council	4205 SW Alaska St	Seattle	WA	98116-4413	8 NEIGHBOR-HOOD	2/4/2010
✓		Pacific Publishing	South Seattle Beacon		Seattle			9 PUBLICATION	3/5/2009
✓	**Betty Galarosa**	**SEPA PIC**	**City of Seattle**	**Dept of Planning & Development**	**SMT-18-62**			**11 CITY OF SEATTLE**	**11/2/2010**
✓	Mark Ellerbrook		City of Seattle	Office of Housing	SMT-57-00			11 CITY OF SEATTLE	7/21/2010
✓	Mark Jaeger		City of Seattle	Seattle Public Utilities	SMT-49-00			11 CITY OF SEATTLE	1/28/2010
✓	Paul Fleming		City of Seattle	Seattle Public Utilities	SMT-49-00			11 CITY OF SEATTLE	2/17/2011

DS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	Bill Davis		City of Seattle	City Light	SMT 00-28-22			11 CITY OF SEATTLE	7/27/200
✓	Cheryl Eastberg		City of Seattle	Dept of Parks and Recreation	PK-01-01			11 CITY OF SEATTLE	6/25/200
✓	David Graves	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01			11 CITY OF SEATTLE	1/28/201
✓	Terry Dunning	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01			11 CITY OF SEATTLE	1/28/201
✓	Beverly Barnett		City of Seattle	Dept of Transportation	SMT 00-39-00			11 CITY OF SEATTLE	6/25/200
✓	Theresa C. Smith, PE	Street Use Division	City of Seattle	Dept of Transportation	SMT 00-30-00			11 CITY OF SEATTLE	3/2/2011
✓	Ron Borowski		City of Seattle	Dept of Transportation	SMT-00-39-00			11 CITY OF SEATTLE	6/25/200
✓	Melanie Coerver	Environmental Analyst	City of Seattle	Dept of Transportation	SMT-00-39-00			11 CITY OF SEATTLE	1/28/201
✓		Environmental Review Office	City of Seattle	Dept of Transportation	SMT-00-39-00			11 CITY OF SEATTLE	6/25/200
✓	Beth Chave	Landmarks Preservation Board	City of Seattle	DON/HISTORICAL PROG.	SMT 00-17-00			11 CITY OF SEATTLE	6/25/200
✓	Nikki Douce		City of Seattle	Fire Department	FD-44-04			11 CITY OF SEATTLE	6/25/200
✓	Bill Schrier		City of Seattle	Information Technology	SMT 00-27-00			11 CITY OF SEATTLE	6/25/200
✓		City Council	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	6/25/200
✓	The Honorable Sally Bagshaw	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Tim Burgess	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Sally Clark	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Richard Conlin	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Jean Godden	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Bruce Harrell	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Nick Licata	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Mike O'Brien	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010

DS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

	Agency or Name	Name or Address1	Name or Address2	Address3	City	State	Zip	Code	Date
✓	The Honorable Tom Rasmussen	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00			11 CITY OF SEATTLE	2/4/2010
✓	The Honorable Mike McGinn	Mayor	City of Seattle	Mayor's Office	CH-00-07-01			11 CITY OF SEATTLE	2/4/2010
✓	Kathryn L. Gerla	Senior Assistant City Attorney	City of Seattle	Office of the City Attorney	CH 00-04-01			11 CITY OF SEATTLE	6/30/201

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DS Additional SEPA Notification

1. The DS was posted on the Seattle Department of Planning and Development's Land Use Bulletin on May 26, 2011.
2. The DS was posted on the Washington State Department of Ecology's SEPA Register on May 26, 2011.
3. The DS was published in the Daily Journal of Commerce on May 26, 2011.
4. The DS was published in the South Seattle Beacon on June 1, 2011.
5. The DS was mailed to agencies with jurisdiction and to organizations and individuals who have provided written request for such notices (see DS Distribution List in Appendix C).
6. The DS was available for public review at SPU's main office on the 49th floor of the Seattle Municipal Tower.

DS Additional Outreach

1. The DS was posted on SPU's North Henderson project website.
2. The DS was mailed to additional organizations SPU assumed might have an interest in the project (see DS Distribution List in Appendix C).
3. Postcards were mailed to every residence in Basins 44 and 45 (see map in Appendix C, approximately 1,700 total), notifying residents of the EIS scoping process; the date, time, and location of the scoping meeting; and the address and deadline for submitting scoping comments.
4. One of the postcards also was posted on the project sign at Seward Park.
5. An email announcing the public scoping meeting was sent to people who had previously requested to be included on the North Henderson listserv to receive updates on the North Henderson CSO reduction projects.
6. A notice was posted on the City's online public outreach and engagement calendar.
7. Advanced meeting notice was provided in the Rainier Valley Post.
8. Meeting flyers were delivered to community centers, public libraries, synagogues, and post offices.
9. A community guide to the proposed project was developed for the scoping meeting to help explain the proposed project and the three alternatives to the public.
10. A comment form was developed for the scoping meeting, to help encourage meeting attendees to provide input and feedback.
11. Following the scoping meeting, the community guide and the comment form were posted on SPU's North Henderson project website.
12. Following the scoping meeting, a scoping summary report was prepared and posted on the SPU's North Henderson project website.

DEIS Notice of Availability

City of Seattle
Seattle Public Utilities

Henderson Basin 44 Combined Sewer Overflow (CSO) Reduction Project
Notice of Availability of Draft Environmental Impact Statement (Draft EIS)

Proponent
City of Seattle; Seattle Public Utilities (SPU)

Location
The proposed project would be located in Basin 44 in southeast Seattle. Basin 44 is the geographic area that contributes CSOs to Lake Washington *via* CSO Outfall 44 near Seward Park. The eastern boundary of Basin 44 is Lake Washington. Other Basin 44 boundaries are generally 52nd Avenue South to the west, South Hudson Street to the north, and South Morgan Street to the south. The 375-acre basin includes residential neighborhoods and Seward Park.

Most of the proposed project components would be located in Seward Park with some minor components at a site approximately one mile north of Seward Park near the intersection of Lake Washington Boulevard South and 53rd Avenue South.

Purpose
The proposed project would construct a 2.4-million-gallon underground storage tank to store excess sewage and stormwater flows from Basin 44 during heavy rain events. The underground storage tank would help prevent excess flows from discharging into Lake Washington. The proposed project also includes additional infrastructure, shoreline, and landscape improvements. Reducing the amount or frequency of stormwater and sewage flows discharging into the lake would help protect public health, improve water quality in Lake Washington, and comply with regulations that require the number of CSO events in Basin 44 be reduced to a long-term average of no more than one untreated discharge per year per outfall.

Proposed Alternatives
SPU identified the following alternatives for evaluation in this Draft EIS:

- Alternative 1 Storage under Seward Park Tennis Courts (the preferred alternative)
- Alternative 2 Storage under Seward Park Parking Lot
- No Action Alternative

Ray Hoffman, Director
Seattle Public Utilities
700 5th Avenue, Suite 4900
PO Box 34018
Seattle, WA 98124-4018

Tel (206) 684-5851
Fax (206) 684-4631
TDD (206) 233-7241
ray.hoffman@seattle.gov

http://www.seattle.gov/util

Alternatives 1 and 2: Alternatives 1 and 2 consist of the four main components listed below. Project components for the two alternatives would be similar; the main difference would be the location of the CSO storage tank and shoreline treatment. The project components for Alternatives 1 and 2 include the following:

- An underground, 2.4-million-gallon CSO storage tank and associated infrastructure
- Shoreline treatment
- Replacement of an existing CSO outfall pipe
- A transfer of Urban Park and Recreation Recovery (UPARR) grant protections and upland landscaping enhancements

The first three elements would be located in Seward Park. The fourth element would be located in a portion of Lake Washington Boulevard Park approximately one mile north of Seward Park near the intersection of Lake Washington Boulevard South and 53rd Avenue South.

No Action Alternative: Under the No Action Alternative, the CSO storage tank and associated infrastructure would not be built. The shoreline treatment next to the CSO storage tank and the transfer of UPARR grant protections would also not be implemented. The existing CSO outfall would eventually be replaced because it is in poor condition and was previously recommended for replacement. The outfall replacement is expected to occur between 2015 and 2020, under the SPU Outfall Rehabilitation Program.

Implementation Date
A decision about the proposed action would not be made until at least seven days after issuance of the Final EIS. SPU anticipates that the Final EIS would be issued in December 2012.

Final Action
The final action would be building the CSO storage tank and associated infrastructure, constructing the shoreline treatment, replacing the existing CSO outfall pipe, transferring the UPARR grant protections, and implementing the upland landscaping enhancements in the UPARR replacement area.

Date of Final Action
Construction is anticipated to occur from mid-2015 to the end of 2017.

Project Proponent and Lead Agency
City of Seattle
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018

Project Information / Background Data Contact Person
Kathy Robertson, PE, SPU Project Manager
kathy.robertson@seattle.gov
Phone: (206) 733-9396

Date of Issuance of this Draft EIS
September 17, 2012

Submit EIS Comments to
Betty Meyer, SEPA Responsible Official
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018
betty.meyer@seattle.gov

Due Date of Draft EIS Comments
Comments on the Draft EIS are invited and must be postmarked or e-mailed on or before midnight on October 17, 2012. Comments must be addressed to the SEPA Responsible Official noted above.

Public Hearing
The scheduled date for a public hearing regarding this Draft EIS is October 8, 2012, at the Seward Park Environmental & Audubon Center, 5902 Lake Washington Blvd South, Seattle, WA 98118, starting at 6:00 p.m. The purpose of the public hearing is to provide an opportunity for agencies, organizations, and individuals to review information concerning the Draft EIS and to present oral or written comments on the Draft EIS.

Availability of the Draft EIS and Background Materials
The Draft EIS is available for viewing at the following locations:

- Seattle Public Utilities, Director's Office Main Reception Area, Seattle Municipal Tower, Suite 4900, 700 Fifth Avenue, Seattle, Washington
- Seattle Central Library, General Reference Section
- Online at www.seattle.gov/cso/northhenderson

The Draft EIS can be downloaded for free from the www.seattle.gov/cso/northhenderson website or purchased on CD for $10 or in paper form for $170. Purchased copies will be mailed upon receipt of a check made payable to Seattle Public Utilities.

Additional background materials can be viewed on the www.seattle.gov/cso/northhenderson website. They may also be viewed in paper form by arranging a time with Kathy Robertson, PE, SPU Project Manager, at kathy.robertson@seattle.gov or (206) 733-9396.

Signature: Betty Meyer
Betty Meyer

Issue Date: September 17, 2012

For interpretation services please call 206-733-9396
Para servicios de interpretación por favor llame al 206-733-9396
Para sa serbisyo ng tagapagpaliwanag, tumawag sa 206-733-9396
Về dịch vụ phiên dịch xin gọi 206-733-9396

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DEIS Distribution List

(Begins on next page)

DEIS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST

Henderson Basin 44 Combined Sewer Overflow (CSO)

#	Category	DEIS Notification Type				Agency or Name	Name or Address 1	Name or Address 2	Address 3	City	State	Zip
		Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD							
1	Tribes		✓			The Honorable Cecile Hansen	Chair	Duwamish Tribe	4705 W. Marginal Way SW	Seattle	WA	98106
2	Tribes				✓	Karen Walter	Fisheries Division Habitat Program	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763
3	Tribes			✓		Laura Murphy	Tribe Preservation Program	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763
4	Tribes			✓		The Honorable Virginia Cross	Chair, Muckelshoot Tribal Council	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092
5	Tribes		✓			The Honorable Mike Evans	Chair	Snohomish Tribe	11014 19th Ave SE; Suite #8 PMB #101	Edmonds	WA	98208
6	Tribes		✓				SEPA Review	Snoqualmie Tribe	P.O. Box 969	Snoqualmie	WA	98063
7	Tribes		✓			The Honorable Bill Sweet	Chair, Snoqualmie Tribe of Indians	Snoqualmie Tribe	P.O. Box 280	Carnation	WA	98014
8	Tribes		✓			Earngy Sandstrom	Chair	Snoqualmoo Tribe	2613 Pacific St	Bellingham	WA	98226
9	Tribes		✓				SEPA Review	Suquamish Tribe	18490 Suquamish Way	Suquamish	WA	98392
10	Tribes		✓					Suquamish Tribe	P.O. Box 498	Suquamish	WA	98392
11	Tribes		✓			The Honorable Leonard Forsman	Chair, Suquamish Trible Council	Suquamish Tribe	P.O. Box 498	Suquamish	WA	98392
12	Tribes		✓				SEPA Review	Tulalip Tribes of WA	6406 Marine Drive	Tulalip	WA	98271
13	Tribes		✓			The Honorable Melvin Sheldon	Chair, Tulalip Board of Director	Tulalip Tribes of WA	6406 Marine Drive	Tulalip	WA	98271
14	Tribes		✓					United Indians of All Tribes	P.O. Box 99100	Seattle	WA	98199
15	Federal	✓					WA Division Area Engineer	Federal Highway Administration	711 Capitol Way, Suite 501	Olympia	WA	98501-0943
16	Federal	✓					Transportation Program Specialist	Federal Transit Administration	915 2nd Avenue, Suite 3142	Seattle	WA	98174-1002
17	Federal			✓			SEPA Review	National Marine Fisheries Services	510 Desmond Drive SE	Lacey	WA	98503
18	Federal				✓	Heather Ramsay	Community Assistance Programs	National Park Service	909 First Ave	Seattle	WA	98104-1060
19	Federal		✓					US Ad Council Historic Preservation	Old Post Office Bldg - 1100 Pennsylvania Ave NW	Washington	DC	20004
20	Federal			✓			Regulatory	US Army Corps of Engineers	P.O. Box C-3755	Seattle	WA	98124-3755
21	Federal			✓		Alisa Ralph	Seattle District	US Army Corps of Engineers	4735 E. Marginal Way S.	Seattle	WA	98134-2384
22	Federal		✓			NEPA Review Unit		US Environmental Protection Agency	1200 Sixth Avenue, ETPA 088	Seattle	WA	98101
23	Federal			✓			Washington Fish & Wildlife Office	US Fish & Wildlife Service	510 Desmond Dr. SE Suite 102	Lacey	WA	98503-1263
24	Federal		✓			Jim Muck	USFWS & NOAA	US Fish & Wildlife Service	7600 Sandpoint Way	Seattle	W	98115
25	State			✓		Allyson Brooks, PhD		WA State Dept of Archaeology and Historic Preservation	P.O. Box 48343	Olympia	WA	98504-8343
26	State			✓		Larry Fisher	Area Habitat Biologist	WA State Dept of Fish and Wildlife	1775 12th Ave NW Suite 201	Issaquah	WA	98027
27	State			✓		SEPA Coordinator	Habitat Management Division	WA State Dept of Fish and Wildlife	P.O. Box 43155	Olympia	WA	98504

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29	State		✓			Kelly Cooper	Environmental Health Div.	WA State Dept of Health	P.O. Box 47820	Olympia	WA	98504-7820
30	State		✓			SEPA Review	South Puget Sound Region	WA State Dept of Natural Resources	950 Farman Ave N	Enumclaw	WA	98022
31	State		✓				SEPA Center	WA State Dept of Natural Resources	P.O. Box 47015	Olympia	WA	98504-7015
32	State	✓					Planning Division	WA State Dept of Transportation	P.O. Box 330310	Seattle	WA	98133-9710
33	State	✓				Ramin Pazooki	NW Region	WA State Dept of Transportation	15700 Dayton Ave N	Seattle	WA	98133
34	State				✓			WA State SEPA Unit				
35	Regional	✓						Cascade Water Alliance	520 112th Ave NE, Suite 400	Bellevue	WA	98004
36	Regional	✓					Environmental Management	Port of Seattle	P.O. Box 1209	Seattle	WA	98111
37	Regional		✓				SEPA Review	Puget Sound Clean Air Agency	1904 Third Ave Suite 105	Seattle	WA	98101-3417
38	King County		✓			Environmental Planning-OAP	Wastewater Treatment Div.	King County Dept of Natural Resources	201 S Jackson St - MS KCS NR 0505	Seattle	WA	98104
39	King County	✓					Parks Environmental Review	King County Dept of Natural Resources	201 S. Jackson St	Seattle	WA	98104-3856
40	King County	✓					Land Use Services Division	King County Dept of Natural Resources	900 Oaksdale Ave SW	Renton	WA	98057-5212
41	King County	✓				Rosemary Byrne		King County Dept of Public Health	401 5th Avenue, 11th Floor; CNK-PH-1100	Seattle	WA	98104-1818
42	King County	✓				Drinking Water Program	Eastgate Environmental Health	King County Dept of Public Health	14350 SE Eastgate Way	Bellevue,	WA	98007
43	King County	✓						King County Dept of Public Health	401 5th Avenue, Suite 1300	Seattle	WA	98104
44	King County	✓					Roads & Engineering	King County Dept of Transportation	201 S Jackson St - MS KCS 0313	Seattle	WA	98104
45	King County	✓				Gary Kriedt	Environmental Planning	King County Dept of Transportation	201 S. Jackson St - MS KSC TR 0431	Seattle	WA	98104-3856
46	King County	✓				Charlie Sundberg	Historic Preservation Program	King County Office of Strategic Planning	400 Yesler Way Suite 510	Seattle	WA	98104
47	King County		✓					King County Regional Water Quality Committee	201 S Jackson St	Seattle	WA	98104
48	City of Seattle	✓				Laurie Geissinger	Environmental Compliance	City of Seattle	City Light	SMT 00-28-22		
49	City of Seattle	✓				Bill Davis		City of Seattle	City Light	SMT 00-28-22		
50	City of Seattle			✓		David Graves	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		
51	City of Seattle			✓		Cheryl Eastberg	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		
52	City of Seattle			✓		Terry Dunning	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		

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		Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD							
53	City of Seattle				✓	Betty Galarosa	SEPA PIC	City of Seattle	Dept of Planning & Development	SMT-18-62		
54	City of Seattle		✓			Beverly Barnett		City of Seattle	Dept of Transportation	SMT 00-39-00		
55	City of Seattle		✓			Theresa C. Smith, PE	Street Use Division	City of Seattle	Dept of Transportation	SMT 00-30-00		
56	City of Seattle		✓			Ron Borowski		City of Seattle	Dept of Transportation	SMT-00-39-00		
57	City of Seattle		✓			Melanie Coerver	Environmental Analyst	City of Seattle	Dept of Transportation	SMT-00-39-00		
58	City of Seattle		✓				Environmental Review Office	City of Seattle	Dept of Transportation	SMT-00-39-00		
59	City of Seattle			✓		Karen Gordon	Landmarks Preservation Board	City of Seattle	DON/HISTORICAL PROG.	SMT 00-17-00		
60	City of Seattle	✓				Nikki Douce		City of Seattle	Fire Department	FD-44-04		
61	City of Seattle	✓				Bill Schrier		City of Seattle	Information Technology	SMT 00-27-00		
62	City of Seattle		✓				City Council	City of Seattle	Legislative Dept	CH 02-10-00		
63	City of Seattle		✓			The Honorable Sally Bagshaw	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
64	City of Seattle		✓			The Honorable Tim Burgess	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
65	City of Seattle		✓			The Honorable Sally Clark	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
66	City of Seattle		✓			The Honorable Richard Conlin	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
67	City of Seattle		✓			The Honorable Jean Godden	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
68	City of Seattle		✓			The Honorable Bruce Harrell	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
69	City of Seattle		✓			The Honorable Nick Licata	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
70	City of Seattle		✓			The Honorable Mike O'Brien	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
71	City of Seattle		✓			The Honorable Tom Rasmussen	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
72	City of Seattle		✓			The Honorable Mike McGinn	Mayor	City of Seattle	Mayor's Office	CH-00-07-01		
73	City of Seattle	✓				Quinnie Tan		City of Seattle	Office of Housing	SMT-57-00		
74	City of Seattle			✓		Bob Tobin	Assistant City Attorney	City of Seattle	Office of the City Attorney	CH 00-04-01		

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75	City of Seattle	✓				Mark Jaeger		City of Seattle	Seattle Public Utilities	SMT-49-00		
76	City of Seattle	✓				Paul Fleming		City of Seattle	Seattle Public Utilities	SMT-49-00		
77	Neighborhood Service Center	✓				Stan Lock	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144
78	Neighborhood Service Center	✓				Christa Dumpys	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144
79	Neighborhood Service Center	✓				Tim Durkan	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144
80	Neighborhood Service Center	✓				Rob Mattson	Coordinator, Ballard	North Region Team	5604 22nd Ave NW	Seattle	WA	98107
81	Neighborhood Service Center	✓				Thomas Whittemore	Coordinator, Lake City	North Region Team	12525 28th Ave NE (2nd Foor)	Seattle	WA	98125
82	Neighborhood Service Center	✓				Karen Ko	Coordinator, U District	North Region Team	4534 University Way NE	Seattle	WA	98105-4511
83	Neighborhood Service Center			✓		Steve Louie, Yun Pitre, Ed Pottharst		South Region Coordinators	2801 SW Thistle St.	Seattle	WA	98126
84	Library			✓		Public Review Documents	General Reference Services	Seattle Public Library	1000 4th Avenue	Seattle	WA	98104-1109
85	Library			✓		Wei Cai	Beacon Hill Branch	Seattle Public Library	2821 Beacon Ave S	Seattle	WA	98144-5813
86	Library			✓		Steve Del Vecchio	Columbia Branch	Seattle Public Library	4721 Rainier Ave S	Seattle	WA	98118-1657
87	Library			✓		Daria Cal	New Holly Branch	Seattle Public Library	7058 32nd Ave S	Seattle	WA	98118-6401
88	Library			✓		Daria Cal	Rainier Beach Branch	Seattle Public Library	9125 Rainier Ave S	Seattle	WA	98118-5026
89	Library		✓				Governmental Publications	UW Library	P.O. Box 353900	Seattle	WA	98195-2900
90	Community	✓						Central District Council	2301 S. Jackson St #208	Seattle	WA	98144
91	Community	✓				Rob Martin		Columbia City Business Assoc	3827A So Edmunds St.	Seattle	WA	98118
92	Community	✓				Mariana Quarnstrom		Friends of Martha Washington Park	5767 S. Oaklawn Place	Seattle	WA	98118
93	Community				✓	Jennifer Ott		Friends of Seattle's Olmsted Parks	P.O. Box 9884	Seattle	WA	98109-0884
94	Community				✓			Friends of Seward Park	5900 Lk Washington Blvd. S.	Seattle	WA	98118
95	Community	✓				John Barber, Chairman		Friends of Street Ends	3421 E. Superior St.	Seattle	WA	98122-6557
96	Community	✓				Andrea Faste		Groundswell Northwest	P.O. Box 17163	Seattle	WA	98127
97	Community	✓				Dawn Hemminger		Groundswell Northwest	P.O. Box 17163	Seattle	WA	98127
98	Community	✓						Lakewood Seward Park CC	6315 Rainier Ave S.	Seattle	WA	98118-2571
99	Community	✓						Lakewood Seward Park CC	4916 S. Angeline St.	Seattle	WA	98118
100	Community	✓						Mt. Baker Community Club	2811 Mr. Rainier Dr. S	Seattle	WA	98144

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101	Community		✓			Thatcher Bailey		Seattle Parks Foundation	105 S. Main St. #235	Seattle	WA	98104
102	Commented		✓				barbmaher@msn.com	Barb Maher	6014 Lake Shore Dr. S	Seattle	WA	98118
103	Commented		✓				lizzyjk@comcast.net	Elizabeth Kinerk	5926 Seward Park Avenue S	Seattle	WA	98118
104	Commented		✓				fliporeilly@gmail.com	Flip O'Reilly	4847 Graham Street S	Seattle	WA	98118
105	Commented		✓				julio.moran@seattle.gov	Julio Morgan, Jr.	4401 S Dawson St	Seattle	WA	98118
106	Commented		✓				pauls@cascadia.com	Paul S. Aleinikoff	6216 Lakeshore Dr. S	Seattle	WA	98118-3040
107	Commented		✓				bobakemi@comcast.net	Robert Smith	9835 Arrowsmith Ave S	Seattle	WA	98118
	Total	36	45	20	6							

DEIS Additional SEPA Notification

1. The Notice of Availability was posted on the Seattle Department of Planning and Development's Land Use Bulletin on September 17, 2012.
2. The Notice of Availability was posted on the Washington State Department of Ecology's SEPA Register on September 17, 2012.
3. The Notice of Availability was published in the Daily Journal of Commerce on September 17, 2012.
4. The Notice of Availability was published in the Seattle Times on September 17, 2012.
5. The Notice and the DEIS were mailed to agencies with jurisdiction, organizations and individuals who requested copies, and organizations and individuals who commented during the scoping process (see DEIS Distribution Lists in Appendix C).
6. The DEIS was available for public review at SPU's main office on the 49th floor of the Seattle Municipal Tower and the Seattle Central Library.

DEIS Additional Outreach

1. The Notice of Availability and DEIS were posted on SPU's North Henderson project website.
2. The Notice of Availability, or the Notice of Availability and DEIS, were mailed to additional individuals and organizations SPU assumed might have an interest in the project (see Notice of Availability and DEIS Distribution Lists in Appendix C).
3. Postcards were mailed to every residence in Basins 44 and 45 (see map in Appendix C, approximately 1,700 total), notifying residents of the date, time, and location of the DEIS public hearing; providing the address and deadline for submitting comments on the DEIS; and providing the address of SPU's North Henderson project website for more information.
4. An email announcing the public hearing was sent to people who had previously requested to be included on the North Henderson listserv to receive updates on the North Henderson CSO reduction projects.
5. SPU staff contacted the individuals whose property adjoins the tennis courts to ensure they knew about the DEIS and the public hearing.

FEIS Distribution List

(Begins on next page)

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3	Tribes			✓		Laura Murphy	Tribe Preservation Program	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092-9763
4	Tribes			✓		The Honorable Virginia Cross	Chair, Muckelshoot Tribal Council	Muckleshoot Tribe	39015 172nd Ave SE	Auburn	WA	98092
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14	Tribes		✓					United Indians of All Tribes	P.O. Box 99100	Seattle	WA	98199
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16	Federal	✓					Transportation Program Specialist	Federal Transit Administration	915 2nd Ave. Suite 3142	Seattle	WA	98174-1002
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26	State			✓		Larry Fisher	WDFW Area Habitat Biologist	1775 12th Ave NW	Suite 201	Issaquah	WA	98027
27	State			✓		SEPA Coordinator	Habitat Management Division	WA State Dept of Fish.	P.O. Box 43155	Olympia	WA	98504
28	State		✓				SEPA Review	WA State Dept of Public Health	101 Israel Road SE	Tumwater	WA	98501
29	State		✓			Kelly Cooper	Environmental Health Div.	WA State Dept of Health	P.O. Box 47820	Olympia	WA	98504-7820
30	State		✓			SEPA Review	South Puget Sound Region	WA State Dept of Natural Res.	950 Farman Ave N	Enumclaw	WA	98022
31	State		✓				SEPA Center	WA State Dept of Natural Res.	P.O. Box 47015	Olympia	WA	98504-7015
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34	State				✓	Washington State SEPA Unit						
35	Regional	✓					Cascade Water Alliance	520 112th Ave NE	Suite 400	Bellevue	WA	98004
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41	King County	✓				Rosemary Byrne		CNK-PH-1100	401 5th Avenue, 11th Floor	Seattle	WA	98104-1818
42	King County	✓					Drinking Water Program	Eastgate Environmental Health	14350 SE Eastgate Way	Bellevue,	WA	98007
43	King County	✓						KC Dept of Public Health	401 5th Avenue, Suite 1300	Seattle	WA	98104
44	King County	✓					Roads & Engineering	KC Dept of Transportation	201 S Jackson St - MS KCS 0313	Seattle	WA	98104
45	King County	✓				Gary Kriedt	Environmental Planning	KC Dept of Transportation	201 S. Jackson St - MS KSC TR 0431	Seattle	WA	98104-3856
46	King County	✓				Charlie Sundberg	Preservation Planner	KC Historic Preservation	201 S. Jackson St. KSC-NR-0700	Seattle	WA	98104
47	King County		✓					KC Regional Water Quality Committee	201 S Jackson St	Seattle	WA	98104

FEIS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

#	Category	Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD	Agency or Name	Name or Address 1	Name or Address 2	Address 3	City	State	Zip
48	City of Seattle	✓				Laurie Geissinger	Environmental Compliance	City of Seattle	City Light	SMT 00-28-22		
49	City of Seattle	✓				Bill Davis		City of Seattle	City Light	SMT 00-28-22		
50	City of Seattle		✓			Margaret Duncan		City of Seattle	City Light	SMT 00-28-22		
51	City of Seattle			✓		David Graves	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		
52	City of Seattle			✓		Cheryl Eastberg	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		
53	City of Seattle			✓		Terry Dunning	Planning & Development Division	City of Seattle	Dept of Parks and Recreation	PK-01-01		
54	City of Seattle		✓			Kevin Stoops	Budget & Administrative Services	City of Seattle	Dept of Parks and Recreation	PK-01-01		
55	City of Seattle				✓	Betty Galarosa	SEPA PIC	City of Seattle	Dept of Planning & Development	SMT-18-62		
56	City of Seattle		✓			Diane Sugimura	Director	City of Seattle	Dept of Planning & Development	SMT-18-00		
57	City of Seattle		✓			Beverly Barnett		City of Seattle	Dept of Transportation	SMT 00-39-00		
58	City of Seattle		✓			Theresa C. Smith, PE	Street Use Division	City of Seattle	Dept of Transportation	SMT 00-30-00		
59	City of Seattle		✓			Ron Borowski		City of Seattle	Dept of Transportation	SMT-00-39-00		
60	City of Seattle		✓				Environmental Review Office	City of Seattle	Dept of Transportation	SMT-00-39-00		
61	City of Seattle		✓			Cristina VanValkenburgh	Mobility Programs	City of Seattle	Dept of Transportation	SMT-00-39-00		
62	City of Seattle		✓			Dongho Chang	Traffic Operation	City of Seattle	Dept of Transportation	SMT-00-39-00		
63	City of Seattle		✓			Sandy Gurkewitz	Environmental Management	City of Seattle	Dept of Transportation	SMT-00-39-00		
64	City of Seattle		✓			Ron Borowski	Policy and Planning	City of Seattle	Dept of Transportation	SMT-00-39-00		
65	City of Seattle		✓			Beverly Barnett	Street Use Division	City of Seattle	Dept of Transportation	SMT 00-39-00		
66	City of Seattle			✓		Karen Gordon	Landmarks Preservation Board	City of Seattle	DON/HISTORICAL PROG.	SMT 00-17-00		
67	City of Seattle		✓			Julie Tobin	Office of the Mayor	City of Seattle	Economic Development	CH-07-01		
68	City of Seattle		✓			Brian Surrat		City of Seattle	Economic Development	SMT-57-52		
69	City of Seattle		✓			Kyle Joyce		City of Seattle	Finance & Admin Svcs.	SMT-52-01		
70	City of Seattle	✓				Nikki Douce		City of Seattle	Fire Department	FD-44-04		

FEIS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

#	Category	Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD	Agency or Name	Name or Address 1	Name or Address 2	Address 3	City	State	Zip
71	City of Seattle		✓			Gregory Dean, Fire Chief	Office of the Chief	City of Seattle	Fire Department	FD-44-04		
72	City of Seattle	✓				Bill Schrier		City of Seattle	Information Technology	SMT 00-27-00		
73	City of Seattle		✓				City Council	City of Seattle	Legislative Dept	CH 02-10-00		
74	City of Seattle		✓			The Honorable Sally Bagshaw	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
75	City of Seattle		✓			The Honorable Tim Burgess	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
76	City of Seattle		✓			The Honorable Sally Clark	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
77	City of Seattle		✓			The Honorable Richard Conlin	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
78	City of Seattle		✓			The Honorable Jean Godden	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
79	City of Seattle		✓			The Honorable Bruce Harrell	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
80	City of Seattle		✓			The Honorable Nick Licata	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
81	City of Seattle		✓			The Honorable Mike O'Brien	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
82	City of Seattle		✓			The Honorable Tom Rasmussen	Councilmember	City of Seattle	Legislative Dept	CH 02-10-00		
83	City of Seattle		✓			The Honorable Mike McGinn	Mayor	City of Seattle	Mayor's Office	CH-00-07-01		
84	City of Seattle	✓				Quinnie Tan		City of Seattle	Office of Housing	SMT-57-00		
85	City of Seattle			✓		Bob Tobin	Assistant City Attorney	City of Seattle	Office of the City Attorney	CH 00-04-01		
86	City of Seattle		✓			Michael Quinn	Deputy Chief of Staff	City of Seattle	Seattle Police	JC-05-01		
87	City of Seattle		✓			Christy Gough		City of Seattle	Seattle Police	JC-05-01		
88	City of Seattle	✓				Mark Jaeger		City of Seattle	Seattle Public Utilities	SMT-49-00		
89	City of Seattle	✓				Paul Fleming		City of Seattle	Seattle Public Utilities	SMT-49-00		
90	Neighborhood Service Center	✓				Stan Lock	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144
91	Neighborhood Service Center	✓				Christa Dumpys	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144
92	Neighborhood Service Center	✓				Tim Durkan	Coordinator, Central	Central Region Team	2301 S. Jackson St #208	Seattle	WA	98144

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Henderson Basin 44 Combined Sewer Overflow (CSO)

#	Category	Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD	Agency or Name	Name or Address 1	Name or Address 2	Address 3	City	State	Zip
93	Neighborhood Service Center	✓				Rob Mattson	Coordinator, Ballard	North Region Team	5604 22nd Ave NW	Seattle	WA	98107
94	Neighborhood Service Center	✓				Thomas Whittemore	Coordinator, Lake City	North Region Team	12525 28th Ave NE (2nd Foor)	Seattle	WA	98125
95	Neighborhood Service Center	✓				Karen Ko	Coordinator, U District	North Region Team	4534 University Way NE	Seattle	WA	98105-4511
96	Neighborhood Service Center			✓		Steve Louie, Yun Pitre, Ed Pottharst	South Region Coordinators		2801 SW Thistle St.	Seattle	WA	98126
97	Library			✓		Public Review Documents	Quick Information Center	Seattle Public Library	LB-03-01	Seattle	WA	98104-1109
98	Library			✓		Steve Del Vecchio	Columbia Branch	Seattle Public Library	4721 Rainier Ave S	Seattle	WA	98118-1657
99	Library			✓		Daria Cal	New Holly Branch	Seattle Public Library	7058 32nd Ave S	Seattle	WA	98118-6401
100	Library			✓		Daria Cal	Rainier Beach Branch	Seattle Public Library	9125 Rainier Ave S	Seattle	WA	98118-5026
101	Library		✓				Governmental Publications	UW Library	P.O. Box 353900	Seattle	WA	98195-2900
102	Community	✓						Central District Council	2301 S. Jackson St #208	Seattle	WA	98144
103	Community	✓				Rob Martin		Columbia City Business Assoc	3827A So Edmunds St.	Seattle	WA	98118
104	Community	✓				Mariana Quarnstrom	Friends of Martha Washington Park		5767 S. Oaklawn Place	Seattle	WA	98118
105	Community				✓	Jennifer Ott	Friends of Seattle's Olmsted Parks	P.O. Box 9884		Seattle	WA	98109-0884
106	Community				✓	Friends of Seward Park			5900 Lk Washington Blvd. S.	Seattle	WA	98118
107	Community	✓				John Barber, Chairman	Friends of Street Ends	3421 E. Superior St.		Seattle	WA	98122-6557
108	Community	✓					Andrea Faste	Groundswell Northwest	P.O. Box 17163	Seattle	WA	98127
109	Community	✓				Dawn Hemminger	Groundswell Northwest		P.O. Box 17163	Seattle	WA	98127
110	Community	✓				Lakewood Seward Park CC			4916 S. Angeline St.	Seattle	WA	98118
111	Community	✓				Mt. Baker Community Club			2811 Mr. Rainier Dr. S	Seattle	WA	98144
112	Community		✓			Thatcher Bailey	Seattle Parks Foundation	105 S. Main St. #235		Seattle	WA	98104
113	Commented			✓		Allan Smith	4709 S Orcas			Seattle	WA	98118
114	Commented		✓			Barb Maher			6014 Lakeshore Drlve S	Seattle	WA	98118
115	Commented		✓			Betina Simmons Blaine	5229 S. Mayflower St			Seattle	WA	98118
116	Commented		✓			Dr. Jeffrey Schouten/Daniel Sparler	5920 Seward Park Ave S			Seattle	WA	98118
117	Commented		✓			Elizabeth & Dan Kinerk			5926 Seward Park Ave S	Seattle	WA	98118
118	Commented		✓			Flip O'Reilly			4847 Graham St South	Seattle	WA	98118
119	Commented			✓		Gail Gatton, Director	Seward Park Audubon Center	5902 Lake Washington Blvd S		Seattle	WA	98118
120	Commented			✓		Jacob Greenberg	6020 Lakeshore Dr S			Seattle	WA	98118

FEIS DISTRIBUTION: JURISDICTIONAL LIST and INTERESTED PARTIES LIST
Henderson Basin 44 Combined Sewer Overflow (CSO)

#	Category	Notice Only	Notice + CD	Notice + Hard Copy	Notice + Hard Copy + CD	Agency or Name	Name or Address 1	Name or Address 2	Address 3	City	State	Zip
121	Commented		✓			Jeannie O'Brien	4224 51st Ave S			Seattle	WA	98118
122	Commented			✓		John Bell	6036 Seward Park Ave S.			Seattle	WA	98118
123	Commented		✓			Julio Morgan, Jr.			4401 S Dawson St	Seattle	WA	98118
124	Commented		✓			Marcia Bartholme	5838 Seward Park Ave S			Seattle	WA	98118
125	Commented		✓			Mark Early	7738 34th Ave NW			Seattle	WA	98117
126	Commented			✓		Maura Whalen	5215 S Orcas Street			Seattle	WA	98118
127	Commented		✓			Paul Miyake	4848 S Graham St			Seattle	WA	98118
128	Commented		✓			Paul S. Aleinikoff			6216 Lakeshore Drive S	Seattle	WA	98118-3040
129	Commented		✓			Paul Talbert	4601 S. Brandon St			Seattle	WA	98118
130	Commented			✓		Phillip Ginsberg	6034 Lakeshore Drive S			Seattle	WA	98118
131	Commented		✓			Richard Ranhoffer	5912 Seward Park Ave			Seattle	WA	98118
132	Commented		✓			Robert Smith			9835 Arrowsmith Ave S	Seattle	WA	98118
133	Commented		✓			Tom and Christine O'Connor	5211 57th Ave S			Seattle	WA	98118
134	Commented		✓			WA State Department of Natural Resources	Derrick Toba, Assistant Division Manager, Shoreline District Aquatics	S Puget Sound Region, 950 Farman Ave N		Enumclaw	WA	98022-9282
	Total	*35*	*68*	*25*	*6*							

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Appendix B Draft EIS Comments and Responses

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SEWARD PARK ENVIRONMENTAL & Audubon CENTER

TO: Betty Meyer, SEPA Responsible Official
Seattle Public Utilities

FROM: Gail Gatton, Director
Seward Park Environmental & Audubon Center

SUBJECT: Comments on Draft EIS for Henderson Basin 44 CSO Reduction Project

DATE: October 17, 2012

Thank you for the opportunity to provide comments regarding the Draft EIS issued September 2012 regarding SPU's selection of a preferred alternative for siting a 2.4 million gallon storage tank and associated infrastructure under the tennis courts located at the entrance of Seward Park. We have been aware of this project for some time and are sensitive to its impact on the thousands of people who utilize the park each year and the surrounding community. We also appreciate that SPU has held many public meetings on this project and has shown a willingness to listen to public input. I have provided comments below in two categories: operations and ecological.

1 **OPERATIONS:** From an operations perspective, Alternative 1 is a clear preferred choice. The impact to users of the park will be less and for a shorter duration of time. Construction impacts occur closer to existing facilities (e.g., storage pipe and sewer lines), are more removed from the many children and families who play on the world class playground, and will result in much improved recreational facilities (tennis courts).

2 During construction, which results in the loss of nearly all parking at the entrance of the park, we suggest not only good signage directing people to the parking available at the top of the park, but also increased police patrols at the top of the park and perhaps temporary lighting. For those of us who work at the park, leaving our cars unattended for hours at the top of the park feels like a break-in waiting to happen. We also work hours throughout the year that will require retrieving our vehicles after dark, sometimes late in the evening.

3 The Audubon Center was open during construction of the playground and there was a severe impact to our programs during this time period. Imagine trying to teach water chemistry to recalcitrant 7th graders while jackhammers break through cement and rock! Or hold the attention of a pre-schooler while big machines drop boulders into place. As an example, Toddler Tales & Trails, one of our most popular programs and one we have provided since we opened our doors in 2008, saw a 50 percent decline in attendance in 2010 during construction of the playground.

The Center serves between 15,000 and 20,000 people each year through a wide variety of programs for schools and the community. We raise all of the funds necessary to operate through earned income (e.g., store sales, rentals, program fees) and contributed income (individual donors, foundations, etc). Earned income accounts for approximately 10 percent of our revenue sources. Our ability to serve thousands of children and families is what inspires others to contribute the remaining 90 percent to our organization. The financial impact of either alternative will be very real for the Center, either through reduced earned income or fewer donations because we are able to serve fewer people. Therefore the alternative that takes the least amount of time is best for the Center from an operations perspective.

ECOLOGICAL: No matter which alternative is selected, we strongly recommend that the bulkhead is removed and a salmon-friendly shoreline is established and re-vegetated along both the parking lot and tennis courts. This work will have the most significant and beneficial ecological impact to the park as it will provide riparian habitat that will allow for the return of the keystone species of salmon to the park. Adding salmon habitat and therefore salmon will be directly beneficial to the conservation of bird species in Seward Park. The salmon eggs and fry will provide a food resource and the shoreline vegetation will provide essential nesting sites for many shorebirds and songbirds.

4

Habitat impacts for both Alternative 1 and Alternative 2 are provided in the table below.

	HABITAT REMOVAL	HABITAT RESTORATION
Alternative 1	The west side of the tennis courts contains some of the best habitat resources in this developed portion of the park. Currently there are populations of songbirds utilizing this area including the red-breasted sapsucker. This will have the greatest short-term ecological impact with the removal of the large trees in that area.	In the long term, this is isolated and fragmented habitat and provides less value than the proposed restored habitat of Alternative 2 which is immediately adjacent to the magnificent forest.
Alternative 2	The current trees offer much less value as habitat. Their removal will have limited ecological impact, especially for birds.	Long term restoration has significant ecological value. Removal of the non-native trees and replacing them with forest species from the VMP will serve to grow the contiguous acres of the magnificent forest and improve habitat for songbirds and shorebirds.

5

Response to Audubon Comment 1

Comment noted. Sections 4 and 1.4 of the Final EIS confirm that the Tennis Courts Alternative would have less of an impact on the Audubon Center, the clay studio, the playground, the picnic shelter, and parking. Section 1.4 also notes that the Tennis Courts Alternative has a greater impact on the park neighbors and that selection of the preferred alternative is a significant area of controversy. A final decision will be made by the City Council during the proceedings in 2013 that are required to address Initiative 42 and the City's Land Use Code.

Response to Audubon Comment 2

Suggested construction-phase mitigation is noted. SPU is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA requirements. Construction-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either during the City Council proceedings that are required to address Initiative 42 and the City's Land Use Code or during negotiations with Seattle Parks that are part of the process to obtain a Revocable Use Permit. SPU will continue to work with Parks to develop a facility that fulfills the City's legal obligations for the reduction of sewage discharges while addressing short- and long-term recreational impacts at the site. The project will meet all applicable permit requirements from all applicable regulatory entities.

Response to Audubon Comment 3

Comment noted. Although an analysis of potential economic impacts is not required by SEPA and was excluded from the scope of the EIS, Audubon Center and clay studio usage and financial information have been added to the Final EIS to further clarify the construction impacts on recreation. Sections 4.2.1.1 and 4.2.2.1 have been revised to clarify the construction-related impacts that noise, dust, and parking lot closures would have on the number of Audubon Center visitors and Audubon Center and clay studio program participants; the impact this might have on income earned from program tuition, building rentals, and store sales; and the impact this might have on revenue from individual and foundation grants and donations. The Parking Lot Alternative would have more impact than the Tennis Courts Alternative on recreation usage of the Audubon Center and clay studio, because of the proximity of these facilities to the Parking Lot Alternative construction site. A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code.

Response to Audubon Comment 4

Comment noted. As described in Section 3.1.1.2, there are advantages and disadvantages for the shoreline treatment options presented in the EIS. Those options will be further evaluated during the project design phase and in consultation with the resource and regulatory agencies. The selected shoreline treatment option will apply only to the selected alternative.

Response to Audubon Comment 5

The habitat impact comparisons shown in the table are consistent with the discussion in Section 7 of the EIS. The habitat restoration at each site will be limited to recreating the hardscapes that exist today (the tennis court or parking lot) and some replanting to areas disturbed by the project construction. The number of trees that will be incorporated into either site restoration will be limited. Trees will not be planted along the shoreline due to the constraints of the tank. Most of the replanting along the shoreline will be in the form of shrubs and other forms of overhanging shoreline vegetation, and not necessarily trees. Habitat restoration is not specifically proposed for areas outside of the footprint of the project. The replanted shoreline areas will provide habitat for songbirds and shorebirds, but these areas will not be contiguous with the forest areas on other portions of the park.

Meyer, Betty

From: Marcia Bartholme [mbeta@comcast.net]
Sent: Wednesday, October 17, 2012 6:16 PM
To: Meyer, Betty
Subject: Seward Park EIS

Ms. Meyer,
I wish to go on record as a close neighbor of Seward Park and an attendee of several public meetings regarding the placement of the holding tanks that I would like it built under the south parking lot. You will be facing a lawsuit by the 11 neighbors adjacent to the tennis courts if you plan to proceed with the tank under the tennis courts plan. Believe me this is a hot button issue among my neighbors. 1
Sinecerely,
Marcia Bartholme
5838 Seward Park Ave. So

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Response to Bartholme Comment 1

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that this is a significant area of controversy.

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Meyer, Betty

To: SPU_HCSO
Subject: RE: Coment on Seward Park CSO reduction project, ATTN: Betty Meyer

-----Original Message-----
From: John Bell [mailto:juan.campana@gmail.com]
Sent: Friday, September 28, 2012 11:32 PM
To: SPU_HCSO
Subject: Coment on Seward Park CSO reduction project, ATTN: Betty Meyer

Dear Ms. Meyer,

My wife and I live near Seward Park, and we're glad to see the attention to this CSO project. Looking at the information on the Seatte.gov site, I see that there is quite a bit of thought and action that has gone into some neighborhoods for developing rain gardens and providing incentives for home cisterns. These seem to be generally applicable city-wide and it is unclear why such programs are confined as they are to small areas. I can see that the draft EIP for the Seward Park CSO reduction project is very extensive. However, what I don't see is a more basic evaluation of alternative approaches along with pros and cons. Has such a trade study been performed?

1

I admit to not being an expert in this field by any measure. But it seems straight forward that taking some steps (such as cistern incentives for individual residences) could at least reduce the volume requirements for a large-scale storage reservoir, and the cost reduction might more than compensate for the added funding of such alternative measures. We have a vested interest on this specific approach because we are currently considering building a rain cistern to help reduce our water bill while keeping a nice vegetable garden in our yard.

Please consider this general comment in your future planning. In any case, I do commend your work towards a good cause for our city.

Thanks,
John Bell

6036 Seward Park Ave S.

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Response to Bell Comment 1

Thank you for your comment, and for your interest in rain cisterns and other measures to reduce the volume of stormwater runoff. SPU's process to analyze alternatives for this basin began in the Summer of 2010. SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Each of the options was evaluated based on its technical feasibility, financial cost, and social and environmental impacts.

Rain gardens and cisterns in Basin 44 were evaluated in 2010-2011. However, because approximately 90-95 percent of the stormwater runoff in the streets is directed to a separate storm drain pipe instead of to a combined sewer pipe, rain gardens in the roadway would not help to reduce CSOs into Lake Washington. In addition, because of the steep slopes and low permeability of the soils in Basin 44, there appears to be limited opportunity for residential rain gardens on private property. Cisterns could provide some benefit, however, the efficiency and reliability of cisterns in reducing CSOs is much less than rain gardens or a centralized storage facility. This is because the location of the cisterns is not optimal (i.e., the most optimal location for storage is next to the CSO outfall, which is at the Southwest corner of Seward Park), and therefore the timing and availability of cistern storage is oftentimes not in alignment with when it is necessary to reduce CSOs. As a result, SPU anticipates that constructing rain gardens and cisterns in Basin 44 would address less than 10 percent of the required CSO volume. The EIS has been revised so that there is an explanation of the full range of alternatives that SPU considered to reduce CSOs in Basin 44 and how SPU narrowed down the alternatives.

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WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Caring for
your natural resources
... now and forever

October 5, 2012

Betty Meyer, SPU SEPA Responsible Official
Seattle Public Utilities
Seattle Municipal Tower Ste 4900
PO Box 34018
Seattle, WA 98124-4018

Subject: Draft EIS for Basin 44 CSO Reduction Work

Ms. Meyer:

The Washington State Department of Natural Resources (DNR) manages State-owned aquatic land, including Lake Washington.

We reviewed the September 2012 Draft EIS for Basin 44 CSO reduction work. Based on included diagrams, it appears no part of the proposed construction will include work on state land. However, the proposed construction zone to remove the existing CSO appears to approach the boundary between private and public land.

1 If construction plans are altered to include work on state land, DNR will require Seattle Public Utilities to obtain a Right of Entry authorization to enter and perform work on DNR-managed property. If a Right of Entry is needed, SPU should contact DNR early in the planning process to avoid construction delays.

Laurel Kanawyer is the DNR land manager for all agreements with the City of Seattle government. Ms. Kanawyer is available to answer questions about this letter and to assist with the Right of Entry application process. She can be reached by phone at (253) 441-0904 or by email at Laurel.Kanawyer@dnr.wa.gov .

Sincerely,

Derrick Toba, Assistant Division Manager
Shoreline District Aquatics

c: Susan Saffery, SPU
Laurel Kanawyer, DNR
Joe Miles, DNR
District File
Aquatic Resources File

fc/EISBasin44CSO

SOUTH PUGET SOUND REGION ▮ 950 FARMAN AVE N ▮ ENUMCLAW, WA 98022-9282
TEL: (360) 825-1631 ▮ FAX: (360) 825-1672 ▮ TTY: (360) 902-1125 ▮ TRS 711 ▮ WWW.DNR.WA.GOV
EQUAL OPPORTUNITY EMPLOYER

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Response to DNR Comment 1

SPU will contact DNR if construction plans are altered to include work on state land.

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Seward Park (Basin 44) CSO Reduction Project
Comment on Draft EIS

By Mark Early, 7738 34th Ave NW, Seattle, WA 98117 -and- Liz Kinerk 5926 Seward Park Ave S., Seattle, WA 98118
mark@batesearly.net, 206-784-6229

Thank you for allowing us to offer public comment on the Draft EIS for the Basin #44 CSO Reduction Project. We hope these observations and suggestions will help SPU provide the best solution possible to address the important issue of CSO overflows into Lake Washington from the North Henderson Basin #44.

First a little context regarding the project taken from SPU documents.

***** Below - from the SPU "Community Guide to the Project" (Seward Park – Basin 44 CSO Reduction Project) *****

What is the Project?

The Seward Park (Basin 44) Combined Sewer Overflow (CSO) Reduction Project will reduce the amount of untreated sewage and stormwater runoff that overflows into Lake Washington at the combined sewer overflow outfall in Seward Park.

SPU proposes to construct an underground storage facility in Seward Park to temporarily hold combined sewage and stormwater runoff. When there is capacity available, the facility would gradually send flows to the downstream sewer system for treatment

and discharge.

Build Alternative 2 –Tennis Court Tank

Preliminary Construction Zone = dotted pink outline
Approximate Tank Footprint = yellow outline

Description of Proposed Facility

Build a 2.4 million gallon storage facility underneath the existing tennis courts and an adjacent parking lot on the southwest side of Seward Park, adjacent to the Lake Washington shoreline. A 2.4 million gallon tank and facilities vault in this location would be approximately 410 feet long, 50 feet wide, and 30 feet deep.
Tennis court today

During Construction, 2015-2017

Construction Duration
Tank construction would last 18-24 months.

What to Expect During Construction

• The tennis courts and adjacent parking lot would be closed during construction.
• Staging area for equipment and materials would be located on the adjacent parking lot site.
• Parking options for construction personnel are:
• Seward Park Road, immediately adjacent to the east side of the existing parking lot;
• An existing paved parking lot approximately 300 feet east of the site, along the Lake Washington shoreline.
• Construction would normally occur during daylight hours.
• Construction schedule would be coordinated with major events.

From Shannon & Wilson Inc Report (Page 9)

"Preliminary calculations of the steady state groundwater flow into the proposed excavations ranges from
50 gallons per minute (gpm) to 1,700 gpm. Based on the bedrock encountered in the borings, the groundwater flows are expected to be relatively high along fractures in the bedrock and low within the intact unfractured bedrock. The flow estimates assume that groundwater is entering the excavation though 50 percent of the excavation face."…..

From Shannon & Wilson Inc Report (Page 10 and 11)

"The ripping operation, as well as the hoe-ram and roadheader are fairly dusty and noisy excavation methods."

"Blasting is a feasible excavation approach for the rock mass conditions and volumes at Seward Park. Specialty smooth wall blasting techniques would be required in an attempt to create relatively smooth vertical walls and preserve the integrity of the rock mass. Drill holes for blasting are typically on a 12- to 24-inch spacing along the walls, and a 2- to 5-foot spacing elsewhere."

Background

SPU in multi-year negotiations with the US EPA and more recently pursuant to a voluntary consent decree with that agency must reduce CSO events from basin 44 sewer system outfalls that discharge into Lake Washington to an average of only one per year. SPU has chosen as it's primary design solution an expensive buried 2.4 million gallon holding tank whose purpose is to delay for several hours rain event surges of combined stormwater and sewer flows until capacity was available at the West Point treatment facility to process the effluent. The cost estimates for this CSO solution are roughly in the range of $60 million to $80 million dollars, approximately $121,000 dollars per residence. A rather high cost per residence in our opinion. Many years of construction would disrupt neighborhood residents and users of Seward Park, another significant cost to the citizens of Seattle. Consultants Shannon & Wilson have mentioned that the proposed underground tank site may require 'hydraulic Impact Hammer or Hoe-ram" equipment to breakup bedrock at an estimated 2/3rd of the excavation site. High-explosives blasting might also be used. This could mean dynamite trucks rolling thru the residential neighborhood. As cited above, lake and ground water infiltration into the holding tank excavation might require 24-hour pumping moving 1,700 gallons of water per minute. To do that job requires very large pumps, working only a few hundred feet way from residents trying to lead normal lives or sleep in their own home without two layers of ear protection.

1

2

For Your Consideration

Unlike most areas in Seattle which use a combined street stormwater drain and sanitary sewer conveyance network, Ballard Basin being one example we are familiar with, a majority of basin-44 residences are on streets that have parallel separate drain systems for street stormwater and the sanitary sewer flows.

3

We believe SPU should consider and evaluate the option of requiring a majority of the (496) single family residences in North Henderson Basin 44 (basin-44) to divert their roof stormwater runoff, where feasible, from an illegal connection to residential side-sewers, into a retrofitted outflow pipe installed thru their property that conveys roof stormwater directly into those streets or alleys in basin-44 which have street storm drains not directly connected to the sanitary sewer pipe system. If this were done, hundreds of thousands of gallons of stormwater which now enter the sanitary sewer via illegal residential side-sewer roof downspout connections, the prime cause of basin-44 CSO events (though not the only contributor), would be diverted into the street stormwater drain system which is allowed to flow directly into Lake Washington thru separate outfall discharge pipes.

Anecdotally and by our reading of consulting reports from firms contracted by SPU to study basin-44, the hillside above Seward Park has soils which experience high levels of ground water. This may have complicated the issue of applying GSI technology (raingardens, bio-swales etc.) to the problem of diverting stormwater flows in the basin. This should not discourage SPU from considering rain catchment cisterns like those used by the RainWise program in the Ballard basin which capture roof rainwater flow into 400 to 800+ gallon tanks (sometimes via smaller aggregated cisterns) that by design overflow slowly into raingardens which in turn are required to overflow into the street. Other SPU approved RainWise CSO solutions consist of roof stormwater capture into cisterns without raingardens which overflow and/or slowly release directly into side-sewers. Any of these RainWise solutions could be applied cost effectively to residences on streets which do not have separated storm "Drain" and sanitary sewer pipe systems. Today a typical 600 –to- 800 gallon roof stormwater capture system installed in the Ballard basin costs $4,000 - $5,000. This is considerably less expensive per residence than the SPU preferred alternative. Even if a CSO program involving both residential roof downspout diversion to the street where feasible and roof cistern capture with delayed release into a side-sewer was only applicable to ¾ of basin-44 residences, it should drastically reduce the size and scope of the currently proposed CSO holding tank in the park. A reduced size tank may also allow it to be sited elsewhere near the basin waterfront outside the boundaries of Seward Park.

Normal residential sewer flows do not create CSO events, it is primarily rainwater entering the sanitary sewer system that does (most of that illegally via roof drain side-sewer connections) combined with rainwater runoff from the small percentage of streets with storm drains directly connected to the sanitary sewer mains in the basin. It is our understanding that the EPA does not anticipate restricting the separate non-sewer street stormwater flow into Lake Washington for at least a decade or more, if ever. Annually, millions of gallons of street stormwater runoff currently flow thru the separated basin-44 "Drain" system without rising to the level of a concern of the EPA at this time. Should that change in the future a solution would be needed which deals with existing street stormwater which could also address the added clean roof rainwater runoff diverted into the street as we propose here. It should be less expensive to deal with cleaner street rainwater runoff in isolation than with combined rainwater-sewer overflows into Lake Washington, a federal waterway.

There are firms in Seattle doing work on GSI / CSO projects, some involved in the SPU RainWise program which are capable of offering viable proposals to provide SPU with the services necessary to

quickly implement a test program of roof stormwater diversion/detention as outlined above. We encourage SPU to explore a 10 -to- 20 home experimental project on a fast track as a proof of concept of the ideas suggested here. Surely since construction on the EIS proposed 2.4 million gallon tank is not slated to commence before a two year design period in 2013 and 2014, there can be some modest expenditure pursuant to a drastically more cost effect CSO solution for basin-44 which offers the potential at minimum to reduce the size of the CSO holding tank required by diverting (into Lake Washington) or detention (delaying rainwater flow into the sanitary sewer).

This is only a brief outline of the potential for cost savings offered by creative ways to provide rainwater diversion/detention. In closing please consider information mentioned on the SPU website for North Henderson Basin below. Indeed we firmly believe "*Some opportunity may exist for small-scale projects, such as RainWise*." with modifications to the existing RainWise program. We need to offer carrot inducements beyond the normal RainWise toolkit to residents in basin-44 who feel compelled due to basement flooding issues to use illegal roof downspout connections to their side-sewers. This is a big part of the basin-44 CSO problem, but it can also become an opportunity to expand and re-invigorate cost-effective GSI / CSO solutions for many basins in Seattle with CSO issues. Even if these are hybrid solutions with traditional CSO tank components. The combined application of complementary technologies should be a strong consideration.

From SPU website page "North Henderson Basin"

"Because of topography and other factors, Green Stormwater Infrastructure (GSI) opportunities are limited in North Henderson Basins. Some opportunity may exist for small-scale projects, such as RainWise."

Photos taken by the authors in the North Henderson Basin 44


Oakhurst Rd S
5800
Seward Park Ave S
STOP

Storm Drain – separated from sanitary sewer mainline.

Sewer Mainline system

Both drainage systems on the same street


5801

Examples below of basin-44 residents conveying roof rainwater runoff into the public street

Response to Early Comment 1

Explosive products, such as dynamite and blasting agents, and initiators and blast hole delay devices will not be stored on site for more than one day. These components will be brought to the work site and deployed into previously drilled blast holes and detonated each day a blast is scheduled to occur. These components will be transported by truck in separate and locked containers to prevent unintended detonation. All work will be performed under the direction and supervision of a licensed blaster, following the state of the practice as well as all local, state, and federal regulations.

Response to Early Comment 2

The recommended shoring system will likely act as a cut-off wall to the groundwater and should substantially limit the volume of dewatering necessary. However, if groundwater infiltration into the excavation is significant and 24-hour pumping is required, a group of several small pumps can be implemented in lieu of one large pump. Regardless of the dewatering needs, the contractor will be required to follow the Settle Municipal Code (SMC) 20.08 Noise Control and if necessary implement noise mitigation measures such as a sound curtain or equipment mufflers.

Response to Early Comment 3

SPU's alternatives analysis process began in the Summer of 2010. SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Each of the options was evaluated based on its technical feasibility, financial cost, and social and environmental impacts.

SPU did consider an inflow and infiltration reduction alternative which would have involved disconnecting roof leaders and foundations drains and connecting them to a separated storm drain pipe. This would have involved work on 100 percent of the properties within Basin 44 to control the CSOs, with considerable impacts to every property owner within the basin. Unfortunately, SPU could not construct the types of disconnections that are shown as examples in your comments because of the potential risks of discharging stormwater runoff onto the ground in an area with steep slopes and low permeability. Instead, SPU would be required to excavate around each home to disconnect the foundation drains and connect up each roof-leader, and trenching would be required from the homes to the streets to connect to a new storm drain. In addition, the alternative would require installation of new storm drains on blocks that currently do not have one. Finally, all of the side sewers and sewer mains would need to be replaced to reduce the infiltration of groundwater into the pipes. This would also require significant excavation both on private property and streets. The inflow and infiltration reduction alternative was the most expensive alternative, costing 55 percent more (up to $42 million more) than the underground storage alternative at Seward Park.

Rain gardens and cisterns in Basin 44 were evaluated in 2010-2011. However, because approximately 90-95 percent of the stormwater runoff in the streets is directed to a separate storm drain pipe instead of to a combined sewer pipe, rain gardens in the roadway would not help to reduce CSOs into Lake Washington. In addition, because of the steep slopes and low permeability of the soils in Basin 44, there appears to be limited opportunity for residential rain gardens on private property. Cisterns could provide some benefit, however, the efficiency and reliability of cisterns in reducing CSOs is much less than rain gardens or a centralized storage facility. This is because the location of the cisterns is not optimal (i.e., the most optimal location for storage is next to the CSO outfall, which is at the Southwest corner of Seward Park), and therefore the timing and availability of cistern storage is oftentimes not in alignment with when it is necessary to reduce CSOs. As a result, SPU anticipates that constructing rain gardens and cisterns in Basin 44 would address less than 10 percent of the required CSO volume.

Distributed storage was screened out because of its considerably high costs and social and environmental impacts. On a technical level, the efficiency and reliability of distributed storage in reducing CSOs is also much less than a centralized storage facility. The reason for this is the same as the reason why cisterns are not optimal. In addition, constructing distributed storage in Basin 44 would be extremely challenging because of the topography of the basin. Due to the slopes of the streets, cascading distributed storage facilities would be necessary. Distributed storage would have more significant impacts on the public because the facilities would be constructed in the streets, creating transportation impacts throughout the basin. Finally, the costs of distributed storage are more than twice the cost of centralized storage. Based on SPU's experience in the Windermere and Genesee CSO reduction projects, 500,000 gallon storage facilities cost approximately $50-$60 per gallon compared to $25-30 per gallon for a 2,000,000 gallon facility. Distributed storage facilities would be even smaller than 500,000 gallons, and therefore the costs would be more than 2 times the cost of a centralized facility.

Phillip H. Ginsberg
6034 Lake Shore Drive South
Seattle, WA 98118

October 15, 2012

Direct Line: (206) 787-1832
pginsberg@hackettbeecher.com

Via E-Mail

TO: Betty Meyer
Andrew Lee

FROM: Phillip H. Ginsberg

DATE: October 15, 2012

RE: Seward Park: Location of Overflow Water Container Tanks

Dear Ms. Meyer:

Janis Stanich**,** my wife, and I have lived adjacent to Seward Park for 27 years.

Having attended the community meeting last Monday regarding overflow water container tanks, and having reviewed the materials that were distributed, I have the following concerns:

1 1. During the first few years in which the location of the underground tanks was considered, the location which now appears to be your preference was not discussed. It now appears that of all the alternatives you considered, the one that you have chosen is the only one which hugely impacts abutting landowners. All the others did not abut residential property.

2 2. You may not have completed your due diligence. I will read your next environmental report; however, based on last Monday's testimony, it is not clear that the impact of blasting on the families abutting the blasting site has been identified, including the danger to retaining walls and sewer systems.

3 3. What is best for Seward Park. The destruction of the large number of trees, the impact on the birds that nest in those trees and in the immediate area, is problematic. Although a representative of the Audubon Society was present, I do not know what its position is on this issue as that representative did not speak.

4. Your reliance on statistics. Certainly a large number of visitors use the park throughout the year; however, the time each of those visitors spends in the park has not been quantified. By contrast, all of the residents who abut your present, preferred location will experience the impact of a 30-month project every day and, apparently, for many days, 24 hours a day. 4

5. The speakers at the last meeting made reference to the high volume of sound and the impact the constant barrage will have on the residents. I will be interested in learning how your organization addresses those health issues. 5

6. Although I practice law, I am not an environmental attorney. My neighbors and I, depending on the decision you make, and its merits, may find it necessary to consult with an experienced environmental and condemnation attorney on the subjects described above. 6

Thank you for your courtesy in reviewing these comments.

PHG:nb

Response to Ginsberg Comment 1

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public involvement process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Ginsberg Comment 2

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative

site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

Rock excavation for the project could be accomplished using drilling and controlled blasting methods or mechanical excavation using bulldozers or using hydraulic impact hammers mounted on tracked excavators. Each method has advantages and disadvantages, but in each case, potential construction-related impacts (e.g., ground-borne vibration, noise, dust, etc.) can be mitigated by establishing and adhering to standard industry thresholds and limiting criteria for noise, vibration and dust. With regard to rock excavation using drilling and blasting methods, potential negative impacts associated with excessive ground-borne vibrations, fly rock, and air blast (noise) concerns can be mitigated using controlled blasting methods. If blasting is used for excavation, specify a threshold value for air overpressure based on acceptable levels; control the powder factor, the charge weight per delay, and delay pattern; and provide proper stemming, blasting mats, and proper relief for each blast.

The proposed excavation is approximately 60 feet wide, 450 feet long, and 35 to 40 feet deep, with the lower 30 to 35 feet of the excavation in rock. The rock mass consists of very low to low strength, fresh (unweathered) to completely weathered (soil like) siltstone and sandstone of the Blakely Formation. It is anticipated that the excavation performed using drilling and controlled blasting methods will be accomplished using 25 to 35 individual blasts, with each blast occupying half the excavation width and for a distance of 25 to 40 feet along the long axis of the excavation. Blasting will progress excavating one side then the other as the excavation is advanced through the excavation footprint. Following each blast, a sufficient volume of the blasted rock will be removed prior to initiating the next blast. The resulting open space (or relief) provides an open area for rock blasted during a subsequent blast to move into. Sufficient relief, combined with using appropriate powder factors and delay patterns (sequence that the explosives in individual holes are detonated) will reduce the magnitude of ground-borne vibration beyond the final excavation line and space above the excavation. A threshold value for air overpressure (air blast or noise) will typically be set based on acceptable levels, and will be specified in the contract documents.

Often a series of test blasts are performed in advance of production blasting. These test blasts will be done on site, within the footprint of the facility to allow the contractor to assess the appropriate hole spacing, delay pattern, powder factor, etc. to achieve optimum rock breakage, while meeting the contract requirement for noise and ground borne vibrations. Explosive products, such as dynamite and blasting agents, and initiators and blast hole delay devices will not be stored on site for more than one day. These components will be brought to the work site and deployed into previously drilled blast holes and detonated each day a blast is scheduled to occur. These components will be transported by truck in separate and locked containers to prevent unintended detonation. All work will be performed under the direction and supervision of a licensed blaster, following the state of the practice as well as all local, state, and federal regulations.

Response to Ginsberg Comment 3

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy, and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with the Seward Park Vegetation Management Plan and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Ginsberg Comment 4

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have commented, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. Section 1.4 has been added to the Final EIS to disclose this significant area of controversy.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on

recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality).

This recommendation will be presented to the City Council as part of the process to address the requirements of Seattle City Ordinance 118477 (a.k.a., "Initiative 42"). Per Initiative 42, the Seattle City Council must hold a public hearing prior to making a determination whether there is "no reasonable and practical alternative" to constructing the facility in Seward Park. Similarly, the Council will decide which of the two locations within Seward Park (tennis courts vs. parking lot) is preferred. Finally, the Council will make a determination whether or not the proposed underground storage tank is "compatible with park use" and therefore does not require replacement property. SPU expects the City Council to hold the public hearing and make these determinations in 2013. The public hearing will provide an opportunity for the public to provide input on the two alternatives before the City Council makes a final project siting decision. The EIS has been revised to include an explanation of the public process that SPU has carried out and will carry out to site the underground storage tank.

Response to Ginsberg Comment 5

As described in Section 13.2.1.1, park users and nearby residents likely will notice an increase in noise levels during construction, however the construction noise is expected to comply with the maximum allowable noise limits. The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Ginsberg Comment 6

SPU hopes to work with neighbors to resolve concerns with potential impacts.

Draft EIS Comments to
Betty Meyer, SEPA Responsible Official
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. box 34018
Seattle, WA 98124-4018

Date: Oct. 8, 2012

Provided by Daniel and Elizabeth Kinerk
5926 Seward Park Ave. S., Seattle, WA. 98118

1 We do not approve of a CSO tank going into any location within Seward Park boundaries. It will have significant short-term as well as long-term ramifications. If the result is a tank must be placed within the park, we strongly support the Parking Lot Alternative 2 as the CSO tank location.

CSO - Response to SPU reasons for selecting the Tennis Court Alternative 1

2a **SPU Reason 1** • *Alternative 1 would have less impact on park amenities and users, compared to Alternative 2. Alternative 1 would be farther away from a nearby children's play area, picnic shelter, and the Audubon Center. Due to this increased distance, the construction noise, dust, and odor would affect fewer visitors.*
Response: Occasional park visitors are taking precedence over the local neighbors. The neighboring homes will be required to live with this project 24 hours a day, 7 days a week for over a 2 1/2 year construction period plus permanent long term effect.

2b
- Vibrations: Material pulled from (table 1-1) - Potentially damage adjacent structures due to vibration, settlement, or ground settlement at nearby residences and park facilities (however, higher potential impacts to residences compared to park facilities) - What best exemplifies SPU's disregard for the impact of the Alternative 1 over Alternative 2 to the adjoining property owners is the risk of the damage of occupied homes over non-occupied park structures.
  - Vibrations will be strong enough to possibly structurally damage nearby homes (Table 1-1).
  - Sewer lines of 7 homes west of Alternative 1 site will have damage and possibly require additional tree removal for repair (see sewer diagrams attached); possibly more homes could be affected.

2c
- Of the 7 homes directly bordering the proposed construction site for Alternative 1 , Retirees live in 3, and a total of 11 children live in 3. We cannot "chose" as visitors can to go elsewhere during this project. We are required to live with the noise, dust, odor and vibrations.
  - A majority of the comments submitted from the June 7, 2011 "unveiling" of the new Tennis Court Alternative expressed concern for the neighbors. SPU reason 1 is not considering the neighbors.

2d
- Noise: Normal maximum noise level in Residential areas during the day is 55 dBA. Allowable construction limit for this type of project is 80 dBA (think of standing 50 feet from a freight train). People generally perceive a 10-dB increase in a noise source as a doubling of loudness. For

example, a 70-dB sound level will be perceived by an average person as twice as loud as a 60-dB sound (per the Construction Noise Assessment Technical Memo for Henderson Basin 44).

- Per chart 13-1 for the dBA for the 4 closest homes to the sight from one receptor (keep in mind that the receptor was in one spot and this is a large area. Sound will only be louder).
  - Alternative 1 (Tennis Court) - average dBA is 74 (range was 72 dBA to 77 dBA)
  - Alternative 2 (Parking Lot) - average dBA is 64
  - In short, this doubles the excessive sound noise for home owners if Alternative 1 is selected (the above information does not include the sound of pile-drivers and jack hammers).
- SPU's unilateral decision to select Alternative 1 fails to factor the adverse effect on retirees, small businesses and children and animals at home during work hours.
  - The nearly constant work schedule (7 days a week) with its accompanying noise was confirmed by the SPU representative. The draft EIS states the only exception to the construction schedule above will be special park events which have historically triggered their own noise issues and parking issues to the detriment of the neighborhood.
  - Noise will be ongoing 24 hours a day due to the generators and water pumps needed for both sites.
  - SPU's unilateral decision to select Alternative 1 ignores the reality of the harmful effects continuous noise from the generators/water pumps during the "estimated" 2 1/2 year construction period.

- Odor and Dust: The current venting is at the NW entrance to the park. Odors during the summer and periodic other times throughout the year hang in the tree line about 5 feet above the 10 foot stack and drift south to just short of the first tennis court. The smell can be very unpleasant.
  - Short-term: Exhaust from construction vehicles and equipment; particulate matter, carbon monoxide, nitrogen dioxide, and greenhouse gasses (Table 1-1)
  - Long-term: The new Facilities Vault would be located W of the tennis parking lot. This location brings ambient noise and gas and odor emissions as close to the neighbors as possible.
    - Advantage of Alternate 2 - The new Facilities Vault is located at the furthest point possible. Any potential odor issues or noise issues will not effect any park structures or neighboring homes.
    - Testing for lead in the soil from the Tacoma Smelter Plume; heavy dust will be released into the air from either Alternate location. The EIS did not reference soiling testing results for lead.

2e

2f

SPU Reason 2 • *Alternative 1 would be located closer to the existing CSO storage pipe and sewer lines in Seward Park.*

Response: If being close to the existing CSO storage pipe and sewer lines in the park were of high importance, one would have expected that SPU would have eliminated the Alternatives of the Private Property and Lake Washington Blvd. options. If SPU's unilateral decision to select alternative 1 is primarily based on the sewage line proximity, the Tennis Court Alternative option should have been fully investigated and discussed at the beginning of this process in 2010.

3a

The existing storage pipe and sewer lines will not be used in either of the Alternatives as the existing piping was scheduled for replacement anyway. Either Alternative will require reconnection.

3b

3c
- Per 3.3.1.3 in the draft EIS, Alternative 1 would require a temporary bypass of the upper section of the existing SCO Outfall; Alternative 2 would not.

3d
SPU's decision conveniently ignores the risk of damage to adjoining property owners sewage lines into the park and offers no solution to this real threat.

SPU Reason 3 • ***Alternative 1 would be less disruptive to Seward Park users during maintenance activities.***

Response: Maintenance activities are typically scheduled during the week when visitation to the park is low. Visitors will have other locations for parking.

4a
- Maintenance activities by the tennis courts will limit the parking spaces for people interested in playing tennis or enjoying the connecting beach in the same manner Alternate 2 would be effected. SPU's unilateral decision to select Alternative 1 over Alternative 2 on the basis of maintenance is without merit.
  - *Per Table 3.6, the most frequent activity is quarterly maintenance for up to 4 hours.*

4b
- UPARR protections are being moved to allow access to maintenance the hatches between the tennis courts in Alternate 1. There is no allowable space for large vehicles to access the hatches without building a road.

4c

SPU Reason 4 • ***Alternative 1 would not require relocating the Seattle Parks sewage pump station, currently located near Parking Lot 2.***

5
Response: The pump station will most likely require replacement under the scope of this entire project. Relocation in the same area should not be an impact.

SPU Reason 5 • ***Alternative 1 would potentially result in a shorter closed period for Parking Lot 2, compared to Alternative 2. Under Alternative 1, Parking Lot 2 would be fully closed to the public for approximately one and a half years and then re-opened to the public either fully or on weekends.***

Response:

1. What is missing is the discussion of the Tennis Courts and the possibility that they could reopen earlier during the construction. According to the EIS, if Parking Lot Alternative 2 is selected, the Tennis Courts could possibly open earlier.

6
- ***1.5 in the draft EIS states: For Alternative 1, the tennis courts would be closed for up to approximately 30 months for construction of the CSO storage tank under that location. For Alternative 2, the tennis courts would be closed for 18 to 30 months if selected as a location for construction staging. The closure of the tennis courts would require people to travel to other tennis courts in the area and increase the competition for court time.***

2. SPU's unilateral decision to select Alternative 1 over Alternative 2 fails to provide a reasoned analysis of use of the Tennis Courts by park visitors. It is well known that tennis court access in Rainier Valley is a premium and the selection of Alternative 2 would lessen the adverse effect for use of public tennis courts in this neighborhood.

SPU Reason 6 • ***Alternative 1 would have less impact to the bald eagles that nest in Seward Park, compared to Alternative 2. Alternative 1 would be farther away from the two eagle nests and the construction activities would likely not be in the eagles' line-of-sight from their nests.***

7
Response: The draft IES does not support SPU's Reason 6 above.

- *7.3.1.1 in the draft EIS applies to both Alternatives and states, "The proposed project is not anticipated to adversely impact nesting activity by the bald eagles because the nests are highly urbanized, the birds at the two nests are accustomed to increased noise, and the closest nest is located more than a quarter mile from the project area."*

8 The reasons behind SPU's unilateral decision to select Alternative 1 over Alternative 2 do not withstand thorough and reasonable analysis. The shortcomings of SPU's unilateral decision to select Alternative 1 over Alternative 2 is further undercut by the public's choice of Alternate 2 over the options presented during the public meetings. SPU has unfortunately chosen to foreclose the wishes of this neighborhood and will result in irreparable change to an iconic park inconsistent with the plan and vision of the Olmstead Brothers.

Short-term Impacts from the Tennis Court Alternative 1

9a
- The major asset of most families is their home. Alternative 1 will not allow park neighbors to get fair market value for their homes until 2018.
  - Some homes will never regain their value with the underground facilities and tank almost in their backyards.

9b
- Financial impact due to inability to work from home office locations for small business.

9c
- Potential Structural Damage to homes near the park due to construction vibrations and ground shift/settling.

9d
- 43 trees will be lost plus possibly more ; it will take years for the trees to regrow.

9e
- Sewer line damage to park-adjacent homes.

9f
- Light and glare at night (Table 1.1).

9g
- Parking will be at a premium, forcing visitors onto the neighborhood streets.
  - Special events at the park create on-street parking issues
  - Closed parking lots for the CSO tank installation project

Long-term Impacts from the Tennis Court Alternative 1

10a
- Trees will take years to grow back.

10b
- Increased crime with the development of the area around the tennis courts; more visibility of the homes and it is a difficult area for the normal patrol to see.

10c
- Gasses will be released and potentially waft into the Tennis Courts or up the hill into the neighborhood.

10d
- Humming noise from the underground facility will be heard.

10e
- Possible new road to allow maintenance access to the tank hatches.

10f
- Market-value of homes bordering the park will be adversely affected.

Advantages for Alternative 2

11a
1. The Shoreline Treatment Facilities is located at the furthest point from tennis courts and homes. Any potential odor issues or noise issues will not affect any park structures of neighboring homes.
   a. Gasses would dissipate quickly over the water and not be an issue.
   b. Humming noise would be in a parking lot, not near a greenbelt, tennis courts and homes.

11b
2. Further from inhabited structures, reducing structural damage and noise pollution.

11c
3. Sewer lines may not be damaged.

11d
4. Only 26 trees will be lost.

11e
5. The greenbelt to the west (Alternative 1)for the eagles, heron, osprey and wildlife will remain intact.
6. Alternative 2 tank is 350 feet long and rectangular resulting in a smaller footprint and easier engineering.

11f
   a. Alternative 1 tank is 40 feet longer and requiring a bend to fit the narrow space against an environmentally sensitive slope.

11g
7. Financial impact to small businesses may be moderate.

11h
8. Neighboring assets(homes) will be financially "locked-up" until 2018.

11i
9. Light and glare will be reduced.

Scoping Issues with the Tennis Court Alternative

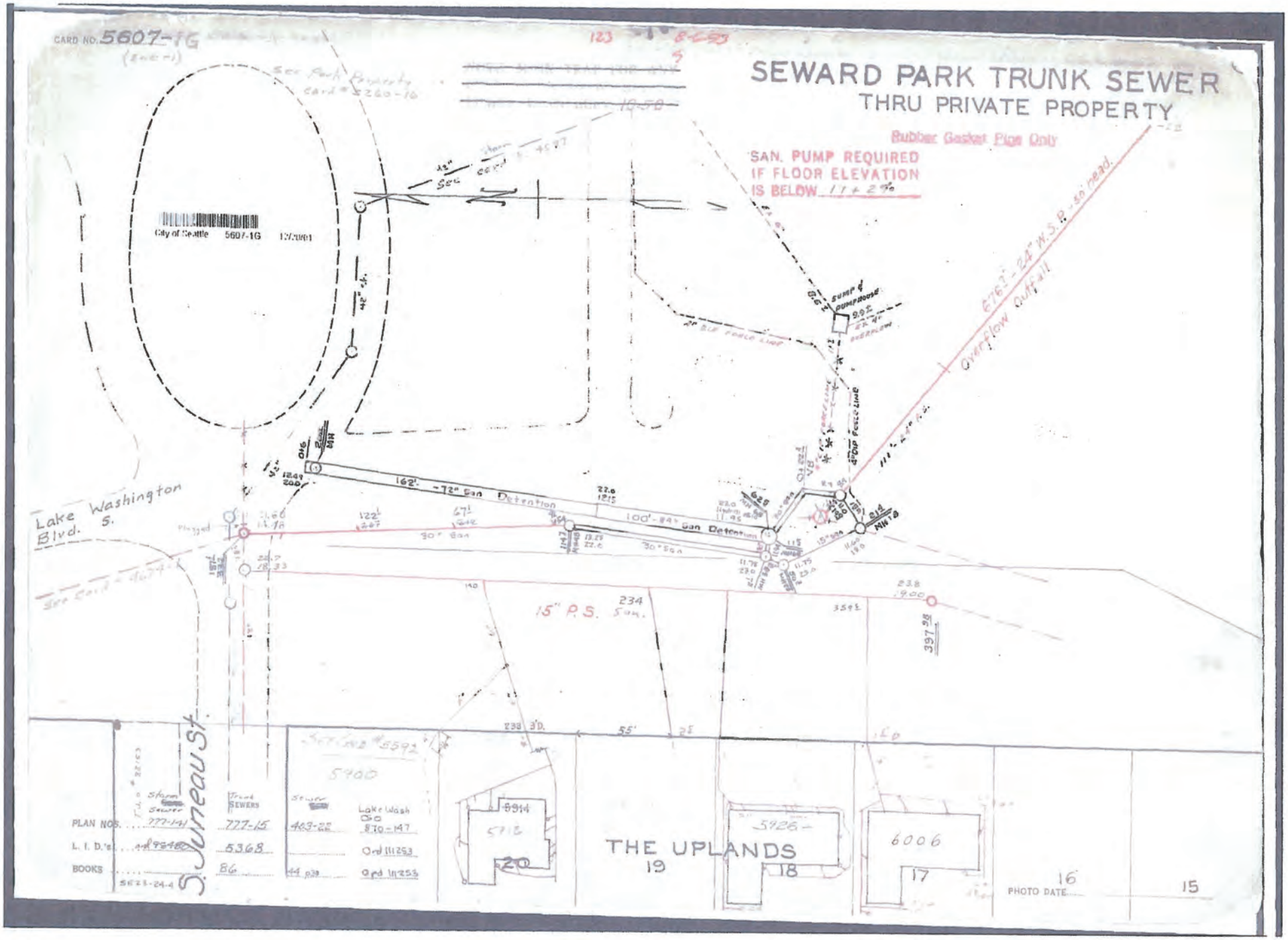
The Alternative 1 of Tennis Courts as a possible location was not presented until June 7, 2012, at the Seward Park CSO open house. 2.9 in the Draft EIS report indicates that all options were fully discussed - this is not the case.

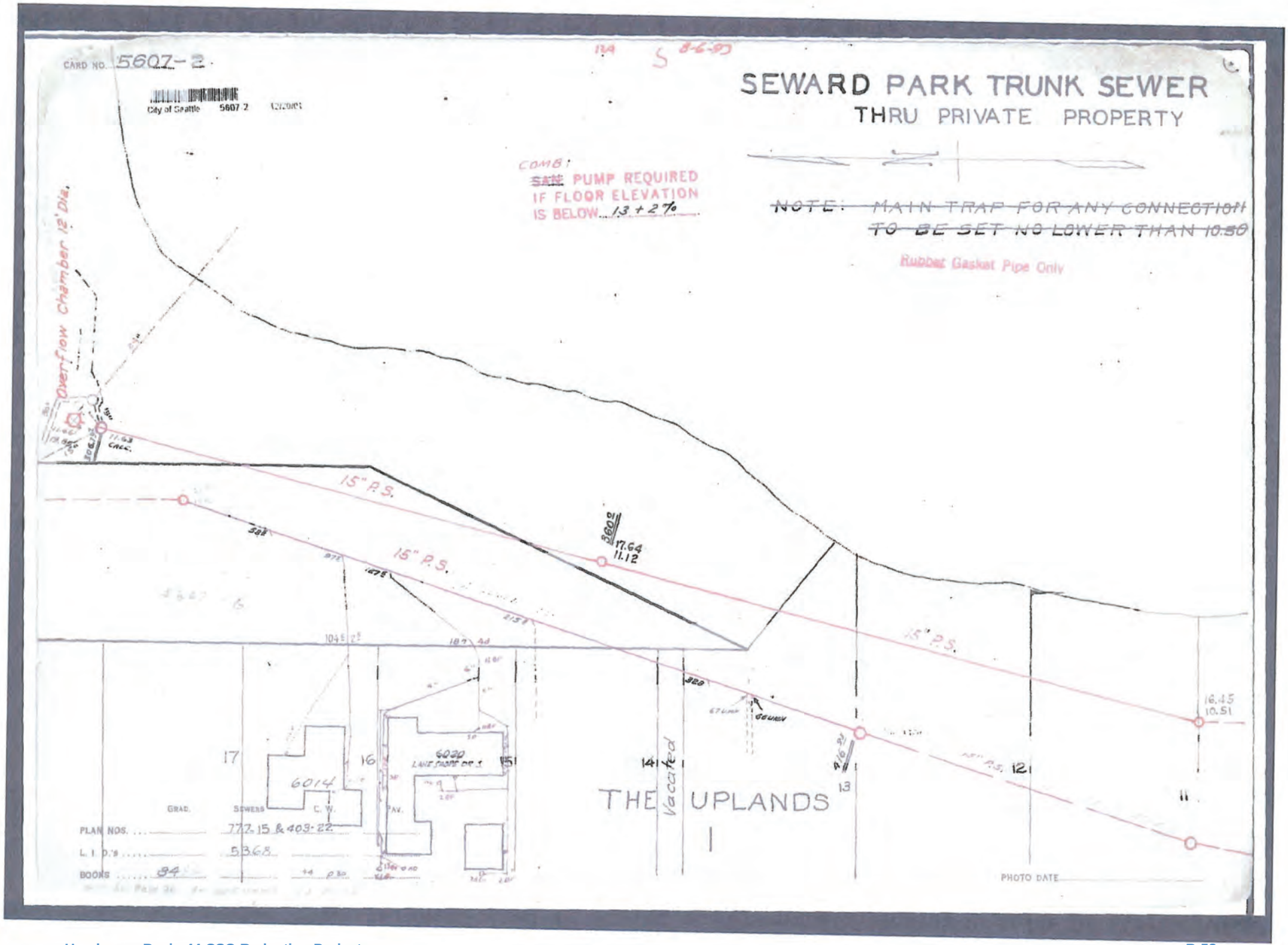
2.9 in the EIS states "*How has SPU involved the public in the proposed project?*
Both SEPA and NEPA require public involvement, especially during EIS scoping and EIS review. SPU has met and exceeded these requirements. In 2010 and 2011, SPU hosted four project workshops, an EIS scoping meeting, and several public meetings. The purpose of these public workshops and meetings was to develop a shared understanding of the problem SPU needed to address, the options, and the potential impacts; and to gather public input on the options, potential project locations, and the scope of the EIS. Materials from these workshops and meetings are available on the project website: http://www.seattle.gov/cso/northhenderson."

12
   a. All public meetings prior to June 7th do not reflect the Tennis Court location as an alternate. The June 7th "open house" was not promoted as presenting more tank options so attendance was very low. No further public meetings to discuss the additional option prior to this Draft IES.
   At that time, the Tennis Court option was called Alternative 2 (this may lead to confusion during the following discussions). It was not mentioned in any previous online Powerpoint presentation, thou other location options were publicly represented.
      - I attended several of the prior public meetings discussing the Genesee and the Henderson basin. At that time, there was only one site identified in the park. That site was Alternative 2 (Parking Lot Alternative).
         - Meeting presentations on the SPU site clearly show that the Tennis Court Alternative 1 was not addressed in all 7 meetings prior to the open house.
      - I provided my opinion of the new Alternative 1 (was identified as Alternative 2, Tennis Court option) at the open house. I was not contacted until a City of Seattle CSO representative knocked on my door to inform me of the decision to proceed with Alternative 1.

13
In the June 7th meeting, the Parking Lot option was named Alternate 1 and the Tennis Court option was named Alternate 2; public comments were based on the naming conventions from the June 7th meeting.
   a. The naming of the Alternate locations were renamed for the Draft EIS report.
      i. The Parking Lot option is now Alternate 2

ii. The Tennis Court option is now Alternate 1


SEWARD PARK TRUNK SEWER
THRU PRIVATE PROPERTY
Rubber Gasket Pipe Only
SAN. PUMP REQUIRED
IF FLOOR ELEVATION
IS BELOW 17 + 2%
CARD NO. 5607-1G
City of Seattle 5607-1G
Lake Washington Blvd. S.
S. Juneau St.
162' - 72" San Detention
100' - 84" San Detention
15" P.S. San.
676' - 24" W.S.R. - 50 head.
Overflow Outfall
SUMP & PUMPHOUSE
THE UPLANDS
PLAN NOS.
L. I. D.'s
BOOKS
PHOTO DATE


CARD NO. 5607-2
City of Seattle 5607 2
SEWARD PARK TRUNK SEWER
THRU PRIVATE PROPERTY
COMB!
SAN. PUMP REQUIRED
IF FLOOR ELEVATION
IS BELOW 13 + 2%
NOTE: MAIN TRAP FOR ANY CONNECTION
TO BE SET NO LOWER THAN 10.50
Rubber Gasket Pipe Only
Overflow Chamber 12' Dia.
15" P.S.
15" P.S.
15" P.S.
17.64
11.12
16.45
10.51
17.63
CALC.
6020
6014
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16
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14
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12
11
THE UPLANDS
Vacated
GRAD.
SEWERS
C. W.
PAV.
PLAN NOS. 772.15 & 403-22
L. I. D.'s 5368
BOOKS 84
PHOTO DATE

Meyer, Betty

From: lizzyjk@comcast.net
Sent: Wednesday, October 17, 2012 7:34 PM
To: Meyer, Betty
Cc: lizzyjk@comcast.net; Dan Kinerk
Subject: Comment to the draft EIS for Henderson Basin 44

Betty Meyer, SPU SEPA Responsible Official
Seattle Public Utilities
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018
betty.meyer@seattle.gov

Dear Betty,
I have an additional comment to add to our comments submitted on Oct. 8th at the public hearing on this draft EIS.

City of Seattle Ordinance 118477, known as Initiative 42, does not allow the sale, transfer, or change from park use to another use unless there is no reasonable and practical alternative. Therefore, the Seattle City Council would have to deem that there are no other "reasonable" or "practical" alternatives and pass an ordinance to that effect.

In review of the draft EIS, I believe there is a practical alternative outside Seward Park boundaries that was not investigated per table 3-1 or referenced in any public materials - I am not talking rain gardens.

14 The current approximate cost of installing a 2.4 million gallon tank in Seward Park (on the low-end) is $100,806.00 per single-household.
The fact that Henderson Basin 44 is a semi-combined sewer system allows the possibility of redirecting roof runoff into public streets or adding cisterns to lessen the flow during winter events. This alternative should be studied as it would keep the tank out of Seward Park, significantly reduce sewer overflow events, and could significantly lower the cost per household to install a workable system. It is my understanding that another interested party will be submitting a more detailed proposal along this line for consideration.

Respectfully,
Elizabeth and Dan Kinerk

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Response to Kinerk Comment 1

Thank you for your comment. We acknowledge your concerns with the Tennis Courts Alternative.

As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that this is a significant area of controversy.

Response to Kinerk Comment 2a

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have commented, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommends the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that this is a significant area of controversy.

Response to Kinerk Comment 2b

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Kinerk Comment 2c

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have commented, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code.

In the meantime, the EIS has been revised to include an explanation of the public process that SPU has carried out and will carry out to site the underground storage tank. Section 1.4 has been added to the Final EIS to describe this significant area of controversy.

Response to Kinerk Comment 2d

As described in Section 13.2.1.1, park users and nearby residents likely will notice an increase in noise levels during construction, however the construction noise is expected to comply with the maximum allowable noise limits. The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Kinerk Comment 2e

Short-term:

The Puget Sound Clean Air Agency (PSCAA) governs activities affecting air quality in King, Snohomish, Pierce, and Kitsap Counties; and thus has jurisdiction over the project area. As required by the PSCAA regulations, emissions will be controlled by using reasonably available control technologies (PSCAA, 2008) and City of Seattle construction practices.

Fugitive dust impacts associated with construction of the proposed project are not anticipated to be significant. Construction contractors will be required to comply with regulatory requirements and implement appropriate dust control measures, as necessary. Measures to minimize fugitive dust emissions from construction will include:

- Spraying exposed soil and storage areas with water during dry periods.
- Covering exposed earthen stockpiles and loads of excavated material being transported from the site.

Vehicular emissions associated with construction of the project are anticipated to be short-term in nature. Measures to minimize vehicular emissions will include:

- Requiring contractors to use best available control technologies.
- Proper vehicle maintenance.
- Minimizing vehicle and equipment idling.

Long-term:

The existing CSO Storage Facility 8 does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

Additionally, the open grated maintenance hole at the existing CSO storage facility will be modified/sealed to contain unpleasant odors.

Response to Kinerk Comment 2f

The Asarco smelter plume was not included in the Phase I Environmental Site Assessment technical report. However, relevant information on Ecology's website has been reviewed and the area under consideration is located in the 0-20 parts per million (ppm) arsenic area of the smelter plume. According to Ecology, areas with concentrations of arsenic within this range do not require remediation.

http://www.ecy.wa.gov/programs/tcp/sites_brochure/tacoma_smelter/2011/techAssist.html

Response to Kinerk Comment 3a

Comment noted. Proximity to the existing sewer infrastructure has been deleted as a reason for preferring the Tennis Courts Alternative.

Response to Kinerk Comment 3b

The existing storage pipe (CSO Storage Facility 8) will remain in use under either alternative. The existing CSO outfall pipe into Lake Washington will be replaced under either alternative. Under either alternative, some sections of the SPU and Seattle Parks sewer pipes in the location of the new CSO storage tank will be reconfigured.

Response to Kinerk Comment 3c

Both alternatives include replacing the existing outfall and would require a temporary bypass at various stages of the project construction. (See Section 3.1.1.3 of the Final EIS.)

Response to Kinerk Comment 3d

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Kinerk Comment 4a

Comment noted. As you commented, the maintenance activities for either the Parking Lot Alternative or the Tennis Courts Alternative will be scheduled during the week when visitation to the park is low. SPU does not anticipate significant long-term recreational impacts for either alternative.

SPU has revised the EIS to clarify the reasons for its recommendation of the Tennis Courts Alternative as the preferred alternative as follows: (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined

by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality).

Response to Kinerk Comment 4b

As described in Section 3.1.1.4, the UPARR protections are being transferred due to: 1) the presence of several permanent, aboveground features required for the proposed project; 2) the project facilities resulting in a dedicated use of the sub-surface area and restricting certain future uses in the surface area; and 3) a construction duration of more than 12 months.

Response to Kinerk Comment 4c

A new road will not be built to access the CSO facilities. The storage facility inspection hatches between the tennis courts will be accessed by two methods. In some cases, maintenance staff will walk a footpath to the access hatches. In other cases, the maintenance activities will require driving on the surface of the tennis courts (with access provided through gates on the north and south ends of the tennis courts boundary fences). The maintenance truck will travel on the apron outside of the doubles sideline to the extent feasible.

Response to Kinerk Comment 5

Thank you for your comment. The existing Seattle Parks wastewater pump station at Seward Park is nearing the end of its useful life and is due for replacement. Language in the EIS discussing how that pump station impacts the selection of the preferred alternative has been removed.

Response to Kinerk Comment 6

As described in Sections 4.2.1.1, 4.2.2.1, 4.2.3.1 and 4.2.4.1, park users will need to seek other tennis courts during construction of either alternative, and there are eight other public tennis facilities within the vicinity. Four of those tennis facilities are within 2 miles of Seward Park; the other four tennis facilities are within 3 to 7 miles of Seward Park. As described in Section 3.4, the Seward Park tennis courts will be completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, unless Seattle Parks personnel decide during the design stage that they will prefer a different use (e.g., basketball courts, picnic area).

Response to Kinerk Comment 7

The Parking Lot Alternative site is closer to the Seward Park South nest than the Tennis Court Alternative site. However, neither project area is expected to significantly affect the eagle nesting foraging or perching behaviors because the specific nest is very accustomed to regular disturbance. The nest is clearly visible from the public road and these particular birds do not appear to be significantly impacted by excess noise and disruption. The Parking Lot site may be more visible to birds that access this nest and, because it is closer, may be visible more often by birds that fly to and from the nest. This could result in some change in flight behavior, but this is not expected to be significant because of the reasons already stated and because the

project is not expected to impact available foraging opportunities or significant perch trees associated with the nest.

Language in the EIS discussing the how impacts to bald eagles impacted the selection of the preferred alternative has been removed.

Response to Kinerk Comment 8

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, the EIS has been revised to include a summary of the public process, and Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

With respect to the Olmsted plan and vision for Seward Park, the storage tank will be below ground with minimal above grade features visible. Restoration will include native vegetation in keeping with the Olmsted design principles and character of the park. The Olmsted Brothers did routinely work with engineers and utility companies in the development of parks to incorporate existing or proposed infrastructure. An example of this still exists today with Olmsted's design of Volunteer Park integrating the reservoir and water tower into the park.

Response to Kinerk Comment 9a

Analysis of potential economic impacts including effects on the market value of homes is not required by SEPA and was excluded from the scope of the EIS.

Response to Kinerk Comment 9b

Specific home office-related impacts are not mentioned, so it is assumed that the commenter is concerned with the noise, odor, air quality and traffic impacts of the proposed project.

The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and

HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected meet the requirements of the City's Noise Control Code.

In addition, project-related air quality and odor impacts and measures to reduce or eliminate air quality and odor impacts are described in Sections 10.3 and 10.5. The project will meet all applicable regulatory requirements.

Project-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5, respectively. The project will meet all applicable regulatory requirements, including any requirements identified in a project-specific Street Use Permit.

Response to Kinerk Comment 9c

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve

drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Kinerk Comment 9d

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy. Tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Kinerk Comment 9e

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Kinerk Comment 9f

As described in Section 6.2.1.1, no significant lighting or glare impacts are expected during construction. While artificial lighting may be necessary to illuminate the site for construction and security purposes, it will be aimed away from residential areas, use the minimum wattage necessary to provide the necessary illumination, and security lighting will be similar to existing security lighting for building facilities within the park.

Response to Kinerk Comment 9g

Sections 4.2.1.1 and 4.2.2.1 describe the impacts to parking, including the fact that during certain times (e.g., summer weekends, special events) vehicles will be displaced from Seward Park into the neighborhood.

Response to Kinerk Comment 10a

It will take time for proposed trees to grow and reach the size of the existing trees.

Response to Kinerk Comment 10b

Due to the removal of the trees, there is the potential for greater visibility of the houses above the western slope adjacent to the tennis courts. Disturbed areas will be enhanced with forest restoration planting, including native conifer and deciduous trees. SPU and Parks plan to involve the adjacent neighborhoods in the restoration of Seward Park regardless of which alternative is selected. The public involvement process for restoration will occur during the project's design phase, from 2013-2014. There is no evidence that the potential for greater visibility of the houses will lead to increased crime in the neighborhood.

Response to Kinerk Comment 10c

The existing CSO Storage Facility 8 (in Seward Park) does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

Response to Kinerk Comment 10d

Noise levels from operations and maintenance will be expected to comply with the residential day and night maximum allowable noise limits and are not anticipated to increase the noise levels at the nearby residences above existing measured noise levels. Noise generating equipment, such as fans from the odor control system, will be located below ground and maintenance will be infrequent and occur only during daytime hours, except in emergency situations. The noise levels from the equipment are lower than the existing noise levels measured at the nearby residences and park facilities.

Response to Kinerk Comment 10e

A new road will not be built to access the CSO facilities. The storage facility inspection hatches between the tennis courts will be accessed by two methods. In some cases, maintenance staff will walk a footpath to the access hatches. In other cases, the maintenance activities will require driving on the surface of the tennis courts, with access provided through gates on the north and south ends of the tennis courts boundary fences. The maintenance truck will travel on the apron outside of the doubles sideline to the extent feasible.

Response to Kinerk Comment 10f

Analysis of potential economic impacts including effects on the market value of homes is not required by SEPA and was excluded from the scope of the EIS.

Response to Kinerk Comment 11a

SPU does not expect long-term odor or noise issues for the Tennis Courts Alternative to impact the neighbors.

Noise levels from operations and maintenance will be expected to comply with the residential day and night maximum allowable noise limits and are not anticipated to increase the noise levels at the nearby residences above existing measured noise levels. Noise generating equipment, such as fans from the odor control system, will be located below ground and maintenance will be infrequent and occur only during daytime hours, except in emergency situations. The noise levels from the equipment are lower than the existing noise levels measured at the nearby residences and park facilities. Operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Regarding odor, the new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank. Project-related air quality and odor impacts and measures to reduce or eliminate air quality and odor impacts are described in Sections 10.3 and 10.5. The project is expected to meet all applicable regulatory requirements.

Tennis Courts Alternative would have less short-term (construction) impacts.

Response to Kinerk Comment 11b

SPU does not expect structural damage to homes or noise pollution from the Tennis Courts Alternative.

Regarding potential structural damage to homes, SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

Regarding noise pollution, noise levels from operations and maintenance will be expected to comply with the residential day and night maximum allowable noise limits and are not anticipated to increase the noise levels at the nearby residences above existing measured noise

levels. Noise generating equipment, such as fans from the odor control system, will be located below ground and maintenance will be infrequent and occur only during daytime hours, except in emergency situations. The noise levels from the equipment are lower than the existing noise levels measured at the nearby residences and park facilities. Operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Kinerk Comment 11c

Neither alternative site is anticipated to damage sewer lines. City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

Response to Kinerk Comment 11d

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Kinerk Comment 11e

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Kinerk Comment 11f

Comment noted. The CSO storage tank for the Parking Lot Alternative site is 15 feet (or 4 percent) shorter than for the Tennis Courts Alternative site. The difference in size is not a significant factor in the identification of the preferred alternative. The Tennis Court Alternative is near, but not within, a steep slope. The structural engineering design can be accomplished for either alternative.

Response to Kinerk Comment 11g

Specific small business-related impacts are not mentioned, so it is assumed that the commenter is concerned with the noise, odor, air quality, and traffic impacts of the proposed project.

The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in

Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

In addition, project-related air quality and odor impacts and measures to reduce or eliminate air quality and odor impacts are described in Sections 10.3 and 10.5. The project will meet all applicable regulatory requirements.

Project-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5, respectively. The project will meet all applicable regulatory requirements, including any requirements identified in a project-specific Street Use Permit.

Response to Kinerk Comment 11h

Analysis of potential economic impacts including effects on the market value of homes is not required by SEPA and was excluded from the scope of the EIS.

Response to Kinerk Comment 11i

As described in Section 6.2.1.1, no significant lighting or glare impacts are expected during construction. While artificial lighting may be necessary to illuminate the site for construction and security purposes, it will be aimed away from residential areas, use the minimum wattage necessary to provide the necessary illumination, and security lighting will be similar to existing security lighting for building facilities within the park.

Response to Kinerk Comment 12

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public involvement process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. Strategies evaluated included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received

comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Kinerk Comment 13

The EIS has been revised so that the alternatives are not numbered. The alternatives are referred to as the "No Action Alternative," the "Tennis Courts Alternative" and the "Parking Lot Alternative."

Response to Kinerk Comment 14

SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Each of the options was evaluated based on its technical feasibility, financial cost, and social and environmental impacts.

SPU did consider an inflow and infiltration reduction alternative which would have involved disconnecting roof leaders and foundation drains and connecting them to a separated storm drain pipe. This would have involved work on 100 percent of the properties within Basin 44 to control the CSOs, with considerable impacts to every property owner in the basin. There would be excavation around each home to disconnect the foundation drains and connect up each roof-leader, and there would also be excavation from the homes to the streets to connect to a new storm drain. In addition, the alternative would require installation of new storm drains on blocks that currently do not have one. Finally, all of the side sewers and sewer mains would need to be replaced to reduce the infiltration of groundwater into the pipes. This would also require significant excavation both on private property and streets. The inflow and infiltration reduction alternative was the most expensive alternative, costing 55 percent more (up to $42 million more) than the underground storage alternative at Seward Park. The EIS has been revised so that there is an explanation of the full range of alternatives that SPU considered to reduce CSOs in Basin 44 and how SPU narrowed down the alternatives.

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NEIGHBORS BLINDSIDED BY SPU'S FAILURE TO INFORM NEIGHBORS BORDERING TENNIS COURT OF ALTERNATIVE UNTIL IT WAS TOO LATE,
tennis court alternative was never discussed prior to the alternative being announced June 7th with comments due June 16th 2011

Community Meetings/Workshops:

9/2010, North Henderson Community Briefing – parking lot location pictured

10/2010, Friends of Seward Park Briefing – parking lot location pictured

10/2010, Friends of Olmstead Park Briefing – parking lot location featured, with 3 alternate locations featured: along Lk Wash Blvd, in Seward Park meadow, near the beach

11/2010, North Henderson Workshop #1, no mention possible locations other than "park"

12/2010, North Henderson Workshop #2, 3 locations discussed: parking lot location, Lake Wash Blvd and Private Property

1 **1/2011,** North Henderson Workshop #3, 3 location outlined: Seward Park parking lot, Lake Washington Blvd and Private Property

3/2011, North Henderson Workshop #4, no mention of tennis court alternative. Options listed are again, Storage under private property, Seward Park Parking Lot and Lake Wash Blvd.

5/27/2011
Direct mail postcard announces another meeting, e-mail blast to subscribers announcing meeting (no mention of new tennis court alternative listed)
Nothing available on-line

5/27/2011
E-mail sent to SPU asking, as a neighbor, how to give input if unavailable to attend 6/7/2011 meeting

6/7/201 Open House – 14 people attended
First time information is unveiled about change to possible tank location. Neighbors whole homes sit directly on new site not informed of change.

6/16/2011 Comments due for Scoping Study (9 days after new tennis court location disclosed)

6/16/2011
E-mail response received at 6pm giving information on how to respond

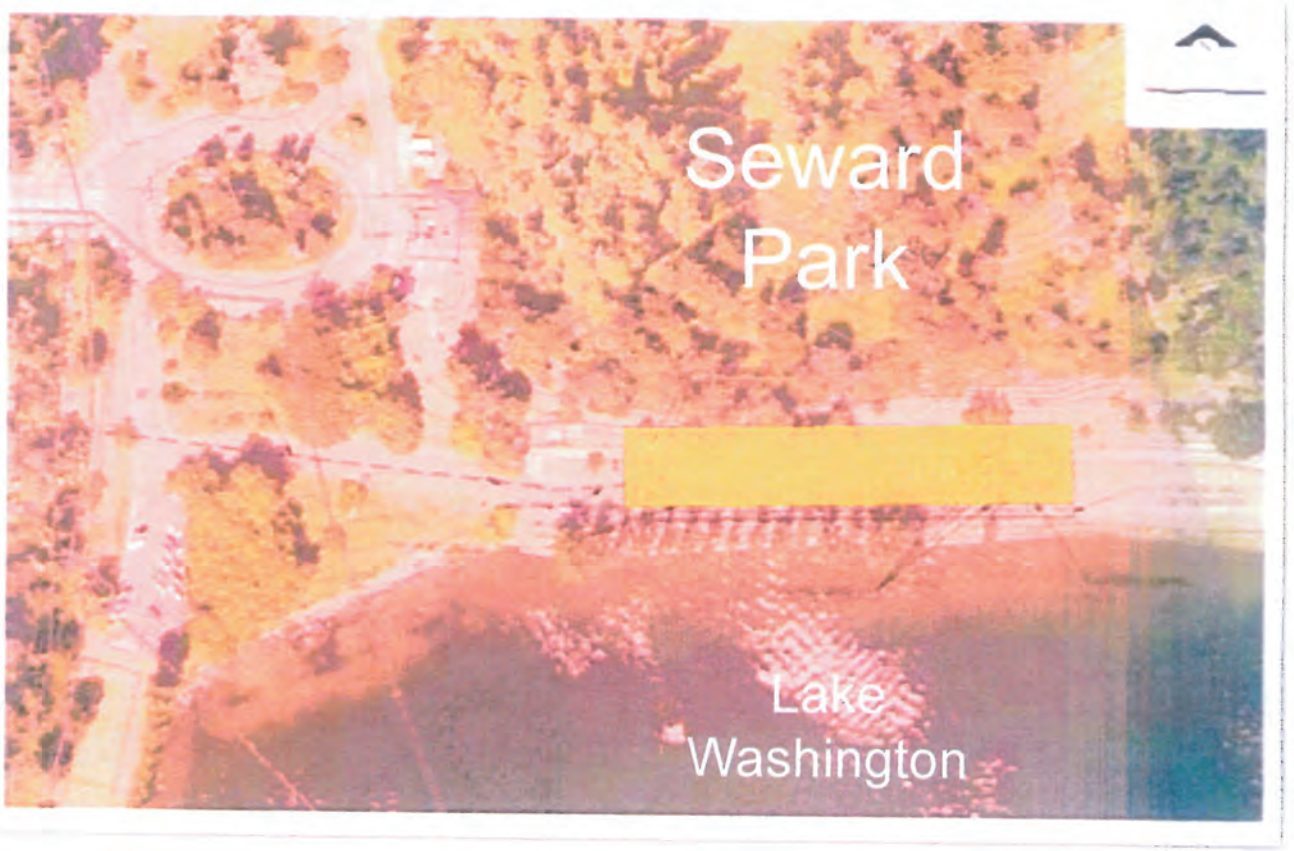
North Henderson Comm. Mtg 9/16/2010

North Henderson Basins

2 TANK ALT: SEWARD + MWP

Includes:

- Approx. 2.4 million gallons underground storage tank in parking lot in Seward Park (approximately 350 ft x 70 ft x 30 ft)



Basin 44 Underground Storage Tank in Seward Park

North Henderson
Possible CSO Reduction Projects

Friends of Seward Park Briefing 10/2/2010

2 TANK ALTERNATIVE

Basin 44 - 2.4 million gallon underground storage tank (Seward Park)

Basin 45 - 200,000 gallon underground storage tank (Martha Washington Park)

Friends of Olmstead Park Briefing 10/4/2010 p.1

North Henderson Basins

2 TANK ALT: SEWARD + MWP

Includes:

- Approx. 2.4 million gallons underground storage tank in parking lot in Seward Park (approximately 350 ft x 70 ft x 30 ft)

Basin 44 Underground Storage Tank in Seward Park

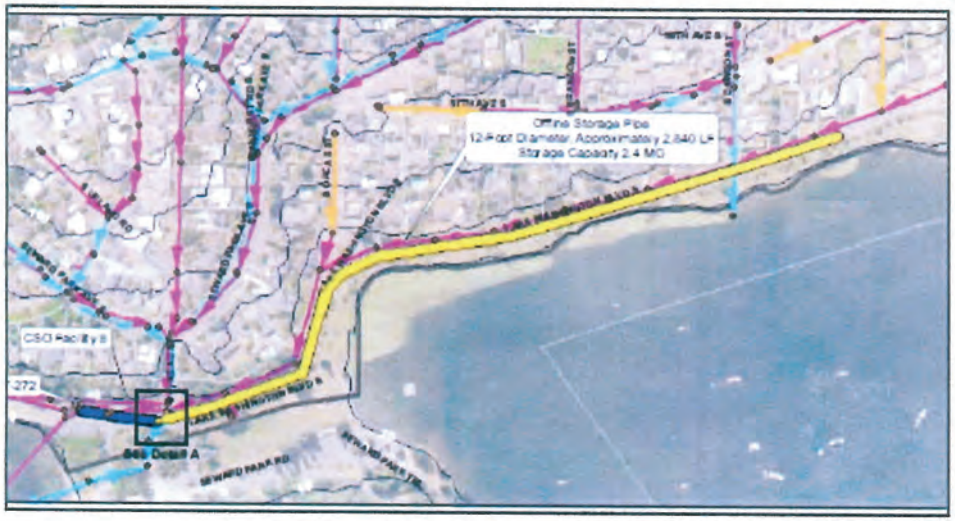
Friends of Seattle's Olmsted Parks 10/4/2010

Friends of Olmstead Park Briefing 10/14/2010 p.2

North Henderson Basins

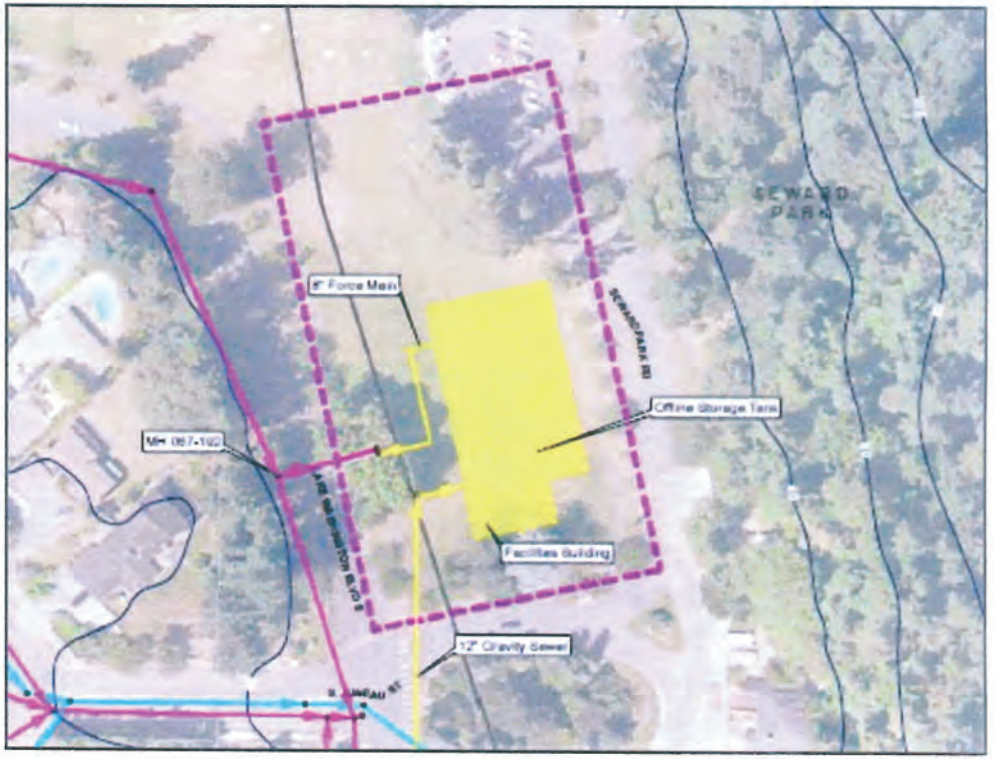
2 TANK ALT: SEWARD + MWP

Other Basin 44 (Seward Park) Storage Locations Considered:



Along Lake WA Blvd

Near the Beach

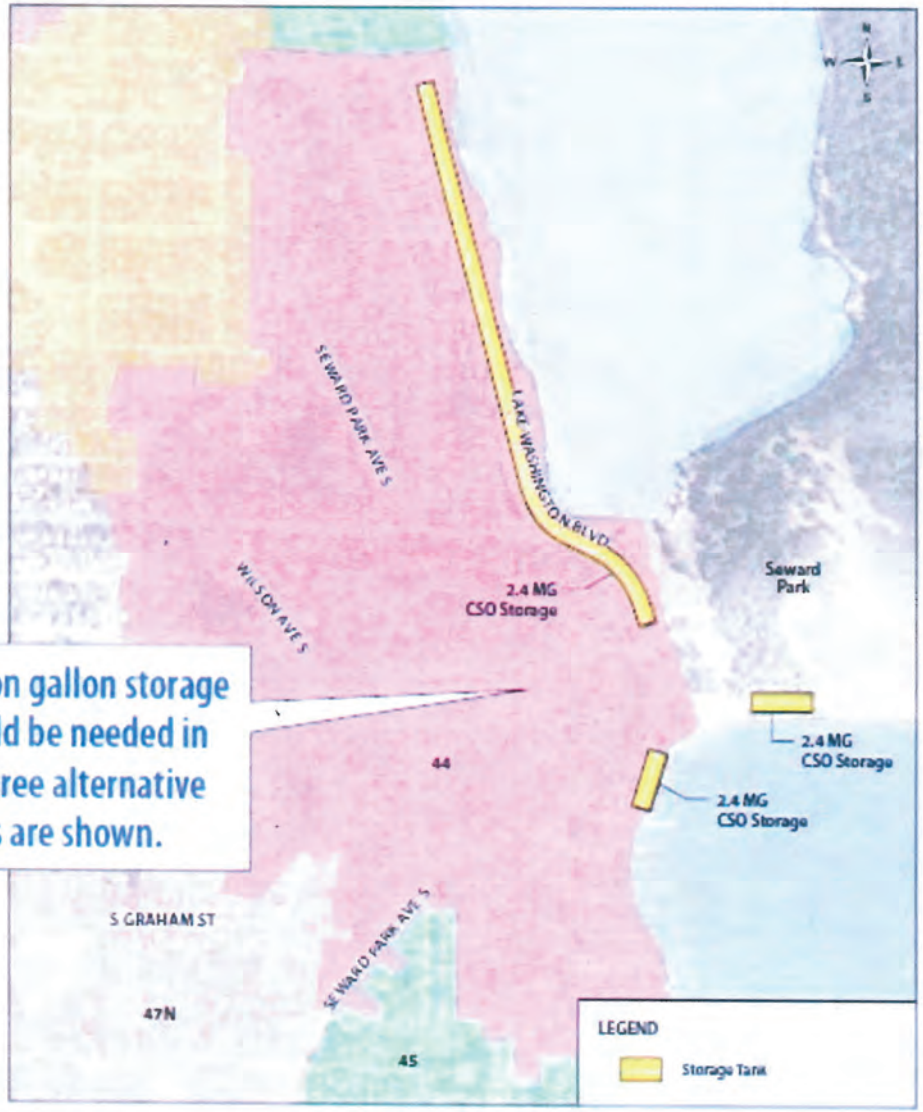


In the Seward Park Meadow

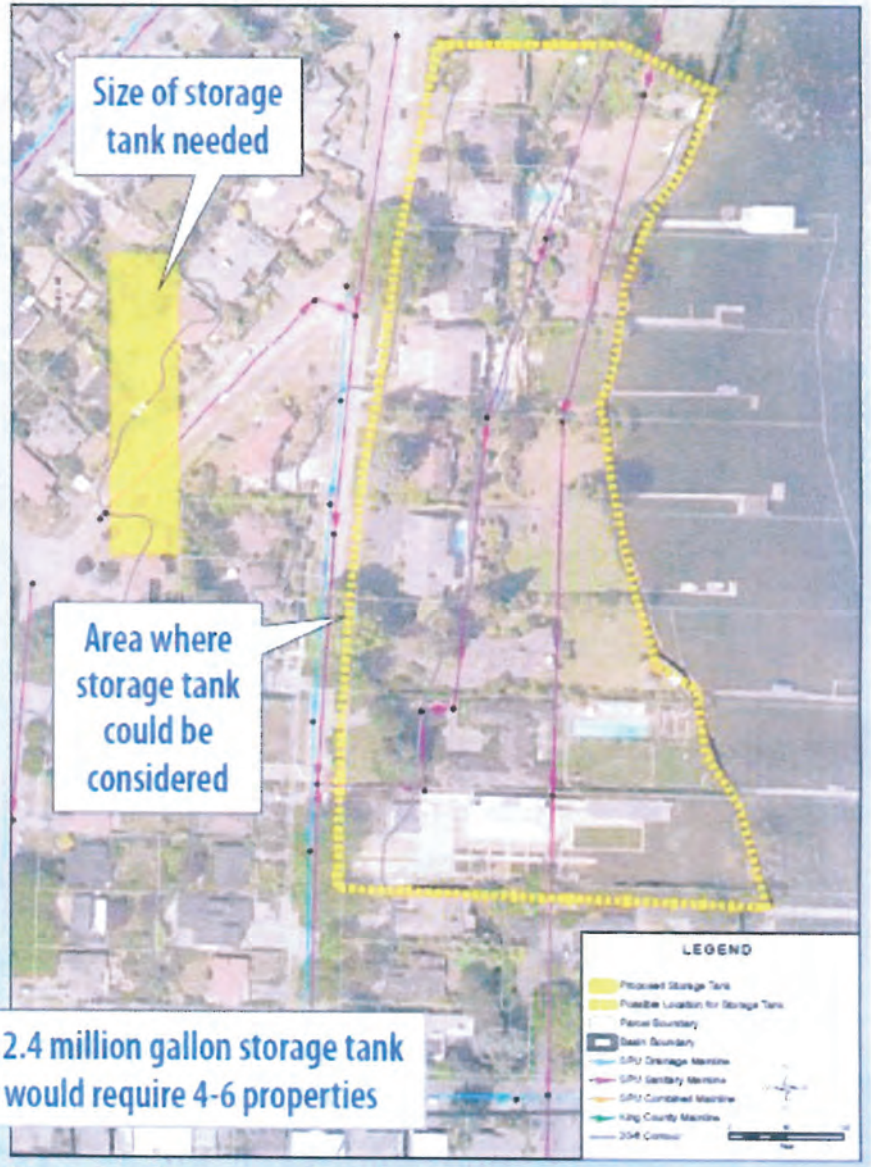
North Henderson Workshop # 2 12/14/2010

Distributed Storage (Basin 44)

Storage on private property



One 2.4 million gallon storage facility would be needed in Basin 44. Three alternative locations are shown.



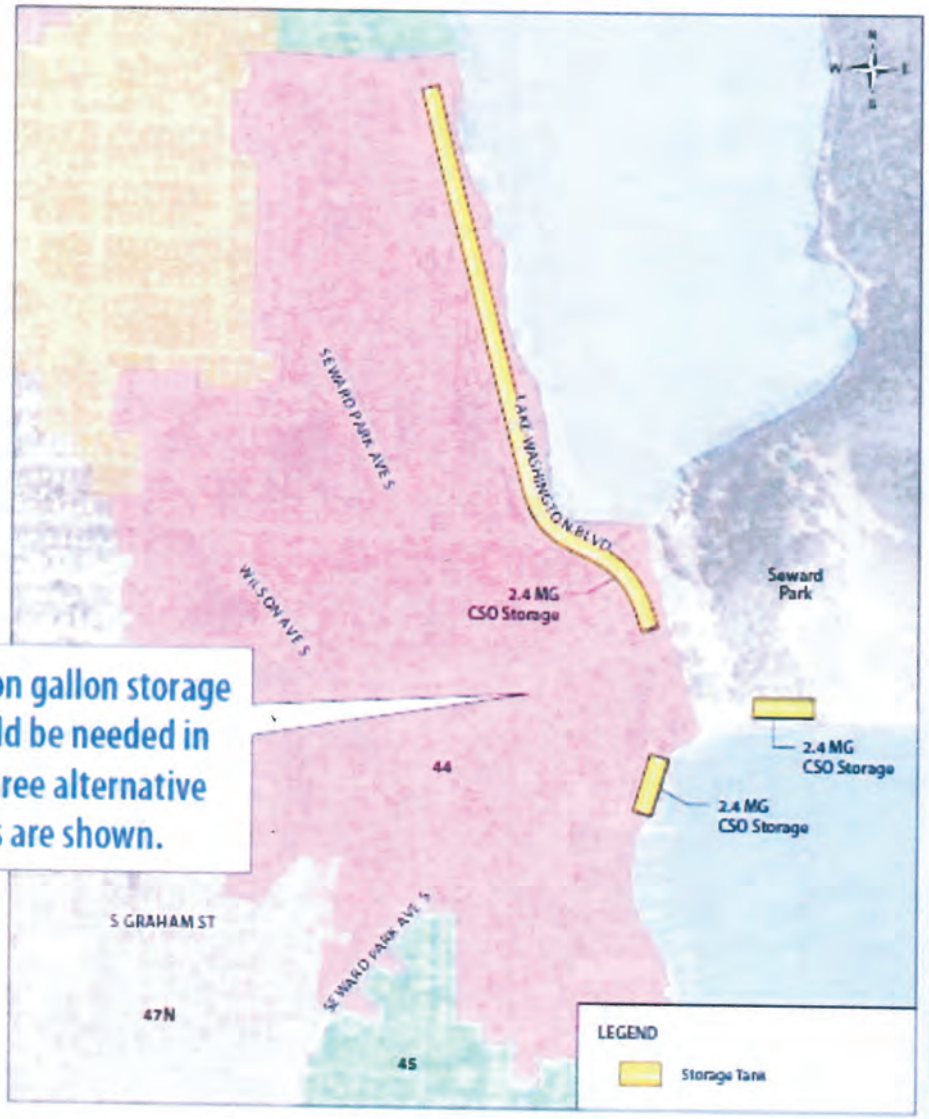
A 2.4 million gallon storage tank would require 4-6 properties

Example of storage under private property

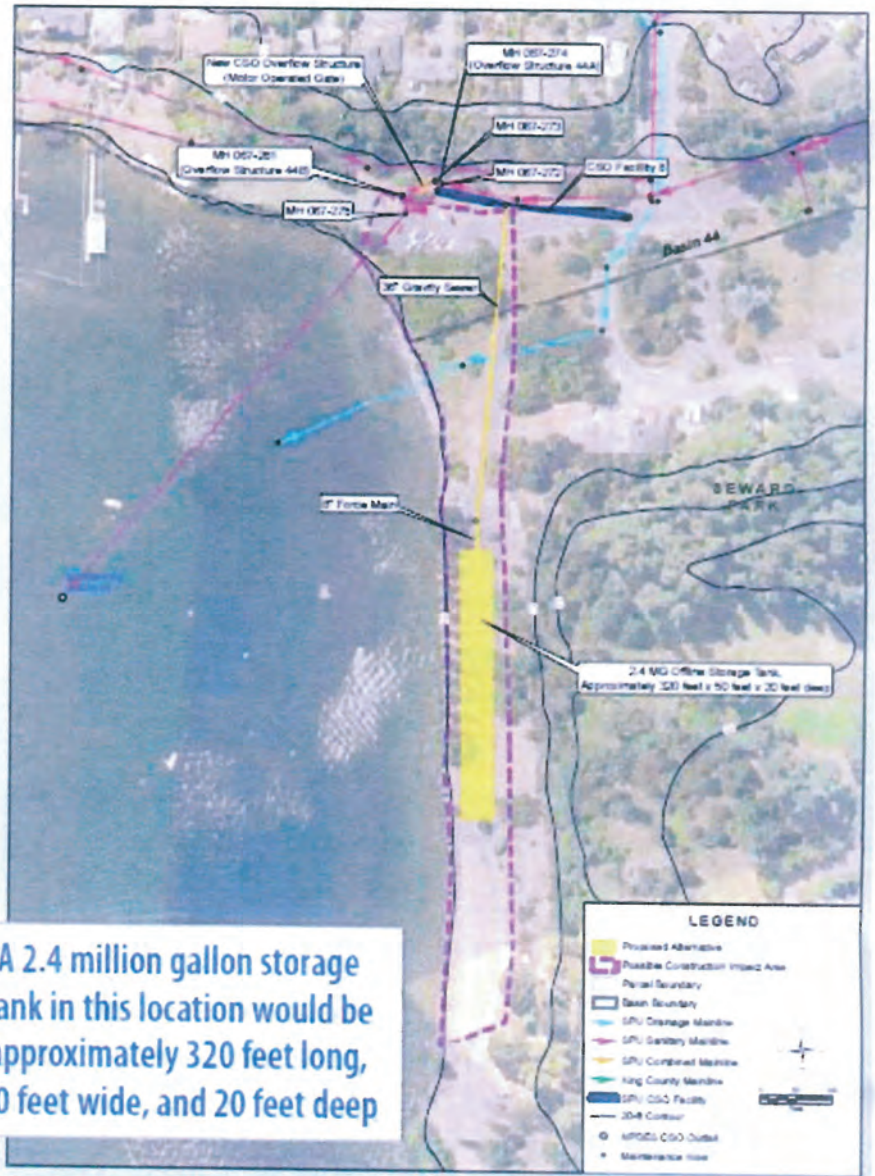
North Henderson Corridor # 2

12/14/2010

Distributed Storage (Basin 44)
Storage under Seward Park parking lot



One 2.4 million gallon storage facility would be needed in Basin 44. Three alternative locations are shown.



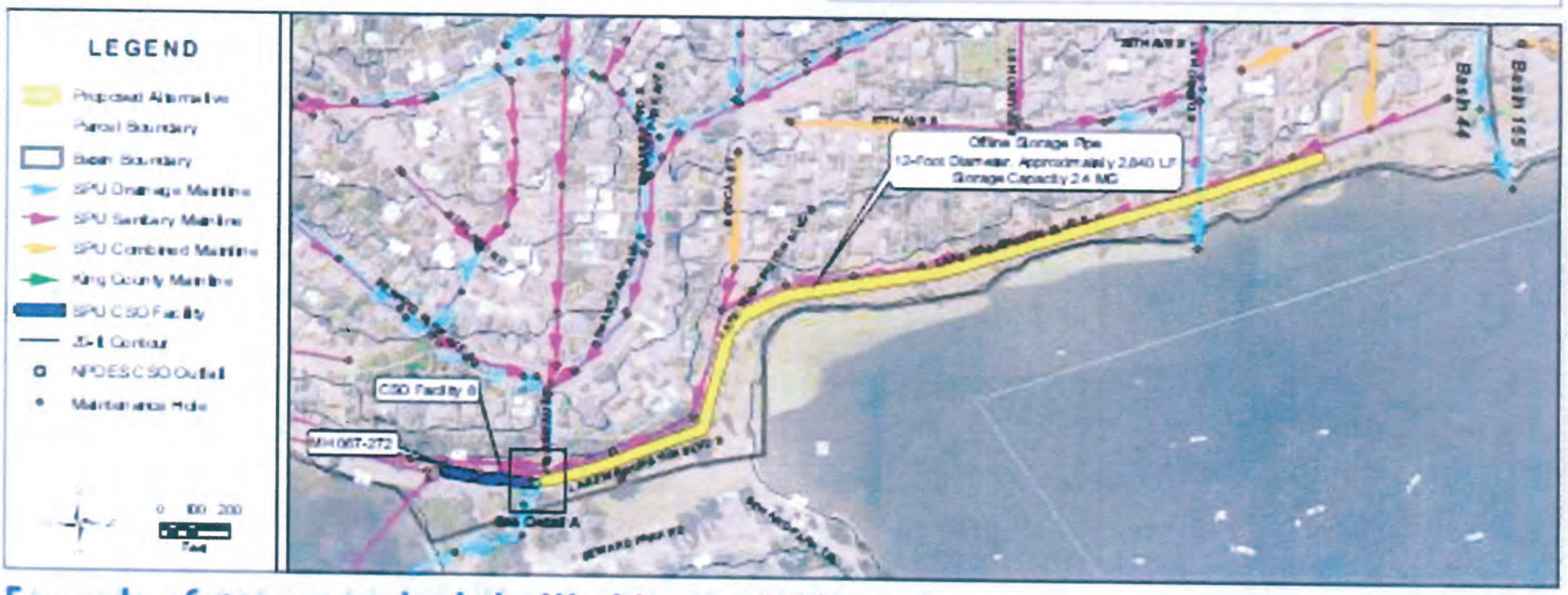
A 2.4 million gallon storage tank in this location would be approximately 320 feet long, 50 feet wide, and 20 feet deep

Example of storage in Seward Park

North Henderson Workshop #2 12/14/2010

Distributed Storage (Basin 44)
Storage under Lake Washington Blvd

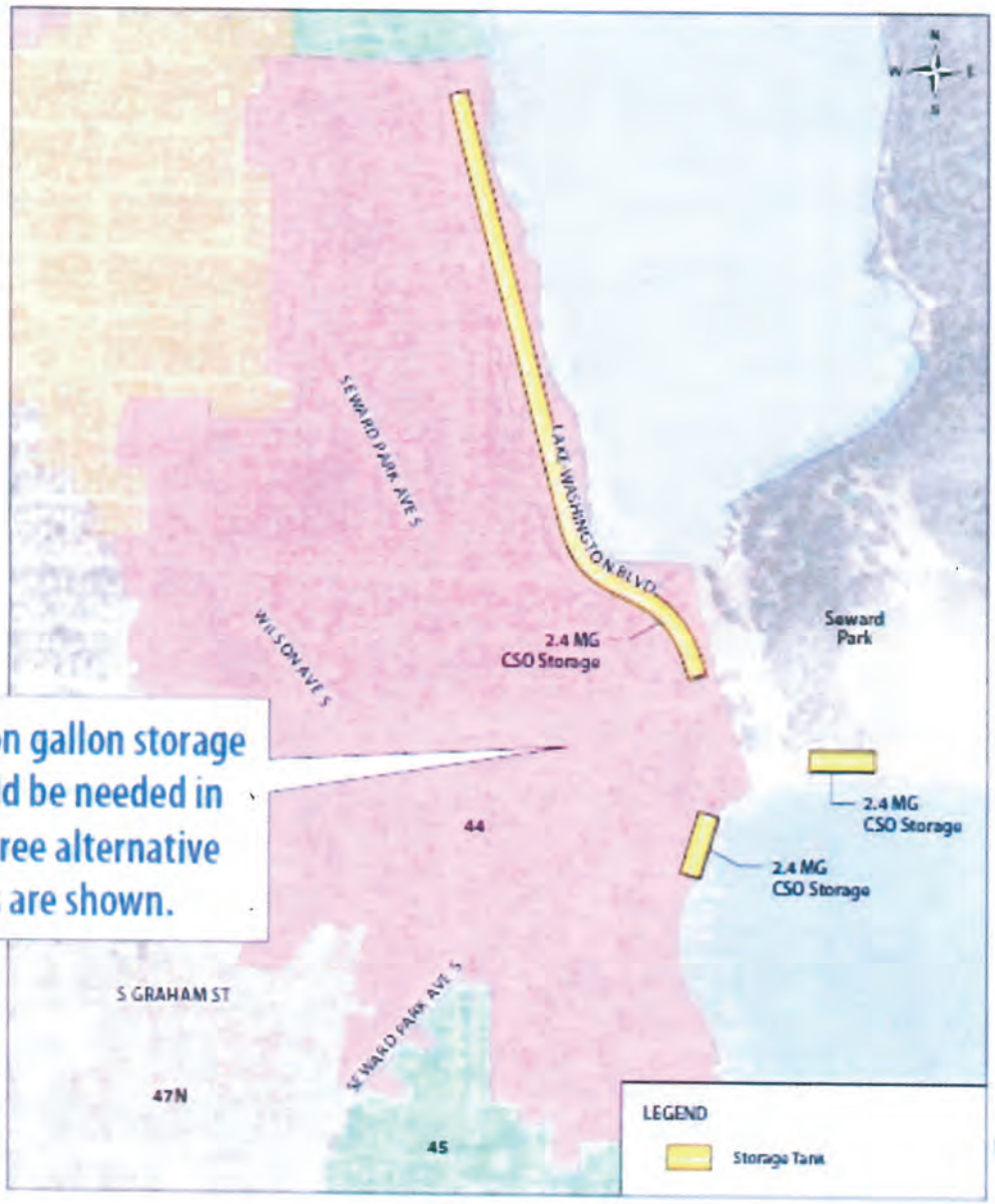
A 2.4 million gallon storage pipeline under Lake Washington Boulevard would require a 12-foot-diameter pipeline approximately 3,000 feet long



Example of storage under Lake Washington Boulevard

NorthHendersonWOvrsnap #2
12/14/2010

Distributed Storage (Basin 44)
Potential Storage Locations



One 2.4 million gallon storage facility would be needed in Basin 44. Three alternative locations are shown.

2.4 million gallons (Basin 44) could be constructed under:

- Seward Park parking lot
- Lake Washington Boulevard
- Private property

RESTORE OUR WATERS
SEATTLE PUBLIC UTILITIES
COMBINED SEWER OVERFLOW REDUCTION

North Henderson Workshop #5
1/19/2012

Multi-Objective Decision Analysis (MODA) Reduction Options-

What it is

- Clearly defined, thorough decision support tool that captures stakeholders values
- A transparent approach for assessing the triple bottom line of a set of alternatives
- Clear communication and understanding of options
- Weighting exercises bring stakeholders values and policies into alternative evaluation

Rating of performance x weight = Decision Score

- A decision aide NOT a decision maker

Meeting Summary
North Henderson Workshop #3
11/19/2011

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

North Henderson Workshop #4
3/10/2011

Summary of Alternatives

- Distributed Storage
  - **Basin 44** (Storage under private property, Seward Park parking lot, or Lake Washington Blvd)
  - **Basin 45** (Storage under private property, Martha Wahsington Park open space, or 57th Ave S.)
- Tunnel Storage
- Conveyance and Storage
- Complete Sewer Separation *(includes Inflow & Infiltration Reduction)*

RESTORE OUR WATERS
SEATTLE PUBLIC UTILITIES
COMBINED SEWER OVERFLOW REDUCTION

North Henderson Workshop #4
3/10/2011

North Henderson Workshops

- ***November 18, 2010***
  - CSO reduction options (storage, transfer, separation, treatment)
- ***December 14, 2010***
  - Site-specific CSO reduction alternatives
- ***January 19, 2011***
  - Alternatives analysis using weighted evaluation criteria *(Multi-Objective Decision Analysis or MODA)*
- ***March 10, 2011 (Today)***
  - Confirm feedback to date
  - Present results of alternatives evaluation
  - Confirm a short-list of alternatives

RESTORE OUR WATERS
SEATTLE PUBLIC UTILITIES
COMBINED SEWER OVERFLOW REDUCTION

* From Seward Park (Basin 44) CSO Reduction Project Community Guide to Project

- NO mention of tennis court alternative at any of the workshops

How did we identify the project alternatives?

Seattle Public Utilities hosted a four-workshop series in late 2010 and early 2011 to gather community input to help identify a short list of alternatives to advance for further design and evaluation during environmental review.

Each workshop built upon the outcomes of the previous ones:

Workshop #1 - November 18, 2010
- Learned about methods to reduce CSOs

Workshop #2 - December 14, 2010
- Learned about site-specific CSO reduction alternatives
- Identified and weighted community evaluation criteria

Workshop #3 - January 19, 2011
- Tested project alternatives against the community evaluation criteria

Workshop #4 - March 10, 2011
- Presented results of alternatives evaluation
- Confirmed a short-list of alternatives for further study

Barb Maher

From: CSOReduction-NorthHenderson [CSOREDUCTION-NORTHHENDERSON@TALK2.SEATTLE.GOV] on behalf of Susan Stoltzfus [susan.stoltzfus@SEATTLE.GOV]
Sent: Friday, May 27, 2011 4:42 PM
To: CSOREDUCTION-NORTHHENDERSON@TALK2.SEATTLE.GOV
Subject: [CSOREDUCTION-NORTHHENDERSON] North Henderson CSO Reduction Project Update

Two upcoming opportunities for input:

Seward Park Alternatives Public Scoping Open House (Basin 44) Tuesday, June 7, 2011 6-8 p.m.
Seward Park Environmental & Audubon Center
5902 Lake Washington Blvd. S., Seattle

Martha Washington Park Vicinity Alternatives (Basin 45) Thursday, June 9, 2011 6:30-8 p.m.
Graham Hill Elementary School Cafeteria
5149 S Graham Street, Seattle

Hope to see you there.

In response to community feedback Seattle Public Utilities (SPU) is separating the siting and environmental processes for the two North Henderson CSO basins (Basin 44, which drains to Seward Park, and Basin 45, which drains to Martha Washington Park). Public comments received at community meetings in late 2010 and early 2011 supported managing CSOs for Basins 44 and 45 separately rather than combined solutions (e.g., large storage tunnel and convey & store) and for constructing an underground storage tank in Seward Park to reduce overflows in Basin 44.

Based on community feedback, we are also evaluating other sites and configurations for underground storage near or in Martha Washington Park for Basin 45 — and an alternative that combines infiltration reduction with supplemental underground storage.
Future public meetings will be basin-specific to allow a discussion of unique project issues. We encourage members of the community who are interested in both Seward Park and Martha Washington Park projects to attend both meetings. We will continue to post updates for both projects to this listserv so you can stay up to date on the plans that affect both areas.

Thank you for your continued interest in this project.

If you have questions, please contact the North Henderson project team at 206-826-4767 or SPU_HCSO@seattle.gov.

Click and press Send
List-Unsubscribe: <mailto:CSOREDUCTION-NORTHHENDERSON-unsubscribe-request@talk2.seattle.gov>
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South Henderson Basin 44 - question

5/27/11

Reply

Barbara Maher

To SPU_HCSO@seattle.gov, 'Mike Maher'

Hello,

I received an e-mail about the public meeting for Basin 44. We will be out-of-town and unable to attend, but are very interested in the plan because our home/property borders Seward Park and I am very concerned about the noise, smell, appearance and increased neighborhood traffic associated with the project.

How do I give input about the project if I am unable to attend?

Thanks,

Barb Maher
6014 Lake Shore Dr. S.

South Henderson Basin 44 - question

To see messages related to this one, group messages by conversation.

6/16/11

Reply

Faine, Christina

Add to contacts
To barbmaher@msn.com

Hi Barb,

Thank you for your e-mail of May 27, 2011. I apologize for the lack of a timely response.

Here is a link to the Web page that has materials from the June 7 meeting:

http://www.seattle.gov/util/Services/Drainage_&_Sewer/Keep_Water_Safe_&_Clean/CSO/CSOReductionProjects/NorthHendersonBasin/index.htm

The Seward Park meeting materials are contained in the second bullet under Meeting Materials.

Again, I apologize.

Christina Faine
Seattle Public Utilities
Combined Sewer Overflow Outreach
206.386.1366

Betty Meyer
SEPA Responsible Official
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. Box 34018 Seattle, WA 98124-4018

Ms. Meyer,

Please see attached for my comments specific to the Draft EIS. However, in addition to my comments on the Draft EIS I would like to add, since you're the SEPA Responsible Official, that I hope you will take a hard look at the how neighbors directly impacted by Alternative 1, the Tennis Court location, were misled and not informed during the critical scoping period.

2 • SPU did a "bait-n-switch", indicating at 7 public meetings prior to the 6/7/11 Open House that the parking lot predominantly, and Lake Wash Blvd and private property secondarily, were the likely locations of the tank. No mention of the tennis court location.

3 • SPU website claims 1-1 meetings between neighbors and SPU occurred, but that was AFTER the tennis court location was revealed as the preferred alternate, not BEFORE when stakeholders could comment.

4 • My 5/27/11 e-mail inquiry to SPU asking how to comment during the scoping process was ignored for 3 weeks, until after close of business day on day comments were due 6/16/11

5 • Website claims that Community Guide to Alternatives was distributed to stakeholders. Not true – neighbors did not receive.

6 • Secret tennis court location was "revealed" on 6/7/11 just 9 days before comments were due, not following SEPA guidelines or the spirit and intent of a scoping process

7 • No effort was made to inform elderly residents not aware of project.

While SPU has every right to consider Alternative 1, the Tennis Court location, I believe they also had the obligation to inform stakeholders so they can comment at the appropriate time, and, with enough time to understand the process and implications.

Thank you,

Barb Maher

Comments on CSO Draft EIS North Henderson Basin AGAINST Alternative 1 Tennis Court Location:

Inaccuracies in environmental checklist, EIS, or other documentation

8 1. Omissions are inherent in the Draft EIS because comments from neighbors bordering the project were not solicited and entire public meeting process indicated other locations for tank. Scoping process should be reopened and/or SEPA should thoroughly study all potential environmental impacts on neighbors, especially the elderly, children, pets and small business owners who will be living and working on top of a 2.5 year construction site.

9 2. Construction impacts appear to be weighted in favor of recreational Park user who has many options (and 300 acres of Seward Park to use) and against neighbors adjacent to construction site who have to live 24/7 with short-term and long-term impacts.

10 3. Table 3-3 considers contractor staging and parking within Seward Park to be a disadvantage to neighbors. This is incorrect. Monday-Friday lots 4,5,6 and 7 are empty. Using those empty lots would be an advantage not disadvantage to neighbors because there would be less traffic and parking on neighborhood streets midweek.

11 4. CSO maintenance trucks will need to access to vents that are to be placed between the two courts. There will need to be an additional road that is not listed in the plan so the trucks can reach the vents. This access road isn't mentioned in the maintenance needs.

Areas of potential environmental impact that have not been identified

12 1. Sewage line damages to homeowners from vibrations during blasting and pile driving (table 1-1) have not been identified. If homes may be damaged then sewage lines running down Environmentally Critical Area, 40% Steep Slope are sure to be damaged as well and need to be replaced.

13 2. If sewage lines need to be replaced inside Environmentally Critical Area, 40% Steep Slope then additional trees will be lost in Alternative 1. This is not addressed in Draft EIS.

14 3. How will losing additional trees to repair sewage lines affect an ECA? If slope is further compromised will homes above the slope and construction site be damaged further?

15 4. Emergency services to 6014 Lake Shore Dr. S. would be at risk during Seward Park events during construction because parking is allowed on both sides of Lake Shore Dr. S. There is not room for emergency vehicles to access home when cars are parked on both east and west sides of street which happens during large Seward Park events.

16 5. Alternative 1 includes removing more mature, native trees and increasing views of neighborhood homes from park and Audubon Center, contrary to the Olmsted vision of park.

Adverse environmental impacts that have not been adequately addressed

17 1. Damage to nearby homes. Currently the Draft EIS weighs equally the damage to one Seward Park picnic shelter/unoccupied building with 7 occupied homes. Shouldn't the
18 alternatives we weighted to consider homeowners who have nowhere to go to avoid impacts and damage over unoccupied buildings?

19 2. Have the homes being impacted been studied to see what the cost implications will be to repair the mid-century homes, many built on concrete slab construction with huge single-pane windows?

20 3. Where will the elderly/children/small business owners and pets go during construction for Alternative 1 Tennis Court location? According to Chart 13-1 noise level will be at maximum allowed for construction sites, with additional noise for pile driving, blasting and jack hammering. People can't live day-in and day-out with that. Alternate 1 is twice as loud for homeowners than Alternate 2. Why would Alternate 1 and Alternate 2 discount the difference between living with noise and being a recreational user near noise. This is not adequately addressed.

21 4. Lighting of the construction site at night will increase public awareness of homes bordering the site. Crime will increase because of this.

22 5. Draft EIS weighs impact equally between removing trees and removing grassland. EIS should weight removing trees more heaving than grass because it takes decades to replace trees.

Possible mitigation measures that could or should be added to the proposal

23 1. If Alternate 1 is chosen homeowners will need new triple pane windows and window shades to mitigate the sound. Currently most homes are mid-century with large single-pane windows which let in maximum sound.

24 2. Parking for construction workers should be inside park in lots 4,5,6 and 7 to mitigate impact to neighborhood. Table 3-3 incorrectly assumes that using Seward Park for construction staging and parking would be a disadvantage for the neighborhood. Since those parking lots are rarely used mid-week it would be an advantage for the neighborhood because parking on neighborhood streets would be less.

25 3. Dump trucks need to be covered.

26 4. Excavation needs to be done during the rain to mitigate dust impact for people and pets living on top of the site.

27 5. Homes bordering site will need to be surveyed and damages will need to be fixed by SPU. This will need to be easy for the homeowners to save them the additional time and expense of managing the repairs and hiring attorneys to sue the contractor.

6. Brick fireplaces will likely be damaged to homes during blasting. They will need to be repaired.
7. Sewage lines need to be replaced between homes on construction site to SPU tie-in.
8. Do not light site at night. Increased possibility for crime to neighboring homes.
9. Lakeshore Drive South should be closed to parking on west side of street to allow emergency access vehicles to reach homes. When cars are parked on both sides of street there is no room for emergency services.
10. Parking enforcement needs occur on neighborhood streets every day of project due to increase in parking on streets, often illegal.
11. Since SPU is changing the park-like setting that neighbors have enjoyed for decades, then neighbors should be part of the revegetation plan. When trees are replanted they should not adversely impact views from neighbors, but rather restore views similar to before project.
12. Large park events need to be suspended for 2.5 years of construction project (1,000 people plus) to lessen impact on neighborhood. Why should neighbors be forced to have majority of the impacts while recreational users and large for-profit events have none? Reimburse Seward Park for permit fees and cancel events.

The merits of alternatives and mitigation measures considered

Parking Lot location (Alt 2) is better than Tennis Court location (Alt 1) because:

1. The original Engineering report (no longer available online) came up with no difference between Alternate 1 and Alternate 2 except that Parking Lot (Alternate 1) location has more of a buffer between Lake Washington and an Environmentally Critical Area. So, any EIS should recognize that a massive construction site should always be sited in a location that has less risk for environmental damage.
2. Less potential damage to homes
3. Less impact on homeowners
4. Seward Park recreation users have nearly 300 acres to enjoy regardless of the tank location. Homeowners have nowhere else to go.
5. Less trees removed with Alt 1 compared to Alt 2. Plus, with sewage line replacement likely even more chance for increased number of trees lost.
6. Alt 1 increases view of homes from park adding to an increase risk of criminal activities at homes.
7. Alternative 1 potentially more expensive to taxpayers than Alternative 2 because it will likely take longer with the narrow buffer between ECA and lake and damage to sewer lines and homes.

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Response to Maher Comment 1

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Maher Comment 2

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public

input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Maher Comment 3

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. Stakeholders have had the opportunity to comment on the project since the Summer/Fall 2010. One-on-one meetings with adjacent homeowners were not performed until after the tennis court location was identified as the preferred alternative in the Spring 2012. However, stakeholders have had the opportunity to comment on both the Tennis Courts Alternative and the Parking Lot Alternative since the June 2011 EIS scoping meeting. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Maher Comment 4

SPU's actions to inform and involve the public in the scoping process are summarized in Section 1.3 of the Final EIS. Ms. Maher sent an email to SPU's North Henderson project email address (SPU_HCSO@seattle.gov) on May 27, 2011 asking how to provide scoping input. Because of an unfortunate and inadvertent miscommunication between two SPU staff, she did not receive a timely response. By letter postmarked June 15, 2011 and received at SPU on June 16, 2011 (i.e., before the deadline for scoping input), Ms. Maher submitted extensive scoping input and asked why SPU had not responded to her May 27, 2011 email. Alerted to the situation, SPU staff immediately apologized to Ms. Maher via email on June 16, 2011 and provided a link to the scoping meeting materials. There were no other emails that did not receive a timely response, and the miscommunication regarding Ms. Maher's email did not compromise the scoping process in any way.

Response to Maher Comment 5

SPU's actions to inform and involve the public in the scoping process are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, the community guide was developed for the EIS scoping meeting to help explain the proposed project and the three alternatives.

Following the scoping meeting, it was posted on SPU's North Henderson project website. At no time was there a requirement to develop the community guide or distribute it to neighbors.

Response to Maher Comment 6

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including sending postcards to all neighbors bordering the project, soliciting input during the scoping process and soliciting comments on the Draft EIS.

Response to Maher Comment 7

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including sending postcards to all neighbors bordering the project, soliciting input during the scoping process and soliciting comments on the Draft EIS.

Response to Maher Comment 8

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including sending postcards to all neighbors bordering the project, soliciting input during the scoping process and soliciting comments on the Draft EIS. The scoping notice, the Notice of Availability of the Draft EIS, and the Draft EIS each included descriptions of the three alternatives evaluated in the Draft EIS: the Tennis Courts Alternative, the Parking Lot Alternative, and the No Action Alternative. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to Maher Comment 9

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have commented, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that project siting is a significant area of controversy.

Response to Maher Comment 10

Table 3-2 has been revised to clarify that using the upper parking lots for contractor staging and parking "Impacts neighborhood by shifting vehicles to on-street parking on weekends and during special events."

Response to Maher Comment 11

The storage facility components depicted between the tennis courts are inspection hatches. A new road will not be built to access the CSO facilities. The storage facility inspection hatches between the tennis courts will be accessed by two methods. In some cases, maintenance staff will walk a footpath to the access hatches. In other cases, the maintenance activities will require driving on the surface of the tennis courts (with access provided through gates on the north and south ends of the tennis courts boundary fences. The maintenance truck will travel on the apron outside of the doubles sideline to the extent feasible.

Response to Maher Comment 12

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use

construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Maher Comment 13

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Maher Comment 14

The Tennis Courts Alternative is near, but not within, a steep slope Environmentally Critical Area. Both alternative sites are near the base of slopes. Both slopes are approximately 20-25 feet high and are about 2H:1V (horizontal to vertical). The toes of the slopes are 40 feet or farther from the proposed excavations. Additional geotechnical information will be gathered at the selected site to aid in assessing impacts of the excavation on the stability of the existing slope. If the geotechnical conditions and analyses indicate a likelihood of slope instability due to the proposed construction, such instability will be mitigated by implementing an appropriate design, using appropriate construction practices, and monitoring the slope and other affected facilities during construction. The current excavation support system concept is a secant pile wall. This wall system is installed into the ground prior to any excavation occurring – there will therefore not be an instance of an unsupported excavation near the toe of the slope. Additionally, effects of the tank excavation on the slope's stability (if any) could be readily mitigated by adding additional reinforcing in the piles, deepening the piles, or increasing the pile thickness.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties

will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel). It is unlikely that tree will be removed for sewer repairs.

Response to Maher Comment 15

The City will not allow parking on both sides of the street if emergency vehicles can not adequately access the street. Although vehicles may be parked on the street more frequently during peak park use or events, emergency vehicles will still be able to access the street to respond to emergencies.

Response to Maher Comment 16

Seward Park as a whole reflects the original vision of the Olmsted Brothers, however the character of the alternative locations for the storage tank has evolved away from several of the Olmsted design principles and the preliminary plan of 1912.

The Olmsted Brothers did promote a “foreground of woods” to buffer residential development from Lake Washington Boulevard, where possible. While trees will be removed as part of this project, a significant amount will remain on the forested slope. Due to the removal of the trees, there is the potential for greater visibility of the houses above the western slope adjacent to the tennis courts. Disturbed areas will be enhanced with forest restoration planting, including native conifer and deciduous trees. SPU and Parks plan to involve the adjacent neighborhoods in the restoration of Seward Park regardless of which alternative is selected. The public involvement process for restoration will occur during the project’s design phase, from 2013-2014.

Response to Maher Comment 17

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use

construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Maher Comment 18

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality).

A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Maher Comment 19

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

Response to Maher Comment 20

Thank you for your comment. We acknowledge your concern about potential noise impacts to nearby residents.

The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Maher Comment 21

There are no plans for nighttime construction; however, it may be necessary for the contractor to provide some amount of lighting for construction site security and to reduce the risk of vandalism. There is no evidence that this amount of lighting will lead to increased crime in the neighborhood.

Response to Maher Comment 22

The EIS compares impacts associated with each alternative. Removal of trees is considered a greater impact than removal of grasses. Both alternatives would impact existing trees and the Tennis Courts Alternative would impact more individual trees than the Parking Lot Alternative. A summary of the tree removal is shown in Table 7-2 and the specific trees are documented in Appendix D. Both of the alternatives and the construction limits depicted in the various figures in the EIS were developed with a goal to limit the number of trees affected and limit the impacts to trees whose functions could be replaced within a reasonable timeframe. Large grass areas

that could be used to house the needed facility, such as the grass meadow near Andrews Bay, were eliminated during the scoping process because they did not meet project objectives.

Response to Maher Comment 23

The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Maher Comment 24

Table 3-2 has been revised to clarify that using the upper parking lots for contractor staging and parking "Impacts neighborhood by shifting vehicles to on-street parking on weekends and during special events."

Response to Maher Comment 25

Dump trucks and other construction vehicles will be covered in accordance with the Revised Code of Washington (RCW) 46.61.655.

Response to Maher Comment 26

The Puget Sound Clean Air Agency (PSCAA) governs activities affecting air quality in King, Snohomish, Pierce, and Kitsap Counties; and thus has jurisdiction over the project area. As required by the PSCAA regulations, emissions will be controlled by using reasonably available control technologies (PSCAA, 2008) and City of Seattle construction practices.

Fugitive dust impacts associated with construction of the proposed project are not anticipated to be significant. Construction contractors will be required to comply with regulatory requirements and implement appropriate dust control measures, as necessary. Measures to minimize fugitive dust emissions from construction project will include:

- Spraying exposed soil and storage areas with water during dry periods.
- Covering exposed earthen stockpiles and loads of excavated material being transported from the site.

Response to Maher Comment 27

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

Response to Maher Comment 28

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

Response to Maher Comment 29

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed

construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Maher Comment 30

There are no plans for nighttime construction; however, it may be necessary for the contractor to provide some amount of lighting for construction site security and to reduce the risk of vandalism. There is no evidence that this amount of lighting will lead to increased crime in the neighborhood.

Response to Maher Comment 31

The City will not allow parking on both sides of the street if emergency vehicles can not adequately access the street. Although vehicles may be parked on the street more frequently during peak park use or events, emergency vehicles will still be able to access the street to respond to emergencies.

Response to Maher Comment 32

Impacts related to loss of parking at Seward Park are described in Section 4 of the EIS. SPU conducted a traffic and parking study at Seward Park and in the adjoining neighborhood in August 2012. As shown in Table 4-2, during the week (Monday through Friday) the closure of Parking Lots 1 and 2 in Seward Park would not result in significant additional on-street parking. Therefore, the proposed project would not generate a need for additional parking enforcement on the weekdays. On a Summer weekend, the parking lots at Seward Park do fill up, and per Table 4-2, there will be approximately 100 additional vehicles parking on streets. However, the traffic study also identified approximately 1,400 street parking spaces within a ½ mile radius from the entrance to Seward Park. On a Summer weekend, approximately 1,160 of those parking spots were available. Based on this analysis, SPU does not expect a significant increase in illegal parking in the neighborhood on the weekends during the construction period and therefore does not plan on increasing parking enforcement.

Response to Maher Comment 33

SPU and Parks plan to involve the adjacent neighborhoods in the restoration of Seward Park regardless of which alternative is selected. The public involvement process for restoration will occur during the project's design phase, from 2013-2014.

Response to Maher Comment 34

Impacts related to loss of parking for large events (greater than 1,000 people) at Seward Park are described in Section 4.2.1.1 of the EIS. There are approximately 15 large events at Seward Park each year. Based on the analysis of the impacts, there would be a loss of approximately 90 parking spaces (out of 351) in Seward Park due to the loss of parking from the construction activities. The loss of 90 parking spaces would equate to 90 additional vehicles parking on the streets adjacent to Seward Park at any one time during a special event. Assuming that there are between 1,000 to 15,000 vehicles looking for parking on an event day, the increase in parking in the neighborhood would be between 1-12 percent. Based on this analysis, there would not be a significant increase in parking in the neighborhood during large events during the construction period and therefore the City does not plan on closing Seward Park to large events during construction.

Response to Maher Comment 35

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park; visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). As you have noted, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

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Meyer, Betty

To: SPU_HCSO
Subject: RE: Input for North Henderson CSO

From: Paul Miyake [mailto:paulmiyake88@yahoo.com]
Sent: Friday, October 12, 2012 11:12 AM
To: SPU_HCSO
Subject: Input for North Henderson CSO

I am against this project...completely.

1 This is spending $60 to $90 million for an event that happens only 17 times a year (if that is even accurate data)? And, what are the recurring costs? What is the lifetime of this facility? What will the replacement costs?

The ratepayers of Seattle cannot afford this!!

Paul Miyake

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Response to Miyake Comment 1

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, to protect public health and water quality in Lake Washington. Lake Washington has been identified by the Department of Ecology as a water body that is impaired with fecal coliform bacteria. Combined sewer overflows (CSOs) are a major contributor of fecal coliform pollution to Lake Washington. Sewage overflows contribute high concentrations of pathogens, metals, ammonia, nitrogen, and toxic organics to our waterways, with risks to public health and the environment. SPU's CSO reduction program to reduce sewage overflows to Lake Washington will provide public health and environmental benefit while also complying with federal and state regulations.

The operations and maintenance (O&M) costs for the underground storage facility are expected to be approximately $57,000 per year. The anticipated replacement costs are $2.8 million on a 25-year replacement cycle, for mechanical, electrical, instrumentation, and control equipment. The facility is expected to have a life of approximately 100 years.

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O'Brien

October 17, 2012

Ms. Betty Meyer
SEPA Responsible Official
Seattle Public Utilities
Seattle Municipal Tower, Suite 4900
Seattle, WA 98124

Via Email: Betty.Meyer@Seattle.Gov

Dear Ms. Meyer,

Please add this written comment to the Draft EIS regarding the North Henderson Basin #44 presently sited for Seward Park.

I write in my individual capacity and not as President of the Lakewood Seward Park Community Association, but you will see where some of my comments relate to my service in that capacity. I am a life-long resident of the Rainier Valley, and currently reside at 4224 – 51st Ave. South, adjacent to park land and between the two other proposed basins at 49th on Lake Wash. Blvd and at Genesee on Lake Wash. Blvd.

NOTICE:

1 My first comment regards notice. You might recall that I addressed the lack of notice at the public hearing on October 8th where I provided oral comment. I was told by Christina Faine that notice was provided to 2000 residents near the project, to those that had signed up for email notice, and to the Lakewood Seward Park Community Club at not one but two addresses. The Lakewood Seward Park Community Club has no association with the address on Rainier that one letter was sent, and we did not receive the letter sent to our proper address at 4916 S. Angeline Street. I confirmed this with our executive director. Had it been a postcard, it could have been discarded by accident, but this was an actual letter in an envelope that would not have been discarded without my permission. Everyone with a key to our Association's mailbox knows very well my feeling about these matters.

LSPCC has hosted two public meetings for SPU regarding the CSO projects. We are obviously an interested party. But I take a step further: anyone in the City of Seattle that enjoys parks and low utility rates should receive notice of each and every one of these projects and have a right to be heard. You have no idea how many calls I get after the fact, when a MUP sign is erected or changes are made to public roadways or we see a new cell phone tower - people get very upset when it is too late to have meaningful input. This is not the way governments should run. 2

We know that public entities have a notice requirement that is a radius surrounding the proposed project and that those residents get notice and no one else. The problem here is that everyone in the City will suffer the consequences of this decision for generations to come, and notice to surrounding residents in no way reaches the thousands of people from all over the county, the State and beyond that enjoy Seward Park.

PROPOSED ALTERNATIVES:

Our City Leaders purchased private property in 1910 to create a Seward Park. This involved vision and leadership, and we are proud to call Seward Park our home. Our Community Association was an active participant in the Centennial Celebration that took place in many events through the Spring and Summer months of 2010. The Olmsted Brothers also had a vision, involving lowering Lake Washington to put in Lake Washington Blvd., using a series of parks to connect Seward Park to the Arboretum. This is the legacy that we must protect. There is no way that our City Leaders in 1910 and the Olmsted Brothers planned Seward Park to house a 2.4 million gallon Sewer tank. 3

Some people in Seattle suggest that we need to protect clean water, and we need to follow EPA guidelines. Others, however, see the recklessness of the spending. These include the Natural Resources Defense Council, the Sierra Club, and others who would rather see the same money spent on other environmental remediation that will better protect the environment. The truth is that the amount of sewage that may get into the lake during an overflow situation is so minute that it would dissipate before causing any human any harm. And, these overflow situations do not occur when people are using Lake Washington for recreation where they might accidently ingest raw sewage and become ill. To create the foul smell and ugly structure in Seward Park all year long in the remote chance that someone might get sick is a waste of time, money and aesthetics. 4a 4b

As with any draft EIS, there is a No Action Alternative. That is my personal preference. I do not believe alternative 1 or 2 satisfy anyone. Alternative 1 is extremely disruptive to tennis court neighbors and very disruptive to all park users for two to three years at least. Alternative 2 is not much better – net tree loss is
5 less, but keeping people from using the brand new playground that the community came together to build is absurd. There are so many athletic events that take place at the park all year long that I can't begin to list them all, and that it what makes our neighborhood so special.

I am not a scientist, an engineer or a wastewater specialist. I am a concerned citizen and tax-payer. I do believe that smaller tanks could be built along Lake Washington Blvd. to accomplish the same result. I cannot roll over and watch my
6 tax dollars be spent on such a wasteful and useless project. I direct you to an article that I'm sure you have read, published in the Seattle Times on July 30, 2011 entitled: Costly sewer program may have little benefit. I have attached it to be added to my public comment.

SEATTLE CITY ORDINANCE 118477:
I further attach to my public comment the story of Bradner Gardens Park and remind everyone involved in this project that land owned by the City of Seattle for
7 a park use cannot be sold, traded or used for a non-park use unless it is replaced with like, kind property in the same neighborhood. Park and sewer overflow are in no way synonymous.

I appreciate the opportunity to be heard further on this matter, and ask that you kindly include this letter and the attached articles to the public comments to the Draft EIS.

Respectfully submitted,

Jeannie O'Brien

Encls.

EXHIBIT 1

The Seattle Times
Winner of a 2012 Pulitzer Prize

Local News

Originally published Saturday, July 30, 2011 at 9:02 PM

Corrected version

Costly sewer program may have little benefit

Seattle and King County propose spending more than $1.3 billion on combined sewer overflows, raising rates that already are among the highest in the country. Yet it will make little difference to the water quality of Puget Sound.

By Lynda V. Mapes

Seattle Times staff reporter

Seattle and King County are poised to spend more than $1.3 billion of ratepayer money on pollution-cleanup programs that won't even move the water-quality needle in Puget Sound.

The programs are intended to contain so-called combined sewer overflows (CSOs).

Top comments Hide / Show comments

"Obviously it would be nice to see more numbers from the people arguing for additional f... (July 30, 2011, by Zgh2676) *Read more*

"

An occasional source of pollution, CSO discharges occur primarily during heavy rains. Stormwater mixes with wastewater, including raw sewage, and overflows through outfall pipes to local water bodies, and eventually to Puget Sound.

"This is just crazy; we don't have unlimited funds in this country, and whatever... (July 30, 2011, by beads) *Read more*

"From the sub-heading: Seattle and King County propose spending more than $1.3 billion... (July 30, 2011, by road less travelled) *Read more*

Read all **83** comments > Post a comment >

But surface runoff, not CSO discharge, is the single largest source of pollution to Puget Sound, according to the Puget Sound Partnership, the state agency charged with cleaning up and restoring Puget Sound, and the state Department of Ecology (DOE). Carrying contaminants such as copper, zinc, oil, lawn fertilizers and animal waste, surface runoff barrels untreated from storm drains all over the city into Puget Sound, not just in heavy storms but nearly every time it rains.

The city and county already have spent hundreds of millions of dollars containing CSO discharges, and have greatly reduced their effect. Today, in the partnership's Action Agenda for Puget Sound, CSOs don't rank in the top 10 or even the top 20 things to do to reduce water pollution in Puget Sound.

Projects planned by Seattle Public Utilities (SPU) will raise utility rates — already among the highest in the country — $7.41 a month over the next 14 years to complete the city's $500 million CSO program.

Meanwhile, King County has just raised its cost estimate for nine new planned CSO projects — which go to the County Council this fall — to $711 million, up 75 percent since its last estimate for the work in 1999. More projects in the works have ballooned in cost to $103 million from an estimated $36 million in 1999.

Some question whether it makes sense to spend so much more on CSOs, when Puget Sound faces bigger problems.

"It's time to call the question," said Pam Bissonnette, former director of Natural Resources and Parks for King County, and now a private environmental consultant.

"You could take probably half the money we are spending on the CSO program, and go upstream and correct stormwater problems and have a bigger impact on the (Duwamish) river and water quality than the CSO program. We need a cost-benefit analysis, an honest-to-God one, and say, look, this is the highest and best use of that dollar, if the concern is water quality."

Discharges far lower

The amount of CSO discharge entering Puget Sound today is estimated at about 1 billion gallons a year — down from about 30 times that in the 1960s.

To be sure, no one likes the idea of spewing raw sewage or other pollutants into the water, and even small amounts of some pollutants, such as copper, can have a big effect. Local utility administrators say that the Clean Water Act compels them to control pollution. And Christie True, director of King County Natural Resources and Parks, says upcoming CSO projects will prevent localized, short-term exposure to CSO discharges for people swimming, kayaking or playing in the water near an outfall. "We can't ignore local effects."

The goal of CSO control projects in general is to contain the overflow in storage until storms subside and it can be routed to sewage-treatment plants. Other projects reduce the amount of stormwater entering the drainage system, to make overflows less frequent. The projects today continue work that's been under way for a generation.

What is punitively expensive now is driving to the last percentages of improvement. Dozens of combined sewer overflow-control projects are planned all over the city for the next 15 years.

Ray Hoffman, director of Seattle Public Utilities, says he's convinced the $170 million his agency will spend on projects in Lake Washington over the next five years makes sense for a water body without tides and in which pollutants can linger well after storms end.

How many, not how much

Part of what's driving all the proposed new spending is a 1988 Department of Ecology mandate that addresses not the *effect* of CSO discharges but their *frequency*.

King County manages 38 CSO outfall pipes and Seattle manages 90 that discharge into Lake Washington, Lake Union, the Duwamish River, Elliott Bay and Puget Sound. The state regulation says governments must get rid of discharges until there is an average of one untreated discharge per year per outfall.

Kevin Clark, from 1987 to 1994, managed what today is Seattle Public Utilities. Clark was involved in discussions to set the state regulation, but he has doubts about it today: "I am all for asking if capturing the last few overflows is the best use of limited public money. We ought to have a big old rousing debate. There is a tremendous amount of money being spent on this. Are we getting the best bang for the buck?"

He offers this example: Just one storage tank in a $52 million CSO project for SPU across from Magnuson Park will control, on average, 4 million to 6 million gallons of overflow in two to three storm events a year — at a cost of $22 million. He said there's nothing magical — or scientific — about the state mandate of one overflow per year per location. "I just wanted something I could explain to the newspapers," he said. "One everywhere was nice and simple."

But Larry Phillips, a member of the County Council who has spent years on water-quality issues, said even if other approaches make sense, wastewater ratepayer dollars available for CSO projects can't be spent on other programs, such as buying habitat or attacking the larger surface-runoff problem.

CSOs and surface runoff are different kinds of dirty water, addressed with different sources of money — and even though it's all headed to Puget Sound, the dollars aren't allowed, under current rules, to follow the pollution.

Launching a big debate about that or Seattle's CSO programs could backfire, Phillips said, noting the Legislature has just turned its back for the third year in a row on a fee to raise $100 million a year for stormwater work. "This is what lets people off the hook, it's 'until you guys get all that resolved, let's not do anything on stormwater.' "

Yet Phillips sees the bigger problem coming: "I am not going to kid myself that doing something on CSOs in the last 5 percent of the effort is going to make a dent in Puget Sound on a basinwide basis. That is going to take a much bigger effort."

The city and county now are negotiating agreements with the U.S. Environmental Protection Agency (EPA) and Department of Ecology to set targets and deadlines for the county and city CSO programs.

"This is just crazy"

Bill Ruckelshaus, two-time national administrator of the EPA, said job No. 1 is spending money cost-effectively and working with federal and state regulators and cleanup activists to do it. "It takes leadership from the top to say, 'Let's make these things work better.' Even the president has said, 'Let's get rid of regulations that don't make any sense.'

"This is just crazy; we don't have unlimited funds in this country, and whatever we do, we ought to spend where we get the most bang for the buck ... cost-benefit has not been part of the discussion."

Ruckelshaus recently stepped down as chairman of the leadership council of the Puget Sound Partnership, where David Dicks, just reappointed to the leadership council and former executive director, also sees a need for a triaged approach. "What we promoted was panning back and figuring out what makes the best sense," Dicks said. "Spend the money there, and work your way down. This is the perfect example of doing the opposite.

"It's just momentum. And what you learn in these things is you can go in and scream and yell and be a revolutionary for a while, but the institutional momentum of these laws has a lot of power, and it is just dumb power. ... What we need to do is turn off the autopilot and see what makes sense here."

At Ruckelshaus' urging, his agency's Action Agenda for Puget Sound nearly two years ago suggested convening regulators and others to come up with a more cost-effective way to improve water quality in urban areas like Seattle and King County. It hasn't happened yet.

Talk of re-examining priorities got started in 2008 under former King County Executive Ron Sims. Then he and others involved in the discussion went on to other jobs, True said. "The whole thing was just dropped."

Dennis McLerran, administrator of EPA Region 10, said he backs staying the course — and piling on the larger stormwater problem, too. Fixing that, especially in the urban core of Puget Sound, will take a range of strategies, many still emerging, with a potential price tag from $3 billion to $16 billion, according to a recent study for the partnership.

Potent rallying cry, but ...

One reason CSO work has received so much money and political support is the yuck factor: Raw sewage in any amount is reliable for rallying the public to pay higher rates for cleanup programs.

Meanwhile, Puget Sound's broader stormwater problem has been an orphan, without either a ratepayer base to tap for money or an easy, two-word rallying cry — raw sewage — to create a constituency.

Challenging the order of priorities has seemed suspect, said Don Theiler, head of King County's wastewater division from 1997 to 2007.

"When you try to talk about it, it sounds like you are trying to shirk your responsibility," Theiler said. "But to be able to document a real benefit that anyone is experiencing from this CSO work is very difficult. When there are overflows, it is mostly winter, and no one is out there swimming, and in terms of drinking the water, nobody does."

Chuck Clarke used to run SPU, and the EPA Region 10 office before that. When he ran SPU, he was startled to realize how small a piece of the stormwater problem that by now CSO discharges represent. "For me, it's about where do you get the biggest increment of benefit?" Clarke said. "I want to get stuff out of Puget Sound."

Ruckelshaus says he wants a fresh approach to the problem. "Governance is the screaming need here," he said. "We need an intervention. Almost like an alcoholic intervention, with all the people in the room and say look, we don't want to spend this money on things that are of lesser value than things that would otherwise make a lot more progress.

"Maybe it's time to pull everybody together and say, 'This is crazy. Let's fix this.' "

Lynda V. Mapes: 206-464-2736 or lmapes@seattletimes.com

Bradner Gardens Park

Home
Park History
Park Partners
Park Tour
Calendar
Photo Gallery
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FAQ
Contact

Park History

Bradner Gardens Park exists today as the result of the vision of a group of determined citizens.

In 1971, the City of Seattle purchased land for the 1.6 acre park with $71,000 of Forward Thrust funds. It was one of 19 parcels purchased around the city for neighborhood parks. Bradner was not immediately developed into a park. Instead the land was leased to the Seattle School District for the John Muir Middle School Annex until 1975. From 1975 to 1993, buildings on the site served the Central Youth and Family Service.

The Seattle P-Patch Program established a community garden on the site in 1987 to provide gardening space for Mien immigrants from Laos. Neighborhood residents from the diverse Mt. Baker community joined them in gardening. Basketball hoops, built when the school occupied the site, and the p-patch provided an ad hoc community gathering place.

With the completion of I-90 through the neighborhood, long-vacant land suddenly became desirable for development, especially housing. In 1994, community residents of the South Atlantic Community Association (SASCA) became aware of a City plan to build housing on the Bradner site instead of the park for which it was purchased in 1971.

Groundbreaking 1998

Community residents applied for and received a Small and Simple Grant of $4500 to hire a landscape architect to develop a concept plan. Barker Landscape Architects and SASCA hosted two design charettes for neighbors and users of the site to brainstorm ideas for what the park should look like. They developed the concept plan in 1995 that included demonstration gardens, a basketball court, pavilion, entry arbors, play area and accessible gravel paths.

This plan was met with skepticism and a two-year battle with city hall ensued. Unable to convince the mayor to preserve this open space for a park, several citizens drafted an initiative that became Initiative #42 Protect Our Parks. It stated that land that was owned by the City for park use could not be sold, traded or used for non-park use unless it was replaced with like kind in the same neighborhood. Initiative #42 became a City of Seattle ordinance #118477 in 1997. It saved Bradner from non-park development and has helped other neighborhoods around the city fight unnecessary encroachments to parkland.

Friends of Bradner Gardens Park applied to public agencies for grants to build the park. Construction began in 1998. The last stage of construction, renovation of the utility building, was completed in 2003. It was a Pro-Park Levy project with assistance from the Friends of Bradner Gardens Park. The building provides an ADA restroom, garden tool storage and a small meeting space, and serves as a model for sustainable design and building practices.

The horticultural design and stewardship of the park was originally provided by a coalition of the P-patch Program, Seattle Tilth, the WSU King County Master Gardener Program, the Washington Native Plant Society, and many individuals and families in the Mount Baker neighborhood. While the makeup of the coalition has changed over the years, the Friends of Bradner Gardens Park would like to salute the founding organizations and people who built this park. An astounding 40,000 hours of volunteer labor went into the realization of this uniquely beautiful oasis in the city of Seattle.

Home | Park History | Park Tour | Calendar | Photo Gallery | Links | FAQ | Contact

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Response to O'Brien Comment 1

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including (a) mailing the Notice of Availability (including notice of the public hearing) to non-required organizations and individuals and (b) mailing postcards to approximately 1,700 neighbors bordering the project, apprising them of the Draft EIS public hearing and soliciting comments on the Draft EIS. The Notice of Availability distribution list is included in Appendix A and includes the Lakewood Seward Park Community Club at 4916 S Angeline Street, as does the distribution list using for mailing the scoping notice. Neither the scoping notice nor the Notice of Availability were returned to SPU as undeliverable, so SPU believes they were delivered to the correct address.

In 2013, there will be an additional opportunity for the public to provide input on the Tennis Courts Alternative and the Parking Lot Alternative at a City Council public hearing to address the requirements of Seattle City Ordinance 118477 (a.k.a., "Initiative 42"). Per Initiative 42, the Seattle City Council must hold a public hearing prior to making a determination whether there is "no reasonable and practical alternative" to constructing the facility in Seward Park. Similarly, the Council will decide which of the two locations within Seward Park (tennis courts vs. parking lot) is preferred. SPU expects the City Council to hold the public hearing in 2013.

Response to O'Brien Comment 2

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including sending postcards to all neighbors bordering the project, soliciting input during the scoping process and soliciting comments on the Draft EIS. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to O'Brien Comment 3

The storage tank will be below ground with minimal above grade features visible. Restoration will include native vegetation in keeping with the Olmsted design principles and character of the park. The Olmsted Brothers did routinely work with engineers and utility companies in the development of parks to incorporate existing or proposed infrastructure. An example of this still exists today with Olmsted's design of Volunteer Park integrating the reservoir and water tower into the park.

Response to O'Brien Comment 4a

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, to protect public health and water quality in Lake Washington. This project is also required by federal and state law.

Response to O'Brien Comment 4b

The existing CSO Storage Facility 8 (in Seward Park) does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

The storage facility will be underground and will be accessed by hatches at grade in the parking lot and the area between the tennis courts. There will be a few above grade features adjacent to the parking lot, which will likely be screened by landscaping.

Response to O'Brien Comment 5

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, to protect public health and water quality in Lake Washington. This project is also required by federal and state law.

Response to O'Brien Comment 6

SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Each of the options was evaluated based on its technical feasibility, financial cost, and social and environmental impacts. SPU did consider a longer storage facility along Lake Washington Boulevard South. The storage facility was almost twice as expensive as the cost of the underground storage alternatives in Seward Park. In addition, the construction impacts along Lake Washington Boulevard were considered greater than the impacts of the Seward Park alternatives, primarily because of impacts on transportation. The EIS has been revised so that there is an explanation of the full range of alternatives that SPU considered to reduce CSOs in Basin 44 and how SPU narrowed down the alternatives.

Regarding the cost of the sewer program and the Seattle Times article on July 30, 2011, SPU disagrees with the conclusion of the article that the program will have little benefit. Lake Washington has been identified by the Department of Ecology as a water body that is impaired with fecal coliform bacteria. Combined sewer overflows (CSOs) are a major contributor of fecal coliform pollution to Lake Washington. Sewage overflows contribute high concentrations of pathogens, metals, ammonia, nitrogen, and toxic organics to our waterways, with risks to public health and the environment. SPU's CSO reduction program to reduce sewage overflows to Lake Washington will provide public health and environmental benefit while also complying with federal and state regulations. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to O'Brien Comment 7

SPU is aware of Seattle City Ordinance 118477 (a.k.a., "Initiative 42"). Pursuant to Section 1 of the ordinance, the Seattle City Council will hold a public hearing prior to selecting a location for the underground storage tank in Seward Park. Pursuant to Section 3 of the ordinance, a subsurface or utility easement that is "compatible with park use" does not require replacement property. Therefore, the Seattle City Council will need to make a determination whether there is "no reasonable and practical alternative" to constructing the facility in Seward Park and whether the proposed underground storage tank is "compatible with park use" and therefore does not require replacement property. SPU expects the City Council to make these determinations in 2013, following a public hearing where the public will have an additional opportunity to provide input on the alternatives. The EIS has been revised so that this process and the anticipated timeline are explained.

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City of Seattle → Seattle Public Utilities
Attn: Betty Meyer
PO Box 34018
Seattle 98124-4018

Seattle Public Utilities | Protecting Seattle's Waterways

O'Connor

Draft Environmental Impact Statement Comment Form

Seattle Public Utilities issued a Draft Environmental Impact Statement (EIS) on the proposed Henderson Basin 44 CSO Reduction Project on September 17, 2012. The Draft EIS analyzes the probable environmental impacts of building and operating the Henderson Basin 44 CSO Reduction Project. The public has been invited to review and comment on the Draft EIS. Please tell us whether additional information or analysis needs to be considered. All comments are welcome, but detailed comments on the analysis, together with suggested solutions, allow us to respond more effectively. Seattle Public Utilities will respond to comments in a Final EIS, which is scheduled for publication in December 2012.

Additional comments may be submitted by e-mail or by U.S. Postal Service. To be considered in the Final EIS, comments must include a name and address and be e-mailed or postmarked no later than October 17, 2012 at midnight.

1 As 18-year homeowners in the Seward Park area, we are concerned that the proposed "Tennis Court" alternative requires cutting down more trees — including mostly native trees — than the "parking lot" alternative.

2a We are also concerned that the Tennis-Court alternative puts neighboring property and sewer lines at greater risk and

2b also locates the tank in a smaller, more environmentally sensitive location.

3 We urge you not to pursue the Tennis-Court alternative.

Name: Tom & Christine O'Connor

Address: 5211 - 57th Ave. South

City, Zip: Seattle 98118

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Response to O'Connor Comment 1

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to O'Connor Comment 2a

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to O'Connor Comment 2b

Both alternative sites are near the base of slopes. Both slopes are approximately 20-25 feet high and are about 2H:1V (horizontal to vertical). The toes of the slopes are 40 feet or farther from the proposed excavations. Additional geotechnical information will be gathered at the selected site to aid in assessing impacts of the excavation on the stability of the existing slope. If the geotechnical conditions and analyses indicate a likelihood of slope instability due to the proposed construction, such instability will be mitigated by implementing an appropriate design, using appropriate construction practices, and monitoring the slope and other affected facilities during construction. The current excavation support system concept is a secant pile wall. This wall system is installed into the ground prior to any excavation occurring – there will therefore not be an instance of an unsupported excavation near the toe of the slope. Additionally, effects of the tank excavation on the slope's stability (if any) could be readily mitigated by adding additional reinforcing in the piles, deepening the piles, or increasing the pile thickness.

Within the construction impacts area for either alternative, there are no specially designated upland habitats and the special shoreline habitat designations apply to both alternatives.

Response to O'Connor Comment 3

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). As you have noted, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

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Meyer, Betty

From: Talbert, Paul [ptalbert@fhcrc.org]
Sent: Wednesday, October 17, 2012 1:22 AM
To: Meyer, Betty
Subject: Fwd: Andrews Bay; Seward Park Sewer Project - FoSP meeting Oct6, CSO meeting Oct8,

Dear Ms. Meyer:

Please allow me to pass on this comment from Richard Ranhoffer on the EIS for the Henderson Basin 44 CSO project (below). Mr Ranhoffer is currently traveling and asked me to submit this comment on his behalf. Mr. Ranhoffer lives at 5912 Seward Park Avenue, 98118.

Paul Talbert
4601 S Brandon St
Seattle, WA 98118-2355

From: "Eartha Ranhofer" <d.ranhofer@gmail.com>
To: "Paul Talbert" <ptalbert@fhcrc.org>
Cc: "sewardparkfriends" <sewardparkfriends@gmail.com>
Sent: Friday, October 5, 2012 11:34:07 AM
Subject: Re: Andrews Bay; Seward Park Sewer Project - FoSP meeting Oct6, CSO meeting Oct8,

Paul,

1 Would like for you to have my proxie for the FoSP meeting. As you can expect, I am and have always been opposed to both sites covered in the CSO EIS. I am even more opposed now due to the potential damage revealed in the EIS to the adjoining homes from the blasting. The EIS does not address the additional trees that will be destroyed when all of the adjoining homes sewer lines that run down the parks slope will require repair/replacement due to the blasting. My second choice from the Meadow would be the South parking lot. The tennis courts are not a good choice for the Seward Park CSO project.

Richard
d.ranhofer@gmail.com

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Response to Ranhofer Comment 1

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

Rock excavation for the project could be accomplished using drilling and controlled blasting methods or mechanical excavation using bulldozers or using hydraulic impact hammers mounted on tracked excavators. Each method has advantages and disadvantages, but in each case, potential construction-related impacts (e.g., ground-borne vibration, noise, dust, etc.) can be mitigated by establishing and adhering to standard industry thresholds and limiting criteria for noise, vibration and dust. With regard to rock excavation using drilling and blasting methods, potential negative impacts associated with excessive ground-borne vibrations, fly rock, and air blast (noise) concerns can be mitigated using controlled blasting methods. If blasting is used for excavation, specify a threshold value for air overpressure based on acceptable levels; control the powder factor, the charge weight per delay, and delay pattern; and provide proper stemming, blasting mats, and proper relief for each blast.

The proposed excavation is approximately 60 feet wide, 450 feet long, and 35 to 40 feet deep, with the lower 30 to 35 feet of the excavation in rock. The rock mass consists of very low to low strength, fresh (unweathered) to completely weathered (soil like) siltstone and sandstone of the Blakely Formation. It is anticipated that the excavation performed using drilling and controlled blasting methods will be accomplished using 25 to 35 individual blasts, with each blast occupying half the excavation width and for a distance of 25 to 40 feet along the long axis of the excavation. Blasting will progress excavating one side then the other as the excavation is advanced through the excavation footprint. Following each blast, a sufficient volume of the blasted rock will be removed prior to initiating the next blast. The resulting open space (or relief) provides an open area for rock blasted during a subsequent blast to move into. Sufficient relief, combined with using appropriate powder factors and delay patterns (sequence that the explosives in individual holes are detonated) will reduce the magnitude of ground-borne

vibration beyond the final excavation line and space above the excavation. A threshold value for air overpressure (air blast or noise) will typically be set based on acceptable levels, and will be specified in the contract documents.

Often a series of test blasts are performed in advance of production blasting. These test blasts will be done on site, within the footprint of the facility to allow the contractor to assess the appropriate hole spacing, delay pattern, powder factor, etc. to achieve optimum rock breakage, while meeting the contract requirement for noise and ground borne vibrations. Explosive products, such as dynamite and blasting agents, and initiators and blast hole delay devices will not be stored on site for more than one day. These components will be brought to the work site and deployed into previously drilled blast holes and detonated each day a blast is scheduled to occur. These components will be transported by truck in separate and locked containers to prevent unintended detonation. All work will be performed under the direction and supervision of a licensed blaster, following the state of the practice as well as all local, state, and federal regulations.

A final siting decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Meyer, Betty

From: Jeffrey Schouten [JSchouten@aol.com]
Sent: Sunday, October 14, 2012 10:01 PM
To: Meyer, Betty
Subject: Re: Draft Environmental Impact Statement (EIS) on the proposed Henderson Basin 44 CSO Reduction Project.

Re: Draft Environmental Impact Statement (EIS) on the proposed Henderson Basin 44 CSO Reduction Project.

Dear Ms. Betty Meyer,

1 I live at 5920 Seward Park Ave. S., just above the parking lot next to the tennis court in Seward Park. I have major concerns about the lack of completeness and the conclusions made based on the evidence in the draft EIS referenced above. Additionally, I am very distressed about the lack of adequate notice as to the previous public hearings and the selection of the tennis court location, so called Alternative 1. Only through last minute notices from my neighbors did I even learn that the tennis court location was chosen and that there was a hearing on 2 October 8, 2012 for comments on the draft EIS. I was able to attend that meeting but did not make public comments as I had not read the draft EIS, having just learned of its existence and the hearing a few days before the meeting.

In reviewing the draft EIS, it has become clear that park users and park events took president over the immediate homeowners and the neighborhood.

3
- Residences bordering the park were not included in the site scoping.
- All Alternative site conclusions were made based only on impact on to park users and considerations solely within the park boundaries.

4 The Parking Lot Alternative 2 is a superior location from the environmental and neighboring homes perspective:

5
- 57% of the attendees at the Open House hearing prior to the draft EIS comment meeting thought the Parking Lot Alternative was the preferred location.

6
- Noise considerations in the draft EIS were limited to park users, and not detailed as to the impact of the home owners for the up to the 30 months construction phase.

7
- Basin 44 previous options presented in the earlier meetings were private property, Seward Park parking lot or Lake Washington Blvd. (Re: adequate legal notice: the neighbors were not aware of the change in site location that had previously discussed in earlier public meetings until very recently).

Issues with Alternative 1 - Tennis court storage:

- This is a very narrow location squeezed between the water and an environmentally critical hillside. The hillside is a >40% grade. Development in steep slope areas is typically prohibited to ensure long-term stability. More trees will be lost with this option as well. 8 9
- Loss of the use of the only local tennis courts for over 2 1/2 years. The tennis court option was favored by the Parks Department apparently because they thought that would provide new tennis courts, where as now it is apparent that tennis courts will be replaced with either option. 10
- Sound can travel north and south rather than mainly south with Alternative 2. Decibel levels can reach 80 decibels during normal construction (about as loud as standing 3 feet from a garbage truck); add the sound of jackhammers, blasting of bedrock and pile drivers. 11
- Potential structural damage to 10 houses versus uninhabited park structures. 12
- 43 trees removed versus 26 trees (15 of which are the old poplars on the cement bulkhead). 13
- Financial impact to neighbors. 14
- Sewer connection damage to the homes directly above the park from ground vibration was not considered. The sewer line from our home is 60 years old and runs right under through construction site. Repairs or replacement may require additional tree removal on the slope. 15

Issues with both Alternatives:

- Possible lead contamination (ASARCO smelter plume) in the dust when the parking lot or courts are removed. 16
- Possible removal of some Garry Oaks (what are "exceptional" trees in the draft EIS?). 17
- Access to areas of the park will be restricted for up to 2 1/2 years, shifting parking into the local neighborhoods. 18
- Huge tank leads to more off gassing during the summer. Can the new smell reduction process hand it? 19

Currently the once a week vacuum pumping of the tank by the parking lot is right below our house. The pumping is very loud and starts between 5-6 am. How much additional noise long term will result from the new tank? 20

What do residents do when problems start to arise during the construction process?

What is the recourse? 21

Who is to be called?

Who assumes financial responsibility for any losses incurred to sewer lines? 22

I would sincerely hope that serious consideration is given to reviewing the selection of Alternative 1. Additionally, the inadequate EIS should be revised with the added considerations noted above before the final 23

site section is finalized. It does not serve the City of Seattle well if the site selection process is flawed by inadequate notice to the homeowners most impacted by the selection and the EIS and environmental review is not complete. The Seattle City Council will have to review the evidence and record and reconsider the selection if the process is not properly vetted and the EIS incomplete and erroneous.

Sincerely,

Jeffrey Schouten, MD, JD

5920 Seward Park Ave. S.

Seattle, WA 98118

JSchouten@aol.com

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Response to Schouten Comment 1

All of Mr. Schouten's questions and comments have been addressed (see also responses to Schouten Comments 2 through 23) and the Final EIS is complete. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to Schouten Comment 2

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including mailing postcards to approximately 1,700 neighbors bordering the project, apprising them of the Draft EIS public hearing and soliciting comments on the Draft EIS. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, during the proceedings that are required to address Initiative 42, prior to the City Council making a final decision on project siting.

Response to Schouten Comment 3

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. The Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality).

A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Schouten Comment 4

Comment noted. The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. The Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality).

A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Schouten Comment 5

The Determination of Significance/Scoping Notice and the Community Guide and other materials prepared for the EIS Scoping meeting described two alternatives within Seward Park: Alternative 1 (Parking Lot Alternative) and Alternative 2 (Tennis Courts Alternative). There was nothing in the scoping meeting materials indicating a preferred choice, and it would have been inappropriate to do so prior to conducting an evaluation of the environmental impacts. Once the environmental analysis was conducted, SPU identified the Tennis Courts Alternative as SPU's preferred alternative, and this preference was noted in the Draft EIS. For the Final EIS, numbers have been removed from the names of the project alternatives to help ensure clear communication.

Response to Schouten Comment 6

Sections 13.2.1.1 and 13.2.1.2 describe construction and operation noise impacts for both the nearby residents and park users.

Response to Schouten Comment 7

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public involvement process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final project siting decision.

Response to Schouten Comment 8

Both alternative sites are near the base of slopes. Both slopes are approximately 20-25 feet high and are about 2H:1V (horizontal to vertical). The toes of the slopes are 40 feet or farther from the proposed excavations. Additional geotechnical information will be gathered at the selected site to aid in assessing impacts of the excavation on the stability of the existing slope. If the geotechnical conditions and analyses indicate a likelihood of slope instability due to the proposed construction, such instability will be mitigated by implementing an appropriate design, using appropriate construction practices, and monitoring the slope and other affected facilities during construction. The current excavation support system concept is a secant pile wall. This wall system is installed into the ground prior to any excavation occurring – there will therefore not be an instance of an unsupported excavation near the toe of the slope. Additionally, effects of the tank excavation on the slope's stability (if any) could be readily mitigated by adding additional reinforcing in the piles, deepening the piles, or increasing the pile thickness.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel). It is unlikely that tree will be removed for sewer repairs.

Response to Schouten Comment 9

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Schouten Comment 10

As described in Sections 4.2.1.1, 4.2.2.1, 4.2.3.1 and 4.2.4.1, park users will need to seek other tennis courts during construction of either alternative, and there are eight other public tennis facilities within the vicinity. Four of those tennis facilities are within 2 miles of Seward Park; the other four tennis facilities are within 3 to 7 miles of Seward Park. As described in Section 3.4, the Seward Park tennis courts will be completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, unless Seattle Parks personnel decide during the design stage that they will prefer a different use (e.g., basketball courts, picnic area).

Response to Schouten Comment 11

Sound disperses in all directions from a noise source as spherical waves. Terrain differences between the Tennis Courts Alternative and the Parking Lot Alternative and nearby homes are not sufficient to alter the construction noise levels reported in the EIS. The largest determinant of how noise is perceived is the distance between the noise source (i.e., construction equipment) and the receptor. The greater the distance, the more the noise will be lowered over that distance. Also important is the nature of the intervening terrain (e.g., grass, trees, and other vegetation) that will absorb or reflect noise. As shown in Table 13-1 of the EIS, the Parking Lot Alternative site is farther away from residences than is the Tennis Courts Alternative site with intervening vegetation. As a result, the modeled construction noise levels at the residences under the Parking Lot Alternative are less than those under the Tennis Courts Alternative.

Response to Schouten Comment 12

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground.

After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Schouten Comment 13

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Schouten Comment 14

Analysis of potential economic impacts including effects on the market value of homes is not required by SEPA and was excluded from the scope of the EIS.

Response to Schouten Comment 15

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired.

Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Schouten Comment 16

The Asarco smelter plume was not included in the Phase I Environmental Site Assessment technical report. However, relevant information on Ecology's website has been reviewed and the area under consideration is located in the 0-20 parts per million (ppm) arsenic area of the smelter plume. According to Ecology, areas with concentrations of arsenic within this range do not require remediation.

http://www.ecy.wa.gov/programs/tcp/sites_brochure/tacoma_smelter/2011/techAssist.html

Response to Schouten Comment 17

No Garry Oaks (Quercus garryana) will be removed as a part of this project. Existing Garry Oaks are primarily located east of the parking lot, outside of the construction limits, see Figure 7-2. "Exceptional tree" is defined by Seattle Department of Planning and Development Director's Rule 16-2008 as a tree that: 1) is designated as a heritage tree by the City of Seattle; or 2) is rare or exceptional by virtue of its size, species, condition, cultural/historic importance, age, and/or contribution as part of grove of trees. Table D-1 (in appendix D) lists all of the trees in the project area and identifies which trees are considered exceptional. The proposed project would affect trees that are classified as exceptional based on their size.

Response to Schouten Comment 18

Sections 4.2.1.1 and 4.2.2.1 describe the impacts to parking, including the fact that during certain times (e.g., summer weekends, special events) vehicles will be displaced from Seward Park into the neighborhood.

Response to Schouten Comment 19

The existing CSO Storage Facility 8 (in Seward Park) does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

Response to Schouten Comment 20

SPU and Parks looked into the noise you reported hearing. Parks discovered that, because of high parking lot usage during the summer, maintenance staff had been sweeping the parking lot very early, starting shortly after 5:00 am. They have directed staff not to start the sweeper before 7:00 am and have asked that neighbors let them know if the problem reoccurs. For concerns specific to Seward Park, contact the Southeast District Maintenance Crew Chief at 206-386-1916. For general concerns, call the Parks Department information line at 206-684-4075.

Noise levels from operations and maintenance of the proposed project will be expected to comply with the residential day and night maximum allowable noise limits and are not anticipated to increase the noise levels at the nearby residences above existing measured noise levels. Noise generating equipment, such as fans from the odor control system, will be located below ground and maintenance will be infrequent and occur only during daytime hours, except in emergency situations. The noise levels from the equipment are lower than the existing noise levels measured at the nearby residences and park facilities.

Response to Schouten Comment 21

SPU will provide a list of contact names and phone numbers for people to contact if problems arise during construction.

Response to Schouten Comment 22

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve

drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Schouten Comment 23

Mr. Schouten's questions and comments have been addressed (see also responses to Schouten Comments 1-22) and the Final EIS is complete. SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including mailing postcards to approximately 1,700 neighbors bordering the project, apprising them of the Draft EIS public hearing and soliciting comments on the Draft EIS. The final siting decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy. Commenter's assertions do not provide a basis for reopening the SEPA process.

City of Seattle
Seattle Parks and Recreation

October 17, 2012

Seattle Parks

Betty Meyer, SEPA Responsible Official
Seattle Public Utilities
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018

Sent via e-mail: betty.meyer@seattle.gov

Re: Henderson Basin 44 Combined Sewer Overflow (CSO) Reduction Project - DEIS Comments

1 Seattle Parks and Recreation (Parks) appreciates the opportunity to provide comments on Seattle Public Utilities' Henderson Basin 44 Combined Sewer Overflow (CSO) Reduction Project; Draft Environmental Impact Statement (DEIS). Parks recognizes the necessity of the proposed CSO project and the benefits provided to the City upon the project's completion. That said, Parks has concerns related to the potential impacts associated with the construction and long term operation of the proposed CSO facility which will be located within Seward Park. The following comments are based on SPU's preferred location which places the storage tank under the existing tennis courts located in the Southwest corner of Seward Park. Comments would be similar should the preferred location move to Parking Lot 2, also located within Seward Park. Parks is supportive of the tennis court site as the impacts to the park, park users and park operations are less than siting the CSO facility in Parking Lot 2.

2 Parks' central concern is that the placement of the CSO facility within Parks' property forever constrains the use of the area where the tennis courts are currently located. Parks will be forever precluded from changing the use of the site to provide a different park amenity and/or recreational opportunity due to the underlying utility facility. Should stormwater regulations become more stringent in the future and SPU need to expand these facilities, even more Park property could be needed.

3 As noted in the DEIS, Seward Park is heavily used by both nearby residents on a daily basis and a much broader group of citizens on weekends and during one of the many special events that occur throughout the year at Seward Park. The potential full closure of Parking Lot No. 2 for up to 30 months, for construction staging and other construction related uses, would severely limit access to recreation at Seward Park which is unacceptable to Parks. Use of this parking lot is critical to the success of events and it provides easy access to the only accessible picnic shelters in the park. The DEIS indicates that contractor staging and parking may occur on two grass areas near the tennis courts. Use of these areas will prohibit recreational activities at these two locations, which is not acceptable to Parks. In addition, Parks would like to state that use of the Seward Park meadow for contractor staging or parking would be unacceptable because it would prohibit recreational uses in the meadow. SPU does note in the DEIS that there may be alternatives to the use of these park spaces and the complete closure of Parking Lot 2. Parks looks forward to working with SPU and SPU's chosen contractor to ensure that SPU has the construction access it needs and also that park visitors and event sponsors aren't unnecessarily disrupted during the estimated 30 months of construction.

❖Planning and Development Division ❖
800 Maynard Avenue South, 3rd Floor, Seattle, Washington 98134-1336
Tel: (206) 233-3872, Fax: (206) 233-3949

4 Seward Park and visitors to Seward Park will be impacted by the proposed construction and subsequent operation of the CSO facility. There will be no tennis courts in Seward Park for the public to use for the duration of the construction. Visitors will be subject to construction noise and dust. Access and parking at the site will be disrupted. The area under the existing tennis courts will forever be in utility usage. These are both short term and long term impacts. Parks expects that SPU will adequately and appropriately mitigate for the short term construction related impacts and the long term permanent impacts associated with siting a utility facility in a public park. Mitigation must be based on the impacts to Seward Park by the proposed CSO facility in perpetuity and both the temporary and permanent operational impacts of the facility on the public's use and enjoyment of Seward Park; and, Seattle Parks and Recreation's ability to operate the park to serve current and future needs of the public and the environment. Mitigation may include the funding of identified capital project(s) and improvements to park infrastructure and recreational opportunities. Some mitigation opportunities are noted in the DEIS. Parks will work with SPU to outline the appropriate mitigation measures between now and SPU's issuance of the Final EIS. In addition, Parks' notes that a Revocable Use Permit (RUP) will be required for the construction of the proposed CSO facility within Seward Park. Conditions may be attached to the RUP to address immediate concerns such as construction impacts, traffic operations, construction staging and returning the site to better that its pre-construction condition.

Parks also looks forward to working cooperatively with Seattle Public Utilities throughout the process to ensure that CSO construction can be completed in a timely manner in a way that impacts to Seward Parks and park visitors are minimized. Thank you for your consideration of these comments as you move forward. If you have any questions regarding these comments, please contact me at 206.684.7048 or david.graves@seattle.gov.

Regards,

David Graves, AICP
Senior Planner
Planning & Development Division
Seattle Parks & Recreation

Cc: Michael Shiosaki, Planning & Development Division Director

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Response to Seattle Parks Comment 1

Comment noted. The EIS evaluates the impacts of construction and long term operation and maintenance of each of the alternatives. The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). The EIS also acknowledges (see Section 1.4) that siting is a significant area of controversy, and that a final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code.

Response to Seattle Parks Comment 2

SPU has consulted with Parks throughout the facility siting process and will continue that collaborative process through facility design. Parks concerns and priorities have been a significant consideration in the development of options at the site. It is acknowledged that the presence of an underground storage facility will limit the use of some types of park facilities, but experience throughout the City in areas such as Jefferson Park – where natural features and artworks have been installed on top of reservoirs – has illustrated the potential for considerable flexibility for long-term recreational uses above below-ground utilities. The proposed locations for the underground storage facilities and UPARR replacement area would maintain the existing park uses; do not preclude any future uses or projects identified within the 2011 Seattle Parks & Recreation Development Plan; and are consistent with the Seward Park Vegetation Management Plan, the Seward Park Comprehensive Trail Plan, and the Lake Washington Boulevard Vegetation Management Plan. SPU will work closely with Parks to design and install a facility that provides long-term flexibility for Parks while meeting SPU's mandated water quality requirements.

Response to Seattle Parks Comment 3

SPU will work closely with Parks to provide adequate access to Seward Park during construction that avoids unnecessary disruption to park visitors. All contractor staging areas located on Parks property will be mutually agreed upon between SPU and Parks.

Response to Seattle Parks Comment 4

SPU coordinated closely with Parks during the facility siting process, incorporated Parks' considerations into the overall project development, and is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA authority and requirements. The EIS outlines construction-related noise impacts and measures to reduce those impacts in Sections 13.2 and 13.3, respectively. Construction-related dust impacts and measures to control dust are described in Sections 10.3 and 10.5. Construction-related traffic

impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either as part of the City Council process to address Initiative 42 and the City's land use codes or during the process to obtain a Revocable Use Permit. The project will meet all applicable permit requirements from all applicable regulatory entities. SPU will continue to work with Parks to develop a facility that fulfills the City's legal obligations for the reduction of sewage discharges while addressing short- and long-term recreational impacts at the site.

Simmons Blaine

Meyer, Betty

From: Betina Simmons [betinasimmons@hotmail.com]
Sent: Wednesday, October 17, 2012 4:34 PM
To: Meyer, Betty
Cc: maura whalen
Subject: Re: Proposed CSO tank at Seward Park

Hello,

I co-chaired the Seward Park playground with Maura and I echo her sentiments on this matter. It took our community three years and tireless fundraising to the tune of $750,000 to build this playground. It is one of a very few places that people of all ages, from all of the diverse communities in our area gather. It would be a hardship to many kids and families to disrupt this well used and well loved play space again after waiting such a long time for it. As Maura said, the play area draws many people to the park and neighborhood. 1

Placing the tank beneath the tennis courts would cause far less disruption to far fewer people.

Sincerely,

Betina Simmons Blaine
Former SPPIF Co-Chair & Seward Park resident and parent

Sent from my iPad

On Oct 16, 2012, at 8:22 PM, "Maura Whalen" <sppif@mac.com> wrote:

> To Whom It May Concern:
>
> I am writing to express my concern about the proposal to build the 2.4M gallon CSO tank in Seward Park. I support the preferred alternative to place the tank under the tennis courts.
>
> As a 13 year resident of Seward Park and as the Co-Chair of the volunteer group which led the Department of Neighborhood project to renovate (re-build!) Seward Park's playground, I have grave concerns about our beloved and well used play area being ripped up for the installation of the CSO tank. Construction will cause disruption wherever it is decided to be placed but my firm belief is that the tennis courts are a better bet for several reasons. For starters, the tennis courts are not nearly as well used as the play area is and they are in dire need of renovation which could easily happen post the installation of the tank. Southeast Seattle has tremendous growth of diverse young families whose children need a place to play and interact with one another in a healthy way. Our play area provides that. At any given time, rain or shine myriad people of all ages can be seen enjoying the play area. It is without argument that the creation of Seward Park's play area has made an informal, outdoor living room drawing people from numerous neighborhoods throughout the city and beyond. To take this away would be a tragic error.
>
> On behalf of the Seward Park Playground Improvement Foundation, please cast a loud vote for placing the tank under the tennis courts.
>
> Sincerely,
>
> Maura Whalen
> 5215 South Orcas Street
> Seattle, WA 98118

> 206-281-8655
>
>

Response to Simmons Blaine Comment 1

Thank you for your comment.

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Smith A

Allan L Smith
4709 S. Orcas
Seattle, Washington 98118
206- 723-7381
Oct. 8, 2012

Betty Meyer, SEPA Responsible Officer
RE Seward Park CSO project

I'm not necessarily opposed to the proposed tank at Seward Park. But I would suggest that the 38.000 approximate metric tons of green house gases generated by the project being written off as "as far less than the gas emissions for the year In Seattle
2008," is perhaps a little too facile. In death by a thousand cuts, climate change- as perhaps we are beginning to endure
1 in our current drought- might have overreaching reprecussions. It could be generating a lethal increase in temperature in the Lakewhich could affect salmon as well as other fish. The number 38,000 is problematic moreover because where the 13000 or so cubic yard is trucked to can not be factored into the number in any specific calculation because the destination for the fill is currently not known. As a retired carpenter who regularly com-
2 muted to work by bicycle, I was bamused and dismayed to see that despite the bicycle lobby lording over our political landscape as an expensive assemblage of charrots, bike lanes, boxes and boulevards covers our streets, only car pooling for workers is suggested to alleviate a parking shortage at Seward Park.

Although it is easy for me to say because I enjoy traveling only by foot, bicycle or hearing and reading accounts of others, I'm discouraged by environmentalist friends. Acquantences such as Robert Pyle in his book Mar iposa ROad not only wax enthusiastic about driving and flying all over the country in pursuit of

seeing a maximum # of species of butterflies within a year, but at the end of his book has suggestions about how others might best follow his example. Lots of environmentalists driving-flying us into a hotter future while waiting for government? science? Republicans? to wave the magic wand.

Finally I would like to question t8.6

> No significant unavoidable adverse impacts associated with transportation are anticipated during or after construction.

I live at 4709 S. Orcas. Truck traffic shakes my house. My foundation is old without rebar and it rests on clay soil. Orcas is one of the two proposed routes for construction traffic. Just as the trucks are t tearing up the grating on the Montlake Bridge as a result of the construction for the new Husky stadium, I can weell imagine that truck traffic could be sufficiently concentrated in brief periods of time, particularly during the winter, that the City would be hard pressed to maintain Orcas to even its current deporable condition. The trucks hauling fill and the cement trucks could increase the number and severity of potholes generating enought vibration to damage dwellingsaand other structures along the route. 3

I'm not concerned about forcefully expressing my concerns about the potential for damage, because the EIS is simplistic in its analysis of traffic. The supposedly 'imperceptible' less than one per cent increase of traffic on Rainier Avenue seemingly fails to take into consideration that especially dump trucks with trailors take up far more space than most vehicles. That and the destructive impact of that weight on the Avenue raises the conundrum for bicyclists and other drivers- how to keep track of trailors 4 5

while negotiaint pot holes and standing waves. The adverse impacts are more likely to be better described as a 100% increase.

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Response to Smith A Comment 1

On December 3, 2007, the Seattle City Council adopted Ordinance 122574, requiring City departments to evaluate greenhouse gas (GHG) emissions as part of environmental review under SEPA. The City of Seattle has adopted a worksheet developed by King County, Washington, used to estimate lifecycle GHG emissions for a range of standard development projects. For construction truck trips, we have assumed a 50 mile round trip as the distance traveled to dispose of construction waste.

Response to Smith A Comment 2

Comment noted. Bicycling, rather than driving, could alleviate parking issues in Seward Park.

Response to Smith A Comment 3

As described in Section 8.5 of the EIS, SPU will schedule the construction of project elements so they do not overlap, when possible, to reduce the number of vehicle trips occurring at one time. This will reduce the impacts associated with ground vibration from truck traffic along Orcas. SPU does not expect truck traffic along Orcas to cause enough vibration to create settlement or structural concerns at your home.

Response to Smith A Comment 4

Traffic modeling performed for the EIS incorporated the fact that construction trucks are larger than standard vehicles.

Response to Smith A Comment 5

Section 8.4.1.1 acknowledges that the presence of large trucks on the construction route will impact bicyclists.

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Meyer, Betty

From: Robert Smith [bobakemi@comcast.net]
Sent: Sunday, October 07, 2012 11:38 AM
To: Meyer, Betty; SPU_HCSO
Cc: Robertson, Kathy
Subject: Henderson Basin 44 DEIS Comments

Betty Meyer, SEPA Responsible Official
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018

cc: Kathy Robertson, Project Manager
Henderson Basin 44 CSO

Comments from Robert Smith, 9835 Arrowsmith Ave So, Seattle, Wa 98118
email: bobakemi@comcast.net

Comment No. 1 - Regarding disposition of shoreline trees at Preferred Alternative 1

Chapter 7, states that 43 trees will be removed in Alternative 1.

Even thought the footprint of the storage tank is set back a distance from the surrounding trees, no explanation is offered as to why the trees must be removed. No effort has been made to explain the engineering reasons why that impact is made necessary. During the public meetings process, when this question was raised in regard to the lines of poplars at each parking lot, Engineer Andrew Lee explained that it wouldn't be known until engineering studies could proceed further whether the the poplars could remain or whether the design engineers would conclude that the tank excavation width would threaten the root systems. In the case of individual trees on the inland side of the disturbance, he explained there was a greater possibility of saving them. On the Plate 7-1 plan, not only the shoreline poplars are to be removed but an inland row of shade trees are to be removed as well. 1

The writers of this DEIS could have consulted the design engineers and published the rationale for not being able to mitigate this extensive tree removal. To have done so would have gone a long way toward public confidence in the integrity of SPU's process.

3.3.1.2 states: "Regardless of the option, (construction of the storage tank would require removal of the existing shoreline trees..) The shoreline . . . . could be planted with lawn and upland native landscaping."

No thought is given to an alternative to replant poplars at the shoreline. **The poplars have been there for so many years that they are the sole visual memory for contemporary park patrons and local residents.** 2

"Lawn and upland native landscaping" may very well be the more justifiable alternative, but the DEIS contains no discussion or justification for limiting the design approach to only one style of replanting the lake edge. This statement suggests that public opinion is now of no importance, with SPU being the arbiter on the manner of replanting the shoreline border zone. There is only the hint of a justification, and this is to be found in the

references section in which it is noted that the rows of Lombardy and White Poplars are not consistent with the Olmstead Plan. This is described in: NAOP (National Association for Olmsted Parks). 2011. Design Principles.

3 There is no information contained in this report that explains or evaluates the historical decision to plant the original rows of poplars, particularly since they were inconsistent with the Olmstead Plan. One must conclude there must have been a very strong reason at the time in history when they were planted. Today, without so much as a few words of rationale, someone at SPU has made the decision to replace the row of poplars with a very different style of landscaping. That is arbitrary..

****

Comment No. 2 -Repaving of Parking Lot 2

Chapter 3, Page 3-34 states:

Parking Lot 2: Table 3-5 shows the number of current and post-construction parking spaces. The parking lot currently has 62 parking spaces, including four accessible parking spaces.
• Alternative 1: Parking Lot 2, which would be used for staging, would be repaved and restriped to restore it to existing conditions, with no change to the number of parking spaces.

4 It appears that attention hasn't been paid to the current parking layout condition of Parking Lot 2. The parallel parking layout needs to be adjusted when the lot is resurfaced and re-striped at the conclusion of the project. The photographs I enclose below will illustrate that the line of parallel parking stall lengths is flawed and substandard. The stalls range from 18'-0" to 18'-6. This results in time consuming difficulties for motorists trying to maneuver into the stalls, including bumps and scratches .This also leads to an inefficient use of the available stalls.

I suggest two measures:

1. Eliminate the present curb bulbs. They are of limited value. Then redistribute this acquired space into the overall distance.
2. Delete two existing stalls overall, redistributing the space recovered to the line of remaining stalls.

This photo illustrates how one vehicle overlaps into the adjacent stall even though the nose of the vehicle is reasonably close to the front line of the stall. The result is the waste of a parking space behind. This is inefficient use of the overall space available. Put another way, the capacity is misstated. The working capacity is smaller than the stated capacity.

This photo illustrates how difficult it is to maneuver a standard size vehicle into an 18'-0" space. As you can see, the silver sedan is still partly into the stall after two laborious maneuvering attempts. The vehicles in front and back are centered in their stalls. There appears to be about 6" available at the front and about 12 or 15" at the rear.

<u>One additional consideration about the Lot 2 parking layout -</u>

The north-facing line of perpendicular parking stalls are laid in at 8'-6" on center. A survey of standards for various municipalities in the United States shows a concurrence on a dimension of 9 feet standard. Wikipedia's summary indicates an average of 9.1ft. "Parallel parking spaces are typically cited as being approximately 2.76 metres (9.1 ft) wide by 6.1 metres (20 ft) long."

The present 8'-6" interval at Seward Park is not as difficult and constricting as the problem at the parallel stalls, yet it squeezes vehicles just close enough to produce an unnecessary number of door impact dings in adjacent automobiles.

If the stall count could be reduced by just two spaces, the remainder of the stalls could be re-striped in at 9'-0". That would be a major improvement for the patrons of Seward Park.

Meyer, Betty

From: Robert Smith [bobakemi@comcast.net]
Sent: Tuesday, October 16, 2012 10:49 PM
To: Meyer, Betty; SPU_HCSO
Cc: Robertson, Kathy
Subject: Henderson 44 - Alternatives 1 & 2

Betty Meyer, SEPA Responsible Official
Seattle Public Utilities (SPU)
Seattle Municipal Tower, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018

cc: Kathy Robertson, Project Manager
Henderson Basin 44 CSO

Thank you for bringing the EIS Public Hearing to the Seward Park Audubon Center on Oct 8, and for the professional manner in which it was presented.

You have an earlier email from me containing other comments on the Draft EIS, but now having attended this hearing, I would like to offer some additional commentary.

Sincerely,

Robert Smith
9835 Arrowsmith Ave So
Seattle, WA 98118

1. Regarding the proximity of the six or seven residences above the tennis courts & parking lot 1.

Although our family lives near but not adjacent to Seward Park, I can sympathize with these residents whose homes are quite close to parking lot 1 and the tennis courts. They will be required to experience 2 1/2 years of construction activity, noise and disruption before their lives can finally return to normal. I witnessed their testimony and thought they presented it in a civil and effective manner, especially considering the grievance they discussed. 5

The Draft EIS did not speak to their key issue: the lateness in the public involvement calendar when the parking lot 1 alternative came into being. I myself have attended every meeting in the long process, and have to say they have a reasonable complaint.

I consider it a weakness in this DEIS that a more careful and thorough explanatory discussion was not included, both in regard to the timing of the introduction of the paired parking lot alternatives, and in differentiating between the two alternatives in the preference decision. It could have been included as an exhibit if brevity was a necessity in Section 3.2. As a result, SPU's statement became subject to rebuttal during the testimony. 6

Now that you have heard testimony and feedback, it is reasonable to expect to articulate, as a part of the Final EIS, a thoughtful and respectful explanation to these people. I look forward to reading that.

2. Regarding potential damage to the nearby residences.

Here is what the DEIS stated in regard to geological impact.

Vibration and settlement, which have the potential to damage adjacent structures, could occur from placement of shoring for the excavation. Slope instability could occur due to excavation near existing slopes. Ground settlement also could potentially occur from groundwater de- watering during construction. The potential for observed or measured vibration (and any associated effects, such as settlement) depends on several factors, including the subsurface conditions and the distance from the source to the receiver. It is likely that the potential for vibration and effects on the nearby residences would be higher for Alternative 1 than for Alternative 2. Similarly, it is likely that the potential for vibration and effects on the nearby park facilities would be higher for Alternative 2 than for Alternative 1. Shoring techniques would be used that do not produce significant vibration and the design would reduce the potential for impact to adjacent structures.

7

Frankly, I expected to witnesss some concern expressed by the homeowners about the potential for vibration and settlement damage to their houses. But I heard none. Perhaps the homeowners plan to utilize the law courts if damage does indeed occur during the construction phase. Have SPU's cost estimators included a contingency fund earmarked for legal claims when and if they take place?

3. Alternative 1 is superior to Alternative 2

I prefer Alternate 1 for a number of reasons:

1. Because of its larger capacity, the loss of parking lot 2 for 30 months would be a greater negative impact than to lose parking lot 1 for that same period of time.

2. Better location for park patrons - parking lot 2 conveniently feeds directly to the loop eastbound trailhead. It is significantly closer to the two south side picnic shelters. This is valuable logistically for groups carting supplies from their vehicles to the shelters for group picnics. It also is safer for bicyclists to approach the loop trail from the parking lot than to shunt over to the narrow paved path above and parallel to parking lot 2.

3. The childrens' playground will be farther away from the construction scene under Alternative 1.

4. As unattractive as Alternative 1 is to the adjacent residents, it still needs to be acknowledged that what they face is for a limited period of time. It is a temporary impact. 8

5. I would like to note that none of the speakers spoke to or complained about the permanent loss of the Lombardy Poplars. One can conclude that they view this as a plus, an opportunity to improve their lake and territorial view.

6. Conversely, it would be a more distressing loss to destroy the majestic row of White Poplars at parking lot 2. These mature poplars present a frame by frame view of Mt. Rainier as one proceeds along the paths parallel to the parking lot. The poplars have been providing this glorious view to visitors for generations; they represent a landmark vision of Seward Park for the people of Seattle and have done so for as long as people can remember. That their original planting didn't coincide with the Olmstead Plan doesn't matter to people who have known these trees for a lifetime. These White Poplars may have mortality working against them, but my research indicates they still promise another twenty years of pleasure to park patrons. It would be criminal to take them down.

Conclusion: The White Poplars are more spectacular, more elegant and more valuable than the Lombardy Poplars. <u>The selection of Alternative 1 is the best decision.</u>

Response to Smith R Comment 1

Either alternative would require the adjacent stand of Poplar trees along the lakeshore to be removed. Although not directly in conflict with the storage facility, the Poplars would be in conflict with the shoring system used to hold open the excavated area. For either alternative, disturbed upland areas will be enhanced with restoration planting, including trees, in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting. Restoration planting will be consistent with the Seward Park Vegetation Management Plan.

Response to Smith R Comment 2

In order to maintain the existing shoreline edge and minimize disturbance of the existing western slope, limited space is available for large deciduous or evergreen trees adjacent to the shoreline. The size of the tank and shoring required for its construction also limit the amount of soil volume available for large evergreen or deciduous trees. Restoration planting will be consistent with the Seward Park Vegetation Management Plan.

Response to Smith R Comment 3

The poplar trees were likely planted when the tennis courts were constructed in 1932-1935. The poplar trees adjacent to the tennis courts may have been planted to provide shade for players. The poplars were planted during the era of Park Department Head Gardener Jacob Umlauf who was known to plant non-native trees in Seward Park. The proposed planting plan will align more closely to Olmsted's original vision and will be consistent with the Seward Park Vegetation Management Plan.

Response to Smith R Comment 4

Thank you for the information and pictures. The main point in the EIS regarding the number of parking spaces is that whichever parking lot has the CSO tank underneath it, that parking lot will require two spaces designated for City vehicles, thus reducing the number of public spaces. Aside from this City-vehicle requirement, adding an ADA space in Parking Lot 1, and the resulting decrease in regular public spaces, the EIS assumes no other changes to the number of spaces. However, during the design phase, Seattle Parks could decide to make additional changes to the post-construction configuration of the parking lots. The information you provided will be helpful for that process.

Response to Smith R Comment 5

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public involvement process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44.

In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot.

By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings.

The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Smith R Comment 6

Comment Noted. The EIS has been revised to include an explanation of alternatives analysis and the public process that SPU has carried out and will carry out to site the underground storage tank (Section 1.3). The EIS also has been revised to clarify how SPU arrived at its preferred alternative (Section 1.3) and to acknowledge that siting is a significant area of controversy (Section 1.4).

Response to Smith R Comment 7

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington

Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Smith R Comment 8

Thank you for your comments.

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Sparler

Meyer, Betty

From: dsparler@aol.com
Sent: Tuesday, October 16, 2012 7:03 AM
To: Meyer, Betty
Cc: Harrell, Bruce
Subject: Comment on Henderson Basin 44 / Seward Park CSO

5920 Seward Park Avenue South
15 October 2012

Betty Meyer
Seattle Public Utilities
PO Box 34018
Seattle, WA 98124-4018

Re: Comment on DEIS for proposed Henderson Basin 44 CSO Reduction Project

Dear Ms. Meyer,

1 As a 21-year resident of the Seward Park neighborhood, I am writing you to urge that SPU reject the "Tennis Court Alternative" for this project. If the CSO tank must be located within the boundaries of Seward Park, the "Parking Lot Alternative," although it will still be highly disruptive, will be far less damaging to the quality of life of those of us who live near the park entrance. My house, which I share with my partner, Jeff Schouten, sits immediately above the tennis court parking lot.

2 I must state that I am bewildered and frustrated at the confusing signals sent by SPU as well as by the lack of transparency in communicating the evolution of planning in this process. As a case in point, your SPU web page on the project, which I accessed this morning, is still sending mixed messages. Near the top of the page is a link for the DEIS issued last month, with the Tennis Court Alternative indicated as Alternative 1, (preferred). However, when one scrolls down a bit and clicks on the Community Guide to the Project (the only such guide available so far as I can see), one gets a document that seems to have been issued in Spring of 2011, listing the Parking Lot as Alternative 1 and the Tennis Court as Alternative 2.

3 Having now perused the DEIS, I am, quite frankly, flabbergasted that SPU has given so little concern to the adverse impact of the Tennis Court Alternative on those of us who live in the immediate vicinity. Excessive

4 a-e noise[a], potential property-damaging vibrations[b], dust[c], noxious gases[d], disruptions or breaks in our sewer lines[e] are some of the likely negative outcomes of this alternative for our neighbors and us.

5 As to the DEIS assertion that the Tennis Court Alternative would be less disruptive to park visitors, please keep in mind that Seward Park consists of 300 acres of space, and that a contiguous park strip along Lake Washington Boulevard runs north of Seward Park for more than three miles. Thusly considered, park visitors have nearly unlimited alternatives to enjoy public green space, while we residents of houses adjacent to the park have no such options. The thought of being trapped in our homes during 2½ years of construction-related hell is dismal.

6 A side by side comparison of the "Summary of Potential Impacts" in Table 1-1 shows no evidence of the superiority of the Tennis Court Alternative over the Parking Lot Alternative. In fact, SPU's "preferred" Tennis Court site actually disturbs more upland habitat, closes the tennis courts for a longer period, and requires the removal of more trees. Regarding the assertion that bald eagles might be disturbed more by the Parking Lot

site, I can state with 21 years of empirical observation that bald eagles frequently alight in the snag-top firs on the park slope between our houses and the tennis court.

Simple justice, not to mention common sense, dictates that SPU reconsider its preferred alternative for this project, and reject the Tennis Court Alternative due to its potentially devastating impact on neighbors of Seward Park.

Sincerely,

Daniel Sparler

5920 Seward Park Ave. S.
Seattle, WA 98118
dsparler@aol.com
206-760-1973

Response to Sparler Comment 1

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have noted, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Sparler Comment 2

The alternative number designations were never intended to suggest a preference. To avoid confusion, the EIS has been revised so that the alternatives are not numbered. The alternatives are instead referred to as the "No Action Alternative," the "Tennis Courts Alternative," and the "Parking Lot Alternative."

Response to Sparler Comment 3

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have noted, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Sparler Comment 4a

As described in Section 13.2.1.1, park users and nearby residents likely will notice an increase in noise levels during construction, however the construction noise is expected to comply with the maximum allowable noise limits. The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Sparler Comment 4b

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use

construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Sparler Comment 4c

The Puget Sound Clean Air Agency (PSCAA) governs activities affecting air quality in King, Snohomish, Pierce, and Kitsap Counties; and thus has jurisdiction over the project area. As required by the PSCAA regulations, emissions will be controlled by using reasonably available control technologies (PSCAA, 2008) and City of Seattle construction practices.

Fugitive dust impacts associated with construction of the proposed project are not anticipated to be significant. Construction contractors will be required to comply with regulatory requirements and implement appropriate dust control measures, as necessary. Measures to minimize fugitive dust emissions from construction project will include:

- Spraying exposed soil and storage areas with water during dry periods.
- Covering exposed earthen stockpiles and loads of excavated material being transported from the site.

Vehicular emissions associated with construction of the project are anticipated to be short-term in nature. Measures to minimize vehicular emissions will include:

- Requiring contractors to use best available control technologies.

- Proper vehicle maintenance.
- Minimizing vehicle and equipment idling.

Response to Sparler Comment 4d

The existing CSO Storage Facility 8 (in Seward Park) does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

Response to Sparler Comment 4e

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve

drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Sparler Comment 5

Thank you for your comment. We acknowledge your concern about potential impacts to nearby residents.

The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As you have noted, the Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Sparler Comment 6

Comment noted. The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Meyer, Betty

From: Talbert, Paul [ptalbert@fhcrc.org]
Sent: Wednesday, October 17, 2012 1:07 AM
To: Meyer, Betty
Subject: Comments on draft EIS for Henderson Basin 44
Attachments: EIS comments.docx

Dear Ms. Meyer:

Please accept these comments on the draft EIS for the Henderson Basin 44 CSO project. These comments repeat and expand on comments I gave on October 8 at the public meeting on this topic, and could replace the earlier comments (which contain an embarrassing math error). I have put my comments below and also attached them as a word 2010 (docx) document.

Thank you for your attention to this matter.

Paul Talbert
4601 S Brandon St
Seattle, WA 98118-2355
ptalbert@fhcrc.org

October 16, 2012

EIS comments

1. I want to thank SPU for all the work they have put into the public meetings, EIS, and other reports relevant to this large and intrusive project. I also want to thank SPU for being responsive to the public input that has been received. As the project has evolved, SPU has been continually responsive to public input and has worked hard to keep the public informed. Charges that neighbors were "blindsided" about options that have been on the table for over a year are ridiculous.

2. Alternatives 1 and 2 for the most part have similar impacts. As one of the people who originally suggested Alternative 1, I can say that the reasons that the tennis courts were suggested had to do with the belief that the south parking lot might remain open and that it would be good to get new tennis courts out of this project. However, as presently conceived, both alternatives close both parking lots, and both would produce new tennis courts, so the alternatives are equivalent in this regard. The reasons listed for preferring alternative 1, primarily less impact on park users, are good reasons. However, in looking at the long-term impacts there are some differences in the impact on the park itself. While I am very hesitant to recommend putting the construction site near the playground, this is a temporary inconvenience, whereas the loss of the trees that will be removed will have a much longer recovery time to the extent that they recover at all, since the tank area will remain tree-free. Alternative 1 would remove 43 trees including 12 natives. Alternative 2 would remove 'only' 36 trees, none of them native. The loss of 7 additional trees under Alternative 1 is a significant impact, and therefore Alternative 2 is preferable.

3. Under Alternative 1, the EIS mentions the possibility of making a temporary road across the grassy area south of the entrance circle to ease access to the south parking lot (#2) while the southwest parking lot (#1) and tennis courts are still closed. I am wary of this possibility, which may damage the roots of the surrounding trees.

4. In Table 3-3 and Figure 3-6, the EIS raises the possibility of off-site staging. It is unclear how practical this is, but the temporary impact to the park would be reduced if off-site staging permitted either the south or southwest parking lot (Lots 1 &2) to stay open, since these are very heavily used. Parking lot #3 is also very heavily used and would only be preferable to 1 or 2 if it has fewer parking spaces. The upper parking lots are less heavily used and mostly have fewer spaces. Staging near Whitworth School would have many of the same problems of impacting kids and families as do Alternatives #1 and #2. If off-site staging occurs, resurfacing the tennis courts might not be required if Alternative #2 is chosen, but it would still be a great idea to help mitigate the impact of this project on recreation.

5. In considering the impacts of construction on fish, and in planning lakeshore restoration, it should be noted that redside shiners spawn each year, usually in April or early May, on the shores of Andrews Bay. It is possible that some use the south shore of the park as well. Though not a species of concern, they are a significant part of the park's wildlife.

6. The test holes in the geological report excavated shells, and fossils are known to occur in the Blakeley Formation. There should be a geologist on hand when bedrock excavation begins to evaluate the presence of fossils and whether they are of scientific value. Even if they are not of scientific value, they may be of educational value for the Audubon Center, the Friends of Seward Park, neighboring schools, or others. Some practical means of looking for and putting to use any fossils that are found should be devised in a manner that does not burden construction unnecessarily.

7. The EIS refers to the Seward Park Vegetation Management Plan, but does not list it in the references. It does not refer at all to the Lake Washington Boulevard Vegetation Management Plan, which should be consulted prior to planning the UPARR replacement area. The latter plan was somewhat controversial, and it is important to be aware of the compromises that were built into the plan.

8. The EIS discusses new ADA parking sites. It would be helpful if planners consulted the Seward Park Comprehensive Trail Plan for at least one recommendation for anADA site location on the upper loop to access a future ADA compliant trail. ADA access at the amphitheater and picnic shelter #5 should also be considered.
http://www.scribd.com/doc/66467524/Seward-Park-Trail-Plan

9. With increased traffic on the upper loop, crosswalks could be added for safety: between picnic shelter #3 and the joint entry to the Bald Eagle and Lost Lake Trails; between picnic shelter #2 and the amphitheater; between the amphitheater and the Bald Eagle/Sqebeqsed Trails; and at the bottom of the upper loop road to the Clay Studio area.

10. The EIS mentions that 3700 cubic yards of fill will be imported. Why not just use some of the excavated dirt?

11. In considering transporting heavy equipment and fill over Genessee or Orcas, It should be considered that Genessee is wider and is lined by fewer houses.

12. There may be increased bike traffic in the park. If so, few more bike racks would be handy.

13. Although somewhat unrelated to the EIS, it would be nice to clarify to the public if Seward Park is being recommended for Historic District status or is merely judged to be eligible, and what the practical effects of such a designation would be for the park.

14. On page A-12, it is stated that the Friends of Seward Park have been active "for half a decade". Actually the Friends have been active since 1999.

15 | 15. To the extent that the park closes down during Seafair, that would actually be a good time to do construction work in my view.

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Response to Talbert Comment 1

Thank you for your comment.

Response to Talbert Comment 2

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Talbert Comment 3

As described in Section 3.3.2, the decision on which area(s) to use for construction staging and contractor parking will be made by the contractor, working with SPU and Seattle Parks, and will be based on a number of factors. Impacts to trees surrounding the potential temporary public access driveway will be considered in the decision on staging and contractor parking locations.

Response to Talbert Comment 4

As described in Section 3.3.2, the decision on which area(s) to use for construction staging and contractor parking will be made by the contractor, working with SPU and Seattle Parks, and will be based on a number of factors. The information in Section 3.4 regarding the tennis courts being completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, assumes (per Section 3.4.2) that the tennis courts and Parking Lot 1 are used for construction staging and contractor parking for the Parking Lot Alternative. If the tennis courts are not utilized as such, re-building the tennis courts might not be necessary.

Response to Talbert Comment 5

This information was added to Section 7.2. Redside shiner are also listed in Table D-4 of Appendix D.

Response to Talbert Comment 6

Paleontology is not addressed under SEPA and there are no legal requirements to protect paleontological resources on the state level. The Blakeley Formation is quite large. It can be found at Seward Park, I-5 at Boeing Field, Bainbridge Island to Bremerton, etc. Fossil beds in general tend to be repetitive in their composition. The size of disturbance this project might make is probably about 1/1000 the size of the formation or smaller. If fossils were disturbed during excavation, it would not have a significant adverse impact.

Response to Talbert Comment 7

The Seward Park Vegetation Management Plan is listed under the author, International Forestry Consultants, in Section 18 References.

The Lake Washington Boulevard Management Plan was followed in developing the UPARR replacement area (Figure 3-9). An in-text citation has been added to the EIS and reference added to the list.

Response to Talbert Comment 8

Suggestion to follow the Seward Park Comprehensive Trail Plan is noted. SPU is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA requirements. Construction-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5 of the EIS, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either during the City Council proceedings that are required to address Initiative 42 and the City's Land Use Code or during negotiations with Seattle Parks that are part of the process to obtain a Revocable Use Permit. Any mitigation undertaken along the upper loop will be consistent with the Seward Park Comprehensive Trail Plan.

Response to Talbert Comment 9

Suggestion to add crosswalks in four specific locations is noted. SPU is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA requirements. Construction-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5 of the EIS, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either during the City Council proceedings that are required to address Initiative 42 and the City's Land Use Code or during negotiations with Seattle Parks that are part of the process to obtain a

Revocable Use Permit. Any mitigation undertaken along the upper loop will be consistent with the Seward Park Comprehensive Trail Plan.

Response to Talbert Comment 10

The site excavations will likely consist largely of Blakely Formation bedrock, as well as any soil overlying the bedrock. The soils overlying the bedrock at the site are generally fine-grained (silty or clayey), lacustrine (lake) deposits or re-worked fine-grained soils in the form of existing fills. These soils are generally unsuitable as engineered fill due to their compressibility, moisture-sensitivity, and other issues. The bedrock at the site is generally comprised of sandstone and mudstone. Using excavated bedrock as engineered fill would require extensive, costly, and noisy processing. While this is sometimes done for large earthworks or roadway projects, this project's scope and proximity to residences does not lend itself to on-site processing of rock material for fill. Therefore, the most cost-effective, least intrusive, and technically feasible alternative is to use imported soil for the required engineered backfill.

Response to Talbert Comment 11

The hauling and equipment transportation routes will be selected in partnership with SDOT. Regardless of the selected route, SPU will implement several actions to limit impacts including performing a pre-construction road assessment and restoring roads if they incur damage during construction, developing a traffic control plan, and only using equipment and trucks that meet SDOT's residential street weight requirements.

Response to Talbert Comment 12

Suggestion to add a few bicycle racks is noted. SPU is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA requirements. Construction-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5 of the EIS, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either during the City Council proceedings that are required to address Initiative 42 and the City's Land Use Code or during negotiations with Seattle Parks that are part of the process to obtain a Revocable Use Permit. Any mitigation undertaken along the upper loop will be consistent with the Seward Park Comprehensive Trail Plan.

Response to Talbert Comment 13

As part of the Cultural Resources analysis performed for this EIS, cultural resource experts (Historical Research Associates, Inc.) determined Seward Park is eligible for listing in the National Register of Historic Places (NRHP), the Washington Heritage Register (WHR), and the City of Seattle Landmarks Register. Seward Park is not being recommended for listing as part of this EIS. If such listing(s) were to occur through other efforts, they might, depending in part on the funding source or permitting requirements, require the City of Seattle to consider the effects of potential future projects on Seward Park.

Response to Talbert Comment 14

The text in the appendix has been changed to clarify that the Friends of Seward Park has been active since 1999.

Response to Talbert Comment 15

As described in Section 3.2, the construction schedule will be coordinated to minimize impacts to major events such as Seafair. Considerations related to Seafair will include safety closures of the park due to the Blue Angels schedule and traffic congestion in the area.

Meyer, Betty

From: Maura Whalen [sppif@mac.com]
Sent: Tuesday, October 16, 2012 8:22 PM
To: Meyer, Betty
Subject: RE: Proposed CSO tank at Seward Park

To Whom It May Concern:

I am writing to express my concern about the proposal to build the 2.4M gallon CSO tank in Seward Park. I support the preferred alternative to place the tank under the tennis courts.

As a 13 year resident of Seward Park and as the Co-Chair of the volunteer group which led the Department of Neighborhood project to renovate (re-build!) Seward Park's playground, I have grave concerns about our beloved and well used play area being ripped up for the installation of the CSO tank. Construction will cause disruption wherever it is decided to be placed but my firm belief is that the tennis courts are a better bet for several reasons. For starters, the tennis courts are not nearly as well used as the play area is and they are in dire need 1
of renovation which could easily happen post the installation of the tank. Southeast Seattle has tremendous growth of diverse young families whose children need a place to play and interact with one another in a healthy way. Our play area provides that. At any given time, rain or shine myriad people of all ages can be seen enjoying the play area. It is without argument that the creation of Seward Park's play area has made an informal, outdoor living room drawing people from numerous neighborhoods throughout the city and beyond. To take this away would be a tragic error.

On behalf of the Seward Park Playground Improvement Foundation, please cast a loud vote for placing the tank under the tennis courts.

Sincerely,

Maura Whalen
5215 South Orcas Street
Seattle, WA 98118
206-281-8655

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Response to Whalen Comment 1

Thank you for your comment.

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CITY OF SEATTLE
SEATTLE PUBLIC UTILITIES
SEWARD PARK COMBINED SEWER OVERFLOW (CSO) REDUCTION PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING

VERBATIM TRANSCRIPT OF PROCEEDINGS

Monday, October 8, 2012
6:05 p.m. to 7:10 p.m.

Held at the Auditorium of the
Seward Park Environmental & Audubon Center
5902 Lake Washington Boulevard South
Seattle, Washington

REPORTED BY: **Jeanne M. Gersten, RMR, CSR**
Registered Merit Reporter
Washington CCR No. 2711
MARLIS J. DeJONGH & ASSOCIATES
(206) 583-8711
Contact@MarlisDeJongh.com

A P P E A R A N C E S

FACILITATOR: **ROBERT WHEELER, P.E.**
Triangle Associates, Inc.

FOR CITY OF SEATTLE, SEATTLE PUBLIC UTILITIES:

CHRISTINA FAINE, Communications and Outreach Manager
ANDREW LEE, CSO Program Manager
BETTY MEYER, SEPA Responsible Official
KATHY ROBERTSON, P.E., Senior Project Manager

PUBLIC SPEAKERS:

MARK EARLY
JACOB GREENBERG
DAN KINERK
ELIZABETH KINERK
BARB MAHER
JEANNIE O'BRIEN
ALLAN SMITH
PAUL TALBERT
RICHARD WENGER

* * * * *

I N D E X

October 8, 2012, Seattle, Washington:

PROCEEDINGS: 6:05 p.m.

MR. WHEELER: Okay, everybody, I think we'll start off. My name is Bob Wheeler, and I'm with Triangle Associates. I'm here to help the City of Seattle with this official public hearing on Henderson Basin 44. That's just a number for the basin, CSO reduction project. And you'll hear just a little bit more about CSO, the combined sewer overflow. So you'll hear about that in a second.

Tonight is the official public hearing to hear about the Draft Environmental Impact Statement, mostly though to hear from all of you. And it's a more formal process. You've had a number of meetings in the past that the City has run about this particular basin. It's been more interactive, but it's part of an environmental -- Draft Environmental Impact Statement. It's a more formal type of process.

So the way that I want to run that as the facilitator for tonight is that we're asking you, everybody to sign in, to just, you know, let us know who you are so we have your information. Obviously we'll need to have that. And then if you want to speak, we want you to fill out one of these for a couple of reasons: One, so when I call on you then I can go ahead and make sure I

have you in order. Two, so our recorder over here will be able to get your name and your spelling and that type of thing to make sure that we record the information.

So we're going to be recording the whole meeting. These are pretty detailed notes, pretty much what everybody is saying. So what you say tonight is going into the official record and is all information that the City then considers as it's taking it from a Draft Environmental Impact Statement to a final Environmental Impact Statement. So that's the process.

Just a couple of ground rules. This looks like a great group. So again, it's a formal public hearing. We are going to have a quick short presentation from Andrew that he'll just give you a little bit of information on the context. Again, a lot of you have heard this information. If there's some just very quick clarifying questions at the end of his comments, we'll go to those, but we hope not to spend too much time there.

Then the major part of this session are your comments, and we're looking at around three minutes or so for each of you for any comments that you have. Again, we'll go in a certain order here. Stay to the point. Comment on the Henderson 44 CSO. We want your input and your comments.

We've decided to do the whole meeting. It will be

documented; so we're starting the meeting, and things are being documented, what I'm saying now. Please be respectful. We're here to listen. This is an important part of the Environmental Impact Statement process, so be respectful in your comments. Address your comments to the City, and I'll do introductions here in a second. They're mostly up here in the front. So we want your comments addressed to them.

Clearly state your name when you do speak; and instead of having you all come up front and center like some big public hearings, you can just speak from your seat if you feel comfortable standing up. If I'm not hearing you, I'll make sure that you do stand up so we can make sure we hear you.

We're only taking speakers that are signing up. There are also written comments, so if you don't want to speak you can have written comments; and there's a form in the back for that. And then only the recognized speaker is to speak at that point in time. So we're not looking for sort of side conversations or comments or applause or any of that sort of stuff. We're just running it as a formal meeting.

Again, your public comment can be either verbal or written tonight. I put this down here that the public comment period is open until October 17th, 2012, so

tonight is the formal meeting portion of this to hear your comments; but you have other venues which you'll hear about that you can provide comments.

So with that, let's just do a quick round of introductions. Again, I'm Bob Wheeler of Triangle Associates.

Betty, we'll start with you.

MS. MEYER: I'm Betty Meyer. I'm with Seattle Public Utilities. I'm what is called the responsible official, so my role to make sure that SPU evaluates and discloses any significant adverse environmental impacts of proposed projects before the department makes a decision about whether to move forward with the project.

MR. WHEELER: Andrew.

MR. LEE: My name is Andrew Lee. I'm the Combined Sewer Overflow Reduction Program Manager for the City.

MR. GREENBERG: I couldn't hear you.

MR. BOB SMITH: Who are you, Andrew?

MR. LEE: I'm sorry. I'm the Combined Sewer Overflow Reduction Program Manager for the City. So I'm responsible for the implementation of the combined sewer overflow reduction projects.

MR. BOB SMITH: And you're an engineer,

too, aren't you?

MR. LEE: I am.

MR. WHEELER: Okay. Kathy.

MS. ROBERTSON: And I'm Kathy Robertson. I'm the Project Manager for the Henderson CSO Basin 44 project for Seattle Public Utilities.

MR. WHEELER: And we'll just go through the audience. You can name your affiliation if you want or just your name is fine if you're a resident.

MR. ALEINIKOFF: Paul Aleinikoff, and I'm a resident on Lakeshore Drive South.

MR. WHEELER: Okay.

MS. ALEINIKOFF: I'm Beverly Aleinikoff, Lakeshore Drive.

MR. WHEELER: Thank you.

MR. WENGER: I'm Richard Wenger. I live right heard on Orcas.

MR. WHEELER: Okay.

There's a sign-in in the back. Just give your name now if you want to.

Okay. We'll go on. Go ahead.

MR. ALLAN SMITH: I'm Al Smith. I live on Orcas.

MR. WHEELER: Great.

MS. O'ROURKE: I'm Kelly O'Rourke. I'm

with HDR Engineering, and we helped SPU put together the draft EIS.

MR. WHEELER: Okay. In the back.

MS. FAINE: Christina Faine, Seattle Public Utilities, Communications and Outreach.

MS. GATTON: And I'm Gail Gatton. I'm the director of the Seward Park Audubon Center, which is where you are.

MR. WHEELER: Okay. Up here.

MR. BOB SMITH: I'm Bob Smith. I live in the community. And this is my wife, Tammy Smith. She, too, lives in the community.

MR. WHEELER: Great. Bruce.

MR. HARRELL: I'm Bruce Harrell. I serve on the Seattle City Council. I chair the public safety, civil rights and technology committees. I'm actually here -- I was trying to think of what capacity I'm here. I'm also a neighbor. I just live right around the corner.

So I don't want to do anything to jeopardize the process by virtue of participating. It will eventually come to the Council, so I want to make it clear on the record that certainly my presence here should not jeopardize any of that, that process; and if it does, I'd ask that you respectfully let me know so that I am not in any way tainting the process.

MR. WHEELER: Okay. Next.

MS. O'BRIEN: I'm Jeannie O'Brien, a lifelong resident of the Seward Park neighborhood, currently living in Seward Park just above Lakewood Marina above Lake Washington Boulevard. And I'm not in my official capacity, but I serve as president of the Lakewood/Seward Park Community Association.

MR. WHEELER: Great.

MR. KINERK: Hello. My name is Dan Kinerk. I'm a lifelong Seattle resident and a long-time Seward Park resident. We live on Seward Park Avenue South just above the tennis courts.

MR. WHEELER: Okay.

MS. KINERK: I'm Elizabeth Kinerk, and I also have been a long-time Seattle resident; and we live right here by the park.

MR. WHEELER: Okay.

MS. MAHER: I'm Barb Maher. I have lived right above the tennis courts for 17 years.

MR. WHEELER: Okay. And in back with the green and the bluish seater.

MS. RICHARDSON: Sheri Richardson, and I live over on 49th Avenue. I like to walk around Seward Park quite a bit.

MR. WHEELER: Thank you.

MS. SAMUELS: Jennifer Samuels. I'm with Councilmember Harrell's office.

(Court reporter interruption.)

MS. SAMUELS: Samuels. I'm with Councilmember Harrell's office.

MR. WHEELER: Great. Thank you. In the back.

MR. EVANSON: My name is Aaron Evanson. I'm a resident.

MR. WHEELER: Great. And do you want to introduce our two young, budding Seward Park residents?

MR. EVANSON: Sure. We've got Lucas and Jack Evanson here as well.

MR. WHEELER: Great. And then in the back.

MS. DAVIS: I'm Susan Davis, the executive director for the Rainier Chamber of Commerce, and I live in the area.

MR. WHEELER: Great. Okay. Thanks a lot. I appreciate that.

So again, this is a formal public hearing. We are here to hear -- The City is here to hear from you on official comments that you want to make. When we get to the comments we'll try to make them around three minutes each or so. For those of you that are going to speak -- and I have a list here -- if you decide that we're doing

some of our discussion -- or excuse me, as people are making their comments if you want to go back and sign up on one of these, and I'll get a hold of that copy and we'll include your discussion. And we might break protocol a little bit and go to our people that are speaking that have young kids here in case they need to head out earlier.

And you didn't have a chance to introduce yourself, so if you would like to introduce yourself now.

MR. GREENBERG: Beg your pardon?

MR. WHEELER: Would you like to introduce yourself, please?

MR. GREENBERG: Yes. My name is Jack Greenberg, and I live at 6020 Lakeshore Drive South. The tennis courts are directly below me, below the cliff.

MR. WHEELER: Great. Thank you. Okay.

And if anybody has a hard time hearing, just raise your hand if we're not speaking loudly enough. Okay?

So Andrew, do you want to go ahead and just give a little bit of context on the project?

MR. LEE: Okay. Again, my name is Andrew Lee. I'm the Combined Sewer Overflow Reduction Program Manager for SPU.

Today -- Tonight is the hearing for the project Draft Environmental Impact Statement. I'm not going to

describe in detail the contents of that EIS, but I am going to go through about seven different questions and try to answer those questions just to provide context for this meeting.

The first question I'm going to answer is what is the proposed project. I'm going to talk about the alternatives that we evaluated in the draft EIS. Then I'm going to answer the question how did we arrive at those alternatives, what process did we follow to get there.

I'm going to talk about what is the purpose of the environmental review process that we're following, the SEPA environmental review process. I'm going to answer the question what are the steps in the SEPA process. Then I will answer how will the final siting decision be made. And then lastly what will the other opportunities to provide public be before this project is approved. So those are the seven questions I'll go through.

So to start off with, what is the proposed project? The purpose of this project -- we call it the Basin 44 or North Henderson CSO reduction project -- is to reduce raw sewage discharges into Lake Washington near Seward Park to no more than one per year. The outfall for this particular location is just south of us. It extends about 300 to 400 feet off the shore. Between the last ten years, roughly, the site has averaged between ten to 20

overflows per year. It's actually one of the most frequently discharging overflows into Lake Washington.

And our objective is to reduce those discharges down to no more than once per year, so only on the biggest storm of the year would it overflow; and in order to meet this objective we need to build approximately 2.4 million gallons of storage, underground storage to store the combined sewage and stormwater so that it doesn't discharge into the water body during a heavy rain event.

And for context, 2.4 million gallons is approximately four Olympic size swimming pools, a little bit less than that.

So now the second question is what are the alternatives that we've evaluated in the draft EIS. I'm going to --

MS. MEYER: Am I in your way?

MR. LEE: No, it's okay. You're fine.

-- refer to these two maps. We had two alternatives that we looked at in the draft EIS, and this is the first one. It's storage underneath the existing -- the existing parking lot that's on the south end of Seward Park. The other alternative -- And the storage facility is demarked by this kind of yellow highlighted area.

The other one is storage underneath the parking lot that's on the corner and then also the tennis courts, also

extending a little bit further south there. So both are 2.4 million gallons. The final configuration of both facilities would be to have them entirely underground, paved over with either a parking lot or a combination of the parking lot and the tennis court.

There would be some above-ground facilities, but pretty minimal facilities, which would include, as you can see on these, it says above ground electrical, HVAC and water components. So things like an electrical cabinet.

Thanks for pointing that out, Bob.

And above-ground electrical cabinets, some exhaust for air as well as potentially some -- some what's called a reverse pressure backflow preventer, so things that would be necessary for getting water in and out of the site.

We also evaluated in the draft EIS the no-action alternative, and so that is typically required as a baseline to compare the impacts of the alternatives against the no-action alternative.

No. 5: So the next question, how did SPU arrive at these alternatives? So we began this process roughly in the 2009-2010 time frame, and it all began with the collection of technical information. So before we began to start as well as before we started to go out to the public we started with collecting a lot of flow-monitoring

data and rainfall data to figure out how big is the problem. And through that collection of information that's how we came to the conclusion that it's about 2.4 million gallons of storage that is required.

Starting in the fall of 2010 we began our public process, and so we initially had several meetings in the fall of 2010 through the winter of 2010-2011 where we discussed the various options -- and I speak of high-level options about how do we reduce combined sewer overflows from this area.

So we looked at options such as storage, of which these are two examples. We also looked at options such as separating the stormwater pipes from the sewer pipes going into people's homes, disconnecting roof leaders, that type of sewage.

And we also looked at alternatives that included there are two basins in the north part of this area, and one is the area draining to Seward Park. The other one is actually an area draining to Martha Washington Park, just a little bit south of us.

So we looked at alternatives of consolidating because we could potentially have two different storages at both facilities. We looked at options of consolidating those two storage facilities. One of the alternatives, for example, we looked at was a tunnel in between those

two parks where we would keep the storage underneath, in essence, underneath homes along the waterfront and along a conveyance tunnel.

We also looked at creating a pump station where we would convey the flows down to Martha Washington Park and build a large approximately 2.6-million gallon storage in Martha Washington Park.

Through that process, which again lasted about six months or so, through the public process it became clear that one of the preferred alternatives of that sort of high-level look was having storage -- two storage facilities, one in the vicinity of Seward Park, and another one in the Martha Washington Park area.

In the spring of 2011 we therefore separated those two basins, and we looked at what are the alternatives for storing in the Seward Park area, and what are the alternatives of storing in the Martha Washington Park area. Obviously this public hearing is specifically concerning the Seward Park storage, not the Martha Washington Park storage.

We looked at three high-level kind of alternatives for where to store it, and those three alternatives included storing it in the park, so somewhere within Seward Park. We looked at storing it underneath the right-of-way, underneath the road, and in this case that

being Lake Washington Boulevard. And then the third alternative we looked at was looking at storing it along private property. Generally speaking, private property to the south of Seward Park.

Through that process it became clear that the Lake Washington Boulevard option and the private property option were not preferred alternatives, and so we focused our energies on the Seward Park alternatives; and so of which in roughly the summer of 2011 we came out with a scoping notice for the EIS, and that's where we identified two alternatives within Seward Park. One of those alternatives being the one underneath the parking lot, and the other one being the one underneath the tennis courts.

In the spring of 2012, so just about roughly six months ago, was when we announced our department, SPU, sort of recommended alternative, and that being the tennis courts location. So that's kind of the history of how we got to these alternatives.

So No. 6. Sorry, the next question is what is the purpose of the SEPA process? The purpose -- So SEPA is an acronym for State Environmental Policy Act, and it's essentially making sure that we look at the range of environmental impacts. And specifically the purpose of the State Environmental Policy Act process is to identify and evaluate the potential adverse environmental impacts

of a proposed project so that departments and elected officials can take these impacts into consideration when deciding whether to approve the project and whether to condition or issue permits.

The SEPA process, or this environmental process, review process, includes analysis of the adverse impacts on both the natural environment. So, for example, on earth, water, air, plants and animals, and it also includes an evaluation of impacts on the built environment. So that includes, for example, recreation, cultural, historic resources and transportation.

If the proposed project is likely to have significant short-term or long-term adverse impacts, then an EIS is required. In this case SPU made the decision to go forward with an EIS.

MR. GREENBERG: Could you say that again, that last sentence?

MR. LEE: Yes. So if a proposed project is likely to have significant short- or long-term adverse environmental impacts, effects, an EIS is required. Did that -- Okay.

The steps in the SEPA process, typically the step, the first step in the preparation of an EIS begins with the scoping process whereby we establish what is the scope of the EIS; and we typically narrow it down to focus on

the reasonable alternatives and the elements with likely significant adverse environmental impacts. We began that scoping process on May 26th of 2011 and continued through June 16th, 2011, and we did have a public scoping meeting on June 7th, 2011, after which a Draft Environmental Impact Statement is prepared, and it's issued for public comment. And so we prepared it, and we issued it on September 17th, so just a little bit less than a month ago.

We did publish the notification of this in several publications. For example, the Daily Journal of Commerce, Seattle Times. We also mailed out several mailings to residents within the basin, about 2,000 properties. We mailed out notification also to different agencies and also to our email listserv for the project.

Tonight is the public hearing, and it's part of the public comment process. So tonight whatever you present in terms of verbal comments will be on the record as a public comment for this Environmental Impact Statement process. We're also obviously accepting written comments.

At the conclusion of the public comment process, which will be on October 17th, 2012, SPU will review and will be required to respond to all the comments, including revisions to the EIS, should we choose to make them, as appropriate, before issuing a final Environmental Impact

Statement that includes all the responses to the comments and includes all the comments as well.

The draft EIS, I'm assuming most of you have seen it, but it is available at our downtown location, which is the Seattle Municipal Tower, 700 Fifth Avenue on the 49th floor. It's also available in the Seattle Central Library downtown in the general reference section. I understand it is also available at the Columbia City Library. Online is probably the easiest way to access it. It's www.Seattle.Gov/CSO/NorthHenderson.

MR. TALBERT: There's a hard copy in the library upstairs.

MR. LEE: Oh, great. Yes. So there is a hard copy upstairs. And we also have a hard copy here as well, if you would like to take a look at it.

Written comments will be addressed to Betty Meyer, who is our SPU SEPA responsible official, at the address -- Most of you should have it. If you don't have it, feel free to ask us for that address.

If you have questions, general questions about the proposed project -- and I'm differentiating between general questions about the project versus SEPA comments -- you're always free to contact either Kathy Robertson or myself, and I'm happy to provide our contact information as well.

Okay. So the last question -- or sorry, the last two questions. No. 1: How will the final siting decision be made? So your EIS comments, obviously we mentioned that we do have a recommended alternative right now, and that's an SPU-recommended alternative. That will eventually go to the City Council, and I'll talk about that process in just a second.

The EIS and your comments helps inform. It did help to inform our recommended alternative, and so we considered the environmental impacts of recommending the tennis courts option. However, your comments are also very significant in terms of informing how we decide to go forward. So thank you very much for being here and providing your comments.

Let's see. Following this EIS process, like I mentioned, we will publish a final EIS. Then in roughly between 2013 and 2014 we will be required to go to the City Council, and the City Council actually has multiple sort of authorities over this project. No. 1, by virtue of the fact that the project will be in a park location, we are required to get City Council approval of constructing in a park. So whether it's in either of these locations, the City Council will be required to approve that. And that's linked to an initiative. That's called Initiative 42.

In addition, the City Council will be required to pass what is called a type five land use decision, which is related to a Department of Planning and Development permitting process, and so the Council will have to approve that as well.

Most likely in the 2013-2014 timeline both the decisions will go to the council at the same time, and so that's when the council subcommittee and then eventually the council full committee will be required to hear it and, if they so choose, to approve it. During that time is when they will also consider the SEPA comments that have been received.

I don't want to lose sight of the fact that regardless during the design process we will also have a public involvement process. So whichever alternative we continue forward with the design process, we will be looking to get public feedback on that to make sure that the final design is integrated well into the neighborhood as well into the park. So that concludes my presentation.

MR. WHEELER: Great. So what I want to do is just clarifying questions. Okay? It's not a discussion or dialogue at this point. If there's something that you didn't understand in terms of what Andrew said.

So your hand was up first. We're just going to take

a few minutes on this.

MR. BOB SMITH: Please clarify how, in what form we'll be able to see the responses to the comments that we put in.

MR. LEE: Yes.

MR. BOB SMITH: Where will we find those responses?

MR. LEE: So the final EIS that we publish, which we will make available to all of you, most likely through the Web site as well as other means, will include -- I believe Betty typically in like the -- I assume an appendix or sort of -- at the end of the EIS it includes every single comment that was recorded.

MS. MEYER: Or a summary. If we get a lot of people commenting on the same thing, we also can summarize.

MR. BOB SMITH: I understand.

MS. MEYER: As part of the final EIS it will include comments and responses to the comments.

MR. BOB SMITH: Thank you.

MS. MEYER: So that's where you'll see them.

MR. WHEELER: Any other clarifying questions that anybody has just about what was spoken here?

Yes.

MR. ALEINIKOFF: The Seattle City Council will be the final and deciding answer to the project, whether it goes here to No. 1 or No. 2?

MR. LEE: That's correct. They're required to approve the project. Yes.

MR. ALEINIKOFF: Okay.

MR. LEE: That's the deciding decision.

MR. WHEELER: Any other clarifying questions?

MR. GREENBERG: Yeah. I'm not sure I understand what the alternatives are here. I understand what you're proposing, but forgive me, I'm ignorant on this subject.

Do you have any pictures or plans as to what the alternatives were or are?

MR. LEE: Sir, this is probably the best picture of the two alternatives.

MR. GREENBERG: Those two are the alternatives --

MR. LEE: That's correct.

MR. GREENBERG: -- for what you're proposing?

MR. LEE: That's correct. Yes, and so --

MR. GREENBERG: And where is a map that

size showing what you are proposing?

MS. O'BRIEN: Oh, I understand his question.

MR. LEE: Okay.

MS. O'BRIEN: He's looking at it as if you have a solution, and then there's two alternatives, instead of looking at it as these are the two alternatives that we're discussing.

MR. LEE: Okay. So in the end we will only have to build one facility, and so that facility is a 2.4 million gallon underground storage tank. So basically a big box underneath the ground that holds the stormwater and sewage.

We have two locations where we can build it, and it's an either/or. So we won't build two facilities. We will build one facility in the end, and one of the locations where that facility could go is right here underneath the tennis courts and underneath the parking lot that's here.

The other location where it could go is underneath this parking lot here. So in the end we'll have to -- our decision that we face, are faced with, is which of these locations will we build in. Did that --

MR. GREENBERG: That's the only alternative you have?

MR. LEE: These are the two alternatives, yes. So it's two options or two alternatives.

MR. GREENBERG: But that's the one you're proposing?

MR. LEE: This is the one that we're recommending, that's correct.

MR. GREENBERG: Right. And you only had one other alternative? That's all you had?

MR. LEE: So like I mentioned when I was walking through it earlier on, we started off with a wide range of alternatives, and then through almost a two-year process we narrowed it down; and these are the two final alternatives that we ended up with.

So earlier on in the process we did have many more alternatives, but we did narrow it down to these two. So these are the final two.

MR. WHEELER: So where we're going to go is to comment; and so if you want to comment on that, that's fine. That's what we're here for today is to hear what your comments are.

Okay. Any other clarifying questions from anybody?

MR. ALEINIKOFF: Can I just make a clarification? Sir, are you Mr. Greenberg?

MR. GREENBERG: Yes.

MR. ALEINIKOFF: Well, we on Lakeshore

Drive South got together --

MR. GREENBERG: Pardon?

MR. ALEINIKOFF: We on Lakeshore Drive South got together to try and fight the issue --

MR. GREENBERG: Yes.

MR. ALEINIKOFF: -- of the tank going on our property.

MR. GREENBERG: Yes.

MR. ALEINIKOFF: We're wondering where you were.

MR. GREENBERG: Well, I apologize for that. As a matter of fact, I shouldn't even be here tonight because this is the beginning of a very important holiday for the Jewish people.

MR. ALEINIKOFF: Yes, I know that, too.

MR. GREENBERG: There's a lot of people in Seward Park who are Jewish, and I don't want anybody here telling anybody that I'm here.

MR. ALEINIKOFF: Okay. That's our secret, but --

This one right here will impact your home and the fact that if you ever want to sell it, --

MR. GREENBERG: You had better believe it.

MR. ALEINIKOFF: Okay.

MR. WHEELER: So I want to bring it back

to -- Because again, this is a very formal process. So I think you got a clarification.

So are there any other clarifications that anybody has?

MR. GREENBERG: Well, I would -- Again, forgive my ignorance here. I'd like to know why you didn't accept that one, which doesn't impact apparently on any private property, whereas the one you're proposing does.

MR. WHEELER: So I need to jump in tonight. There's a lot of other meetings that ended up happening, and that was part of the discussion in terms of how they kind of got to this, and then they had the scoping on this. And the purpose of tonight is not so much to talk about the rationale or the reason why. It's to hear from all of you on your comments on this.

Now, you could make a comment related to the fact that you have some concerns, if you do, about why this is the recommended alternative.

MR. GREENBERG: Well, are you suggesting my question is out of order?

MR. WHEELER: I am, actually, yes. Because at this point we want to go to hear from all of you and hear your comments. Tonight is not about hearing and having dialogue and discussion on the rationale in terms

of why one was chosen or not. It's to hear from all of you on any specific comments that you have.

So with that I want to move along and see --

Any other clarifying questions?

MR. LEE: Bob, can I clarify something? Because Councilmember Harrell, you raised a question earlier on about in the summer of 2011 when we published the scoping publication, there was a nice handbook that kind of accompanied it. It had alternative No. 1 and alternative No. 2.

I just want to clarify that wasn't actually there to indicate a preference for alternative No. 1 versus alternative No. 2. At the time it was simply there to indicate that we had two alternatives, and we called one alternative No. 1, the other one alternative No. 2. So I just wanted to clarify that.

MR. WHEELER: Okay. Any other clarifying comments? Go ahead. And introduce yourself, too. I don't think you got to introduce yourself earlier.

FEMALE SPEAKER: Me?

MR. WHEELER: No, in the back. I'm sorry.

MS. EASTBERG: I'm Cheryl Eastberg. I'm representing Seattle Parks and Recreation. I'm listening to the public comment. There seems to -- I just wondered if any of -- either of the alternatives are on private

property. I've heard that mentioned.

MR. LEE: No. No, they're entirely within Seattle Parks. Seattle Parks own the land.

MR. WHEELER: Okay. It sounds like we could go to --

MR. GREENBERG: Is it out of order to get an answer to my question?

MR. WHEELER: Andrew, do you have any clarifying comment that you want to make?

MR. GREENBERG: I recognize that people are here, and I apologize for my ignorance, but I would like to know why that other alternative -- That other alternative is more desirable and has less impact upon private property than the one that you're proposing now. I think it's such a fair question.

MR. BOB SMITH: The answer is in the impact statement.

MR. WHEELER: So it's in the impact statement; but if Andrew wants to just do any clarifying comments on that for you, we'll do that.

MR. LEE: Yes. You know, Jake, so at a very high level the impacts that we looked at were generally speaking recreational impacts, as well as, you know, things like noise impacts, air impacts, so on and so forth. For the most part actually between the two

alternatives things like air impacts or ground impacts were pretty much identical, so there wasn't a significant difference.

MR. GREENBERG: Wait. I'm sorry. Air impact?

MR. LEE: Yes. So I'm talking about, you know, I mentioned a bunch of the elements for environmental impacts, things like impacts on water resources, impacts on air, impacts on ground, et cetera. They're fairly similar in terms of the nature of those impacts.

Let me get to, I guess, the point that I wanted to get to, which is the areas that we're differentiating between the alternatives, one of the big ones was impacts on recreational resources. So within the recreational resources as we did the impacts, the impacts of this alternative in terms of short-term construction impacts, on the availability of parking and the availability -- just the overall impacts to the park I would say were considered to be greater. There is a greater use of this parking lot than this area here, and so that was one of the impacts.

There were also different impacts in terms of impacts on trees, so this set of trees being taken down versus this set of trees here. From an impact on the

vegetation standpoint I don't think it was viewed that either alternative was worse or better because they were simply different trees, and so that wasn't viewed as a difference.

From the standpoint of what you're identifying, which is another differentiator, the impact on these properties is obviously greater in terms of kind of the construction impact, being able to see it during the construction time period, and so that is something that was identified to be greater for this -- for this particular location.

So there was definitely varying impacts. There were also -- I would say with the discussion with Parks it was viewed that from a final operations and maintenance standpoint, meaning going out and maintaining the tank, this site would be more -- would be less impacting on operations and maintenance activities because its location is more tucked away within the park as opposed to being in this parking area.

It was also viewed as potentially an additional environmental -- or sorry, an additional amenity to the park that the tennis courts can get repaved in this area, and so that was viewed as an improvement, as opposed to this area where it would just simply be replacing the parking lot.

So those were some of the things that we considered. There is a much better summary than what I'm giving in the actual EIS, and I would love to show that to you after the -- after the actual meeting, so --

MR. WHEELER: So I'd like to move on to hearing from all of you at this point in time. And I want to respect the fact that you have some young ones that may or may not -- You have kids, and I don't know if you signed up to speak or not.

MR. EVANSON: I did not. You know, I really appreciate that --

MR. WHEELER: Okay.

MR. EVANSON: -- but we're -- We're in an audience mode right now.

MR. WHEELER: Great. Okay. Sounds good.

So again, I want to go through the ground rules for this. We're going to keep you to three minutes each. I have a list of folks that have wanted to speak. Stay to the point. Comment on this particular project and on the draft EIS. Be respectful in your comments. Address your comments to the City.

Clearly state your name when you stand up to speak, and only speakers that have signed up. So if you haven't signed up yet, see Christina in the back and make sure you sign up. And then I'm going to go based on the list

that's right here in terms of order, and only those who are speaking is who we want to hear from at that point in time and that the City wants to hear from. This isn't about, you know, sort of cheering folks on or anything. They're interested in hearing your comments and hearing from you so that those comments can be recognized and included in the public comment.

If you prefer not to give a verbal comment, you can give a written comment; and you also have until October 17th to give official comments.

So with that I'm going to start things off, and is it Barb -- And if I do mispronounce your name, I apologize. When you stand up, go ahead and feel free to correct my pronunciation.

MS. MAHER: It's Barb Maher.

MR. WHEELER: Barb Maher?

MS. MAHER: Barb Maher, yeah.

MR. WHEELER: Okay. And you have three minutes, and I will start you -- Are you ready?

MS. MAHER: No, I'm not ready yet. I just have -- Since we have so limited time, I just wanted to hand out a few visuals that I'm not able to display here.

MR. WHEELER: Okay.

MR. BOB SMITH: This is part of your three minutes.

MS. MAHER: Okay.

MR. WHEELER: Okay. I'm going to start you now. And actually, I would prefer for you to stand there and face towards these folks. You're speaking to these folks over here.

MS. MEYER: You know, if I might interrupt. You've handed something out, but I need a copy of it as the SEPA responsible official.

MS. MAHER: Oh, okay.

MS. MEYER: It's more important that I have it than the audience. I'm sorry. Thank you.

MR. WHEELER: Thank you. So you're speaking to the City folks.

MS. MAHER: Okay. But maybe I can stand here so I can see everybody.

MR. WHEELER: That's fine. I'm going to start you right now.

MS. MAHER: Okay. Hi, I'm Barb Maher. I've been living right on the park for 17 years, and I'm here because I think the tennis court alternative was announced in a last-minute manner, and it blindsided those of us that live above the tennis courts. 1

And I think the real problem was when the scoping process started that after all those high-level Seward Park meetings when you were talking about

alternatives, the tennis court location in a total of, I think, six meetings was never mentioned, and other locations were indicated. Mind you, neighbors that live south on Lakeshore Drive, I didn't want them to take your property, so anyway --

So I'm just going to go through why we feel like we were blindsided. September 10th, North Henderson community briefing. The parking lot location was pictured.

October, 2010, Friends of Seward Park briefing, the parking lot location was pictured.

October, 2010, Friends of Olmsted Park briefing. The parking lot location was featured with three alternative locations also featured along Lake Washington Boulevard, in Seward Park meadow, and near the beach. None of those were the tennis court location.

November, 2010, North Henderson workshop No. 1. No mention of possible locations other than the park.

December, 2010, North Henderson workshop No. 2. Three locations were discussed: The parking lot location, Lake Washington Boulevard, and private property.

In January of 2011 they start to really hone in on what they're doing. That was a widely attended meeting, and I know a lot of my neighbors down at Martha Washington and people whose homes were in danger of being taken were

at that meeting, and they were trying to quantify the different alternatives; and they did something called a multi-objective decision analysis, the purpose of which -- and I'm just taking this off their Web site -- was to have clear communication and understanding of the options, and also to do exercises to bring stakeholders' values and policies into the alternative evaluation.

I'm a pretty big stakeholder. My house is a matter of feet away from this project, and that option was never out there. So once again, --

MR. WHEELER: You have 45 seconds left.

MS. MAHER: Okay. March of 2011, once again, it's not -- They don't mention the tennis court location, and on the timeline they mention that this is a short list of alternatives.

On the 27th of May an email went out to people that are on the email list. I sent an email to SPU asking for further clarification of how to give input, and I did not hear back for three weeks from SPU after the mail had gone out on the final day of commenting for scoping. So that, and among a lot of other things that my neighbors who live around the tennis court, like Jack, who I just mentioned this to this weekend, have no idea of what's going on.

MR. WHEELER: Okay. Thank you very much.

MS. MAHER: So anyway, --

MR. WHEELER: The written form, it is important if you're passing anything out that the SEPA official here does get that.

Okay. Next we have Richard Wenger.

MR. WENGER: Yes.

MR. WHEELER: Okay. And you can speak from your seat if you like, or you can stand up, however you want to do it.

MR. WENGER: Okay. I'll sit.

2 I'm not sure what the issue is with the tennis courts. I'm a serious tennis player, so I guess it's a self-serving deal, but I'd like to know that the tennis courts would be rebuilt; and if they were, how would the

3 maintenance on this construction facility be done with the existing courts on top?

4 And I'm not sure what the opposition to it is if it's rebuilt; but anyway, I'd like to be able to play in my community rather than driving to Mt. Baker or Green Lake.

MR. WHEELER: Okay.

MR. WENGER: And that's my only comment.

MR. WHEELER: Great. Thank you.

And again, we're not responding to your questions tonight. We're including that as input into the process. So thank you.

Next, Don Kinerk.

MS. KINERK: Dan.

MR. KINERK: Dan Kinerk.

MR. WHEELER: Dan. I'm sorry.

MR. KINERK: Good evening, neighbors. I'm Dan Kinerk, and as I mentioned when we were first introduced, I live along with my wife and children on Seward Park Avenue South just above the tennis courts and where alternative one is being recommended by SPU.

I also want to thank Councilman Harrell who came on short notice when I had contact with him last weekend and his staff for appearing here tonight. He, too, is a neighbor that is going to be affected by whatever choice is made.

With the assistance of my wife and her relying entirely on EIS documents that were used to support alternative two, which is the parking lot, she was able to rebut all of the six reasons that the EIS and SPU had put down for support of the location. I have provided a copy of them; and if anybody is interested in a copy of that, I'm happy to email it to you.

5

Just to give you an example of what is involved there, an example of what SPU said that would be benefiting the tennis courts over the parking lot was that there would be less vibrations felt by park users.

6

Specifically this particular structure would be less affected. Of course, in reaching that conclusion they ignore that there are 11 homes that are adjoining this particular location, two in the parking lot. There was not a single bit of consideration within that report with regards to how vibrations would affect those structures, and more importantly how it would affect the people that live within those structures for the next 2-1/2 years and forward.

7 In addition, the sewage lines for those residents have not been addressed as to whether they would be damaged and what responsibility, if any, SPU would take with regard to that.

8 The same analysis goes on with regards to noise levels both during this 2-1/2-year construction project. What the EIS documents indicate is that if you have a measure, that the noise levels for the parking lot, it would be at 64 dBA. If you do it at the tennis courts it would be at 74 dBA. That difference in just ten degrees of dBA is basically doubling up the noise levels. And all of you who live down here who know what goes on on the weekends down here in terms of noise can only begin to understand the length and the frequency and the loudness with which that will happen if, in fact, the tank, 2.4 million gallon holding tank is put in at the tennis

courts.

MR. WHEELER: About 30 seconds.

MR. KINERK: Thank you. The same analysis would go with it applies with regard to odors. We already have the venting at the northwest corner. It comes all south to all of the homeowners in the neighborhood there. With the installation of the new suggestion on the tennis courts, that will be significantly worse. It will affect the entire neighborhood, Lakeshore Boulevard, and not just Seward Park Avenue South.

I respectfully disagree with Mr. Andrew Lee when he said that this was properly vetted. This process has not been properly vetted, and it has not been property vetted pursuant to SEPA or NEPA requirements.

MR. WHEELER: Time --

MR. KINERK: Lastly -- I'm going to go just another minute. Thank you, Bob.

I just want to let everyone know that the history with regards to Seward Park is that it was the vision of the Olmsted Brothers. I can tell you right now the Olmsted Brothers would be rolling over in their graves to know that a 2.4 million gallon holding tank is being installed in this really iconic location of the park system. The issue is not whether they're going to do it -- I understand that -- but certainly there has to be

consideration given to this neighborhood and to allowing
12 the people within this neighborhood to have a voice in how
that particular project is implemented. Thank you.

MR. WHEELER: Okay. Thank you.

And Elizabeth Kinerk. Do you have a handout, or --

MS. KINERK: No, my husband has already handed that out, actually.

MR. WHEELER: Okay. Great. Thank you. And if you would face the City, I'd appreciate that. Thank you.

Okay. Ready?

MS. KINERK: Yes. My name is Elizabeth Kinerk. I live here along the park, and I want to reiterate with what my husband has said, and one point being I don't feel that this alternative of the tennis courts has been properly vetted. It was the surprise
13 alternative presented at an open house, which only seven people showed up to on I believe it was June 7th of 2011. And that was the last opportunity anyone had to comment on it. So seven people commented on this alternative, and then it went to the draft EIS. So I have a bit of a problem with that.

In addition to that, with the tennis court locations
14 they are planning to cut 43 trees. It doesn't matter to me, 43 trees are 43 trees, versus 26 on the other parking

lot.

Now, we are against a greenbelt, and one of the Olmsted visions was to block the homes from the park. Great! And most of us are blocked from the park. When you cut down 43 trees you're going to see a lot of the homes there along the ridge for a very long time because trees take forever to regrow. In addition, it opens up the homes to crime.

For example, when the big windstorm came through here what was it, three or four years ago -- maybe it was five. Time flies -- we lost 11 fir trees on the hill, and within a very, very short time, I think within three months the house No. 2 was broken into. And we had never had any crime since I've lived here and moved in in 1999.

So my feeling is when you do take down trees and you open up that end of the park, we're going to introduce crime further down into the homes along the ridge. And that area of the park is very difficult to see for our Seattle police because it is a narrow strip down there. So once you start developing that it's going to encourage people to use it more often, and again, crime increases.

I also have an issue there, too, because you can see where you're switching the UPAAR -- I'm not sure how you say that -- the ground protection in that area will be the hatches. How -- You can address this later. How do

you access those hatches? Will there be a road put in? So that would mean that the tennis court locations would not be replaced.

And in addition, if the parking lot alternative is selected, which is where I think this tank should go, versus not in the park at all, the tennis courts can open 18 months -- after 18 months to 30 months, which is earlier, and be usable rather than waiting the 2-1/2 to three years that it would take if a tank was put in the parking lot -- I mean the tennis court locations.

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MR. WHEELER: Thank you.

Jeannie O'Brien. And I'll start you now.

MS. O'BRIEN: I'm Jeannie O'Brien. I want to thank Liz for calling this meeting to my attention.

I did indicate that I serve as president of the Lakewood/Seward Park Community Association. I did not get notice of this change in alternatives. That doesn't mean it wasn't sent. I don't check the mail every day.

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But I think my particular issue that I will present is about notice. I do happen to be a lawyer. I know how the City provides notice, and I know that there is a certain perimeter that they select, in this case 2,000 homes; but as a resident of southeast Seattle all of my life, we are 80,000 residents strong. We are a people of color. We are a people of every ethnicity. We are a

people of every economic status.

We also happen to have more crime than any other part of the city. We have the worst performing public schools. And now we happen to be the proud title holder of the most number of homicides this year.

So the one saving grace throughout my life has been this park. I walk Lake Washington Boulevard every day. I walk the park quite often. There will be three tanks that impact my daily life all along Lake Washington Boulevard, and now, since it seems to be a done deal, in Seward Park.

There is so much money being spent on this project that people need to know how much money it's going to cost us as taxpayers, how much sewage we're actually preventing from going into the lake, and how or when that sewage is going into the lake. I think 80,000 residents of southeast Seattle need to know how their utility bills will be affected to save that one percent of sewage that might go into the lake when there might be a combined sewer overflow situation because that is the time of the year when people are not swimming and enjoying Lake Washington. That is the time of the year when people are inside, when it's raining.

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In the summer when people are outside enjoying Lake Washington we have high levels of fecal coliform that I track regularly from the natural habitat -- the ducks,

the geese, the eagles, the herons. All of them are already contributing to the wastewater that we have in Lake Washington. So we are spending so much money to protect against so little sewage during a time of year when Lake Washington is not used for swimming.

MR. WHEELER: About ten seconds.

MS. O'BRIEN: I am appalled that this beautiful park would be used for such a monstrosity, and it does seem like we're beyond the point of changing where it's going to be. If it is in the park, there's no way it should affect my neighbors and my tennis courts.

MR. WHEELER: Thank you.

So I have two more speakers, Allan Smith and Paul Talbert. And if somebody does want to speak and you're not signed up, please sign up in the back with Christina. There's a form to fill out. And then we will continue if there are further speakers.

So Allan Smith.

MR. ALLAN SMITH: Well, the first point I have is more in the nature of a question.

My current understanding is that the tennis courts regardless are going to be replaced because even if that is used as a staging area, it's going to get beat up. So with the tennis courts, they're going to be in a lot worse shape. So my understanding was either one or two, they

were going to get replaced; is that correct?

MR. WHEELER: We're actually not responding to any questions. We'll take that as a comment, though, about the questions you have.

MR. ALLAN SMITH: Well, but he's the one that said that, and that's not my understanding. So there's -- Anyway, --

MR. WHEELER: Okay.

MR. ALLAN SMITH: I have particularly two points. Well, three points. One is President Obama lost the debate. The fiscal cliff is coming up, and who knows with the tea party people getting in, this project just might disappear on its own. That's one thing. Who knows about what's coming up?

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The other thing is -- and this is I wasn't completely even thinking about, but there's a possibility going forward with this project, its contribution to the CO2 in our air is actually going to be more detrimental ultimately to our environment than cleaning up the lake. I mean, I'm just pointing that out because it's sort of a death by a thousand cuts. We just say, "Well, this little bit is all right," but you just keep adding it up. And right now we're going through a drought that's just about ready to reach a new record.

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My last point is because I live on Orcas, I'm just

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really perplexed by the language that they say there's no significant adverse impacts to traffic. There's going to be -- I imagine most of the dump trucks are going to have trailers. They're going to be over Orcas or on Genesee or on Rainier Avenue. They're going to be much bigger than regular traffic. And so when you say less than one percent, it's not by vehicle for sure because they're going to be a lot bigger. There's going to be a heck of a heck of a heck of a lot more weight in those things, and they're going to pound our roads.

And if some of this stuff happens in a short period of time over the winter, something like Orcas is -- The city doesn't maintain Orcas or the streets to anything like you could expect in Bellevue. Or I talked to a friend of mine who is from Chapel Hill, North Carolina. He says our streets are terrible. So you can't -- That's the other thing.

And I am a little bit concerned about my house in this case because my house is on clay. The foundation isn't that great, and my house does shake when the trucks go by. So I can almost see liquefaction happening when you get the constant pounding of trucks going by for a short period of time, especially during the winter when the city no way can keep track of the potholes that are happening in our streets.

And the other thing I --

MR. WHEELER: You have about 30 seconds.

MR. ALLAN SMITH: The other thing I would just like to throw out, I really enjoy Seward Park. I know -- I know the Audubon Society. I don't know what their position on this particularly is, but this is really going to affect them. It's going to affect their programs. And, you know, I would hate to think that it might affect it to the point where they'd be penciled out by the national for some reason. You know, times are -- You're sort of skating along not too well, so --

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MR. WHEELER: Thank you.

Okay. Paul Talbert is next, I believe I have, and then it will be Mark Early.

MR. TALBERT: I want to start by thanking SPU for all the work they put into the public meetings and the EIS and the other parts that are relevant to this large and intrusive project. And I also want to thank SPU for being responsive to the public input that's been received. I've seen this project --

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MR. GREENBERG: A little louder, sir. I can't hear you.

MR. TALBERT: I have seen this project evolve over two years, and I think they've been very responsive.

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Alternatives one and two for the most part have very similar impacts. As one of the people who originally suggested alternative one, the tennis courts, I can say that the reasons that I suggested that were the initial belief that we would keep the other -- the parking lot open and also that we get new tennis courts. Well, it turns out that we won't keep the parking lot open under either alternative, and we'll get new tennis courts under either alternative. So in that regard I don't actually -- Those aren't criteria for deciding.

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The reasons that are given in the EIS for preferring alternative one I think are good reasons; however, I think alternative one has less impact on park users in the short run. However, the long-term impacts I think are a little different. So although I hesitate to recommend putting a construction site next to the playground -- that doesn't seem like a great idea -- I have to look at the number of trees that are lost.

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So in alternative one there are 43 trees that are lost, including 12 native trees. And in alternative two there are 36 trees lost, absolutely none of which are native. So in terms of impact on the park, I think losing those extra 17 trees is going to take a lot longer to recover from than, you know, than the kids inconvenienced at the playground. So I guess I would prefer to cut fewer

trees and go with alternative two.

So under alternative one the EIS also mentions the possibility of putting a temporary road across this area right here, this grassy area (indicating). That concerns me because I believe it might impact the roots of the trees. Let's see. 32

MR. WHEELER: About one minute.

MR. TALBERT: The EIS also raises the possibility of off-site staging. I don't know how serious that is because I know construction people probably like to be close. But I think that idea should be encouraged because clearly if we can keep one of the parking lots open, that would have many fewer impacts on the short-term use. 33

The EIS also refers to the Seward Park vegetation management plan but doesn't actually reference it, and they do not refer to the Lake Washington Boulevard vegetation management plan, which would be relevant for the UPAAR area. 34

And this plan also discusses possible new ADA parking sites, and it would be helpful if the planners consulted the Seward Park trail plan, which has at least one specific recommendation about where an ADA parking site should go and about crosswalks that might be helpful with increased traffic on the upper loop. 35

And I have a lot of other comments, but I will submit them in writing.

MR. WHEELER: Thank you very much.

Okay. Mark Early, and that's the last person we have signed up to speak. And I'll let you go now.

MR. EARLY: Okay. Thank you.

My name is Mark Early, and I --

MR. GREENBERG: Would you speak a little louder, sir, please?

MR. EARLY: Sure. You bet.

My name is Mark Early, and I had two items of concern. One was the length of construction time. I know in earlier documents there was construction time mentioned of as short as 18 months. My understanding now is that it's potentially going to be 30 months, and the discussion may be potentially longer than that as well.

36 So I'm kind of wondering how a concrete tank in the ground, although it's a large one, with support columns inside, how that can take, even with its auxiliary pumping equipment, how that can take longer than the Space Needle to build. The Space Needle took 400 days from the time they took a shovel ceremoniously and turned up some dirt to the time that it was ready to accept visitors -- 400 days.

This project seems to be, I guess, more complicated

than I understand the justification for. So that's one concern is we need to get are there ways to try to shorten the amount of construction time so as to mitigate -- whichever alternative is chosen -- mitigate the impacts to the neighborhood, the people that use the park, and the neighbors who are adjacent to the construction.

The other kind of item of concern certainly has to be cost. This alternative seems to, at least in my reading of portions of the EIS, seems to sort of bend over backwards to justify alternative one, which isn't the same as the old alternative one. It seems to bend over backwards to justify its particular configuration when I think -- and also, I guess, there are concerns that there's bedrock just a short distance down in the ground, so there's going to be blasting and a lot of pile driving, a tremendous amount of noise created, whereas other --

Some of the other alternatives, I haven't look at the geotech reports on the other alternatives, but just kind of vaguely as an amateur looking at where they seem to be sited, I'm not sure that there would be -- You know, it doesn't seem to me that there would be the issues of striking bedrock as quickly as they are going to where it's going to be underneath the tennis courts.

So I would think that would tend to shorten the construction time, you know, if other alternatives didn't

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have to go through bedrock with blasting and the like. So those are my concerns.

MR. WHEELER: Very good. Thank you very much.

MS. MEYER: The man that spoke before, I need his name.

MR. WHEELER: Okay. The gentleman that spoke just before, --

MR. GREENBERG: Can I ask a question?

MR. WHEELER: -- could you give --

Hang on just a minute. Could you give your full name again?

MS. MEYER: So I can put it on the record.

MR. TALBERT: Paul Talbert.

MS. MEYER: Talbert?

MR. TALBERT: You want me to write it on there?

MS. MEYER: Sure. Thank you very much.

MR. WHEELER: Okay. Again, I want to reemphasize the purpose today is to hear public comments, so we're not trying to respond to questions.

You had a questions or a comment, though?

MR. GREENBERG: Well, I have a question, yeah. I would like to know in all of the deliberations that have been going on, and they've all been based on

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suggestions of land locations; is that correct? Versus there was no other consideration for tanks being sunk into -- just brought in like we brought in components for the floating bridge. You can't bring those tanks into the water and drop those tanks into the lake and then just have the pipes go through them? Which would seem to me to be a heck of a lot cheaper.

MR. WHEELER: So here's what I'm going to say.

MR. GREENBERG: My question is have you considered any other type of resolving this problem?

MR. WHEELER: So I need to clarify something again. Tonight is just to hear your comments. If you want to officially make that as a comment that you wish that they do or that they should look at it or whatever, you can go ahead and make that comment; but they are not here tonight to answer questions. The way -- This is a very formalized public hearing. It's not meant to have a dialogue or discussion. So I need to make sure you understand that.

If you want to make that as a public comment, I need your name, and we need you to sign in on one of the forms.

MR. GREENBERG: I've already signed in.

MR. WHEELER: Okay. So we need your name for the record, and then we can take what you just said as

a comment. And instead of asking it as a question, I would maybe help you rephrase it as being a comment that you would like to make that have they looked at that as an alternative.

Do you want to do that?

MR. GREENBERG: Yes. I didn't want to make it a discussion and take up these people's time if you've already --

MR. WHEELER: Right.

MR. GREENBERG: -- if you've already --

MR. WHEELER: If you want to talk off line, you're welcome to do that.

MR. GREENBERG: Have you had anybody speak about that point?

MR. WHEELER: Nobody has, and they're not here to answer that type of question tonight. I know that's frustrating to you; but again, it's a formal process, so --

Okay. So if you want to just go ahead and give us your name. And could you state your name for the record? I know you didn't want your name on the record.

MR. GREENBERG: My name is Jacob L. Greenberg.

MR. WHEELER: Thank you. Okay. And we'll have that.

Is there anybody else that is interested in the official public hearing to have any comments?

MR. EARLY: Could I make just an addendum about distributed -- distributed storage? I was wondering if --

MR. WHEELER: State your name again just for the record.

MR. EARLY: Mark Early. I just was wondering if distributed storage throughout the basin area, I think it would be very helpful to see delineated how that compared on a cost basis with the single large 2-1/2-million gallon structure, whether or not a hundred, you know, smaller tanks of 10,000 gallons, 20,000 gallons, how those might -- you know, how that might work as far as the project.

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MR. WHEELER: Okay. We'll include that as part of your earlier comments then. Thank you.

MR. EARLY: Thank you.

MR. WHEELER: Okay. We are then at an end of the public hearing. Thank you for this, and I'll get this up here.

And I want to thank everybody for coming out tonight. I know it's always tough to come to a meeting. I know this is a very structured meeting. I know that can be frustrating because, you know, you'd like to have some

dialogue, but that's not the purpose of tonight. Tonight was to hear your input on the draft EIS.

The City of Seattle appreciates your comments tonight, and it will consider that. As Betty said, they will look at sometimes combining comments if they're similar, but basically respond to every comment that's there through the final EIS.

So any last comments from the City of Seattle?

MR. LEE: I just really appreciate all of you coming and taking your time. And thanks to those who, you know, provided written comments. It's very much appreciated, and we'll get back to you.

And also recognizing the structure of this meeting, if you have questions or you'd like to have more of a dialogue, I'm happy to have that with you obviously after the meeting is done.

MR. GREENBERG: Sir -- Sir, are my comments and asking more questions what you're considering as my making a statement?

MR. WHEELER: It was interpreted as a comment that you made with your name, and it's on the record.

MR. GREENBERG: Okay. It's now on the record as one of my comments?

MR. WHEELER: That's correct.

Betty, did you have a last comment you wanted to make, or are you done?

MS. MEYER: No, just thank you.

MR. WHEELER: Okay. Thank you, everybody, for your time. And remember, you have until October 17th to officially make any written comments, and you're welcome to do that.

And we will end the meeting. Thank you, everybody.

Thank you for the location, also. It's very nice.

END OF PROCEEDINGS: 7:10 p.m.

C E R T I F I C A T E

STATE OF WASHINGTON)
) SS
County of King)

I, the undersigned Washington Certified Court Reporter, pursuant to RCW 5.28.010 authorized to administer oaths and affirmations in and for the State of Washington, do hereby certify:

That the annexed and foregoing public comment hearing held on October 8, 2012, was taken stenographically before me and reduced to typewritten form under my direction.

I further certify that all objections made at the time of said proceedings to my qualifications or the manner of taking the deposition or to the conduct of any party have been noted by me upon the transcript.

I further certify that I am not a relative or an employee or attorney or counsel of any of the parties to said action, or a relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof.

I further certify that the proceedings, as transcribed, is a full, true and correct transcript of the testimony, including questions and answers and all objections, motions and exceptions of counsel made and taken at the time of the foregoing hearing and was prepared pursuant to Washington Administrative Code 308-14-135, the transcript preparation format guideline.

IN WITNESS WHEREOF, I have hereunto set my hand this 11th day of October, 2012.

Jeanne Gersten

Jeanne M. Gersten, RMR, CCR
Registered Merit Reporter
Washington CCR #2711

Response to Public Hearing (PH) Comment 1 (Maher)

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

SPU's actions to inform and involve the public in the scoping process are summarized in Section 1.3 of the Final EIS. Ms. Maher sent an email to SPU's North Henderson project email address (SPU_HCSO@seattle.gov) on May 27, 2011 asking how to provide scoping input. Because of an unfortunate and inadvertent miscommunication between two SPU staff, she did not receive a timely response. By letter postmarked June 15, 2011 and received at SPU on June 16, 2011 (i.e., before the deadline for scoping input), Ms. Maher submitted extensive scoping input and asked why SPU had not responded to her May 27, 2011 email. Alerted to the situation, SPU staff immediately apologized to Ms. Maher via email on June 16, 2011 and provided a link to the scoping meeting materials. There were no other emails that did not receive a timely response, and the miscommunication regarding Ms. Maher's email did not compromise the scoping process in any way.

Response to Public Hearing (PH) Comment 2 (Wenger)

The information in Section 3.4 regarding the tennis courts being completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, assumes (per Section 3.4.2) that the tennis courts and Parking Lot 1 are used for construction staging and contractor parking for the Parking Lot Alternative. If the tennis courts are not utilized as such, re-building the tennis courts might not be necessary.

Response to Public Hearing (PH) Comment 3 (Wenger)

Section 3.6 describes the routine maintenance activities, their frequency, the type of equipment, the number of staff involved, and the impact to Seward Park. In some cases, the CSO storage tank will be accessed by hatches in Parking Lot 1. In other cases, the maintenance activity will require driving on the surface of the tennis court(s). The maintenance truck will travel on the apron outside of the doubles sideline to the extent feasible.

Response to Public Hearing (PH) Comment 4 (Wenger)

Comment noted. As described in Sections 4.2.1.1, 4.2.2.1, 4.2.3.1 and 4.2.4.1, park users will need to seek other tennis courts during construction of either alternative, and there are eight other public tennis facilities within the vicinity. Four of those tennis facilities are within 2 miles of Seward Park; the other four tennis facilities are within 3 to 7 miles of Seward Park. As described in Section 3.4, the Seward Park tennis courts will be completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, unless Seattle Parks personnel decide during the design stage that they will prefer a different use (e.g., basketball courts, picnic area). After construction is completed, the tennis courts will be reopened.

Response to Public Hearing (PH) Comment 5 (Kinerk)

Comment noted. The EIS considered both nearby residents and park users in evaluating the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. The Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents.

The EIS has been modified to further clarify the rationale for identifying the Tennis Courts Alternative as the preferred alternative. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative, and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on

environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Public Hearing (PH) Comment 6 (Kinerk)

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Public Hearing (PH) Comment 7 (Kinerk)

SPU does not anticipate that vibration, blasting, or other construction-related activities will damage nearby homes or sewers because construction best management practices will be implemented. However, pre and post-construction surveys of adjacent homes and private sewer lines will be conducted and any construction-related damage will be repaired. Additionally, monitoring of vibration will be performed to indicate whether the construction procedures used are generating surface and subsurface ground movements, and if vibration intensities are within specified limits.

City record drawings, sewer cards, and GIS data indicate the side sewers from the properties adjacent to the potential storage facility at the Tennis Courts Alternative site connect to a 15-inch diameter combined sewer line that is located approximately 30 feet to the west of the storage facility and heads north to the intersection of South Juneau Street and Lake Washington Blvd. This combined sewer line and the individual side sewer lines from the adjacent properties will not be impacted by the potential storage facility construction at the Tennis Courts Alternative site. In the unlikely event that these sewer lines were damaged due to construction vibration, they will be repaired or replaced by the contractor. The contractor will be required to use construction methods that will have the least impact to the slope or the surrounding trees (e.g., directional drill or micro tunnel).

The potential for observed vibration and any associated effects depends on several factors, including the subsurface conditions, nature of the source of the vibration, and the distance from the source to the receiver. All else being equal, it is likely that the potential for noticeable vibrations at nearby residences will be higher for the Tennis Courts Alternative than for the Parking Lot Alternative. Potential sources of vibration associated with the proposed construction include shoring installation, excavation, equipment traffic, and other general construction-related vibrations. The likely shoring installation methods include secant piles and grouting. Both of these techniques are generally considered low vibration-producing methods. Secant pile installation involves drilling a large diameter cylindrical hole (usually 2 to 4 feet in diameter) into the ground and filling the hole with reinforced concrete. The process is repeated sequentially with overlapping cylindrical holes until a wall is built into the underlying ground. After the concrete has cured, the adjacent ground can be excavated. Grouting will involve drilling small diameter holes (a few inches in diameter) and injecting cement (or other materials) to stabilize the ground before excavating. Both of these methods generally produce much less vibration and noise than other shoring installation methods, such as impact or vibratory pile driving.

Many studies have evaluated the effects of vibrations on residential and commercial structures and underground utilities. The results of these studies indicate that the peak particle velocity is one of the parameters for assessing potential damage to structures and underground utilities (such as sewers) due to vibrations. Threshold levels of acceptable vibration, partly based on structure or utility type and condition, will be set and specified in the contract documents.

Response to Public Hearing (PH) Comment 8 (Kinerk)

As described in Section 13.2.1.1, park users and nearby residents likely will notice an increase in noise levels during construction, however the construction noise is expected to comply with the maximum allowable noise limits. The City's Noise Control Code (Seattle Municipal Code 25.08) establishes requirements for all construction projects within the City, including the allowable magnitude, duration, and time of day for noise impacts. The purpose of the Noise Control Code is to minimize people's exposure to the dangers of excessive noise; to protect, promote and preserve public health, safety and welfare; and to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment. Construction and operational noise assessments were conducted for the proposed project (HDR 2012c and HDR 2012d) and the results are summarized in Section 13 of the EIS. Noise impacts are summarized in Section 13.2, and measures to reduce and manage noise are summarized in Section 13.3. The proposed project is expected to meet the requirements of the City's Noise Control Code.

Response to Public Hearing (PH) Comment 9 (Kinerk)

The existing CSO Storage Facility 8 (in Seward Park) does not have an odor control or a flushing system, which is why there are periodic times throughout the year that unpleasant odors are detected as far away as the existing tennis courts. The new storage facility will have an automated wash down system to clean the storage tank after each use and a carbon based odor control system that will maintain negative pressure in the tank and treat the air drawn through the storage tank.

Response to Public Hearing (PH) Comment 10 (Kinerk)

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including mailing postcards to approximately 1,700 neighbors bordering the project, apprising them of the Draft EIS public hearing and soliciting comments on the Draft EIS. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to Public Hearing (PH) Comment 11 (Kinerk)

The storage tank will be below ground with minimal above grade features visible. Restoration will include native vegetation in keeping with the Olmsted design principles and character of the park. The Olmsted Brothers did routinely work with engineers and utility companies in the development of parks to incorporate existing or proposed infrastructure. An example of this still

exists today with Olmsted's design of Volunteer Park integrating the reservoir and water tower into the park.

Response to Public Hearing (PH) Comment 12 (Kinerk)

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Public Hearing (PH) Comment 13 (Kinerk)

SPU's siting and alternatives analysis process for the Basin 44 sewage overflow reduction project began in the Summer/Fall 2010 and was conducted concurrent with a public participation process. SPU's first critical decision was to select a strategy for reducing sewage overflows near Seward Park. The strategies included underground storage, wet weather treatment, flow transfer, or a combination of sewer separation and inflow/infiltration reduction. Through the public process in the Winter 2010/2011, SPU selected underground storage as the preferred strategy for Basin 44. In early 2011, SPU held meetings in which it discussed the various options for siting an underground storage tank. During meetings in January and March 2011, SPU provided three siting options for the tank: underneath private property, in park land (i.e. Seward Park), or underneath a City street (i.e., Lake Washington Blvd). Representative examples of the three siting options were shown in the public meetings. The "representative

site" for the Seward Park alternative was shown in the parking lot. By March 2011, based on public input and consideration of financial, social, and environmental criteria, SPU narrowed down the alternatives and focused only on alternatives within Seward Park. Based on public input from stakeholders, SPU identified two viable locations within Seward Park: the Parking Lot Alternative and the Tennis Courts Alternative. In June 2011, SPU presented these two alternatives and the No Action Alternative at its EIS Scoping Meeting. Although the Tennis Courts Alternative was not shown in the earlier presentations, SPU did not consider this to be a new alternative, but rather a permutation of the park alternative that had been discussed in previous public meetings. The environmental analysis was completed and SPU subsequently identified its preferred alternative. The Draft EIS was prepared and issued, and SPU received comments on the alternatives as part of the Draft EIS public review. In response to public comment, SPU has revised the EIS to include an explanation of the public process used to develop the two alternatives. There will be an additional opportunity for the public to provide input on the two alternatives at a City Council public hearing in 2013, before the City Council makes a final decision on project siting.

Response to Public Hearing (PH) Comment 14 (Kinerk)

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Public Hearing (PH) Comment 15 (Kinerk)

Seward Park as a whole reflects the original vision of the Olmsted Brothers, however the character of the proposed locations for the storage tank have evolved away from several of the Olmsted design principles and the preliminary plan of 1912.

The Olmsted Brothers did promote a "foreground of woods" to buffer residential development from Lake Washington Boulevard, where possible. While trees will be removed as part of this project, a significant amount will remain on the forested slope. There is the potential for greater visibility of the houses above the western slope adjacent to the tennis courts. Due to the removal of the trees, there is the potential for greater visibility of the houses above the western slope adjacent to the tennis courts. Disturbed areas will be enhanced with forest restoration planting, including native conifer and deciduous trees. SPU and Parks plan to involve the adjacent neighborhoods in the restoration of Seward Park regardless of which alternative is selected. The public involvement process for restoration will occur during the project's design phase, from 2013-2014.

Response to Public Hearing (PH) Comment 16 (Kinerk)

Due to the removal of the trees, there is the potential for greater visibility of the houses above the western slope adjacent to the tennis courts. Disturbed areas will be enhanced with forest restoration planting, including native conifer and deciduous trees. SPU and Parks plan to involve the adjacent neighborhoods in the restoration of Seward Park regardless of which alternative is selected. The public involvement process for restoration will occur during the project's design phase, from 2013-2014. There is no evidence that the potential for greater visibility of the houses will lead to increased crime in the neighborhood.

Response to Public Hearing (PH) Comment 17 (Kinerk)

As described in Sections 4.2.1.1, 4.2.2.1, 4.2.3.1 and 4.2.4.1, park users will need to seek other tennis courts during construction of either alternative, and there are eight other public tennis facilities within the vicinity. Four of those tennis facilities are within 2 miles of Seward Park; the other four tennis facilities are within 3 to 7 miles of Seward Park. As described in Section 3.4, the Seward Park tennis courts will be completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, unless Seattle Parks personnel decide during the design stage that they will prefer a different use (e.g., basketball courts, picnic area).

Response to Public Hearing (PH) Comment 18 (O'Brien)

SPU's actions to inform and involve the public are summarized in Section 1.3 of the Final EIS. As noted in Section 1.3, SPU not only met all SEPA requirements for public notification but also conducted additional voluntary public outreach, including sending postcards to all neighbors bordering the project, soliciting input during the scoping process and soliciting comments on the Draft EIS. The scoping notice, the Notice of Availability of the Draft EIS, and the Draft EIS each included descriptions of the three alternatives evaluated in the Draft EIS: the Tennis Courts Alternative, the Parking Lot Alternative, and the No Action Alternative. The scoping notice did not indicate a preferred alternative because it would have been inappropriate to identify a

preferred alternative before conducting an environmental analysis. Once the environmental analysis was conducted, SPU identified the Tennis Courts Alternative as SPU's preferred alternative, and this preference was noted in the Draft EIS. A final decision will be made by the City Council during the proceedings that are required to address Initiative 42. Commenter's assertions do not provide a basis for reopening the SEPA process.

Response to Public Hearing (PH) Comment 19 (O'Brien)

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, to protect public health and water quality in Lake Washington. This project is also required by federal and state law.

Response to Public Hearing (PH) Comment 20 (O'Brien)

Comment noted. The majority of the impacts will only occur during construction. As described in Sections 3.1 and 3.4, most of the CSO facilities will be underground, the tennis courts and parking lots will be rebuilt after construction, and the natural areas will be re-vegetated.

As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. The Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Public Hearing (PH) Comment 21 (Smith A.)

The information in Section 3.4 regarding the tennis courts being completely rebuilt under either the Tennis Courts Alternative or the Parking Lot Alternative, assumes (per Section 3.4.2) that the tennis courts and Parking Lot 1 are used for construction staging and contractor parking for the Parking Lot Alternative. If the tennis courts are not utilized as such, re-building the tennis courts might not be necessary.

Response to Public Hearing (PH) Comment 22 (Smith A)

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, as required by federal and state law.

Response to Public Hearing (PH) Comment 23 (Smith A)

As described in Sections 2.1, 2.3, and 2.4, this project is necessary to reduce CSO discharges to a long-term average of no more than one untreated discharge per year, to protect public health and water quality in Lake Washington. This project is also required by federal and state law. Not implementing the project due to concerns about the project's generation of greenhouse gases is not a viable option. Section 10.5 describes construction practices that will be encouraged that reduce greenhouse gases.

Response to Public Hearing (PH) Comment 24 (Smith A)

Traffic modeling performed for the EIS incorporated the fact that construction trucks are larger than standard vehicles.

Response to Public Hearing (PH) Comment 25 (Smith A)

As described in Section 8.5 of the EIS, SPU will take measures to minimize impacts associated with construction impacts. Those measures include, but are not limited to: (1) schedule the construction of project elements so they do not overlap, when possible, to reduce the number of vehicle trips occurring at one time; (2) provide information at Seward Park and on SPU and Seattle Parks websites regarding alternate routes drivers and bicyclists could use to avoid construction traffic; and (3) perform a condition assessment on the construction route prior to the proposed project so roads could be restored to their prior condition or better. With the implementation of these measures, SPU does not foresee significant, unavoidable adverse impacts associated with transportation.

Response to Public Hearing (PH) Comment 26 (Smith A)

As described in Section 8.5 of the EIS, SPU will schedule the construction of project elements so they do not overlap, when possible, to reduce the number of vehicle trips occurring at one time. This will reduce the impacts associated with ground vibration from truck traffic along Orcas. With respect to liquefaction induced by truck traffic, the amount of energy required to induce liquefaction is much larger than that generated by vehicular traffic. Therefore, ground vibration from truck traffic is not expected to cause liquefaction underneath your home. SPU does not expect truck traffic along Orcas to cause enough vibration to create settlement or structural concerns at your home.

Response to Public Hearing (PH) Comment 27 (Smith A)

Comment noted. Although an analysis of potential economic impacts is not required by SEPA and was excluded from the scope of the EIS, Audubon Center and clay studio usage and financial information have been added to the Final EIS to further clarify the construction impacts

on recreation. Sections 4.2.1.1 and 4.2.2.1 have been revised to clarify the construction-related impacts that noise, dust, and parking lot closures would have on the number of Audubon Center visitors and Audubon Center and clay studio program participants; the impact this might have on income earned from program tuition, building rentals, and store sales; and the impact this might have on revenue from individual and foundation grants and donations. The Parking Lot Alternative would have more impact than the Tennis Courts Alternative on recreation usage of the Audubon Center and clay studio, because of the proximity of these facilities to the Parking Lot Alternative construction site. A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code.

Response to Public Hearing (PH) Comment 28 (Talbert)

Thank you for your comment.

Response to Public Hearing (PH) Comment 29 (Talbert)

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. The Tennis Courts Alternative has greater impacts on fewer people (i.e., neighboring residences), and those impacts will be felt more frequently and for a longer duration. In contrast, the Parking Lot Alternative will have impacts on a greater number of people (i.e., park users), and for each individual park user, those impacts may be less frequent and for shorter durations compared to the neighboring residents. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Public Hearing (PH) Comment 30 (Talbert)

Comment noted. As prescribed by SEPA, the EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.). Both the Tennis Courts Alternative and Parking Lot Alternative have environmental impacts, some of which are the same for both alternatives and some of which are different. As now described in the EIS, SPU recommended the Tennis Courts Alternative as the preferred alternative because (a) Seward Park is a destination park, visitors from all over Seattle come to enjoy its amenities; (b) the Tennis Courts Alternative would have less short-term (construction) impacts on recreation than the Parking Lot Alternative; and (c) other environmental impacts

were not significant as defined by SEPA (i.e., there was not a reasonable likelihood of more than a moderate adverse impact on environmental quality). A final decision will be made by the City Council during the proceedings that are required to address Initiative 42 and the City's Land Use Code. In the meantime, Section 1.4 of the Final EIS acknowledges that siting is a significant area of controversy.

Response to Public Hearing (PH) Comment 31 (Talbert)

The sites were selected to minimize impacts to significant habitat resources within Seward Park and the vicinity, including impacts to trees, as well as the Magnificent Forest and well functioning shoreline areas.

Both of the alternatives were developed with a goal of limiting the number of trees affected and limiting impacts to only those trees whose functions could be replaced within a reasonable timeframe. This includes avoiding large shade trees, such as the grove of London Plain Trees near the beach area and the native habitat planting near the Tennis Courts Alternative. For both alternatives, the tree removal primarily affects non-native trees, many of which are approaching the end of their normal life expectancy and tree removal will affect less than 1 percent of the approximate 167 acres of tree canopy that is now present within Seward Park. The trees affected by the project alternatives may be used by birds and other wildlife, however they are mostly used by birds as perches or for foraging, rather than for nesting. Birds that may nest in these areas, such as Northern flicker, European Starling, Black-capped chickadee, or American robin, will be precluded from nesting during the construction period, however there is other available habitat for these species near the project vicinity.

After construction, disturbed upland areas will be enhanced with restoration planting, including trees. The restoration will restore habitat, support wildlife into the future, and be in keeping with Olmsted design principles and the character of the park. The shoreline will be restored with native shoreline planting, but tree planting along the shoreline may not be feasible.

Response to Public Hearing (PH) Comment 32 (Talbert)

As described in Section 3.3.2, the decision on which area(s) to use for construction staging and contractor parking will be made by the contractor, working with SPU and Seattle Parks, and will be based on a number of factors. Impacts to trees surrounding the potential temporary public access driveway will be considered in the decision on staging and contractor parking locations.

Response to Public Hearing (PH) Comment 33 (Talbert)

As described in Section 3.3.2, the decision on which area(s) to use for construction staging and contractor parking will be made by the contractor, working with SPU and Seattle Parks, and will be based on a number of factors.

Response to Public Hearing (PH) Comment 34 (Talbert)

The Seward Park Vegetation Management Plan is listed under the author, International Forestry Consultants, in Section 18 References.

The Lake Washington Boulevard Management Plan was followed in developing the UPARR replacement area (Figure 3-9). An in-text citation has been added to the EIS and reference added to the list.

Response to Public Hearing (PH) Comment 35 (Talbert)

Suggestion to follow the Seward Park Comprehensive Trail Plan is noted. SPU is committed to providing reasonable mitigation for adverse environmental impacts, in accordance with SEPA requirements. Construction-related traffic impacts and measures to reduce those impacts are described in Sections 8.4 and 8.5 of the EIS, respectively. Construction-related and long-term impacts to recreation and measures to reduce short- and long-term impacts are described in Sections 4.2 and 4.3, respectively. Any additional required mitigation will be identified either during the City Council proceedings that are required to address Initiative 42 and the City's Land Use Code or during negotiations with Seattle Parks that are part of the process to obtain a Revocable Use Permit. Any mitigation undertaken along the upper loop will be consistent with the Seward Park Comprehensive Trail Plan.

Response to Public Hearing (PH) Comment 36 (Early)

The maximum construction duration is set by the regulatory deadlines which state that construction must begin by May 31, 2015 and the facility finished and fully operational by December 31, 2018, a duration of 42 months. Efforts were made to keep the construction period as short as reasonably possible. The construction period in the EIS of "up to approximately 30 months" was estimated based on multiple factors including limited windows of when in-water work can occur (e.g., for the CSO outfall pipe replacement and the possible shoreline treatment) and the need to perform certain construction activities sequentially rather than in parallel.

Response to Public Hearing (PH) Comment 37 (Early)

The Final EIS evaluates the impacts of each of the alternatives on elements of the natural and built environment (e.g., recreation, cultural resources, transportation and parking, air quality and odors, land and shoreline uses, noise, etc.), as prescribed by SEPA.

Response to Public Hearing (PH) Comment 38 (Early)

The depth to, type of, and properties of the bedrock is expected to be similar at both of the considered sites, based on the limited geotechnical borings and geophysical studies performed. The excavation processes, excavation support systems, and other associated construction techniques are likely to be similar for both sites, insofar as influences from geology or geotechnical conditions are considered.

Response to Public Hearing (PH) Comment 39 (Ginsberg)

SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Storage on land (i.e., underground storage) as well as storage in Lake Washington were considered. SPU considered an alternative which involved constructing a "floating bag" which would expand and fill approximately 20 times per year during storm events. The bag would stay filled for up to 24 hours after a storm event. This alternative was rejected because of the challenges associated with permitting such a facility and the visual, aesthetic and environmental impacts. An alternative such as dropping a concrete tank in Lake Washington was not considered. Current regulations prohibit such a facility from being constructed in the shoreline environment. In addition, because the depth of the water near Seward Park is shallow, the facility would have a considerably large footprint with significant impacts on fish, wildlife, and habitat.

Response to Public Hearing (PH) Comment 40 (Early)

SPU's alternatives analysis process began in the Summer of 2010. SPU gave consideration to the full range of CSO reduction options including storage, sewer separation, inflow and infiltration reduction, natural drainage solutions (i.e., rain gardens and cisterns), flow transfer, and wet weather treatment. Each of the options was evaluated based on its technical feasibility, financial cost, and social and environmental impacts.

Distributed storage was screened out because of its considerably high costs and social and environmental impacts. On a technical level, the efficiency and reliability of distributed storage in reducing CSOs is much less than a centralized storage facility. This is because the locations of the distributed storage facilities are not optimal. The most optimal location for storage is next to the CSO outfall, which is at the Southwest corner of Seward Park. Because distributed storage would be dispersed throughout the basin, the timing and availability of the distributed storage would not always be in alignment with when it is necessary to reduce CSOs. In addition, constructing distributed storage in Basin 44 would be extremely challenging because of the topography of the basin. Due to the slopes of the streets, cascading distributed storage facilities would be necessary. Distributed storage would have more significant impacts on the public because the facilities would be constructed in the streets, creating transportation impacts throughout the basin. Finally, the costs of distributed storage are more than twice the cost of centralized storage. Based on SPU's experience in the Windermere and Genesee CSO reduction projects, 500,000 gallon storage facilities cost approximately $50-$60 per gallon compared to $25-30 per gallon for a 2,000,000 gallon facility. Distributed storage facilities would be even smaller than 500,000 gallons, and therefore the costs would be more than 2 times the cost of a centralized facility.

Appendix C Support Information for Recreation Chapter

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Appendix C Supporting Information for Recreation Chapter

Olmsted Design Principles

What are Olmsted design principles?

Seward Park and Lake Washington Boulevard Park were designed by the premier landscape architecture firm of their era. The proposed project would take place in these two parks and impacts may affect Olmsted design principles therefore background on Olmsted design principles is provided in detail in this appendix.

In 1898, the Olmsted Brothers firm was established by John Charles Olmsted and Frederick Law Olmsted, Jr. based on Frederick Law Olmsted, Sr.'s design philosophy.

Frederick Law Olmsted, Sr. is recognized universally for his contributions to American landscape architecture through the design of public parks such as New York's Central Park. He planned and designed the U.S. Capitol Grounds in Washington, was the site planner for the Chicago World's Colombian Exposition in1893, led the campaign to protect Niagara Falls, and designed plans for hundreds of private residences and estates (Washington Park Arboretum Historical Review 2003).

John Charles Olmsted, Frederick Law Olmsted Sr.'s nephew and adopted son, was his senior partner in the Olmsted Brothers firm until his death in 1920. During his tenure as senior partner, the firm undertook over 3,500 commissions. These included plans for park systems in Baltimore, Seattle, Spokane, and Portland; parks in Charleston, New Orleans, and Dayton, Ohio; and campus plans for Smith, Mount Holyoke, the University of Chicago, and the University of Washington. John Charles Olmsted. was the primary author of the 1903 Report to the Seattle Park Board, and continued to serve as an advisor and planning and design consultant to the city up to 1920. In addition, he developed the plans for the University of Washington campus in 1904 and the 1909 A-Y-P Exposition on its grounds, and the plans for the Fort Lawton Military Reservation in 1910. John Charles Olmsted was responsible for all of the firm's work on the West Coast from 1903-1920, and he visited Seattle regularly until 1913 when he discontinued travelling owing to declining health (Ibid).

Frederick Law Olmsted, Jr. (Rick) was Frederick Law Olmsted's son who succeeded his father in 1895 as American's most recognized landscape architect. Although he had little formal training in landscape design before entering his father's firm, he became a partner in its successor firm, the Olmsted Brothers, in 1898. As had his father, he played an important role in education, and served as the first American Professor of Landscape Architecture at Harvard in 1900. His first project in the Olmsted Brothers firm resulted from an appointment to the MacMillan Commission, which was organized to revive the Mall and L'Enfant's plan for Washington, D.C. This led to the Olmsted's park plan for the District and design of its Rock Creek Park. Rick was a senior partner in the Olmsted Brothers 1920-1957, where he continued

his father's work on scenic reservations. He played a critical, behind-the-scenes role in the National Park Act of 1916, and participated in planning Yosemite National Park and Arcadia National Park (Ibid).

The Olmsted Brother's worked in Seattle for 34 years, beginning with its 1903 city-wide plan (Olmsted Brothers 1903). The 1903 plan envisioned a series of parks of varying sizes connected by pleasure drives and parkways to form an emerald necklace that would wrap around the city limits. A total of 68 parks and 18 boulevards were recommended for inclusion in the city-wide plan. Today 17 parks and 14 boulevards have been developed using the Olmsted design, including Seward Park and Lake Washington Boulevard Park (Easton 2003).

Influenced by their training and personal childhood experiences in the countryside, the Olmsted Brothers continued the landscape design traditions by recognizing that scenery had an unconscious influence (Beveridge 2000). In other words, parks provided more benefits to human needs than could be tangibly documented. Olmsted Sr. taught that landscapes have "an effect on the human organism by an action of what it presents to view, which action, like that of music, is of a kind that goes back of thought, and cannot be fully given the form of words" (Boston 1886).

There are common design principles throughout all Olmsted Parks, but the Olmsted Brothers had specific visions for each park or boulevard. As towns expanded into thriving cities, John Charles Olmsted in particular was a proponent of acquiring and preserving land for future public use for a cohesive, planned park system.

Two primary design styles can be found in Olmsted-designed parks; Pastoral Style and Picturesque Style.

- Pastoral Style influenced by the aesthetics of large England Estates, the Pastoral Style included vast expanses of lawn with groves of trees and shrubs in framed views. "Framing views" is a landscape design technique, similar to windows in a house, where vegetation or site structures are intentionally used to focus attention on a specific view of a unique and special feature. This feature could be a sculpture, specimen tree, lake or building. The Olmsted Brothers often used this technique in their design and envisioned vegetation being used to frame views of Lake Washington and Mount Rainer from Seward Park. The purpose of the Pastoral Style was to experience the interior space indirectly by not focusing

A framed view of the lake from the Seward Park Meadow illustrates the Pastoral Style.

on any particular element or specimen plant and being directed to focus on framed views of special site features. Dark forms and details were presented in the foreground with lighter shades and simpler forms in the background to create the illusion of larger spaces. This style is similar to the perspective techniques in landscape painting. The Pastoral Style emphasized the whole place, and orchestrated users through spaces to unconsciously benefit from the park (Beveridge 2000).

- The Olmsteds also used the Picturesque Style in their designs. This style included numerous layers of groundcovers, shrubs, and trees to form complex textures that illustrated the bounty of nature. This style enhanced the typical characteristics of nature to new heights. It involved planting dense quantities of native and non-native plants with different textures to capture the changing light and shadow. These combinations created mysterious jungles of planting that exemplified the complexity of the natural world (Beveridge 2000).

Along with the two design styles, several design principles can be found in Olmsteds' works (NAOP 2011):

- The principle regarding place was always important to the Olmsted designs. The design of parks and parkways considered the context and immediate geography of the space. The designs would use the natural occurring features of sites (e.g., water, rock outcroppings, and bluffs) and enhance them by drawing attention to their character and location.
- Olmsted parks included a principle of unified composition with specific experiences in mind for different parks. Each park contained unifying elements with a unique identity without divisive or conflicting uses. In the 1903 report, Olmsted wrote, "The different parks of the city should not be made to look as much like each other as possible, but on the contrary every advantage should take advantage of differing conditions to give each one a distinct individuality of its own," (Olmsted 1903).
- The principle of orchestration of movement included circulation networks for pedestrians, bicyclists, and vehicles to safely experience the park in planned arrangements of sequence. This included promoting key views, promontory points, and buffers between uses.
- The principle of orchestration of use planned specific activities (e.g., tennis courts, picnicking) that were ideally located to fit

View of Lake Washington Boulevard Park showing cherry blossoms in season.

that planned activity. This included the orientation and siting of elements, grouping common activities, and avoiding conflicting uses.

- While the principle of sustainable design is used and applied differently today, the Olmsteds planned for low maintenance and used mostly native plants or non-native plants that were easily maintained and adapted to that climate. They also recognized the importance of understory planting for habitat. John Olmsted commented regarding Woodland Park in Seattle, "(T)he process of grubbing and clearing out the wild shrubbery and herbaceous plants ought not to proceed further without very careful study of the reasonable necessities of the case. It is said that the woods are dark, damp and chilly a good deal of the year when more open portions of the park are entirely comfortable and attractive. If this is so, it is a very strong argument against cleaning up the natural undergrowth and thereby to a great extent destroying the natural beauty of the woods," (Olmsted 1908).
- Their principles also included a comprehensive approach for larger park system plans, such as Seattle, Boston, and Portland. Parks were located adjacent to neighborhoods, bodies of water, and unique geographic features. The surroundings of each park were taken into consideration and connected through boulevards, such as Lake Washington Boulevard.

The Olmsted brothers recommended, influenced, and designed many parks in the City of Seattle.

Recommended: The Olmsted Brothers plans of 1903 and the expanded plan of 1908 recommended acquiring land and connecting existing public parks. The Olmsted plans focused on creating a network of parks and boulevards. The parks and boulevards that have been built, but not based on detailed plans, could be considered recommended by the Olmsted Brothers.

Designed: In addition to the development of city-wide plans, the Olmsted Brothers created detailed plans for several parks and boulevards. These site-specific plans are remnants of the Olmsted Brothers' original vision for particular public open spaces. Some of the plans were preliminary and conceptual, while others included detailed sketches of walkways and bridges. These plans were later used to construct parks and boulevards, though not all projects were fully realized.

Influenced: The influence of the Olmsted Brothers in the acquisition and development of Seattle parks is difficult to distinguish from what may have occurred by other means. However, the unique design philosophy of the Olmsted Brothers encouraged connecting parks and boulevards. Parks and green spaces that are closely adjacent to Olmsted-designed or recommended parks could be considered influenced by the Olmsted Brothers. Other green spaces that incorporate Olmsted design principles could also be considered influenced. Additionally, the sense of urgency that the Olmsted's communicated to the city for creation and preservation of public open spaces is visible today in Seattle's many parks, and dedicated financial support through publicly-funded park levies. John Charles Olmsted is also credited

with introducing the concept of childhood playfields and playgrounds to the City of Seattle (FSOP 2011a and Parks 2011b).

How are the Olmsted design principles reflected in Seward Park and Lake Washington Boulevard Park?

Seward Park Original Design

The potential of the land that eventually became Seward Park was not fully realized until the Olmsted Brothers' 1903 report. It was not named Seward Park until 1911 when the city acquired Bailey Peninsula and renamed it Seward Park. The Olmsteds wrote, "The topography of the peninsula is sufficiently varied to be exceedingly interesting, and as a terminus to the system of park-ways it would be especially good" (Olmsted 1903). John Charles Olmsted, the primary designer of Seward Park, commented that the future park "forms the most available large tract of land that is uniformly and beautifully covered with woods, and should be secured before the woods are injured" (Olmsted 1903). After the acceptance of the 1903 report, the Olmsted Brothers created their preliminary plan for Seward Park in 1912. This plan included 4.2 miles of drives, 12 miles of walking paths, boating access, basketball and tennis courts, swimming, croquet, playground, dancing pavilions, summer dwellings, and maintenance facilities. These activities and their supporting infrastructure were incorporated into the natural setting of Seward Park, retaining 95 percent of the forest. The intent of the Olmsted plan and that of the Seattle Board of Park Commissioners from that time was to maintain this special park in its natural condition.

The preliminary plan of 1912 for Seward Park contains minimal details to determine whether Pastoral or Picturesque styles were employed, but it was largely intended as a wooded preserve. The plan for the park incorporates all of the Olmsted design principles with a comprehensive approach, carefully designed paths and uses, a unified composition, and takes advantage of the unique setting in Lake Washington.

Seward Park Compared to Olmsted Design Principles

The improvements in Seward Park, like many large parks, were incremental over time. This was partly due to lack of funding to fully realize the Olmsted Plan of 1912 (Parks 2005). Additionally, much of the initial funding raised by the city went toward acquiring more properties as recommended in the Olmsted 1903 Report. By 1913, some changes had been made to the new park, but there is little documentation of park conditions until the 1920s. Prior to the 1920s, it is difficult to determine the degree to which the park adhered to Olmsted design principles because little had been designed and built. However, the design intent for the park to be an accessible natural forested preserve remained.

In 1916, Jacob Umlauf, Seattle Park Department Head Gardener, incorporated changes with more ornamental, garden-art like character. These included planting non-native trees, removal of understory planting to encourage park use, removal of woody debris and snags to prevent forest fires, and the establishment of a fish hatchery. In 1934, a severe windstorm toppled many trees resulting in 25 to 40 percent loss of the original forest (Parks 2005). During the

Great Depression, Works Progress Administration workers were employed in Seward Park for various improvements, including building restrooms, the bathhouse, and general clean up. Due to high levels of unemployment, 600 to 700 workers turned out to work and it was not possible to supervise them adequately, resulting in an over-manicured landscape, logging away trees, removing debris, and understory vegetation (Parks 2005). With pressure for greater accessibility, a perimeter road was constructed in the 1930s, though many warned that it would forever change the natural character of the park.

A 1936 plan of Seward Park in the Seattle Post-Intelligencer (PI) shows the amount of changes that had occurred since the opening of the park. These included the perimeter drive, large open meadow areas from clearing of trees, several large parking lots, a fish hatchery, and a new and larger entrance due to the lowering of Lake Washington in 1916.

A 1950 plan in the Seattle PI illustrates additional changes, but with greater attention to the magnificent forest in the middle of the park (Parks 2005). In 1953, the amphitheater was built to provide a venue for outdoor music. Due to the popularity of the amphitheater, traffic congestion became a problem and the amphitheater was closed for large events by 1960. In 1970, the perimeter road was closed to vehicles, but remained open for bicyclists and pedestrians.

After 1978, the negative impact of the fish hatchery on the natural ecology of the lake led to its closure (History Link 2011). Instead, the facilities were used as an educational research lab by the University of Washington's Department of Fisheries until 1997.

The changes that have accrued over time in Seward Park have evolved away from several Olmsted design principles and the preliminary plan of 1912. The Olmsted plan did include a variety of activities, many of which were located on the northern point of the peninsula, but the majority of the park interior was to be preserved as a forest. As the Seward Park Vegetation Management Plan states, “(O)ne can only conjecture how their ideas would have translated to reality” (Parks 2005). The design principle of unified composition has diminished as the park was divided by roads and various activities. The principles of orchestration of movement and uses are not as organized and logically separated as the Olmsteds envisioned. The incorporation of non-native trees and removal of understory plantings has resulted in loss of sustainable design. The principles of place and comprehensive approach are still visible. Changes in Seward Park from the Olmsted plan are due to lack of initial funding to implement the 1912 plan, consistent social pressure to include more activities

Two tennis courts in Seward Park next to the lake.

and uses of the park, and changes in city leadership with different philosophies of park use and aesthetics.

Seward Park Existing Conditions Compared to Olmsted Design Principles

While much has changed from the preliminary plan of 1912, Seward Park does remain a forested remnant for similar activities and experiences that the Olmsted Brothers first envisioned. Features in Seward Park within the area of proposed modifications include tennis courts and parking lots.

Specifically, the Olmsted Brothers incorporated tennis courts into their plan, though the original planned location was in the northern part of the peninsula rather than the current location in the southwest portion of the park. The amount of land available for park use is now greater than the amount considered by the Olmsted Brothers. The park was expanded with the lowering of the lake and infilling near its entrance. It is conceivable that much of the flat terrain that the tennis courts now reside upon was steeper and a part of the bluff surrounding the lake or under water when Olmsted first visited the park. The original plan shows a Pastoral Style terrain in the southwest corner with drives and trees connecting to Lake Washington Boulevard and large docks protruding into the lake. The setting of the tennis courts in relation to the slope to the west incorporates the active use of the space while providing opportunities for excellent views of Lake Washington. The courts are also located adjacent to parking and many of the other active recreational elements of the park today, including the playground, beaches, and open lawns. While the courts are in a different location, they do follow the design principles of place, orchestration of use, and orchestration of movement, within the context of the current park design. The addition of the bulkhead and non-native poplar trees adjacent to the tennis courts does not align to Olmsted design principles or to the original vision of the park to be kept as natural as possible. The 1912 plan also shows the distance from the shoreline of any path or drive with only key areas for shoreline access. This is in contrast with the current perimeter path that meanders immediately adjacent to the shoreline in most areas.

Parking in Seward Park

Parking lots present a modern addition to Seward Park as automobiles became the prime means of travel. The Olmsteds could not have envisioned the extent of this requirement and thus did not plan for such large parking lots in their 1912 plan for Seward Park, nor for any of their parks. The 1912 plan provides for minimal amounts of parking adjacent to the main hub of active recreation in the northern part of the peninsula.

While a parking lot in and of itself is a use the Olmsteds planned for, the surrounding vegetation in its current location is far from the original vision of the Olmsted plan. The addition of the bulkhead, non-native poplar trees, and areas of lawn were not a part of the original vision for Seward Park and do not necessarily align to the design principles of the Olmsted Brothers.

Lake Washington Boulevard Park Original Design

Lake Washington Boulevard Park is a seven-mile strand of the emerald necklace beginning in the north at the Washington Park Arboretum and continuing to Seward Park in the south (Parks 2010). This narrow boulevard provides a key link between two of the Olmsted-designed parks in Seattle as well as several other smaller parks along the shore of Lake Washington. Designed as a pleasure drive, the Olmsted Brothers envisioned active recreation as the principal use of Lake Washington Boulevard Park, including jogging, bicycling, boating, swimming, and fishing (Olmsted 1903). While the corridor continues to provide means of active recreation, it also provides the unconscious experience of near continuous views of Lake Washington and the Cascade Mountain Range beyond. It was important to the Olmsted Brothers that the land immediately west of the boulevard be preserved as a wooded foreground and buffer to development and a backdrop to the lake (EDAW 1986). Expanses of lawn with deciduous trees were desired to allow for views and "uninterrupted sequence of experiences" (Parks 2010). The formal boulevard experience was cleverly contrasted with the natural parkways that connected neighborhoods to Lake Washington Boulevard Park through ravines and the wooded hillside to the west.

Photo of Lake Washington Boulevard Park illustrates the unconscious experience of views with wooded foreground.

Lake Washington Boulevard was designed with a Pastoral Style, and includes many of the Olmsted design principles.

Lake Washington Boulevard Park Compared to Olmsted Design Principles

The Olmsted Brothers developed preliminary layouts of Lake Washington Boulevard Park, but the City of Seattle Parks Board of Commissioners did not request any detail drawings (EDAW 1986). Early photographs, postcards, and publications of Lake Washington Boulevard illustrated the Pastoral quality of the boulevard. Beginning in 1909, the boulevard was constructed over several years. A Parks report in the same year described the improvements

on one thousand feet of lake frontage, and stated that a "rip-rap seawall has been constructed for practically the entire distance" (Parks Report 1909). Areas of lawn and deciduous trees flanked the corridor with small groupings of plants. The boulevard was wide enough to accommodate two-way vehicular traffic and a pedestrian trail on the shoreline side. The Olmsted design principles were represented throughout the boulevard. Olmsted's principle of place was shown by taking advantage of the views of Lake Washington. There was a unified composition represented through a consistent use of tree spacing and lawn. These simple elements, used repeatedly, formed a unified composition throughout the Lake Washington Boulevard corridor. The orchestration of movement and use was visible in the clearly-defined paths and separation of uses. The meandering nature of the boulevard created a unique sequence of views. The opening of the boulevard closely aligned with the Olmsted design principles and the Pastoral Style of design.

There have been changes to Lake Washington Boulevard Park over time, but much of the pleasure drive experience in a Pastoral Style persists. Compared to Seward Park, Lake Washington Boulevard Park contains more of the original Olmsted design principles of place, unified composition, orchestrating of movement and use, and a comprehensive approach. Of their principles, sustainable design may be the one that has been modified the most with residential development, parking along the shoreline, and the removal and topping of trees in the forested bluff. Limited records exist to catalog all the changes along the seven-mile corridor, but the appearance of the park today mostly reflects the original vision of the Olmsted Brothers as a pleasure drive, maximizing the views and connecting parks throughout southeast Seattle.

Lake Washington Boulevard Park Existing Conditions Compared to Olmsted Design Principles

Similar to Seward Park, while there have been a variety of improvements, developments, and additions in Lake Washington Boulevard Park, the design intent for the corridor to be a pleasure drive connecting larger parks still exists today.

Specifically, the proposed UPARR replacement area within the park remains an open area of lawn and deciduous trees, some of which are non-native. These non-native deciduous trees are consistent with trees used by the Olmsteds in other designs. The Olmsted vision for park would have also included drifts of vegetation along the shoreline (NAOP, 2011). The pressure for water access, maintenance, and views has resulted in a rather flat landscape with limited amounts of groundcover or shrubs.

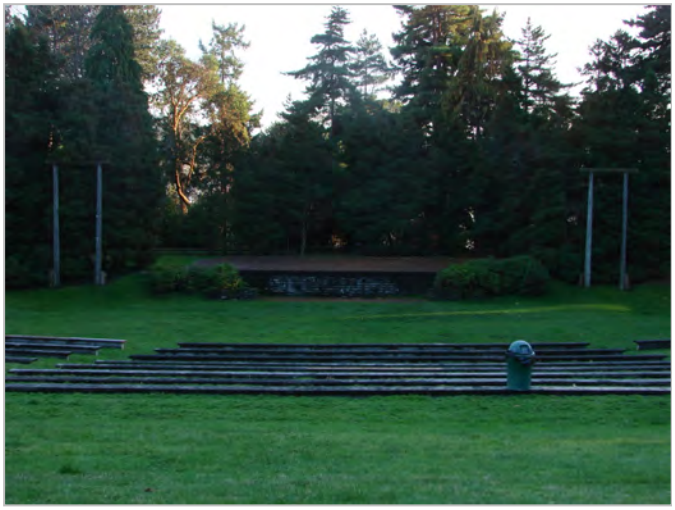
Park Buildings

Seward Park Clay Studio, a vital element in the Northwest's visual arts community since 1969, has been incorporated as a non-profit, educational ceramics institution. Its mission is to promote the growth of the ceramic arts by providing a broad range of educational programs, events, and studio opportunities for artists in a community clay arts facility (Seward Park Clay Studio 2011). As previously mentioned, the Clay Studio also has art activities with mediums other than clay.

Seward Park Environmental and Audubon Center (Center) is a collaborative effort between Audubon Washington and the Seattle Parks, and is part of the National Audubon Society's vision to establish neighborhood nature education centers in urban areas of high ethnic diversity. The Center provides programs for school, youth, and community audiences, and also hosts arts in the environment and special events. The Center includes exhibits, an extensive natural history lending library, a laboratory, and a small gift shop and welcome center. The Center engages people in learning about and caring for nature in their own neighborhoods. Its mission is to inspire exploration, discovery, and stewardship of the natural world through science education and other direct experiences that promote healthy, sustainable communities (Seward Park Environmental and Audubon Center 2011b).

A fish hatchery, which is no longer used (closed in 1978), is also located in the park. In 1935, the fish hatchery was built to increase the stocks of sport fish in Lake Washington to further the Olmsted vision of a water and forest recreational mecca and to turn the area into a fisherman's paradise (Seward Park Environmental and Audubon Center 2011b).

The amphitheater was built in 1953 in the hope that it would replace the band shell removed from Volunteer Park in 1949 and serve as a primary source of outdoor entertainment in Seattle. Set in a gently sloping clearing created by the loss of several trees during a natural storm event, ringed by trees, and with a spectacular view of Mount Rainier on a clear day, it seemed like the ideal location. However, due to lack of adequate parking and other concerns, the last music in the park series was held in 1960 (Seward Park Environmental and Audubon Center 2011b). It is now used during events and festivals in the park such as *Pista Sa Nayon*.



Amphitheater used during events

Park Organizations

In addition to the Clay Studio and Audubon Center discussed above, other organizations and groups take an active interest in, and make use of, Seward Park.

Since 1999, Friends of Seward Park has been working in cooperation with park visitors and Parks to preserve and enhance the following (FSP 2011):

- Solitary pursuits and active recreation.
- Environmental education and park stewardship.
- Forest and lake habitats for wildlife diversity and human enjoyment.

The Friends of Seattle Olmsted Parks is another organization that has been dedicated to the preservation of Seattle's Olmsted heritage, including Seward Park, by raising awareness of the Olmsted philosophy of providing open space for all people (FSOP 2011b).

Other groups or organizations that use or are interested in the Seward Park environment and recreational opportunities are the Seward Stewards, who assist at the Audubon Center as educators, docents, and restoration planters; Audubon Action Seward Park; orienteers; cyclists; runners and triathletes; boaters; wilderness awareness programs; scout and school groups; arborists; fish advocates; and Canada geese activists.

UPARR Grant Funding

The UPARR Act of 1978 established this program to provide funding for rehabilitation of deteriorating parks and recreational facilities in cities and urban counties. The UPARR program is administered by the National Park Service (NPS) of the U.S. Department of the Interior. Cities and counties that accept federal funding under the UPARR program must comply with the terms of the grant agreement, which require the funding recipient to maintain the parks and facilities for public recreational use in perpetuity regardless of the percent of UPARR funds expended relative to the project and the facility as a whole. This provision is contained in the UPARR Program Administration Guideline (NPS-37) and is also referenced in Section 72.36 of the Act.

Seward Park was awarded the following grant-funded improvements in 1983 (NPS 2009):

- Comfort Station Improvements: $46,000 was allocated for improvements at the southern end of Seward Park.
- Picnic Shelter Construction and Repair: $68,000 was allocated for improvements at the southern end of Seward Park.
- Foot Race Starter Area: $5,000 was allocated for improvements at the southwestern corner of Seward Park.
- Swim Raft Replacement: $34,000 was allocated for improvements at the southwestern corner of Seward Park.

UPARR funds were often used for only a portion of a site or facility, or where a small percentage of the funds required to renovate or rehabilitate a property. Despite that fact, recipients of funds for renovation and rehabilitation projects are obligated by the terms of the grant agreement to continually maintain the site or facility as a whole for public recreational use regardless of the size of the UPARR grant. Therefore, the grants listed for Seward Park provide protections for the entire park not only the areas where grant funding was used for improvements.

In accordance with Section 1010 of the UPARR Act and 36 Code of Federal Regulations 72.72, Conversion Requirements, conversion of UPARR grant land can be performed under specific conditions and with the approval of the NPS. A conversion would be approved only if it is found to be in accord with the current local park and recreation Recovery Action Program or equivalent recreational plans, and only upon such conditions as deemed necessary to ensure

the provision of adequate recreational properties and opportunities of reasonably equivalent location and usefulness.

Special Events

The numbers listed below include both events conducted solely within the park and those that use only a portion of the park.

Table C-1. Typical Seward Park Annual Events

Event Name	Start Date	End Date	Start/End Time	Approximate Attendance
Volunteer Event	January 18	January 18	8:00 a.m. to 4:00 p.m.	500
King County Bar Association Fun Run	March 7	March 7	8:00 a.m. to 1:00 p.m.	250
Seattle Collegiate Cycling Criterion Race	March 28	March 28	6:00 a.m. to 1:00 p.m.	150
Seward Park Thursday Night Bike Series[1]	April 1	September 2	4:00 p.m. to 9:00 p.m.	3,300
Beat the Eggs Run/Walk	April 3	April 3	6:00 a.m. to 12:00 p.m.	300
Epiphany School Stewardship Project	April 15	April 15	9:00 a.m. to 2:00 p.m.	275
The Tom Wales Community 5k Run/Walk	April 24	April 24	6:30 a.m. to 11:00 a.m.	400
Northwest National Parks Family Day	May 2	May 2	8:00 a.m. to 6:00 p.m.	2,000
Mother Daughter Fun Run/Walk	May 9	May 9	7:30 a.m. to 11:00 a.m.	200
Boy Scout Overnight Camporee	May 14	May 16	5:00 p.m. on May 14 to 10:00 a.m. on May 16	360
New Balance Girls on the Run 5k	May 22	May 22	5:00 a.m. to 1 p.m.	1,000
WEI Walk for Water	May 23	May 23	10:00 a.m. to 5:30 p.m.	300
Carry 5- Walk for Water	June 5	June 5	10:00 a.m. to 4:00 p.m.	500
Family Bike Event	June 6	June 6	9:00 a.m. to 5:00 p.m.	100
Run/Walk with Pride	June 13	June 13	7:00 a.m. to 12:00 p.m.	350
Walk for Rice	June 19	June 19	6:00 a.m. to 2:00 p.m.	1,200
Furry 5k Fun Run and Walk	June 20	June 20	5:00 a.m. to 3:00 p.m.	3,000
Rock 'n' Roll Marathon	June 25	June 26	5:00 p.m. on June 25 to 8:00 p.m. on June 26	15,000
Public Performance –Julius Caesar	July 7	July 7	3:00 p.m. to 10:30 p.m.	300
Shakespeare in the Park	July 10	July 10	6:00 p.m. to 10:00 p.m.	200
POF Walkathon	July 10	July 10	6:00 a.m. to 2:00 p.m.	300
Shakespeare in the Park	July 11	July 11	6:00 p.m. to 10:00 p.m.	200

Event Name	Start Date	End Date	Start/End Time	Approximate Attendance
Microsoft Intern Day of Caring	July 16	July 16	8:00 a.m. to 3:00 p.m.	300
STP Bicycle Classic	July 17	July 17	4:00 a.m. to 9:00 a.m.	10,000
Seafair Triathlon	July 17	July 18	10:00 a.m. on July 17 to 2:00 p.m. on July 18	2,000
Pista Sa Nayon	July 31	August 2	8:00 a.m. on July 31 to 12:00 p.m. on August 2	30,000
Seafair Hydroplanes and Air Show	August 5	August 8	9:00 p.m. on August 5 to 9:00 p.m. on August 8	300,000
Damascus in the Park	August 14	August 14	6:00 a.m. to 6:00 p.m.	200
Seattle Parks Open Water Swim	August 21	August 21	6:00 a.m. to 2 p.m.	500
Seward Park Season End Classic	August 29	August 29	7:00 a.m. to 6:00 p.m.	300
Stepping Out to Cure Scleroderma	September 11	September 11	8:00 a.m. to 3:30 p.m.	200
Round the Rock Stand Up Paddle Race	September 12	September 12	6:00 a.m. to 6:00 p.m.	300
Sound Steps Walk and Roll	September 15	September 15	7:30 a.m. to 1:30 p.m.	150
Sea-Tac League Cross Country Meet	September 16	September 16	12:30 p.m. to 5:30 p.m.	150
Annual Walk for Sickle Cell	September 18	September 18	8:30 a.m. to 4:00 p.m.	200
Walk to D'feet ALS	October 2	October 2	7:00 a.m. to 1:30 p.m.	1,000
Run of Hope-Brian Tumor Research Fund	October 3	October 3	6:00 a.m. to 2:30 p.m.	2,000
Miles for Midwives	October 9	October 9	7:00 a.m. to 1:00 p.m.	150
Run Vera Run	October 10	October 10	7:00 a.m. to 9 p.m.	1,000
Restoration Day Event	October 15	October 15	7:00 a.m. to 4:00 p.m.	200
Hike and Seek Walk	October 15	October 15	8:00 a.m. to 5:00 p.m.	500
Annual Pumpkin Push 5k Run and Walk	October 30	October 30	5:00 a.m. to 1:00 p.m.	1500
Run Scared 5k	October 31	October 31	7:00 a.m. to 11:00 a.m.	200
2 Million Dogs Puppy Up Walk	November 7	November 7	7:00 a.m. to 1:30 p.m.	300
Seattle Marathon Run/Walk	November 28	November 28	6:00 a.m. to 2:30 p.m.	14,000
New Balance Girls on the Run	December 4	December 4	6:00 a.m. to 1:00 p.m.	1,000

Source: Parks 2010.
2010 events are shown.
[1] Event occurs every Thursday between the months of April and September and accounts for 22 events with approximately 150 attendees per event.

Parking Analysis

Table C-2. On-Street Parking Field Study[1]

Street Name	From	To	On-Street Parking Spaces	Occupied	Percent Occupied
North-South Streets					
Oakhurst Rd S	Seward Park Ave S	Seward Park Ave S	95	5	5%
52nd Ave S	Wilson Ave S	S Mead St	36	4	11%
Wilson Ave S	S Lucile St	S Morgan St	213	29	14%
Hampton Rd S/S Oaklawn Pl	S Eddy St	Dead end	40	8	20%
Seward Park Ave S	S Dawson St	Wilson Ave S	211	45	21%
Lake Shore Dr S	Seward Park Ave S	S Eddy St	81	18	22%
Hampton Rd S	Lake Shore Dr S	S Eddy St	64	16	25%
57th Ave S	North End of Study Limit	S Orcas St	109	30	28%
55th Ave S	North End of Study Limit	S Brandon St	25	8	32%
57th Ave S	Seward Park Ave S	S Warsaw St	44	23	52%
56th Ave S	S Dawson St	Dead end	15	9	60%
55th Ave S	S Orcas St	Wilson Ave S	19	N/A [2]	N/A [2]
East-West Streets					
S Graham St	Wilson Ave S	West End of Study Limit	51	1	2%
S Oakhurst Pl	Oakhurst Rd S	Dead end	22	1	5%
S Eddy St	Dead end	57th Ave S	41	2	5%
S Hawthorn Rd	Seward Park Ave S	Wilson Ave S	77	4	5%
S Upland Rd	S Hawthorn Rd	Wilson Ave S	64	4	6%
S Van Dyke Rd	Hampton Rd S	Seward Park Ave S	16	2	13%
S Morgan St	57th Ave S	West End of Study Limit	29	4	14%
S Orcas St	Lake Washington Blvd S	West End of Study Limit	112	20	18%
S Findlay St	Wilson Ave S	West End of Study Limit	11	3	27%
S Dawson St	Lake Washington Blvd S	57th Ave S	16	5	31%
S Warsaw St	Dead end	53rd Ave S	32	26	81%
S Juneau St	Lake Washington Blvd S	Seward Park Ave S	15	15	100%
Total			1,438	282	20%

1. Data collected on August 18, 2012 from 3:20-5:40pm.
2. No data collected.

Table C-3. Special Event Parking Analysis

	Event Size		
	Small (upper end)	Medium (upper end)	Large (upper end) [1]
Event attendance	299	999	30,000
People per vehicle	2	2	2
Event vehicles	150	500	15,000
On-street parking spaces within half mile - total	1,400	1,400	1,400
On-street parking spaces within half mile - available on peak season non-event day	1,160	1,160	1,160
Temporarily closed parking spaces - total	90	90	90
Temporarily closed parking spaces - % of event vehicles	60%	18%	0.6%
Existing Conditions			
Parking spaces in Seward Park - total	351	351	351
Parking spaces in Seward Park - % for events	50%	50%	50%
Parking spaces in Seward Park - for events	176	176	176
Event vehicles parking in Seward Park	150	176	176
Event vehicles parking in neighborhood	0	324	14,825
On-street parking spaces within half mile - available on peak season event day	1,160	836	-13,665
During Construction			
Parking spaces in Seward Park - total	261	261	261
Parking spaces in Seward Park - % for events	50%	50%	50%
Parking spaces in Seward Park - for events	131	131	131
Event vehicles parking in Seward Park	131	131	131
Event vehicles parking in neighborhood - total	19	369	14,870
Event vehicles parking in neighborhood - additional	19	45	45
On-street parking spaces within half mile - available on peak season event day	1,141	791	-13,710
% increase in event vehicles in neighborhood	n/a	14%	0.3%
Additional event vehicles in neighborhood as % of total on-street parking	1%	3%	3%
Additional event vehicles in neighborhood as % of on-street parking available on peak season event day for existing conditions	2%	5%	-0.3%
Temporarily closed parking spaces as % of on-street parking available on peak season event day for existing conditions	8%	11%	-0.7%

1. Excludes Seafair because Seafair's attendance of 300,000 is not representative of most large events.

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Appendix D Supporting Information for Other Chapters

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Appendix D Supporting Information for Other Chapters

Chapter 5 Cultural Resources

United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
909 First Avenue, Fifth Floor
Seattle, Washington 98104-1060

IN REPLY REFER TO:
SLA 8.A.1
53-CTY-1960-7901, -8301

MAY 21 2012

Andrew Lee
CSO Business Area Manager
Seattle Public Utilities
PO Box 34018
Seattle, WA 98124

Dear Mr. Lee:

As per 36 CFR 800.3(a), the National Park Service (NPS), is proposing an undertaking subject to Section 106 of the National Historic Preservation Act.

In 1979 and 1983, the City of Seattle received Urban Park and Recreation Recovery (UPARR) grants from NPS for recreation improvements at Seward Park. These grants also extended protection to the property under section 1010 of the Urban Park and Recreation Recovery Act (Title X, PL 95-625). Seward Park is a National Register eligible property located at 5895 Lake Washington Boulevard South in the City of Seattle, King County, Washington.

The NPS undertaking consists of removing federal protection from 3,100 square feet at Seward Park at the City's request, and a determination about whether portions of Lake Washington Boulevard Park and planned recreation enhancements meet the mitigation requirements outlined in 36 CFR Part 72 for the recreation impacts to Seward Park.

Enclosed please find a graphic showing the Area of Potential Effect (APE) for this undertaking, depicted by two rectangles outlined and hashed in red and labeled "UPARR Grant Protections Removed". NPS will also be considering indirect effects from this undertaking on the rest of Seward Park. The second APE is the replacement property proposed at Lake Washington Boulevard Park. The NPS undertaking is to add federal protection to that property, but there will be no change in use as it is already managed for public recreation.

NPS has determined that the removal of federal protection from a Register eligible site would constitute an adverse effect to historic properties as a result of the undertaking. There are no practical avoidance alternatives at this location. No potentially eligible built environment resources are present within the area of impact. Seattle Public Utilities has evaluated the subsurface potential for historic properties within this APE and no archaeological properties were identified as a result of their investigation.

Per 36 CFR 800.3, this information is being provided to the State Historic Preservation Officer, the local governments with jurisdiction, the federally recognized Muckleshoot, Tulalip, Snoqualmie, Suquamish and Yakama Indian tribes and the Duwamish Tribe, who may attach religious or cultural significance to properties within the APE. NPS welcomes your recommendations as to further consulting parties entitled

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to participate in this process. Per 36 CFR 800.6(a)(1), the Advisory Council is also being provided a notification of finding of adverse effect.

We request any comments you may have on the APE identified in the enclosed graphics, and the determination that historic properties will be adversely affected as a result of this undertaking, by no later than June 30th, 2012. As NPS has determined an adverse effect for this undertaking, we also invite your participation in developing a memorandum of agreement to resolve the adverse effect in accordance with 36 CFR 800.6(b). If NPS does not hear from you within that time frame, we'll assume you're not interested in this undertaking.

NPS appreciates your consultation in this process and timely response. Should you have any questions, please contact my staff lead, Heather Ramsay, at (206) 220- 4123 or heather_ramsay@nps.gov.

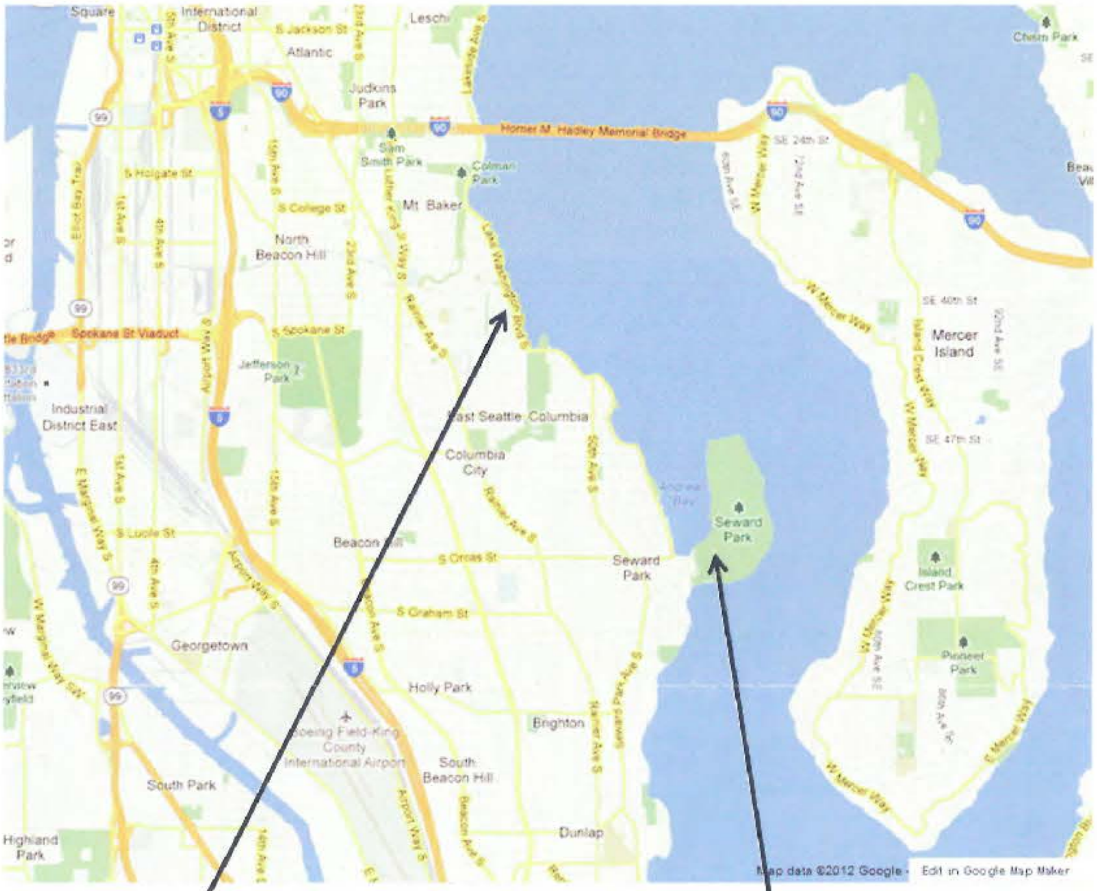
Sincerely,

for Michael J. Linde
Leader, Community Assistance Programs

Enclosure (3)

cc: Gail Coburn, Manager, Environmental Review & Permitting Section
Seattle Public Utilities

Kathy Robertson, Senior Project Manager
Seattle Public Utilities



Mitigation for recreation impacts will extend NPS protection to sections of the existing Lake Washington Boulevard Park. It will also include recreation enhancements at both Seward Park and Lake Washington Boulevard Park, TBD.

Partial conversion at Seward Park = loss of NPS protection from 3,100 ft^2


Existing CSO Storage (CSO Facility 8)
Parking Lot 2
Parking Lot 1
New Facilties Vault
Additional Fencing to Limit Public Access During Construction
Above Ground Electrical, HVAC, and Water Components
UPARR Grant Protections Removed
New CSO Storage Tank
Replaced CSO Outfall Pipe
UPARR Grant Protections Removed
Existing Tennis Courts
Lake Washington
Approximate Location of Shoreline Enhancement
D:\GIS\DATA\projects\wash\SPU_Hen-Gen\map_docs\mxd\map_AP_DEIS_Fig03-01b_v6_alt_1.mxd 3/27/2012
Legend
UPARR Grant Protections Removed
Limits of Construction
Fence Outside Limits of Construction
Existing CSO Storage
Shoreline Enhancement
SPU Combined Sewer Pipe
SPU Drainage Pipe
New Combined Sewer Pipe
Relocated Combined Sewer Pipe
New Water Pipe
N
0 60 120 240
Feet
Seattle Public Utilities
HENDERSON BASIN 44 CSO REDUCTION PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT
ALTERNATIVE 1 (TENNIS COURTS) MAIN COMPONENTS IN SEWARD PARK
MARCH 2012
FIGURE 3-1


Vicinity Map
Lake Washington
53RD AVENUE SOUTH
LAKE WASHINGTON BOULEVARD SOUTH
Legend
Upland Landscaping Enhancements
Receiving Transfer of Grant Restrictions
0 25 50 100
Feet
Seattle Public Utilities
HENDERSON BASIN 44 CSO REDUCTION PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT
UPARR GRANT TRANSFER AREA MAIN COMPONENTS
MARCH 2012
FIGURE 3-4

STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

June 13, 2012

Ms. Heather Ramsay
NPS
909 First Avenue, 5th Floor
Seattle, WA 98104

In future correspondence please refer to:
Log: 061312-07-NPS
Property: Seward Park UPARR Conversion
Re: APE Concur

Dear Ms. Ramsay:

We have reviewed the materials forwarded to our office for the above referenced project. Thank you for your description of the area of potential effect (APE) for the project. We concur with the definition of the APE. We look forward to the results of your cultural resources survey efforts, your consultation with the concerned tribes, and receiving the survey report. We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the historic property inventory when it is available.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised.

Thank you for the opportunity to review and comment. If you have any questions, please feel free to contact me.

Sincerely,

Russell Holter
Project Compliance Reviewer
(360) 586-3533
russell.holter@dahp.wa.gov

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION
Protect the Past. Shape the Future.

Chapter 7 Habitat, Wildlife, and Fish Information

(Begins on next page)

Table D-1. Trees Inventoried in Seward Park Project Area

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
LW Blvd & 49th	Deodora cedar (*Cedrus deodora)*	38		Good	Fair-Good	Moderate-High	Crown clean: prune out deadwood to mitigate hazard conditions.	Yes	5,819	$ 201.00	High	Several large dead limbs. Tree overhangs parking, pedestrian, and road areas.
1	Deodora cedar *(Cedrus deodora)*	27.5		Fair	Fair-Good	Moderate			3,655	$ 169.00	High	
2	European white birch (*Betula pendula)*	16.4		Good	Good	Moderate			1,202	$ 73.00	High	
3	European white birch *(Betula pendula)*	13		Good	Good	Moderate			956	$ 70.00	High	
4	Douglas fir (*Pseudotsuga menzeisii)*	30.2		Good	Good	Moderate	Crown clean to prune out hanging deadwood.	Yes	4,215	$ 185.00	High	Dead branches hung up in crown.
5	Common hawthorn *(Crataegus monogyna)*	10		Good	Fair	Moderate			498	$ 32.00	Moderate-Low	A King County "Weed of Concern". Control is recommended where possible and new plantings are discouraged.
6	Douglas fir *(Pseudotsuga menzeisii)*	17		Good	Good	Moderate			1,695	$ 100.00	High	
7	Douglas fir *(Pseudotsuga menzeisii)*	14.5		Good	Good	Moderate			1,288	$ 84.00	High	Good with adjacent trees. It is suppressed between firs #6 and #8.
8	Douglas fir *(Pseudotsuga menzeisii)*	14.6		Good	Good	Moderate			1,301	$ 85.00	High	
9	Douglas fir *(Pseudotsuga menzeisii)*	7.1		Good	Good	Moderate			400	$ 39.00	High	Strong, young tree.
10	Fruiting apple (*Malus* sp.)	5.5		Fair	Good	Moderate			165	$ 11.00	Moderate	
11	Douglas fir *(Pseudotsuga menzeisii)*	8.5		Good	Good	Moderate			520	$ 47.00	High	Young tree.
12	Douglas fir *(Pseudotsuga menzeisii)*	4		Good	Good	Moderate			152	$ 23.00	High	
13	Douglas fir *(Pseudotsuga menzeisii)*	6		Good	Good	Moderate			305	$ 33.00	High	
14	Scots pine (*Pinus sylvestris)*	13.3		Good	Good	Moderate			1,300	$ 77.00	High	
15	Plum (*Prunus* sp.)	5.5, 4.5		Good	Fair	Moderate			153	$ 17.00	Moderate-High	
16	Douglas fir *(Pseudotsuga menzeisii)*	17.4		Good	Good	Moderate	Crown clean. Minor deadwood.		1,736	$ 103.00	High	

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
17	Douglas fir *(Pseudotsuga menzeisii)*	11.6		Good	Good	Moderate	Crown clean. Minor deadwood.		906	$ 66.00	High	
18	Douglas fir *(Pseudotsuga menzeisii)*	17		Good	Good	Moderate	Crown clean. Minor deadwood.		1,695	$ 100.00	High	
19	Lombardy poplar (*Populus nigra* 'Italica')	11.1		Fair	Fair	Moderate			524	$ 57.00	Moderate	
20	Oregon ash (*Fraxinus latifolia)*	5.2, 7.7, 9.3		Good	Fair	Moderate			825	$ 67.00	Moderate-High	
21	Lombardy poplar (*Populus nigra* 'Italica')	31		Fair	Poor	Moderate-High	Crown clean.	Yes	2,703	$ 152.00	Moderate	Large number of dead branches in the crown.
22	Lombardy poplar (*Populus nigra* 'Italica')	20.5		Fair	Poor	Moderate-High	Crown clean.		1,378	$ 102.00	Moderate	Large number of dead branches in the crown.
23	Lombardy poplar (*Populus nigra* 'Italica')	22.5		Fair	Poor	Moderate-High	Crown clean.		1,549	$ 109.00	Moderate	Large number of dead branches in the crown.
24	Lombardy poplar (*Populus nigra* 'Italica')	21.7		Fair	Poor	Moderate-High	Crown clean.		1,513	$ 107.00	Moderate	Large number of dead branches in the crown.
25	Lombardy poplar (*Populus nigra* 'Italica')	19		Fair	Poor	Moderate-High	Crown clean.		1,226	$ 95.00	Moderate	Large number of dead branches in the crown.
26	Lombardy poplar (*Populus nigra* 'Italica')	23		Fair	Poor	Moderate-High	Crown clean.		1,671	$ 114.00	Moderate	Large number of dead branches in the crown.
27	Lombardy poplar (*Populus nigra* 'Italica')	19.4		Fair	Poor	Moderate-High	Crown clean.		1,267	$ 96.00	Moderate	Large number of dead branches in the crown.
28	Lombardy poplar (*Populus nigra* 'Italica')	19.5		Fair	Poor	Moderate-High	Crown clean.		1,277	$ 97.00	Moderate	Large number of dead branches in the crown.
29	Lombardy poplar (*Populus nigra* 'Italica')	17.1		Fair	Poor	Moderate-High	Crown clean.		1,034	$ 86.00	Moderate	Large number of dead branches in the crown.
30	Lombardy poplar (*Populus nigra* 'Italica')	18.4		Fair	Poor	Moderate-High	Crown clean.		1,166	$ 92.00	Moderate	Large number of dead branches in the crown.
31	Lombardy poplar (*Populus nigra* 'Italica')	19.5		Fair	Poor	Moderate-High	Crown clean.		1,277	$ 97.00	Moderate	Large number of dead branches in the crown.
32	Lombardy poplar (*Populus nigra* 'Italica')	18.7		Fair	Poor	Moderate-High	Crown clean		1,196	$ 93.00	Moderate	Large number of dead branches in the crown.
33	Lombardy poplar (*Populus nigra* 'Italica')	17		Fair	Poor	Moderate-High	Crown clean.		1,024	$ 85.00	Moderate	Large number of dead branches in the crown.
34	Lombardy poplar (*Populus nigra* 'Italica')	19.2		Fair	Poor	Moderate-High	Crown clean.		1,246	$ 96.00	Moderate	Large number of dead branches in the crown.

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
35	Lombardy poplar (*Populus nigra* 'Italica')	17.7		Fair	Poor	Moderate-High	Crown clean.		1,095	$ 89.00	Moderate	Large number of dead branches in the crown.
36	Lombardy poplar (*Populus nigra* 'Italica')	19.2		Fair	Poor	Moderate-High	Crown clean.		1,246	$ 96.00	Moderate	Large number of dead branches in the crown.
37	Lombardy poplar (*Populus nigra* 'Italica')	21.3		Fair	Poor	Moderate-High	Crown clean.		1,465	$ 105.00	Moderate	Large number of dead branches in the crown.
38	Lombardy poplar (*Populus nigra* 'Italica')	21		Fair	Poor	Moderate-High	Crown clean.		1,428	$ 104.00	Moderate	Large number of dead branches in the crown.
39	Lombardy poplar (*Populus nigra* 'Italica')	26.5		Fair	Poor	Moderate-High	Crown clean.		2,095	$ 131.00	Moderate	Large number of dead branches in the crown.
40	Lombardy poplar (*Populus nigra* 'Italica')	25.2		Fair	Poor	Moderate-High	Crown clean.		1,938	$ 125.00	Moderate	Large number of dead branches in the crown.
41	Insence cedar (*Calocedrus decurrens*)	8		Good	Good	Low			72	$ 8.00	High	
42	Wych elm (*Ulmus glabra)*	27.3		Fair-Good	Fair-Good	Moderate		Yes	3,575	$ 197.00	High	Rare. One of five known trees of this species in Seattle.
43	Purple-leaf sycamore maple (*Acer pseudoplatanus* 'Atropurpureum'	17.2		Fair-Good	Fair-Good	Moderate			1,603	$ 102.00	High	Adjacent to parking area. One-sided with adjacent trees.
44	London plane (Platanus x acerifolia)	35		Fair-Poor	Good	Moderate-High	Crown clean.	Yes	3,529	$ 162.00	Moderate-High	Heavy anthracnose infection.
45	London plane (Platanus x acerifolia)	41.5		Fair	Good	Moderate-High		Yes	4,032	$ 156.00	High	smoother texture than trees with heavy infestation. Possibly a different form tree.
46	Catalpa (*Catalpa* sp.)	5.4		Poor	Poor	High			n/a	n/a	Low	Near dead. Extensive deadwood along trunk.
47	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	9.5		Fair	Fair	Moderate			205	$ 22.00	Moderate	Minor evidence of cherry bark tortrix.
48	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	12.9		Fair	Fair	Moderate			357	$ 34.00	Moderate	
49	London plane (Platanus x acerifolia)	30.7		Good	Good	Moderate		Yes	2,964	$ 147.00	High	Moderate anthracnose. Bark has smoother texture than trees with heavy infestation. Possibly a different form tree.
50	London plane (Platanus x acerifolia)	28.3		Fair	Good	Moderate			2,636	$ 138.00	Moderate-High	Heavy anthracnose infection.

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
51	London plane (Platanus x acerifolia)	26.7		Good	Good	Moderate			2,418	$ 132.00	High	Moderate anthracnose. Bark has smoother texture than trees with heavy infestation. Possibly a different form tree.
52	London plane (Platanus x acerifolia)	28.7		Good	Good	Moderate			2,691	$ 140.00	High	Moderate anthracnose. Bark has smoother texture than trees with heavy infestation. Possibly a different form tree.
53	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	15.6		Good	Good	Moderate			485	$ 45.00	High	
54	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	10.7		Fair-Good	Good	Moderate			258	$ 26.00	Moderate-High	Fair amount of cherry bark tortrix present. Very large old pruning wound where understock was pruned back.
55	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	11.2		Good	Fair-Good	Moderate			281	$ 28.00	Moderate	Leans out toward lawn area.
56	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	14		Good	Fair	Moderate			406	$ 38.00	Moderate	Scaffold branches tightly twisted around each other and the main trunk.
57	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	5		Fair-Good	Good	Moderate			67	$ 8.00	Moderate	
58	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	9.7		Fair-Good	Good	Moderate			213	$ 22.00	Moderate	
59	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	7		Poor	Poor	High	Remove.		n/a	n/a	None	Near dead with extensive trunk decay.
60	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	7		Fair	Poor	High	Remove.		n/a	n/a	None	In advanced decline with trunk decay.
61	Tulip tree (*Liriodendron tulipifera)*	7		Good	Poor	Moderate-High			240	$ 32.00	Low	Extreme girdling roots. Leans heavily to the north.
62	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	7		Good	Poor	Moderate			124	$ 14.00	Moderate-Low	Old basal wound, lower trunk defects and decay.
63	London plane (Platanus x acerifolia)	21.6		Fair-Good	Good	Moderate			1,728	$ 109.00	High	smoother texture than trees with heavy infestation. Possibly a different form tree.
64	London plane (Platanus x acerifolia)	31.5		Good	Fair	Moderate		Yes	3,073	$ 151.00	Moderate	smoother texture than trees with heavy infestation. Possibly a different form

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
65	Oregon ash (*Fraxinus latifolia*)	23.4		Fair-Good	Fair	High	Monitor. Prune to mitigate limb defects.		2,192	$ 118.00	Moderate	History of limb failure. Large lateral limb extending south has defects that could lead to failure.
66	London plane (Platanus x acerifolia)	32.7		Good	Good	Moderate			3,237	$ 155.00	High	
67	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	5		Fair	Fair	Moderate			n/a	n/a	Low	Supressed. One-sided. Basal suckers.
68	London plane (Platanus x acerifolia)	34.5		Good	Good	Moderate			3,467	$ 160.00	High	Less anthracnose infection than the other London plane. Bark has smoother texture. Possibly different form than the others.
69	Western red cedar (*Thuja plicata*)	4		Good	Good	Moderate			152	$ 23.00	High	Mower damage to lower trunk.
70	Eastern arborvitae (*Thuja occidentalis* cv.)	5		Good	Good	Moderate			218	$ 28.00	High	
71	Eastern arborvitae (*Thuja occidentalis* cv.)	10		Good	Good	Moderate			463	$ 31.00	High	
72	Eastern arborvitae (*Thuja occidentalis* cv.)	12		Good	Good	Moderate			959	$ 69.00	High	
73	Eastern arborvitae (*Thuja occidentalis* cv.)	4, 9		Good	Good	Moderate			695	$ 56.00	High	
74	Douglas fir (*Pseudotsuga menzeisii*)	6		Good	Fair	Moderate			305	$ 33.00	Low	Weak leader. Planted too deep.
75	Kwanzan cherry (*Prunus serrulata* 'Kwanzan'	13		Good	Good	Moderate			361	$ 35.00	High	
76	Garry oak (*Quercus garryana*)	16.8		Fair-Good	Fair	Moderate			1,464	$ 72.00	High	
77	Tulip tree (*Liriodendron tulipifera*)	7.7		Good	Fair-Good	Moderate			281	$ 36.00	Moderate	Leans to the north. Poorly formed leader.
78	Pacific madrone (*Arbutus menzeisii*)	8		Fair	Fair	Moderate		Yes	521	$ 39.00	Moderate	Heavy canker infection. Suppressed by adjacent tulip tree.
79	White poplar (*Populus alba*)	7, 12.3		Good	Good	Moderate			746	$ 71.00	Moderate-High	Young tree.
80	White poplar (*Populus alba*)	66" at 2 feet		Good	Poor-Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4,772	$ 212+	Moderate-High	Large, multiple trunks above 2-feet. Slime flux on some trunks.

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
81	White poplar (*Populus alba)*	46.6		Fair-Good	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4,772	$ 212+	Moderate-Low	Slime flux at old pruning wounds.
82	White poplar (*Populus alba)*	38		Fair-Good	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	3,713	$ 184.00	Moderate-Low	Slime flux on trunk. Die back on branch leaders.
83	White poplar (*Populus alba)*	41.8		Fair	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4,287	$ 199.00	Moderate-Low	Slime flux on trunk.
84	White poplar (*Populus alba)*	30		Fair	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	2,556	$ 148.00	Moderate-Low	
85	White poplar (Populus alba)	25.7		Fair	Good	Moderate-High	Crown clean for large deadwood and hangers. Parks staff notified 6/17/11.		1,998	$ 127.00	Moderate-Low	High level of deadwood in the crown.
86	White poplar (Populus alba)	24.7		Fair	Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.		1,877	$ 122.00	Moderate-Low	High level of deadwood in the crown.
87	White poplar (*Populus alba)*	27.5		Fair	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.		2,224	$ 136.00	Moderate-Low	Extensive dieback in the crown.
88	White poplar (*Populus alba)*	23		Fair	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.		1,671	$ 114.00	Moderate-Low	Some larger dead limbs with deteriorating wood.
89	White poplar (*Populus alba)*	28		Fair	Fair-Good	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.		2,293	$ 138.00	Moderate-Low	Extensive dieback in the crown.
90	White poplar (*Populus alba)*	19		Fair	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.		1,226	$ 95.00	Moderate-Low	Extensive dieback in the crown.
91	White poplar (*Populus alba)*	45		Fair	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4,772	$ 212.00	Moderate-Low	Extensive dieback in the crown.
92	White poplar (*Populus alba)*	35		Fair	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	3,271	$ 171.00	Moderate-Low	Extensive dieback in the crown.

Tree #	Species	dbh (in.)	CRZ	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Exceptional	Stormwater est. gals/year	General benefits	Preservation Value	Comments/Defects
93	White poplar (*Populus alba)*	47.5		Fair-Good	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4772+	$ 212+	Moderate-Low	Extensive dieback in the crown.
94	White poplar (*Populus alba)*	55		Fair-Good	Fair	Moderate-High	Crown clean for large deadwood. Parks staff notified 6/17/11.	Yes	4772+	$ 212+	Moderate-Low	Some dead wood in the crown.
95	Catalpa (*Catalpa* sp.)	10, 6		Poor	Poor	Moderate-High			n/a	n/a	Low	In decline.

DEFINITIONS AND NOTES:

(1) **d.b.h.** = Diameter at breast height (approximately 4.5 ft. above surface grade).

(2) **Vigor** = Health based on size and color of leaf or needle and length of growth.

(3) **Structure** = Trunk and branch development and its estimated susceptibility to failure.

(4) **Risk of Failure** = The estimate of tree or limb stability based on its present condition.

Low = Little if any danger of failure at this time.

Moderate = Conditions observed show potential failure in extreme conditions.

High = Low vigor, poor crown to height ratio, root damage or structural defect make potential for failure high in near future.

Extreme = Conditions warrant that tree is in eminent danger of failure. Remove immediately.

(5) **Maintenance Recommendations Explanation**: These recommendations are based on the condition of the trees as they are now.

(a) Crown Clean = Selective removal of one or more of the following items: dead, dying, diseased, weak branches, and watersprouts from a tree's crown.

(b) Crown Thin = Selective removal of branches to increase light penetration, air movement, and reduce end weight.

(c) Crown Raise = Selective removal of lower branches of the tree in order to provide clearance.

(d) Crown Reduction = Reduction in size or height of tree by pruning away height or width. Arborist must be knowledgeable of the ability of the species to sustain this type of pruning.

(e) Crown Restoration = Pruning to improve the structure, form, and appearance of trees that have been severely headed, vandalized, or storm damaged.

(f) Cable and/or Brace = Cabling and/or Bracing would decrease the potential risk of failure, but not eliminate the possibility.

(g) Remove = The high to extreme risk of failure warrants that the tree shall be removed immediately.

(h) Create Wildlife Snag = Danger trees cut to wildlife snags provide perching, nesting, and a source of food for birds and other wildlife.

(l) Monitor = These are trees of a particular species or condition that may be prone to more rapid decline than other trees. These trees should be inspected at least annually for changing conditions.

(6) **Preservation Value Explanation**:

LOW = Poor specimen

MODERATE = Common species with minimal character.

HIGH = Good character tree, save if possible.

SPECIAL = Unique species, save if possible.

(7) **Exceptional:** Trees which meet the standards for this designation as defined by Seattle DPD Director's Rule 16-2008:
"Exceptional tree" means a tree or group of trees that because of its unique historical, ecological, or aesthetic value constitutes an important community resource, and is determined as such by the Director according to standards and proceedures promulgted by the Department of Planning and Development."

(8) **Stormwater estimate** = gallons of water intercepted per year, as calculated with the National Tree Benefits Calculator at www.treebenefits.org. Figures provided as an initial approximation of tree benefit contributions.

(9) **Overall benefits** = combined benfits values for stormwater, electricity, air quality, property value, natural gas and CO2, as calculated with the National Tree Benefits Calculator at www.treebenefits.org. Figures provided as an initial approximation of tree benefit contributions.

(10) **PRUNING NOTE:** Pruning shall be performed by an ISA Certified Arborist with proven knowledge and ability using ANSI A300 Pruning Specifications. The actual work should be bid by companies qualified to do the work.

(11) **Comments Explanation**:

(a) Included Bark = Junction just below two branches where bark ridge is curled inward towards center of tree creating high probability of failure.

(b) Critical Rootzone (CRZ) = A circular area under a tree to be protected from construction activities. This area is equal to 1 ft. radius for every 1 in. diameter of tree measured at 4.5 ft. above ground.

Table D-2. Trees Identified as Exceptional Trees in the Seward Park Project Area

Tree No.[1]	Common Name	Scientific Name	Diameter in inches at Breast Height (dbh)
4	Douglas fir	*Pseudotsuga menzeisii*	30.2
21	Lombardy poplar	*Populus nigra 'Italica'*	31
42	Wych elm	*Ulmus glabra*	27.3
44	London plane	*Planatus* x *acerifolia*	35
45	London plane	*Planatus* x *acerifolia*	41.5
49	London plane	*Planatus* x *acerifolia*	30.7
64	London plane	*Planatus* x *acerifolia*	31.5
78	Pacific madrone	*Arbutus menzeisii*	8
80	White poplar	*Populus alba*	66 at 2'
81	White poplar	*Populus alba*	46.6
82	White poplar	*Populus alba*	38
83	White poplar	*Populus alba*	41.8
84	White poplar	*Populus alba*	30
91	White poplar	*Populus alba*	45
92	White poplar	*Populus alba*	35
93	White poplar	*Populus alba*	47.5
94	White poplar	*Populus alba*	55

[1] Seward Park Tree Inventory (Urban Forestry Services, Inc. 2011) tree identifier

Table D-3. Birds Observed in the Seward Park Study Area

Common Name	Scientific Name	Location(s) Bird Observed in Study Area [4]
Barn swallow	*Hirundo rustica*	Flying over water/near shoreline
Cliff swallow	*Petrochelidon pyrrhonota*	Flying over water/near shoreline
American crow	*Corvus brachyrhynchos*	In trees/flying overhead
American robin	*Turdus migratorius*	Landscape Shrub
Great blue heron	*Ardea herodias*	On lake/on top of dock cover at western end of study area
Osprey[1]	*Pandion haliaetus*	Flying over water
Gull	*Larus* species	In water/on top of dock cover at western end of study area
Common merganser	*Mergus merganser*	On lake
Mallard	*Anas platyrhynchos*	On lake
Gadwall	*Anas strepera*	On lake
Muscovy duck	*Cairina moschata*	On lake
House sparrow	*Passer domesticus*	In shrubs
Woodpecker	*Picoides* species	In shrubs
Anna's Hummingbird	*Calypte anna*	In shrubs
Canada goose	*Branta canadensis*	On lake/walking onto grass from lake
Northern flicker	*Colaptes auratus*	In shrubs
Bald eagle[2,3]	*Haliaeetus leucocephalus*	Outside of study area/perched on conifer tree facing lake, soaring overhead

[1] Osprey is designated a State Monitor species by Washington State. State Monitor species are not considered Species of Concern, but are monitored for status and distribution. They are managed by the WDFW, as needed, to prevent them from becoming endangered, threatened, or sensitive.

[2] The bald eagle is a federal species of concern and under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS).

[3] The bald eagle is designated as a Species of Concern (i.e., state sensitive) by Washington State.

[4] Date of observation: June 15, 2011

Table D-4: Fish Known to Occur in Lake Washington

Common Name	Scientific Name
Coho salmon	*Oncorhynchus kisutch*
Sockeye salmon (migratory)	*Oncorhynchus nerka*
Kokanee (resident)	*Oncorhynchus nerka*
Chinook salmon	*Oncorhynchus tshawytscha*
Steelhead trout (migratory)	*Oncorhynchus mykiss*
Rainbow trout (resident)	*Oncorhynchus mykiss*
Coastal Cutthroat trout	*Oncorhynchus clarki*
Bull trout	*Salvelinus confluentus*
Peamouth	*Mylocheilus caurinus*
Northern pikeminnow	*Ptychocheilus oregonensis*
Largescale sucker	*Catostomus macrocheilus*
Longfin smelt	*Spirinchus taleichthys*
Brown bullhead*	*Ictalurus nebulosus*
Threespine stickleback	*Gasterosteus aculeatus*
Rocky Mountain whitefish	*Prosopium williamsoni*
Pumpkinseed*	*Lepomis gibbosus*
Redside shiner	*Richardsonius balteatus*
Common carp*	*Cyprinus carpio*
Smallmouth bass*	*Micropterus dolomeiui*
Largemouth bass*	*Micropterus salmoides*
Tench*	*Tinca tinca*
Bluegill*	*Lepomis macrocheilus*
Black crappie*	*Pomoxis nigromaculatus*
White crappie*	*Pomoxis annularis*
Yellow perch*	*Perca flavescens*
Coastrange sculpin	*Cottus aleuticus*
Prickly sculpin	*Cottus asper*
Riffle sculpin	*Cottus gulosus*
Pacific lamprey	*Entosphenus tridentatus*
River lamprey	*Lampetra fluviatilis*

Source: Wydoski 1972, Paron and Nelson 2001, Wydoski and Whitney 2003

* Fish denoted with an asterisk are non-native species.

Table D-5. Seward Park Trees Removed by the Construction of Tennis Courts Alternative

Tree No.[1]	Common Name	Scientific Name	Diameter in inches at Breast Height (dbh)	Location in Relationship to CSO Storage Tank
1	Deodar cedar	*Cedrus deodara*	38	North end
2	European white birch	*Betula pendula*	27.5	West side
3	European white birch	*Betula pendula*	16.4	West side
4*	Douglas fir	*Pseudotsuga menzeisii*	30.2	West side
5	Common hawthorn	*Crataegus monogyna*	10	West side
6	Douglas fir	*Pseudotsuga menzeisii*	17	West side
7	Douglas fir	*Pseudotsuga menzeisii*	14.5	West side
8	Douglas fir	*Pseudotsuga menzeisii*	14.6	West side
9	Douglas fir	*Pseudotsuga menzeisii*	7.1	South end
10	Fruiting apple	*Malus* sp.	5.5	South end
11	Douglas fir	*Pseudotsuga menzeisii*	8.5	South end
12	Douglas fir	*Pseudotsuga menzeisii*	4	South end
13	Douglas fir	*Pseudotsuga menzeisii*	6	South end
14	Scots pine	*Pinus sylvestris*	13.3	South end
15	Plum	*Prunus* sp.	5.5, 4.5	South end
16	Douglas fir	*Pseudotsuga menzeisii*	17.4	South end
17	Douglas fir	*Pseudotsuga menzeisii*	11.6	South end
18	Douglas fir	*Pseudotsuga menzeisii*	17	South end
19	Lombardy poplar	*Populus nigra* 'Italica'	11.1	South end
20	Oregon ash	*Fraxinus latifolia*	5.2,7.7, 9.3	South end
21*	Lombardy poplar	*Populus nigra* 'Italica'	31	Shore side
22	Lombardy poplar	*Populus nigra* 'Italica'	20.5	Shore side
23	Lombardy poplar	*Populus nigra* 'Italica'	22.5	Shore side
24	Lombardy poplar	*Populus nigra* 'Italica'	21.7	Shore side
25	Lombardy poplar	*Populus nigra* 'Italica'	19	Shore side
26	Lombardy poplar	*Populus nigra* 'Italica'	23	Shore side
27	Lombardy poplar	*Populus nigra* 'Italica'	19.4	Shore side
28	Lombardy poplar	*Populus nigra* 'Italica'	19.5	Shore side
29	Lombardy poplar	*Populus nigra* 'Italica'	17.1	Shore side
30	Lombardy poplar	*Populus nigra* 'Italica'	18.4	Shore side
31	Lombardy poplar	*Populus nigra* 'Italica'	19.5	Shore side
32	Lombardy poplar	*Populus nigra* 'Italica'	18.7	Shore side

Tree No.[1]	Common Name	Scientific Name	Diameter in inches at Breast Height (dbh)	Location in Relationship to CSO Storage Tank
33	Lombardy poplar	*Populus nigra* 'Italica'	17	Shore side
34	Lombardy poplar	*Populus nigra* 'Italica'	19.2	Shore side
35	Lombardy poplar	*Populus nigra* 'Italica'	17.7	Shore side
36	Lombardy poplar	*Populus nigra* 'Italica'	19.2	Shore side
37	Lombardy poplar	*Populus nigra* 'Italica'	21.3	Shore side
38	Lombardy poplar	*Populus nigra* 'Italica'	21	Shore side
39	Lombardy poplar	*Populus nigra* 'Italica'	26.5	Shore side
40	Lombardy poplar	*Populus nigra* 'Italica'	25.2	Shore side
41	Incense cedar	*Calocedrus decurrens*	8	Shore side
59	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	7	Staging area
60	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	7	Staging area

[1] Seward Park Tree Inventory (Urban Forestry Services, 1nc. 2011) tree identifier
* Per City of Seattle DPD Director's Rule 16-2008, tree meets the definition of an "exceptional tree" (Urban Forestry Services, Inc. 2011)

Table D-6. Seward Park Trees Removed by the Construction of Parking Lot Alternative

Tree No.[1]	Common Name	Scientific Name	Diameter in inches at Breast Height (dbh)	Location in Relationship to CSO Storage Tank
48	Kwanzan cherry	*Prunus serrulata* 'Kwanzan'	12.9	Staging area
56	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	14	Further north
59	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	7	Staging area
60	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	7	Staging area
61	Tulip tree	*Liriodendron tulipifera*	7	Park side
62	Kwanzan cherry	*Prunus serrulata* 'Kwanzan'	7	Park side
63	London plane	*Platanus* x *acerifolia*	21.6	Park side
64*	London plane	*Platanus* x *acerifolia*	31.5	Park side
66	London plane	*Platanus* x *acerifolia*	32.7	Park side
67	Kwanzan cherry	*Prunus serrulata* 'Kwanzan'	5	Park side
79	White poplar	*Populus alba*	7, 12.3	East end
80*	White poplar	*Populus alba*	66 at 2'	Shore side
81*	White poplar	*Populus alba*	46.6	Shore side
82*	White poplar	*Populus alba*	38	Shore side
83*	White poplar	*Populus alba*	41.8	Shore side
84*	White poplar	*Populus alba*	30	Shore side
85	White poplar	*Populus alba*	25.7	Shore side
86	White poplar	*Populus alba*	24.7	Shore side
87	White poplar	*Populus alba*	27.5	Shore side
88	White poplar	*Populus alba*	23	Shore side
89	White poplar	*Populus alba*	28	Shore side
90	White poplar	*Populus alba*	19	Shore side
91*	White poplar	*Populus alba*	45	Shore side
92*	White poplar	*Populus alba*	35	Shore side
93*	White poplar	*Populus alba*	47.5	Shore side
94*	White poplar	*Populus alba*	55	Shore side

[1] Seward Park Tree Inventory (Urban Forestry Services, 1nc. 2011) tree identifier
* Per City of Seattle DPD Director's Rule 16-2008, tree meets the definition of an "exceptional tree" (Urban Forestry Services, Inc. 2011)

Table D-7. Traffic Modeling - Existing Conditions

Potential Route	Intersection (West to East)	Control Type	LOS	Control Delay[1] (seconds/vehicle)
1	South Orcas Street / Rainier Avenue South	Signalized	B	10.8
	South Orcas Street / Wilson Avenue South	All-way stop	B	14.5
	South Orcas Street / Seward Park Avenue South	Two-way stop	B	10.1
2	South Genesee Street / Rainier Avenue South	Signalized	C	23.6
	South Genesee Street / 50th Avenue South	All-way stop	C	23.4
	Lake Washington Boulevard South / South Genesee Way	One-way stop	B	10.2
1 and 2	Lake Washington Boulevard / South Orcas Street	One-way stop	B	10.3
	Lake Washington Boulevard / South Juneau Street	All-way stop	A	9.4

[1] "Control delay" is a measure of the delay attributable to traffic controls (stop signs and signals). For the one-way stop-controlled intersection, the reported delay is for only one movement—the movement experiencing the worst control delay. For the all-way stop-controlled intersections, the reported delay is for the intersection as a whole. For the two-way stop-controlled intersection, the worst control delay (eastbound) is reported.

Table D-8. Traffic Modeling – Projections for Potential Construction Routes

Intersection		Control Type[1]	Existing Conditions		During Construction		Increase in Delay (sec/vehicle)
			LOS	Delay[2] (sec/vehicle)	LOS	Delay[2] (sec/vehicle)	
Route 1	South Orcas Street / Rainier Avenue South	Signalized	B	10.8	B	11.6	0.8
	South Orcas Street / Wilson Avenue South	AWSC	B	14.5	C	15.2	0.7
	South Orcas Street / Seward Park Avenue South	TWSC	B	10.1	B	10.5	0.4
Route 2	South Genesee Street / Rainier Avenue South	Signalized	C	23.6	C	24.7	1.1
	South Genesee Street / 50th Avenue South	AWSC	C	23.4	D	26.9	3.5
	Lake Washington Boulevard South / South Genesee Way[3]	OWSC	B	10.2	B	10.3	0.1
Routes 1 & 2	Lake Washington Boulevard South / South Orcas Street[3]	OWSC	B	10.3	B	10.3	0.0
	Lake Washington Boulevard South & South Juneau Street	AWSC	A	9.4	A	9.8	0.4

[1] OWSC = One-way stop-controlled intersection; TWSC = Two-way stop-controlled intersection; AWSC = All-way stop-controlled intersection

[2] "Control delay" is a measure of the delay attributable to traffic controls (stop signs and signals). For the one-way stop-controlled intersection, the reported delay is for only one movement - the movement experiencing the worst control delay. For the all-way stop-controlled intersections, the reported delay is for the intersection as a whole. For the two-way stop-controlled intersection, the worst control delay (eastbound) is reported.

[3] The worst control delay of the eastbound movement is reported.

Table D - 9 – Greenhouse Gas Emissions Part 1

Tennis Courts Alternative

Section I: Buildings						
			Emissions Per Unit or Per Thousand Square Feet ($MTCO_2e$)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	Lifespan Emissions ($MTCO_2e$)
Single-Family Home			98	672	792	0
Multi-Family Unit in Large Building			33	357	766	0
Multi-Family Unit in Small Building			54	681	766	0
Mobile Home			41	475	709	0
Education			39	646	361	0
Food Sales			39	1541	282	0
Food Service			39	1994	561	0
Health Care Inpatient			39	1938	582	0
Health Care Outpatient			39	737	571	0
Lodging			39	777	117	0
Retail (Other than Mall)			39	577	247	0
Office			39	723	588	0
Public Assembly			39	733	150	0
Public Order and Safety			39	899	374	0
Religious Worship			39	339	129	0
Service			39	599	266	0
Warehouse and Storage			39	352	181	0
Other - Storage Tank		22.5	39	1278	257	35420
Other - Outfall						19
					TOTAL Section I Buildings	35,439
Section II: Pavement						
						Emissions ($MTCO_2e$)
			Multiplier (MTCO2e/1,000 sf)			0
Pavement (sidewalk, asphalt patch)		9.8	50			490
					TOTAL Section II Pavement	490
Section III: Construction						
(See detailed calculations below)						Emissions ($MTCO_2e$)
					TOTAL Section III Construction	2,290
Section IV: Operations and Maintenance						
(See detailed calculations on previous page)						Emissions ($MTCO_2e$)
					TOTAL Section IV Operations and Maintenance	6
					TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT ($MTCO_2e$)	38,225

Section I: Buildings						
			Emissions Per Unit or Per Thousand Square Feet ($MTCO_2e$)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	Lifespan Emissions ($MTCO_2e$)
Single-Family Home			98	672	792	0
Multi-Family Unit in Large Building			33	357	766	0
Multi-Family Unit in Small Building			54	681	766	0
Mobile Home			41	475	709	0
Education			39	646	361	0
Food Sales			39	1541	282	0
Food Service			39	1994	561	0
Health Care Inpatient			39	1938	582	0
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Retail (Other than Mall)			39	577	247	0
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Public Order and Safety			39	899	374	0
Religious Worship			39	339	129	0
Service			39	599	266	0
Warehouse and Storage			39	352	181	0
Other - Storage Tank		22.5	39	1278	257	35420
Other - Outfall						19
					TOTAL Section I Buildings	35,439

Section II: Pavement				
				Emissions ($MTCO_2e$)
			Multiplier (MTCO2e/1,000 sf)	0
Pavement (sidewalk, asphalt patch)		34.2	50	1710
			TOTAL Section II Pavement	1,710

Section III: Construction	
(See detailed calculations below)	Emissions ($MTCO_2e$)
TOTAL Section III Construction	2,290

Section IV: Operations and Maintenance	
(See detailed calculations on previous page)	Emissions ($MTCO_2e$)
TOTAL Section IV Operations and Maintenance	6

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT ($MTCO_2e$)	39,445

Table D - 10 – Greenhouse Gas Emissions Part 2

Section III: Construction Details							
Construction: Diesel							
Equipment	**Diesel (gallons)**	**Assumptions**					
Semi Truck (Standard Engine w/ Flatbed)	920	92	round trips*	50	miles/round trip*	0.2	gallon/miles
Dump Truck (w/ Pup Trailer)	28,900	2890	round trips*	50	miles/round trip*	0.2	gallon/miles
Concrete Truck, Standard Rear Barrel, 9 CY	24,200	2420	round trips*	50	miles/round trip*	0.2	gallon/miles
Service/Work Truck/Van, Standard	16,513	3963	round trips*	50	miles/round trip*	0.08	gallon/miles
On-Site Generator,100 KW	4,752	198	equivalent days*	6	hr/day*	4	gallons/hr
Concrete Pump, Trailer Mounted, 60 HP	6,737	401	equivalent days*	6	hr/day*	2.8	gallons/hr
Drill Rig, Crane Mounted, Vertical, 190 HP	1,539	45	equivalent days*	6	hr/day*	5.7	gallons/hr
Excavator, CAT 350, 286 HP	33,618	431	equivalent days*	6	hr/day*	13.0	gallons/hr
Excavator with Roadheader, CAT 350, 286 HP	10,764	138	equivalent days*	6	hr/day*	13.0	gallons/hr
Bulldozer with Ripper, D10T, 580 HP	17,556	133	equivalent days*	6	hr/day*	22.0	gallons/hr
Front End Loader, 928F, 120 HP	3,276	156	equivalent days*	6	hr/day*	3.5	gallons/hr
Backhoe, CAT 426B, 79 HP	3,736	283	equivalent days*	6	hr/day*	2.2	gallons/hr
Crane, Lattice Boom, 200 ft, 260 HP	33,579	533	equivalent days*	6	hr/day*	10.5	gallons/hr
Asphalt Paver, 48 HP	900	10	equivalent days*	6	hr/day*	15.0	gallons/hr
Asphalt Compactor, 80 HP	180	10	equivalent days*	6	hr/day*	3.0	gallons/hr
Subtotal Diesel Gallons	**187,169**						
GHG Emissions in lbs CO_2e	**4,155,150**	22.2 lbs CO_2e per gallon of diesel					
GHG Emissions in metric tons CO_2e	**1,884.74**	1,000 lbs = 0.45359237 metric tons					
Construction: Gasoline							
Equipment	**Gasoline (gallons)**	**Assumptions**					
Construction Worker Personal Vehicles	27,090	8127	round trips*	50	miles/round trip*	0.067	gallon/miles
Subtotal Gasoline Gallons	**27,090**						
GHG Emissions in lbs CO_2e	**525,546**	19.4 lbs CO_2e per gallon of gasoline					
GHG Emissions in metric tons CO_2e	**238.38**	1,000 lbs = 0.45 metric tons					
Construction Summary							
Activity	**CO_2e in pounds**	**CO_2e in metric tons**					
Diesel	**4,155,150**	**1,884.74**					
Gasoline	**525,546**	**238.38**					
Total for Construction	**4,680,696**	**2,120**	Note: Value rounded to nearest 10				
Section IV: Long-Term Operations and Maintenance Details							
Operations and Maintenance: Diesel							
Equipment	**Diesel (gallons)**	**Assumptions**					
Vactor Truck	140	100 years * 1 round trip per year * 1.4 gallons per round trip					
Service/Work Truck/Van, Standard	400	100 years * 5 round trips per year * 0.8 gallons per round trip					
Watering Truck	96	3 years * 40 round trips per year * 0.8 gallons per round trip					
Subtotal Diesel Gallons	**636**						
GHG Emissions in lbs CO_2e	**14,119**	22.2 lbs CO_2e per gallon of diesel					
GHG Emissions in metric tons CO_2e	**6.40**	1,000 lbs = 0.45 metric tons					
Operations and Maintenance: Gasoline							
Equipment	**Gasoline (gallons)**	**Assumptions**					
Subtotal Gasoline Gallons	**0**						
GHG Emissions in lbs CO_2e	**0**	19.4 lbs CO_2e per gallon of gasoline					
GHG Emissions in metric tons CO_2e	**0.00**	1,000 lbs = 0.45 metric tons					
Operations and Maintenance Summary							
Activity	**CO_2e in pounds**	**CO_2e in metric tons**					
Diesel	**14,119**	**6.40**					
Gasoline	**0**	**0.00**					
Total for Operations and Maintenance	**14,119**	**6**	Note: Value rounded to nearest full number				

Table D-11. Fuel Consumption During Construction - Storage Tank and Associated Facilities

Equipment	Equivalent Days[1]	Round Trips[2]	Miles/ Gallon	Hours/ Day	Gallons/ Hour	Fuel Consumption[3] (Gallons)
Semi-truck, Standard Engine with Flatbed		92	5			920
Dump Truck with Pup Trailer		2,890	5			28,900
Concrete Truck, Standard Rear Barrel		2,420	5			24,200
Service/Work Truck/Van, Standard		3,963	12			16,513
Contractor Worker Personal Vehicles		8,127	15			27,090
On-Site Generator,100 kW	198			6	4	4,752
Concrete Pump, Trailer-Mounted, 60 HP	401			6	2.8	6,737
Drill Rig, Crane-Mounted, Vertical, 190 HP	45			6	5.7	1,539
Excavator, CAT 350, 286 HP	431			6	13	33,618
Excavator with Roadheader, CAT 350, 286 HP	138			6	13	10,764
Bulldozer with Ripper, D10T, 580 HP	133			6	22	17,556
Front End Loader, 928F, 120 HP	156			6	3.5	3,276
Backhoe, CAT 426B, 79 HP	283			6	2.2	3,736
Crane, Lattice Boom, 200 feet, 260 HP	533			6	11	33,579
Asphalt Paver, 48 HP	10			6	15	900
Asphalt Compactor, 80 HP	10			6	3	180

[1]"Equivalent Days" is the number of days the equipment would be used times the quantity of that piece of equipment. For example, during excavation for the storage tank and facilities vault, it is assumed there would be two excavators working at the same time, but during other phases of construction there would be only one. The equivalent days accounts for the fact that there would be different quantities of equipment being used on site during different phases of the construction.

[2]Round Trip is assumed to be 50 miles.

[3] All fuel would be diesel, except for Contractor Worker Personal Vehicles, which would be gasoline.

Table D-12. Fuel Consumption During Construction - Shoreline Enhancement

Equipment	Equivalent Days[1]	Round Trips[2]	Miles/ Gallon	Hours/ Day	Gallons/Hour	Fuel Consumption[3] (Gallons)
Dump Truck with Pup Trailer		75	5			750
Service/Work Truck/Van, Standard		240	12			1,000
Contractor Worker Personal Vehicles		240	15			800
Excavator, CAT 350, 286 HP	70			6	13	5,460
Backhoe, CAT 426B, 79 HP	155			6	2.2	2,046

[1]"Equivalent Days" is the number of days the equipment would be used times the quantity of that piece of equipment. For example, during removal of the existing shoreline protection, it is assumed there would be two backhoes working at the same time but during other phases of construction there would be only one. The equivalent days accounts for the fact that there would be different quantities of equipment being used on site during different phases of the construction.

[2]Round Trip is assumed to be 50 miles.

[3] All fuel would be diesel, except for Contractor Worker Personal Vehicles, which would be gasoline.

Table D-13. Fuel Consumption During Construction - CSO Outfall Replacement

Equipment	Equivalent Days[1]	Round Trips[2]	Miles/ Gallon	Hours/ Day	Gallons/ Hour	Fuel Consumption[3] (Gallons)
Semi-truck, Standard Engine with Flatbed		5	5			50
Dump Truck with Pup Trailer		20	5			200
Service/Work Truck/Van, Standard		90	12			375
Contractor Worker Personal Vehicles		180	15			600
Tugboat		4	0.12			816
Service/Support/Transport Boat		90	0.25			1,080
Excavator, CAT 350, 286 HP	15			6	13	1,170
Derrick Barge, Lattice Boom, 50 feet, 4 CY	30			6	12.5	2,250
Backhoe, CAT 426B, 79 HP	8			6	2.2	106

[1]"Equivalent Days" is the number of days the equipment would be used times the quantity of that piece of equipment. For example, during removal of the existing shoreline protection, it is assumed there would be two backhoes working at the same time but during other phases of construction there would be only one. The equivalent days accounts for the fact that there would be different quantities of equipment being used on site during different phases of the construction.

[2]Round Trip is assumed to be 50 miles for land-based vehicles and 24 nautical miles for water-based vehicles.

[3] All fuel would be diesel, except for Contractor Worker Personal Vehicles, which would be gasoline.

Table D-14. Annual Fuel Consumption During Operation - Storage Tank and Associated Facilities

Equipment	Round Trips[1]	Miles/ Gallon	Fuel Consumption[3] (Gallons)
Vactor™ Truck	1	7.4 [2]	1
Service/Work Truck/Van, Standard	5	12	4
Watering Truck [4]	40	12	33
Total			38

[1]A round trip is assumed to be 10 miles; the distance between the SPU operations facility and the site is 5 miles.

[2]Estimate based on heavy, single unit truck (U.S. Department of Energy 2011)

[3] Fuel would be diesel.

[4]Assumes weekly visits for a 5-month summer period for the first 3 years to water plants during their establishment period. These trips would also be used to water plants for the shoreline enhancement component, therefore, separate fuel consumption for the shoreline enhancement is not provided.

Table D-15. Electricity Usage During Construction - Storage Tank and Associated Facilities

Equipment	Quantity	Energy (kWh)
Tower Crane	1	85,000
Total[1]		85,000

[1]The tower crane represents the majority of the electrical use during construction. The number is based on a power demand of 40 kW, 8 hours per day, 5 days per week, and 52 weeks (40 x 8 x 5 x 52 = 83,200). Electrical use by other miscellaneous tools and equipment is factored in by rounding up to 85,000 and because the tower crane will likely not be used for an entire year (52 weeks).

Table D-16. Annual Electricity Usage During Operation - Storage Tank and Associated Facilities

Equipment	Quantity	Annual Energy (kWh)
Odor Control Exhaust Fan	1	65,700
Electrical/Mechanical Room Supply Fan	1	8,760
Electrical/Mechanical Room Exhaust Fan	1	8,760
Odor Control Room Supply Fan	3	8,760
Odor Control Room Supply Fan	1	8,760
Basin Drain Pump	2	10,512
High Pressure Booster Pump	1	3,504
Total[1]		174,324

[1]The annual energy consumed by the facility is estimated to be +/- 25 percent of this value; therefore, the annual energy consumed would be between 131,000 kWh and 218,000 kWh (6 to 10 homes).