



City of Seattle

Gregory J. Nickels, Mayor
Department of Planning and Development
D. M. Sugimura, Director

**CITY OF SEATTLE
ANALYSIS AND DECISION OF THE DIRECTOR OF
THE DEPARTMENT OF PLANNING AND DEVELOPMENT**

Application Number: 3009016
Applicant Name: Tara Wong Esteban for Seattle Public Utilities
Address of Proposal: 8526 Roosevelt Way Northeast

SUMMARY OF PROPOSED ACTION

Land Use Application to replace existing 60 million gallon open-water reservoir with a new buried 60 million gallon buried concrete reservoir in an environmentally critical area (Maple Leaf Reservoir). Existing reservoir to be demolished. Project includes 221,150 cubic yards of grading. Determination of Non-significance prepared by Seattle Public Utilities.*

Note: The project description has been revised from the following original notice of application: Land Use Application to replace existing 60 million gallon open-water reservoir with a new buried 60 million gallon buried concrete reservoir in an environmentally critical area (Maple Leaf Reservoir). Existing reservoir to be demolished. Project includes 220,900 cubic yards of grading. Determination of Non-significance prepared by Seattle Public Utilities.

The following approval is required:

SEPA – To impose conditions – (Chapter 25.05, Seattle Municipal Code.)

SEPA DETERMINATION: [] Exempt [] DNS [X]¹ MDNS [] EIS

[X] DNS with conditions

[] DNS involving non exempt grading or demolition or involving another agency with jurisdiction.

¹SEPA Determination of Non-Significance issued by Seattle Public Utilities on January 31, 2008 (VERIFY).

BACKGROUND INFORMATION

Site and Vicinity Description

This approximately 768,957 square foot (sq. ft.) site is located in a Single Family 5000 (SF 5000) zone with a portion (northern half) of the site located within the Northgate Overlay (NG). This property is bounded on the west by Roosevelt Way Northeast and a City Park (Maple Leaf Playground); on the south by Maple Leaf Playground and Northeast 82nd Street; on the east by Maple Leaf Playground, 14th Avenue Northeast, Northeast 85th Street dead end, commercial and residential properties; and residential properties to the north. Development on this City of Seattle Public Utilities (SPU)-owned site consists of a 60-million-gallon open-water reservoir (Maple Leaf Reservoir), a one-million gallon elevated steel water tank, a radio communication tower with accessory building, a treatment (liquid bleach) building, Roosevelt pump station and a reservoir gatehouse.

The site is accessed via three (3) locations: one (1) vehicular access point situated along Roosevelt Way Northeast; the south vehicular access gate on North 82nd Street; and the other (non-vehicular) entrance is situated at the intersection of 14th Avenue Northeast and Northeast 85th Street. Roosevelt Way Northeast is classified as a Principal Arterial street, pursuant to SMC Chapter 23.53 with sidewalks, curbs, street trees and gutters on both sides of the street. Northeast 82nd Street, 14th Avenue Northeast and Northeast 85th Street are non-arterial paved streets with curbs, sidewalks and gutters along one (1) side of the streets.

The topography of the site is varied. The upper part of the property is generally flat. The northwest corner of the site gently slopes from the elevated water tank downward towards the reservoir. The reservoir's south embankment is the steepest slope on site at 50%. Many mature trees are situated in this area. This area on the site has been identified as Environmentally Critical Area (ECA)-Steep Slope. The applicant has been granted a limited exemption (#6176181) from ECA steep slope development standards for all work associated with this project but ECA review is still required for the construction application(s).

Surrounding properties to the south of the subject property are also zoned SF 5000. Additional properties west and north of the subject site are zoned Neighborhood Commercial 2 (NC2-40) and SF 5000. Lowrise 2 (L-2) and SF 5000 zoning is identified east of the reservoir site. Existing developments in vicinity of the subject site are as follows: single family residences and Maple Leaf Playfield to the south; office buildings (currently under permit review to construct townhome cluster development housing) and single family residences to the east; commercial and residential properties to the west; and a commercial/residential building and single family residences to the north.

Proposal

The proposed redevelopment of the site involves the replacement of the existing 60-million-gallon open-water reservoir (Maple Leaf Reservoir) with a new 60-million-gallon buried concrete reservoir. The new reservoir will be located within the footprint of the existing reservoir. The reservoir is being replaced because of a regulatory requirement by the Washington State

Department of Health to cover all open drinking water reservoirs, and to address drinking water security concerns following the events of September 11, 2001.

The buried reservoir will create additional open space for public parks. As directed by Seattle City Council, future open space development over the buried reservoir is the responsibility of the Seattle Department of Parks and Recreation (DOPAR). Therefore, Seattle Parks and Recreation Department would submit its development of this area under a separate application. This proposal applies only to the reservoir burying work, which is the responsibility of Seattle Public Utilities.

The new 60-million-gallon buried reservoir will be constructed in the footprint of the existing reservoir basin. The plastic flexible membrane liner will be removed and disposed of. The existing concrete floor will be removed and material will be excavated down to firm bearing soil. Excavated soil will either be stockpiled and reused as backfill around the new reservoir or would be hauled off site and disposed of. The concrete on the side slopes will be demolished in the areas that interfere with the new reservoir construction and may be crushed for use as partial backfill or would be hauled off site and disposed of. If portions of the concrete side slopes are left in place during construction, the upper portion of the side slopes and the parapet wall will be removed to about 8' below finished grade and then covered with backfill after the reservoir is constructed. Reservoir access hatches, vents and other appurtenances will be clustered together at several locations near the edge of the buried reservoir. The clustered areas will be paved and fenced. The entire surface area of the new reservoir will be covered with a maximum of 2' of drainrock, soil and will be seeded with grass. New drain lines, supply lines and outlet pipe lines will be constructed leading into and out of the buried reservoir. The new lines will tie into existing drainage and outlet lines of the reservoir.

Excavation of approximately 126,850 cubic yards (cu. yds.) of material and infill of approximately 94,300 cu. yds. of new material is anticipated to occur during the construction of the reservoir, removal of contaminated soil and site improvements.

A bioswale drainage system landscape area is planned just northeast of the reservoir abutting 14th Avenue Northeast. Additionally, new landscaping consisting of sixty-four (64) trees and several native understory plantings are proposed in concentrated areas on the SPU property. Six (6) trees are planned to be removed and one (1) tree (4' Madrone) is proposed to be transplanted onsite. Tree protection measures are planned for the remaining trees within close proximity to the construction areas.

Street improvements consisting of curbs, sidewalks and street trees (10) are planned along the portions of 14th Avenue Northeast and Northeast 82nd Street that abut the reservoir property's boundary lines.

Minor internal modifications to the existing treatment building are proposed. This proposal does not include alterations to the existing elevated steel water tank, the radio communication tower with accessory building, the Roosevelt pump station and the reservoir gatehouse.

Upon completion of the buried reservoir, most of the existing fencing will be removed to allow for the open space to be developed by DOPAR. Sections of existing fencing would remain, and new fencing would be erected to enclose the existing sodium hypochlorite building at the east side of the site and the elevated water tank at the northwest corner of the site.

Public Comments

The required public comment period ended on August 13, 2008. DPD received one (1) written comment from King County Metro Transit Route Facilities regarding this proposal. Metro cited concerns regarding possible construction-related impacts to two (2) existing bus stops along Roosevelt Way Northeast and requested that they be contacted in advance of any impacts to these bus stops.

ANALYSIS – SEPA

Environmental impacts have been analyzed in environmental documents prepared by Seattle Public Utilities. These include a SEPA Checklist dated January 29, 2008 and a Determination of Non-Significance issued by Seattle Public Utilities dated January 31, 2008.

Seattle Municipal Code (SMC) Section 25.05.660 provides that proposals can be conditioned or denied in order to mitigate environmental impacts. All conditions must be related to impacts identified in the environmental documents, based on adopted policies, and must be reasonable and capable of being accomplished. This proposal is reviewed under that substantive SEPA authority.

The Department is reviewing the environmental impacts of the proposal in order to impose further conditions if necessary. Disclosure of the potential impacts from this proposal was made in the environmental documents listed above. This information, supplemental information provided by the applicant, comments and the experience of this agency with review of similar proposals form the basis of this analysis and conditioning.

Short-term Impacts

The following temporary demolition and construction-related impacts are expected: decreased air quality due to suspended particulates from demolition and building activities and hydrocarbon emissions from construction vehicles and equipment; increased dust caused by construction activities; potential soil erosion and potential disturbance to subsurface soils during grading, excavation, and general site work; increased traffic and demand for parking from construction equipment and personnel; conflict with normal pedestrian movement adjacent to the site; increased noise; and consumption of renewable and non-renewable resources. Due to the temporary nature and limited scope of these impacts, they are not considered significant (SMC 25.05.794). Although not significant, these impacts are adverse and, in some cases, mitigation is warranted.

Several adopted City codes and/or ordinances provide mitigation for some of the identified impacts. Specifically these are: Stormwater, Grading, and Drainage Control Code (grading, site excavation, and soil erosion); Street Use Ordinance (watering streets to suppress dust, removal of debris, and obstruction of the pedestrian right-of-way); the Building Code (construction measures in general); Environmentally Critical Areas Ordinance (protection of water quality and soil stability in environmentally critical areas) and the Noise Ordinance (construction noise). Compliance with these applicable codes and ordinances will reduce or eliminate short-term impacts to the environment and, with the exception of noise and parking impacts, they will be sufficient without conditioning pursuant to SEPA policies. Further discussion of short term construction-related noise, air quality, earth, grading and construction traffic and parking related impacts follows.

Noise

The site abuts an arterial, Roosevelt Way Northeast, which is a north-south roadway. Residential properties are situated north, south, east and west of the project site. Vehicular traffic, human voices from nearby residential properties and nearby facilities (Maple Leaf Playfield, etc.) are sited as existing noise sources.

Short-term noise and vibration from construction equipment and construction activity (e.g., backhoes, trucks, concrete mixers, generators, pneumatic hand tools, engine noise, back-up alarms, etc.); demolition of the existing reservoir; grinding concrete for use as backfill; and, construction vehicles entering and exiting the site would occur as a result of construction and construction-related traffic. Compliance with the Noise Ordinance (SMC 25.08) is required and will limit construction noise, registering 55 dB(A) or more at the receiving property line or a distance of 50 feet from the equipment, to the hours between 7:00 a.m. and 10:00 p.m. on weekdays, and between 9:00 a.m. and 10:00 p.m. on weekends and holidays. This level can be further reduced by 10 dB(A) between the hours of 10:00 p.m. and 7:00 a.m. during the weekdays, and between 10:00 p.m. and 9:00 a.m. on weekends where the receiving property lies within a residential district of the City (25.08.420). The use of impact construction equipment such as jackhammers, pile drivers and other loud noise emitters are restricted further in accordance with SMC 25.08.425.

To mitigate noise impacts resulting from demolition of the existing reservoir and construction of the buried reservoir, the SEPA checklists notes the following mitigating element of the proposal:

- Construction equipment will be muffled in accordance with the applicable laws. SMC 25.08, which prescribes limits to noise and construction activities, will be enforced during construction. Construction noise would normally be limited to the daytime hours in accordance with City noise regulations. Rarely, work could extend into evening hours or the weekend to respond to emergency, urgent or otherwise unscheduled needs.

Although compliance with the Noise Ordinance is required, due to the proximity of the project site to nearby residential uses, additional measures to mitigate the anticipated noise impacts may be necessary. The SEPA Policies at SMC 25.05.675.B and 25.05.665 allow the Director to require additional mitigating measures to further address adverse noise impacts during construction. Pursuant to these policies, it is the Department's conclusion that limiting hours of construction beyond the requirements of the Noise Ordinance may be necessary on this site. Therefore, as a condition of approval, construction activities (including but not limited to demolition, grading, deliveries, framing, roofing and exterior painting) shall be limited to non-holiday weekdays between 7:00 a.m. and 6:00 p.m. Interior work that involves mechanical equipment, including compressors and generators, may be allowed on Saturdays between 9:00 a.m. and 6:00 p.m. once the shell of the structure is completely enclosed, provided windows and doors remain closed. Non-noisy activities, such as site security, monitoring, weather protection shall not be limited by this condition.

Construction activities outside the above-stated restrictions may be authorized by the Land Use Planner when necessitated by unforeseen construction, safety, or street-use related situations. Requests for extended construction hours or weekend days must be submitted to the Land Use Planner at least three (3) days in advance of the requested dates in order to allow DPD to evaluate the request.

Air Quality

Demolition, grading and construction activities each may create adverse air quality impacts in the surrounding area. Additionally, the indirect impact of construction activities including construction worker commutes, truck trips, the operation of construction equipment and machinery, and the manufacturer of the construction materials themselves result in increases in carbon dioxide and other greenhouse gas (GHG) emissions that adversely impact air quality and contribute to climate change and global warming. It is the City policy to minimize or prevent adverse impacts resulting from toxic or hazardous materials and transmissions. The Seattle Stormwater, Grading and Control Code (SMC 22.800-22.808) regulates onsite grading activities and requires soil erosion control techniques be initiated for the duration of work. The Puget Sound Clean Air Agency (PSCAA) has local responsibility for regulation and permitting of stationary sources (i.e. power plants), construction emissions and the removal of hazardous materials such as asbestos.

The SEPA checklist notes that during construction, dust, fuel-powered equipment and commercial construction vehicle exhaust are the most likely types of emissions. The following measures are cited in the SEPA checklist and Appendix D (Construction Requirements) to reduce or control emissions during construction:

- Site-specific development would comply with PSCAA's regulations concerning construction activity.
- During excavation and construction, debris and exposed areas would be sprinkled as necessary to control dust.
- Truck wheels and undercarriages would be brushed and/or washed before exiting project site.
- Truck loads and routes would be monitored to minimize dust-related impacts.
- Clean streets regularly, as needed.
- Prolonged periods of vehicle idling would be avoided.

Existing regulations are sufficient to control short-term air quality impacts. No potential short term significant adverse impacts to air are anticipated and therefore conditioning air quality mitigation is not necessary.

Earth

The ECA Ordinance and Directors Rule (DR) 3-2007 requires submission of a soils report to evaluate the site conditions and provide recommendations for safe construction in areas with steep slopes, liquefaction zones, and/or a history of unstable soil conditions. Pursuant to this requirement the applicant submitted a Maple Leaf Reservoir Burying Project Geotechnical Report prepared by Jeffery A. Fowler, P.E. (SPU Materials Laboratory) dated October 31, 2007. The report evaluates the soil and site conditions and provides recommendations for erosion and drainage controls, slope stability, grading, earthwork, pipeline design, and foundation construction.

The summary of the Geotechnical Report findings is the following: *"In our opinion, the construction of an underground tank to replace the Maple Leaf Reservoir is feasible from a geotechnical engineering perspective."* The submitted report, which is located in the project file, further details the specific requirements for proper installation of foundations; pavements; floor slabs; drainage; excavations; grading techniques; site preparation and seismic considerations.

SPU's environmental documents and MUP plans indentify 13,500 sq. ft. of contaminated soils existing in the northwest portion of the property beneath the existing elevated steel water tank. This proposal includes voluntary removal of the contaminated soil.

A DPD Geotechnical Engineer has reviewed the abovementioned soils report in association with submitted plans and has deemed this soils report to be relatively complete for this proposal. The soils report, construction plans, and shoring of excavations as needed, will be reviewed again by the DPD Geotechnical Engineer and Building Plans Examiner who will require any additional soils-related information, recommendations, declarations, covenants and bonds as necessary to assure safe grading and excavation. Additionally, details concerning methods of removal of the contaminated soils will also be reviewed by the DPD Geotechnical Engineer. This project constitutes a "large project" under the terms of the Stormwater, Grading and Drainage Control Code (SGDCC) (SMC 22.802.015 D). As such, there are many additional requirements for erosion control including a provision for implementation of best management practices and a requirement for incorporation of an engineered erosion control plan which will be reviewed jointly by the DPD building plans examiner and geotechnical engineer prior to issuance of the permit. The SGDCC provides extensive conditioning authority and prescriptive construction methodology to assure safe construction techniques are used; therefore, no additional conditioning is warranted pursuant to SEPA policies.

Grading

Excavation for soil remediation and to construct the new buried reservoir will be necessary. Also, the import of fill to backfill around, underneath and on top of the new reservoir is planned. The maximum amount of grading proposed will consist of 221,150 cu. yds. of material. The contaminated soils and some of the uncontaminated soils removed will not be reused on the site and will need to be disposed off-site by trucks.

To mitigate erosion resulting from grading activities associated with the removal of the existing reservoir, contaminated soils and construction of the buried reservoir, the SEPA checklists notes the following mitigating element of the proposal:

- The contractor will be required to prepare and follow a temporary erosion and sedimentation control (TESC) plan in accordance to SMC 22.800. The TESC plan will need to be approved by the City prior to the beginning of any grading or excavation work.

The SGDCC requires an enhanced TESC plan be submitted for approval by DPD that identifies methods to be used to minimize off-site migration of contaminated soils. City code (SMC 11.74) provides that material hauled in trucks not be spilled during transport. The City requires that a minimum of one foot of "freeboard" (area from level of material to the top of the truck container) be provided in loaded uncovered trucks which minimize the amount of spilled material and dust from the truck bed en-route to or from a site. No further conditioning of the grading/excavation element of the project is warranted pursuant to SEPA policies.

Streets, Construction Traffic and Parking

The proposal includes onsite excavation/grading. The Street Use Ordinance includes regulations which mitigate dust, mud and circulation. Any temporary closure of the sidewalk and/or traffic lane(s) is controlled with a street use permit through the Seattle Department of Transportation

(SDOT.) It is the City's policy to minimize or prevent adverse traffic impacts which would undermine the stability, safety, and/or character of a neighborhood or surrounding areas (25.05.675 R).

SPU indicates the project would primarily generate traffic during the construction period, which may last for up to twenty-four (24) months (500 working days). SPU estimates there will be a few weeks of very intense construction traffic while other days will have minimal traffic. It is anticipated that future contractors will use the west vehicular entrance abutting Roosevelt Way Northeast. Construction flaggers may be used (as needed) at Roosevelt Way Northeast to assist vehicles approaching and leaving the site. If primary access entering and exiting the site is via Roosevelt Way Northeast, street parking may be disrupted during construction. Additionally, limiting street parking along one (1) side of Roosevelt Way Northeast may be necessary during work hours in order to accommodate construction traffic for large concrete pours and material deliveries.

The checklist notes the following mitigating elements of the proposal:

- SPU will work with the Seattle Department of Transportation to choose a haul route with the least impact on the community. The contractor will be required to submit a parking and traffic control plan for approval by the City, which will be in force during construction. SPU may require that all contractor vehicles (including employee's private cars) park within the fenced construction area to minimize off-site parking impacts.

Construction activities may result in obstacles to pedestrians. Similarly, traffic lanes and on-street parking may be affected by construction staging, deliveries, etc. Adverse impacts are not adequately mitigated by existing City codes nor has SPU specifically identified the City agency responsible for receiving and enforcing the approved parking and traffic control plan. Thus, additional mitigation is warranted pursuant to the Construction Impacts Policy (SMC 25.05.675 B). A construction-phase transportation plan addressing street and sidewalk closures, construction employee parking, as well as truck routes and hours of truck traffic will be required to mitigate identified impacts.

Long-Term Impacts

Long-term or use-related impacts anticipated from the proposal include: increased surface water runoff due to greater site coverage by impervious surfaces; and increased ambient noise associated with increased human activity.

Several adopted City codes and/or ordinances provide mitigation for some of the identified impacts. Specifically these are: The Stormwater, Grading and Drainage Control Code which requires on site collection of stormwater with provisions for controlled tightline release to an approved outlet and may require additional design elements to prevent isolated flooding; and the Land Use Code which controls site coverage, setbacks, building height and use and contains other development and use regulations to assure compatible development. Compliance with these applicable codes and ordinances is adequate to achieve sufficient mitigation of most long-term impacts. However, the proposal represents a substantial renovation of an existing City reservoir. Therefore, additional discussion regarding historic preservation and air quality is warranted.

Historic Preservation

Section 25.05.675 H of the SEPA code describes the City's policies for protecting historical sites. *"It is the City's policy to maintain and preserve significant historic sites and structures and to provide opportunity for analysis of archeological sites.....For projects involving structures or sites which are not yet designated as historical landmarks but which appear to meet the criteria for designation, the decisionmaker or any interested person may refer the site or structure to the Landmarks Preservation Board for consideration.....On sites with potential archaeological significance, the decisionmaker may require an assessment of the archaeological potential of the site."*

SEPA provides authority to mitigate impacts to historic buildings (SMC 25.05.675 H 2.c). In this instance, the existing reservoir is not designated as a historical landmark. However, because this proposal involves the demolition of a structure which is more than 50 years old, SPU hired Susan Boyle of BOLA Architecture and Planning to prepare a Landmarks Nomination Report. SPU submitted a Landmarks Nomination application to the Department of Neighborhoods (DON) Landmark Preservation Board. At the November 14, 2007 meeting of the City's Landmarks Preservation Board, the Board voted to deny the designation of the Maple Leaf Reservoir based on the finding that this property does not meet any of the designation standards of SMC 25.12.350.

Greenhouse Gas Emissions

Emissions from the generation of greenhouse gases due to the increased energy and transportation demands may be adverse but are not expected to be significant due to the relatively minor contribution of emissions from this specific project. The other impacts such as but not limited to, increased ambient noise, and increased demand on public services and utilities are mitigated by codes and are not sufficiently adverse to warrant further mitigation by condition.

DECISION - SEPA

The environmental checklist, Master Use Permit plans submitted on the project, public comment and responses to requests for information all comprise Department of Planning and Development's (DPD) record. Pursuant to SMC 25.05.600.D.1, DPD relies on the environmental documents and technical reports prepared by the Seattle Public Utilities in their role as lead agency. DPD has determined that the DNS issued and utilized for the environmental analysis of the *Maple Leaf Reservoir Project* and permitted herein, is adequate. The SEPA conditions listed below are imposed based on Master Use Permit (MUP) plans as well as on all environmental documentation submitted to date.

CONDITIONS - SEPA

Prior to the issuance of the Building Permit

1. In order to address construction related transportation and parking impacts, SPU shall submit to DPD bid document language that requires future contractors to submit a Construction Transportation Management Plan (CTMP) reviewed and approved by SPU and Seattle Department of Transportation (SDOT). A construction transportation plan for workers and truck deliveries/routes shall be prepared to minimize disruption to traffic flow on adjacent streets and roadways. This plan shall include a requirement that truck trips be

scheduled to avoid peak periods of 7:00-9:00 am and 4:00-6:00 pm, Monday through Friday. The plan shall consider the need for special signage, flaggers, haul route definitions, street cleaning; construction-worker parking; identification of potential street and/or sidewalk closures; coordination with Metro transit relative to construction activity that could affect transit service proximate to the project site; vehicle and pedestrian circulation and safety. The CTMP bid document language must be shown on the approved construction drawings.

During Construction

The following condition(s) to be enforced during construction shall be posted at the site in a location on the property line that is visible and accessible to the public and to construction personnel from the street right-of-way. If more than one street abuts the site, conditions shall be posted at each street. The conditions will be affixed to placards prepared by DPD. The placards will be issued along with the building permit set of plans. The placards shall be laminated with clear plastic or other waterproofing material and shall remain posted on-site for the duration of the construction.

2. The construction activities (including but not limited to demolition, grading, deliveries, framing, roofing, and painting) shall be limited to non-holiday weekdays from 7:00 a.m. to 6:00 p.m. Interior work that involves mechanical equipment, including compressors and generators, may be allowed on Saturdays between 9:00 a.m. and 6:00 p.m. once the shell of the structure is completely enclosed, provided windows and doors remain closed. Non-noisy activities, such as site security, monitoring, weather protection shall not be limited by this condition. Construction activities outside the above-stated restrictions may be authorized by the Land Use Planner (Tamara Garrett 684-0976) when necessitated by unforeseen construction, safety, or street-use related situations. Requests for extended construction hours or weekend days must be submitted to the Land Use Planner at least three (3) days in advance of the requested dates in order to allow DPD to evaluate the request.
3. SPU must submit the approved Construction Transportation Management Plan (CTMP) to the DPD Land Use Planner (Tamara Garrett) prior to the start of work. The contractor conducting the work must provide evidence of this document during the onsite pre-construction conference with DPD's Site Inspector and/or Building Inspector and comply with the provisions set forth by the approved CTMP.

Signature: _____ (signature on file) Date: April 13, 2009
Tamara Garrett, Land Use Planner
Department of Planning and Development

TG:lc

I:\garrett\DOC\SEPA\3009016 dec.doc