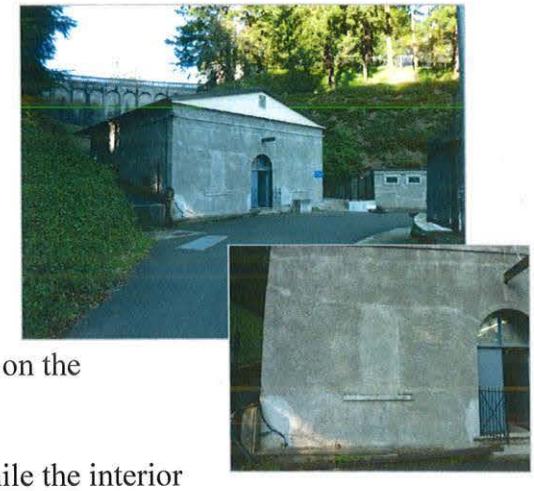
PUMP HOUSE 1

Reservoir 4 – Pump House 1



Concrete Wall, Floor and Roof

The building was built in 1894 as part of the original service construction. It is a poured in place concrete structure, rectangular in plan (small recess at northwest corner), measuring approximately 50 feet north-south and 36 feet east-west on the inside. The building is located below the Reservoir 3 dam and above the Reservoir 4 basin. It is situated close to the grade level on the Reservoir 4 side and is dug into the uphill slope.

The exterior is finished with a heavy texture plaster, while the interior is smooth and painted. The heavy exterior finish is believed to have been a later alteration, that covered cracks and also covered the raised door and window surrounds. The original parapet has a simple raised entablature. The original roof deck featured Ransome glass light sections in 18 of the coffered concrete spaces, and gabled skylights. The flat roof is intact, but it has been modified by the addition of a low pitched side to side gable that is framed in wood and has painted sheet metal roofing with short overhangs.

Door and window openings are typically arched with projecting sills. The windows flanking the front entry door on the south have been infilled. Roof drainage was originally by extruded ornamental concrete scuppers on the southeast and southwest corners that allowed runoff to cascade to the ground.

The exterior concrete walls are extremely thick, approximately 18 inches, possibly designed as such due to equipment vibration and noise as well as for strength due to their partially subterranean design. The concrete floor deck is finished with a smooth troweled topping slab and has a paint finish. The concrete roof deck that remains intact is supported on concrete cross beams. A previous tension beam has been replaced with steel framing, however original drawings indicated center posts. A steel equipment lift beam extends from above the center of the paired doors.

The exterior walls have been extensively repaired, most recently in 1988-89 under Water Bureau Project Number 3750, Washington Park Concrete Demolition and Restoration at the same time as work was performed on Gatehouse 3 and the rebuilding of 'Thumper'. Work included high flow crack injection [cementitious and epoxy], and patching. The walls remain in good condition, although since there was no exterior plastering, those repairs are visible. The damage was related to earth pressures against the partially underground building.

Condition/Observations: The scuppers are worn from use and weather exposure, but are no longer employed since the replacement roof has gutters and downspouts. The prior crack patching and window infills are visible. Door and window sills extend past the existing openings suggesting that former raised opening surrounds once existed.

Treatment Recommendations: Although the structure has been repaired from prior structural and weather problems, future rehabilitation could restore some of its original appearance while maintaining ease of maintenance.

Option A.1: Preserve and Repair – Maintain the walls in good structural condition. Clean and seal cornice band with breathable coating to reduce staining and deterioration.

Priority: Long-term

Option A.2: Preserve and Repair – Preserve and rehabilitate original rain scuppers.

Priority: Long-term

Option A.3: Preserve– Preserve Ransome lights and skylights.

Priority: Maintenance

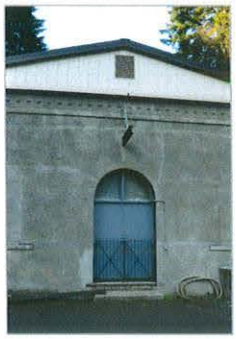
Option A.4: Preserve and Repair – Coat exterior with cementitious finish more consistent with original finish texture and concealing prior crack repairs; correct uneven window infill; restore door and window surrounds.

Priority: Long-term

Option A.5: Preserve–. Remove gabled roof construction and install membrane roofing over original concrete deck; provide new skylights to overlay and protect existing leaking Ransome lights; provide revised rain drains to prevent damage from the historic scuppers.

Priority: Long-term

Doors



The primary original entry is through an arched opening with a pair of inswinging doors in the center of the south side. This also serves as the equipment entry. There is a rectangular headed side entry on the east at the raised floor level. The doors are all replacements of the original doors, and consist of flush hollow metal with hollow metal frames. The arched transom on the south is divided in half and has an interior security grill. The current east door is over sized in width and appears to be lower than the original that probably consisted of a pair. On the interior, there are two heavy wood doors with half lights providing access at the raised floor area of the control room. These doors are 2¼" thick and have double glazing, presumably for sound attenuation.

Condition/Observations: The hollow metal doors and frames are in fair to good condition. The south doors have half height wrought iron gates and a cast iron threshold.

Treatment Recommendations:

Option A.1: Preserve and Repair – Maintain the existing metal entry door assembly as is. Preserve cast iron threshold; paint threshold.

Priority: Maintenance.

Option A.2: Repair and Replace – When the metal doors require a change, replace the metal entry doors and frame with historically appropriate wood doors matching the original height and width and design. Preserve the existing cast iron sill.

Priority: Long-term.

Windows

There are two remaining arched windows on the east side of the building. They have wood double hung sashes with 4/4 glazing and interior mounted security grilles. There were two windows on the south, each flanking the entry, and two on the north in a similar position. The west two have been removed and the openings infilled. The two openings on the north retain the wood frames, no sash, and have been infilled at the below grade exterior. Those north windows are now below the concrete valve chamber vault deck. There are interior wood framed relights allowing the control room visibility over the pump room.

Condition/Observations: The remaining exterior windows are in good condition.

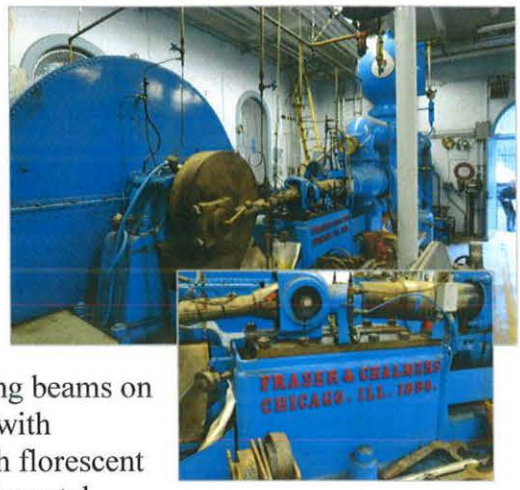
Treatment Recommendations: Restoration of removed window may not be feasible due to alterations in interior function and site limitations. Existing historic windows should be preserved.

Option A.1: Preserve and Repair – Preserve the wood windows. Provide needed minor repairs including caulking, patching and painting. Renew rope suspension on windows designated to be operable; Suspension improvements are not needed on inoperable units.

Priority: Maintenance

Interior Space

The interior of the main pump equipment room contains an original large pump on the east and three newer, but smaller pumps in a line on the west half. The room has a high ceiling that allows equipment repairs and removal. On the north end there is a separated and raised control room. The room is sound-proofed and allows for observation, recording and other tasks.



Manufactured by Fraser & Chalmers of Chicago in 1894, the large pump, with its Pelton Wheel and known as "Thumper", has been over-hauled and is operable, but it is no longer used because it requires intensive maintenance when running. The room contains three smaller electric pumps that are currently in operation. The pump room has painted smooth concrete finishes and surface mounted industrial florescent light fixtures. There are steel lifting beams on the ceiling. The control room has a raised wood floor with resilient flooring, and a suspended acoustic ceiling with florescent troffer lighting. Access to the room is by a non-historic metal stairway (1972).

Condition/Observations: The equipment is all kept operational. Although "Thumper" is not used, it is operational. The Pump House retains more historic equipment than the other buildings in the district. That equipment operates in conjunction with new machinery.

Treatment Recommendations:

Option A.1: Preserve and Repair – Preserve historic equipment; if no longer used, and space is required, develop alternatives for its preservation.

Priority: Maintenance

Option A.2: Preserve and Repair – Provide regular interior maintenance of interior finishes and equipment as necessary including floor painting.

Priority: Maintenance

Option A.3: Preserve and Repair – Develop historic interpretive materials describing the operation and design of the equipment and water system.

Priority: Long-term

Entry Steps and Context

The Pump House has a single concrete step that is the width of the door. The door threshold provides a shallow landing. The step is of recent construction. It appears to be narrower than the original step, just the width of the current door. The concrete sidewalks on the east and west sides have been replaced in recent times. On the east the height has been raised. The north side of the Pump House site was altered by a concrete platform that enclosed valves beneath. This work was done in conjunction with infilling of the building's north windows.

Condition/Observations: The entry is in good condition, although the step appears to have been narrowed. The perimeter walkways and platforms are in good condition. It was noted that the hillside to the west has displaced the short retaining wall and that geologic force is the likely cause for prior damage to the building structure.

Treatment Recommendations:

Option A.1: Repair and Replace – Replace existing step when deteriorated, with one matching the original design; coordinate with installation of raised door opening surrounds. There is sufficient room to provide a level landing with the revision.

Priority: Long-term

GENERATOR BUILDING

Reservoir 4 – Generator Building

Concrete Wall, Floor and Roof

The 1920's Generator Building is a small rectangular concrete structure located about 15 feet southeast of Pump House 1. The purpose of the building has been to provide power for facility lighting. The single-room building measures approximately 10 feet wide by 18 feet long. It has a low roof parapet with simplified ornamentation matching Pump House 1. The Generator Building is built into the east hillside and has retaining walls extending beyond its structure, with a steel sheet retaining system on the south and concrete on the north. There is a single door on the north end, a large louver and equipment exhaust on the south, and a row of three high windows on the west. The concrete walls are finished smooth. The parapet entablature, a 6-inch high base and raised window surrounds provide relief on the exposed sides. The roof has a modified bitumen membrane covering that terminates at the outside edge of the parapet coping with a sheet metal flashing. Roof drainage is handled by a scupper on the southwest corner designed similar to those at Pump House 1.

Condition/Observations: The building was rehabilitated in 1988 during Water Bureau Project Number 3750, Washington Park Concrete Demolition and Restoration, at the same time work at the Pump House was performed. Work included patching and crack filling. The walls are in good condition, although repairs are visible. There is staining below the scupper. The scupper was plugged and the roof was ponded to a depth of 6 inches at the time of inspection. Vegetation and soil from the hillside on the east has overgrown the roof.

Treatment Recommendations:

Option A.1: Preserve and Repair – Remove vegetation and lower soil level at the hillside above the structure to at least 12" below its roof line. Maintain roof drainage operational; install overflow drain.

Priority: Short-term

Option A.2: Preserve and Repair – Periodically clean and maintain the walls in good structural condition. Seal the cornice band with breathable coating to reduce staining and deterioration.

Priority: Maintenance

Option A.3: Preserve and Repair – Preserve and rehabilitate original rain scupper.

Priority: Long-term

Option A.4: Preserve and Repair – Coat exterior with cementitious finish to conceal prior crack repairs.

Priority: Long Term

Doors

There is a single entry door on the north end. It is a non historic metal door with a full ventilation louver set in a metal frame.

Condition/Observations: The non-historic door is in good condition.

Treatment Recommendations:

Option A.1: Preserve – Maintain the existing non original door.

Priority: Maintenance.

Option A.2 Preserve and Repair– Replace the current door when worn out with a door similar to the original construction.

Priority: Long-term.

Windows

There are three painted metal awning style windows on the west side. These windows are replacements of the original wood windows work that was performed as part of Water Bureau Project Number 3367, Washington park Open Reservoirs 3 and 4 Improvements in 2003-2004.

Condition/Observations: The non-historic windows are in good condition.

Treatment Recommendations:

Option A.1: Preserve – Maintain the existing non original windows.

Priority: Maintenance.

Option A.2 Preserve and Repair – Replace the current windows when worn out with windows similar to the original construction.

Priority: Long-term.

Interior Space

The interior is finished as smooth painted concrete. The equipment is not historic.

Condition/Observations: The equipment has been changed as needed over time. The interior wall paint needs refinishing.

Treatment Recommendations:

Option A.1: Preserve – Maintain in current condition; repaint.

Priority: Maintenance.

Entry Steps and Context

The building is situated at grade. There is a newer concrete retaining wall to the north and an older metal sheeting retaining wall to the south. The grade between the Pump House and this building has been revised so that the adjacent roadway is elevated with respect to the entry. There are steps down from this level to the Generator Building and to the site. The entry is secured by 6-foot high metal fencing on this raised concrete level.

Condition/Observations: The concrete is of recent construction and is in good condition.

Treatment Recommendations: The entry context has been slightly reconfigured from the historic layout and no alterations are advised.

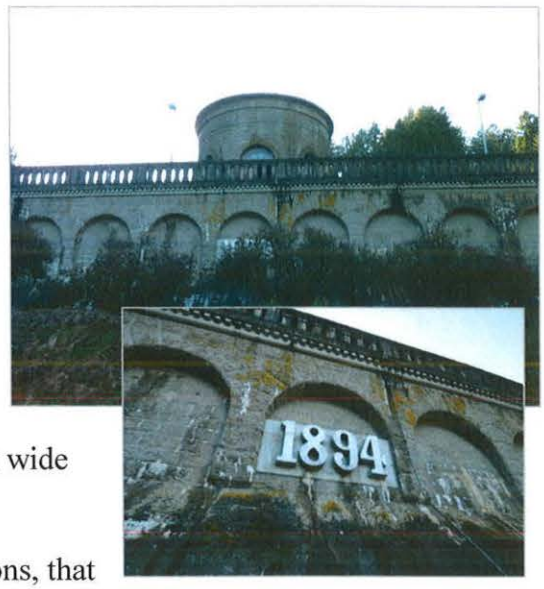
Option A.1: Preserve – Maintain in current condition.

Priority: Maintenance.

SITE

Reservoir 4 – Site

Reservoir Structure and Dam



The reservoir was formed utilizing the downstream slopes below Reservoir 3 on both the north and on the southwest with the construction of a dam on the east side. At a hydraulic grade line of 229 feet, the reservoir serves by gravity the lower portions of downtown Portland and northwest neighborhoods to approximately NW 10th Avenue. It also supplies other areas by pumping. The resulting basin has a concrete lining, similar to Reservoir 3. At the north end, a vehicle ramp descends southward allowing for maintenance. The basin is approximately 180 feet wide by 600 feet long.

The construction included extensive drainage provisions, that allowed the drainage tunnels to dewater the adjacent slope above the reservoir. These systems are still in operation. The reservoir has had various waterproofing repairs over time, but still relies on its original concrete lining. There is an overflow with stainless steel grating at the southeast corner. A stainless steel pipe framework descending from the dam and gatehouse walls into the reservoir is intact. This structure was installed in 1997 to allow the proposed reservoir cover to be pulled back for basin maintenance.

The straight 230-foot long dam has a wide base formed by the 1½: 1 slopes on either side of the dam. These slopes narrow at the top to provide a 10-foot wide vehicle lane. The surface is approximately 20 feet high from the walkway to grade. It has guard walls on each side (discussion is included under Basin Wall Assembly), but without defined walkways. The dam is concrete with an earthen embankment on the downhill side. On the free side, the design employs a rusticated block pattern from the base upward. The top section uses the design of a blind arcade of embossed stone pattern to give the appearance of a classic viaduct similar to the Reservoir 3 dam. This is achieved by forming the arched structure portion (arches at 10-foot centers) and roadway walls vertically, while the lower wall continues up and into the arches maintaining its slope. This dam is longer but lower in height than that of Reservoir 3.

Condition/Observations: The basin lining has numerous patches that give it a spider web appearance. The dam has heavy staining and biological growth on its lower sloped walls and below top drainage outlets. Water leakage appears to have been an ongoing issue, as evidenced by the extent of efflorescence and calcium/lime buildup at numerous locations on the lower portions of the downstream dam face. Some areas were wet during the site observations, indicating leakage is continuing.

The wall of the dam is heavily stained from the long term effects of moisture and biological matter. The lower section with block pattern design is nearly black, as is the exterior side of the guard rail. PVC pipe drains have been installed along the roadway on the open side.

Treatment Recommendations:

Option A.1: Preserve and Repair – Gently clean the concrete dam face, walls and urns; test for water absorption, perform patch tests; install cementitious patching to rebuild severely deteriorated areas; apply a breathable sealer to the wall caps and urns.

Priority: Short-term

Option A.2: Preserve– Provide regularly scheduled cleaning of the dam face to reduce biological and environmental damage and the subsequent need for stronger cleaners; consider application of a breathable sealer to deter soil build up for this very prominently visible structure.

Priority: Maintenance.

Option A.3: Preserve and Repair – Maintain the reservoir basin structure, and monitor leaking. Provide waterproofing or basin liner as necessary similar to the other basins to preserve structural integrity.

Priority: Maintenance, Long-term

Option A.4: Preserve and Repair – Remove stainless steel pipe framework that was installed for the reservoir cover maintenance.

Priority: Long-term.

Option A.5: Preserve and Repair – Restore original paving located beneath the asphalt overlay.

Priority: Long-term.

Site Wall (Parapet Wall) Assembly

Similar to Reservoir 3, the basin has a low concrete parapet wall with wrought iron fence. Along the dam portion on the east side, there is a 42-inch high guard wall on the free side that is designed as a massive square sectioned balustrade. Each end of the dam's open railing is punctuated by a large ornamental, square shaped concrete base that is 3½ feet wide and 6 feet high, similar to lighting bases at Reservoir 3 but without any remains of their metal lampposts. On the reservoir side, the guard wall is solid, 38 inches high, with a raised diamond pattern set within recessed panels, also similar to that at Reservoir 3. The pattern on this side is mostly obscured by multiple (7) electrical service conduits and the metal plate pipe protection assembly from Pump House 1 to the Gate House. The wall also features a projecting crowned and chamfered cap, an apron beneath, and a projecting base.

Beyond the dam, it is a heavily battered wall with a smooth finished concrete and without pattern or base. The cap and fencing continues, however. The six foot high fence consists of decorated upper and lower rails, and vertical bars alternating in height all with a spear design. The end posts of the fence segments are set into the concrete cap and have a curved brace on the reservoir side. There are a total of seven, four-sided ornamental fence columns serving as light poles. At these locations the concrete wall widens to receive the metal post. These posts retain the wrought iron top that once held gas lamps which provided walkway lighting. At the Gatehouse the wall returns to join the Gatehouse wall. Provisions are made in the wall and fence for basin ramp access by vehicles at the north end by Pump House 1. Current lighting is from free standing tapered aluminum posts with shoe box style fixtures located at the edge of the walkway next to the rail wall, security measures have been retrofitted to these poles and to a few new poles. (*Lighting ca 1975, 250w High Pressure Sodium lamps, spaced at 50-foot interval*)

Condition/Observations: The low wall has normal wear and tear associated with its age. There have been some prior patching repairs (most with noticeable color difference), but many defects remain, including some exposed reinforcement. Walls are heavily soiled and stained. Lighting on the fence was discontinued long ago, and none of the actual fixtures are in place, although the framework is still extant. Multiple electrical conduit feeds for the newer separate pole lighting and security measures are surface mounted to the walkway side of the low wall and provide a junction point to feed each of the new metal lamp posts. The installation nearly covers the wall making it difficult to perform repairs. Additional security measures include cameras mounted on these and newer posts. The wrought iron fence is intact, but rusted. It needs repairs and needs to be repainted.

Treatment Recommendations:

Option A.1: Preserve and Repair – Gently clean the concrete basin walls; test for water absorption, install patch tests to develop best match; install cementitious patching to rebuild severely deteriorated areas; apply a breathable sealer to the wall caps.

Priority: Short-term

Option A.2: Preserve and Repair – Preserve metal fencing and light fixture posts; make repairs and repaint.

Priority: Short-term

Option A.3: Preserve and Repair – Test the basin walls for water absorption; seal the guard railing wall cap and urns with a breathable sealer if appropriate; due to the large area involved select only most needed elements for treatment.

Priority: Maintenance

Option A.4: Preserve and Repair – Rehabilitate historic light fixtures and posts; provide new lighting for ambiance.

Priority: Long-term

Option A.5: Replace – Replace existing modern poles and light fixtures with units that are historically appropriate.

Priority: Long-term

Option A.6: Preserve and Repair – Rehabilitate-restore the historic triple lamp posts at the ends of the dam; provide new lighting for ambiance.

Priority: Long-term

Option A.7: Repair - Replace – Remove-consolidate electrical and data conduits that obscure the wall pattern.

Priority: Long-term

Walkways

The basin wall is surrounded by a five foot wide concrete walkway (scored into 30 inch squares) that extends around the south and west sides of the reservoir. At the north end on the west side as the roadway descends, the walkway narrows to approximately three feet in width. This width continues around the north end next to the wide roadway. Along the east side, it is four feet wide. The walk is scored in squares and has a light finish. On the outer side of the walkway, there is the two foot wide gutter and low curb section that extends to the toe of the hill slope to receive and direct surface runoff. Historic drains are located at the gutter ends. Those grates are straight bar type made of cast iron. In addition, there are several cast iron lids around the perimeter of the reservoir. The gutter perimeter changes from a low curb wall to a tall retaining wall as the hillside requires. These walls are constructed as a battered (leaning back) wall with a rock faced block finish pattern, but repeating the smooth finish cap.

Non-historic poles with lighting and security cameras (50-foot spacing) are located adjacent to the low wall around the basin and dam. The reservoir wash down piping and associated equipment is located just outside of the perimeter gutter curb. The system includes valves and risers for hose connections.

Condition/Observations: The walkway has some damaged areas, including broken slabs, corners, spalls, and roughened surfaces, but is generally in good condition. Portions of the paving have been replaced as part of electrical and security improvements. On the west side, some walkway and accompanying gutter have been replaced (earth movement zone). The pavement tooling pattern at this section does not match the original and the gutter has a "V" shaped profile instead of the broad "U" shape. The gutter is in worse condition than the walkway having many deteriorated sections and largely soiled. The outer retaining walls are heavily soiled and mossy, there are some areas of surface damage to the original block pattern.

Treatment Recommendations:

Option A.1: Preserve and Repair – Clean and preserve existing paving and gutter.

Priority: Maintenance

Option A.2: Preserve and Repair – Clean soiled walls, patch spalls and cracks to match original design, texture and color; monitor hillside irrigation to prevent excessive moisture from damaging retaining walls.

Priority: Maintenance

Option A.3: Repair - Replace – Replace, patch damaged walkway slab; match original paving pattern and texture.

Priority: Long-term

Option A.4: Repair - Replace– Replace, patch damaged gutter sections with new to match original pattern.

Priority: Long-term

Option A.5: Preserve and Repair – Preserve historic grates and assorted historic metal lids.

Priority: Maintenance

Option A.6: Replace – When worn, replace walkway and gutter sections not matching original design with new to match original pattern.

Priority: Long-term

Other Features

Between Pump House 1 and the Reservoir 3 Dam, there are multiple valve tunnels and associated concrete walls and stairs with painted steel railings. Access to the tunnels is by (replacement) flush steel doors. These installations date to the historic period; but there have been ongoing equipment alterations as needed. There are also stairs, with newer square sectioned railings, ascending to a former caretaker's cottage.

A former caretaker's home once was located on the mid-level rise to the northeast of the reservoir and outside of the security fence. Although the home is no longer in existence, the paths, stairs and approaches still remain. These include a concrete stairway and top landing that descends south and east from the house site toward the lower reservoir approach road. The original paving finish was ribbed crosswise to the direction of travel. This stairway connects to another stairway constructed of red brick. A bit lower and to the south there is a contoured 7-foot wide approach, possibly for vehicles, that is constructed of stone and has a brick and cement gutter on one side and mortared basalt stones as a curbing on the other side. To the north and descending to Pump House 1, there is a paved path with several concrete stair runs having steel pipe railings.

As at Reservoir 3, much of the perimeter of the site is controlled by a 6-foot high painted steel picket fence installed in 2008. The fence is constructed with pickets and posts of tubing and horizontal channel supports. The remainder of the less visible perimeter is controlled with a previously utilized chain link fence. A wash down piping system is located outside of the reservoir walkway. The system includes valves and risers for hose connections.

The drive up the west slope to Reservoir 3 was the traditional access route.

Condition/Observations: The exposed portions of the gate tunnel accesses are in fair condition; the concrete is covered with moss, and railings are in need of painting.

The stone wall along the access drive is covered with ivy and vegetation.

The remaining stairs and paths to the former caretaker's cottage are in fair condition. The roadway and curbing are deteriorated from effects of weather and lack of use.

The perimeter fence and gates are in good condition.

Treatment Recommendations:

Option A.1: Preserve - Repair– Maintain gate tunnels and access stairs and railings; if required to alter, provide documentation.

Priority: Maintenance

Option A.2: Preserve - Repair – Remove vegetation from the stone wall at west drive, repair masonry as needed.

Priority: Maintenance

Option A.3: Preserve - Repair – Preserve stairs and road improvements to former caretaker's cottage.

Priority: Maintenance

Option A.4: Preserve– Preserve the non historic, but historically compatible fencing and its gates.

Priority: Maintenance

Option A.5: Repair - Replace – The level location of the former caretakers cottage could be utilized for a future facility; document alterations to existing improvements prior to development; possible historic photographs.

Priority: Long-term

FOUNTAINS

Reservoir 4 - Fountains

There are two water fountains that are considered as historic contributing objects. At the north end of Reservoir 4 dam, adjacent to the entry drive and situated in a stone alcove, is a small public fountain structure consisting of a receiving bowl in front and engaged with a water supply pedestal. It is constructed of cast concrete with a design similar to iron from the same period. It appears that water flowed up the pedestal and out its side arm to a bubbler to allow drinking. The low receiving bowl caught excess water and directed it to the adjacent reservoir drainage gutter. It is and was originally located just outside of the security fencing to allow public use.

The second fountain was located adjacent to the generator building. Also constructed of ornamental cast concrete, this fountain features a 16 inch diameter circular basin atop of a tapered octagonal pedestal with a square base, three feet high overall. It was removed from its location at the time of the previously proposed reservoir covering project and is now temporarily located in storage at Pump House 2.

Condition/Observations: The public fountain, located just outside of the security fencing, is largely intact. The outside of the receiving bowl has spalled-broken corners. There is also some minor wear and surface damage on the bowl and pedestal. The interior of the basin and splash area is heavily stained. Plumbing fittings are missing and the site is overgrown. The fountain probably operated continuously.

The smaller second fountain has two thirds of its basin missing, and two of the base corners are broken off. There is some staining. The interior pipe and bronze fitting are intact.

Treatment Recommendations:

Option A.1: Preserve– Repair - Public Fountain: Patch and repair concrete; clean concrete. Clean up adjacent landscaping.

Priority: Maintenance

Option A.2: Preserve– Repair - Public Fountain: Restore for operation: refit plumbing, fit with bubbler and operator for on demand use.

Priority: Long-term

Option A.3: Preserve– Pedestal Fountain: Preserve in storage until able to restore.

Priority: Maintenance

Option A.4: Preserve– Repair - Restoration: Pedestal Fountain: cast a replacement bowl, patch base corners, clean concrete. Restore for operation: refit plumbing, fit with bubbler and operator for on demand use. Consider relocation to a public area.

Priority: Long-term

Option A.5: Preserve - Provide interpretive signage for the two fountains.

Priority: Long-term

Appendix A

APPENDIX A
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Appendix B

APPENDIX B
CONSTRUCTION AND MATERIALS REFERENCE GUIDE

CONCRETE WALLS AND STRUCTURE

Concrete is a durable material; its alkalinity helps deter damage from vegetation; concrete readily absorbs moisture both from the ground and from precipitation; water and moisture is the principal agent for deterioration; damaged and weathered concrete deteriorates at an accelerated pace.

Observations Encountered, Issues and Concerns:

- **Surface wear and deterioration, erosion** – The original finish has weathered with loss of cement and some fine aggregate, exposing a rough surface, larger aggregate; This surface now absorbs more moisture and holds soiling; This slow deterioration is part of the natural weathering process and may not be a significant issue, depending on location and severity; if on the top of the building parapet, this surface can then be expected to allow more moisture to enter the wall, causing further damage eventually; General Treatment: refinish, seal, coat or cover to slow or eliminate moisture.

- **Soiling, Staining** – The finish of the concrete is soiled from environmental conditions, or is stained from metals (usually ferrous) attached to the concrete, or interior reinforcement that is exposed to weather; stains from leaking drains, pipes or downspouts; stains also from salts or effloresecence; Typically a localized condition, though may be quite noticeable and detracting; if left untreated the stain will become more difficult to remove; General Treatment: soiling: clean by gentlest means; stains: remedy the situation producing the stain, then clean, repair the concrete; corrosion protection or isolation for metal staining; choice of materials and design.

- **Shrinkage cracking** – Generally small, somewhat random cracks, particularly in floor and roof slabs where there are minimal (or no) control joints; usually these are not a concern except where numerous and there is significant contact with water, in those cases the cracks can become channels and cause greater damage General Treatment: where protected, such as interior floors or under a roofing membrane no treatment is normally required; where treatment is advised, appropriate application of sealing or coatings.

- **Cold joints** – Though wall hairline cracks resulting from the original concrete setting during the construction; as with shrinkage cracking, these cracks are generally not of concern, and do not become a problem; the condition is more of a concern where a wall is exposed on both or all sides, such as a building parapet; General Treatment: monitor the condition to determine if it is worsening; no treatment is normally required; where treatment is advised, appropriate application of sealing or coatings.

- **Corrosion, freeze-thaw and structural cracking** – Generally larger cracks or spalls due to moisture within the concrete expanding during the freeze cycle; the moisture may also cause rusting and of the reinforcement which then expands and cracks the concrete; structural cracks may be caused by overloading, settlement, or thermal reasons; most cracking observed is associated with corrosion or freeze-thaw; (no settlement or overload cracking was observed); these are typically larger cracks that readily allow entry of water and further damage, these cracks have a priority for repair; General Treatment: determine the extent and cause of damage; remove-remedy problem source; repair may

include removal of concrete material; infill-inject the crack with cementitious, specially formulated material; epoxy grout may be necessary for structural reasons, final surface treatment may be advised if visibly prominent.

- **Spalls** – Loss of surface material in various sizes due to prolonged deterioration; may also be the result of deteriorated surface finish or prior patch failure; spalls can vary in extent and severity, may be isolated or rather continuous; consider each as the possibility for further damage and deterioration; General Treatment: determine the extent and cause of damage; usually removal of more concrete is necessary to achieve adequate bonding with patching material; adequate preliminary product research is necessary; generally use of very similar materials to the original; where visibly prominent, allow for on-structure test samples, then on structure samples to determine the best composition, texture, and appearance particularly if it is to be left unfinished; allow for proper curing and install in suitable weather conditions to best control result

- **Design or construction defects** – Rock pockets, voids, less than ideal mixing and placement, reinforcement too close to the surface; many of these defects are not an issue and many are unknown unless there is a failure; General Treatment: professional engineering consultation is necessary for revision of the problem, such as reinforcement being too close to the surface; the repair may include revising the localized condition, or a clean or repair patch method if a spall was encouraged by cracks or less serious conditions

CONCRETE WALKS AND STAIRS

The concrete walkways and site stairs are of durable construction, but are susceptible to deterioration from soil movement or erosion, and to the effects of adjacent vegetation.

Observations Encountered, Issues and Concerns:

- **Cracking Issues** – Cracking of walkway slabs or stairways can be from a variety of reasons: Overloading, inadequate control joints, tree roots, or loss of base support. Most of the cracking issues observed are due to loss of subsurface base support; the original compacted gravel is no longer adequately supporting the concrete slab; soil fine particles may have washed into the gravel, or the gravel worked downward into the soil; lack of adequate control joints, tree roots were not observed to be an issue. Overloading is a problem at Gatehouse 5 entry plaza (in conjunction with loss of support) where vehicles traverse the concrete. General Treatment: The usual treatment for broken slab corners is to remove the damage and pour new concrete; at larger repairs, removal of the slab sections and installation of new compacted gravel base along with the slab is recommended; filter fabric installed under the gravel retains the separation of gravel and fine soil particles below; the replacement concrete should have a finish, color and texture to match the original, some of which had cross ribs tooled for traction, and most did not have border trowel marks – simply a bullnosed edge.

- **Spalls** – This is primarily a concern at steps and stairways; spalls may be damage caused from force, freeze-thaw, due to advanced cracking, or in association with metal handrails. General Treatment: The usual treatment is to patch the broken area; advance samples are necessary especially in important visual areas since it is difficult to obtain patches that match the original, but worn adjacent concrete. Most of the original stair concrete has a cross rib pattern that has not been duplicated in previous repairs. Replacement of larger sections may require dowelling the new work into the existing to maintain surface continuity.

- **Landscape Issues** – Several issues arise in association with the adjacent landscape: erosion of the surround or adjacent grade which then allows undermining of the concrete walkway or stair base; the

reverse: gradual build-up of the adjacent grade so that the walkway can no longer drain properly, and staining due the biological matter; each of these issues was observed. General Treatment: Correct grading issues as work in the area is scheduled – this is preventative maintenance; staining or moss build up is not a concern unless a safety issue or if well advanced.

METAL WORK

The historic architectural metals used and still existing are primarily iron, (cast, wrought, formed), and steel. Various metals and alloys were used for piping, machinery and equipment – the treatment of those materials and their applications are not discussed in this document. The architectural metals were used for the reservoir perimeter wall fencing and lampposts, valve platforms, interior stairways, handrailing and door thresholds. These metals were designed to last a long time, their main causes of failure being corrosion, or breakage due to loss of support. Painted metals should be assumed to have been originally (and subsequently) coated with lead containing paints and primers. Use of bright stainless steel in visible locations is to be avoided. Refer to Preservation Briefs #27 (Cast Iron) and #13 (Steel Windows) for more information on repair and refinishing.

Observations Encountered, Issues and Concerns:

- **Cast Iron** – Cast iron was used for roof drain piping, often inside concrete walls, valve platform grating, and door thresholds. Being a brittle material and very susceptible to corrosion, it needs to be protected well with paint and supported adequately to prevent breaking. Cast iron members are typically very thick, which allows more wear and tear than their steel counterparts.

    - Repairing in wall roof drains is not feasible, and their leakage will cause damage to the concrete wall.

    - Replacement drain pipes may be interior or exterior surface mounted.

    - The cast iron platform grating is very thick, and if kept supported and coated, will last indefinitely. The chief issue is that the iron support framework can become deteriorated and allow uneven support that can then cause breakage. The grating can be salvaged and reused for grating. Due to the grating weight and difficulty in working with cast iron, its removal and reuse requires planning. The easiest preservation route is to maintain it in place, and provide additional support framework.

    - Cast iron thresholds are durable and still suitable. Maintenance includes cleaning and refinishing, and possibly regrouting with a non shrink cementitious grout where concrete base has deteriorated.

- **Iron and Steel Corrosion** – Light to moderate corrosion can be removed by mechanical abrasion keeping the item in place, such as wire brushing, sanding, light sand blasting, or chemical cleaning. Heavy corrosion requires light sandblasting, or removal of the section and chemically dipping, and possible abrasive follow up cleaning.

- **Aligning Bent Iron and Steel Sections** – Minor corrections may be possible in the field. More significant damage will generally require removal of the metal work and corrections in a shop situation with the use of heat and corrective support bracing.

- **Adding Repair Sections Iron and Steel** – New metal to be spliced into the existing is necessary when there is significant damage or deterioration. This work may involve making a clean cut on the

existing member and then welding or mechanically attaching the new section. New metals should match the profile and materials of the existing material. Avoid mixing materials that can create galvanic corrosion without adequate separation. Welds should be ground smooth and flush and coated well. Screws and bolts should be non corrosive or hot dipped galvanized, all primed well and painted.

- **Anchorage Repairs for Iron and Steel** – Anchorage points are often the first to become deteriorated; either from stress-strain or deterioration. Anchorage points to concrete are susceptible to corrosion. There are optional means for repairs, including new replacement anchor pieces replacing member anchorage, additional supports that reuse the existing anchorage, or simply new bolts or screws where only those have failed. The anchors should be non corrosive or hot dipped galvanized, all primed well and painted. Anchorage devices may include bolts (drilling preferred over power driven) with expansion shields, bolts that are epoxy grouted, and metal members directly set into concrete with nonshrink grout.

WOODWORK, WINDOWS, DOORS

Woodwork in the district is fairly limited on the exterior of buildings, consisting of the windows and doors. On the interior historic woodwork includes doors, relights, as well as partitions (some ceilings) and their trim. Wood is susceptible to changes in moisture that causes expansion and contraction, that then challenges working parts and paint coatings. Exterior wood requires periodic maintenance of paint and sealants to preserve the wood in good condition and avoid extensive repairs from weatherization or decay. Refer to Preservation Briefs #9 (Wooden Windows) and #10 (Exterior Paint) for more information on repair and refinishing.

Observations Encountered, Issues and Concerns:

- Periodic Maintenance – Preventative maintenance is key as it greatly reduces damage for exterior wood. When the paint coating or weather seals expose the wood, it is much more difficult to recoat successfully.

- Minor Repairs – Minor repairs should always be anticipated when repainting. These include crack filling (use high quality, flexible material made for wood), patching, removal of no longer needed anchors and brackets, reattachment of loose members (use non-corrosive nails, screws), caulking (paintable, high grade sealant) reputtying loose glass (oil based glazing putty, painted afterwards).

- **Window Repairs** – For sash that is desired to operate: provide missing hardware to match original and replace broken suspension chains-ropes (requires removing sash stop and sash to gain access to counter weight pocket).

- **Exterior Window Sills** – Close attention should be paid to the exterior sill condition, the member is difficult to remove and being horizontal, is most susceptible to decay. Damaged portions can be stabilized and repaired by patching with high quality wood epoxies that kill decay producing spores, use the remaining soft wood frame and infill voids.

- **Repairs Using Splices and Replacements** – Where the wood is sufficiently deteriorated, member or partial member replacement may be the only repair option. This is more desirable than total unit replacement. New wood members should match the wood type, size and profile of the existing member. On the exterior use Western Red Cedar. Since the amount of wood material is minimal, use tight grained wood, it is much longer lasting. Prime all surfaces to the wood (except face being glued or bonded to existing member), this is key to paint performance. New material can be spliced or

glued into the existing by routing out material to fit the repair block or member; any open joint are then infilled and patched. This method is often a remedy for infilling hardware lock holes. New material can also replace the entire member section, such as a window sash rail, or sash stop. These members need to exactly match the original.

- **Interior Woodwork** – Historic materials include moldings, board siding, relights, and doors. These materials do not receive extensive wear or deterioration, and can remain in place with very little maintenance. The best preservation strategy is for the materials to remain in place. If operational changes require relocation or removal, gentle techniques should be utilized; rough disassembly practice will result in unusable materials.

- **Hardware** – Consider all original hardware as historic. It was functional and rather ordinary in its time, but now is increasingly difficult to replace. Its material composition and finish is typically superior to what can be purchased today. The original hardware can remain intact at many openings, especially if there is infrequent use. Avoid painting prefinished hardware when repainting doors and windows.

RESOURCES:

Oregon State Historic Preservation Office, 725 Summer St NE Suite C, Salem, Oregon 97301, 503-986-0707

The Secretary of the Interior's Standards For Rehabilitation and Guidelines for Rehabilitating Historic Buildings; These recommendations were initially developed in 1977 to help owners and managers of historic properties. The ten standards are adopted within the Portland Historic Design Review ordinance. The Guidelines are general, but provide insight into Recommended and Not Recommended practices. The document is periodically updated; Available from the State Historic Preservation Office, or www.nps.gov

Preservation Briefs issued by the National Park Service address specific construction materials and features applicable; the following are applicable and are available from the State Historic Preservation Office, or www2.cr.nps.gov/tps/briefs/presbhom.htm

1. **The Cleaning and Waterproof Coating of Masonry Buildings** (Addresses masonry construction, but general principles apply to concrete buildings and structures)
9. **The Repair of Historic Wooden Windows**
10. **Exterior Paint Problems on Historic Wood**
13. The Repair of Historic Steel Windows (focuses on windows, but general steel treatment is applicable)
15. **Preservation of Historic Concrete: Problems and** General Approaches
27. **The Maintenance and Repair of Architectural Cast Iron**

Appendix C

APPENDIX C
HISTORIC PRESERVATION BRIEFS

HISTORIC PRESERVATION BRIEFS ARE AVAILABLE AT THE FOLLOWING WEBSITE:

http://www.nps.gov/history/hps/tps/briefs/presbhom.htm

Specifically relevant titles include:

01: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings
09: The Repair of Historic Wooden Windows
10: Exterior Paint Problems on Historic Woodwork
13: The Repair and Thermal Upgrading of Historic Steel Windows
15: Preservation of Historic Concrete
27: The Maintenance and Repair of Architectural Cast Iron

Adam, Hillary

From: floy jones <floy21@msn.com>
Sent: Sunday, March 29, 2015 10:38 AM
To: Adam, Hillary
Subject: [User Approved] FW: Historic Structure Report Wash. Pk #1
Attachments: 1944_001.pdf

Hello Hillary,
I am forwarding the Washington Park Historic Structures Report via nine e-mails for the official record Washington Park LU 14-249689 DM – Demolition Review for Washington Park Reservoirs (the PWB sent the document in this format despite requests that they send it as one report alway employing as many tactics and strategies to thwart community interests). This is the first of nine e-mails. Please confirm that this report is received by all HLC members.

Floy Jones

From: Tim.Hall@portlandoregon.gov
To: floy21@msn.com
CC: floy21@msn.com; jeff@jeffandlinda.org; merrittregna@gmail.com; kentcraford@hotmail.com; stewartstclair@gmail.com
Date: Tue, 18 Sep 2012 16:01:27 -0700
Subject: RE: Historic Structure Report Wash. Pk #1

Ms. Jones,

Per your request, the final draft copy of Historic Structure Report for Washington Park reservoirs.

Total of nine e-mails (about 2 MB each, larger MBs have been returned by some of the people copied per your/their request).

Tim

Tim Hall
Manager, Community Information & Involvement
Portland Water Bureau
1120 SW 5th Avenue, 6th Floor
Portland, OR 97204
503-823-6926 - Office
503-381-0056 - Cell 24/7

From: floy jones [mailto:floy21@msn.com]
Sent: Monday, August 27, 2012 6:45 PM
To: Hall, Tim; Shaff, David; Maria Del Toro
Cc: Jones, Floy; Jeffrey E. Boly; Regna Merritt; Kent Craford; Stephanie Stewart - MTNA Board
Subject: RE: Washington Park Reservoir inquiry

I completed the form, saved it and attached it, but the information apparently didn't save. I've tried again but otherwise here is the relevant information:

Date of Request: _8/27/12_____
REQUESTOR INFORMATION
Name: _Floy Jones_____
Mailing Address: _____
City, State, Zip: __PDX, OR 97215_____ Daytime Phone: _____
E-mail Address: ___floy 21 @msn.com_____ Fax: _____
Preferred method of contact: X E-mail
REQUEST DETAILS
1. Is this request related to a lawsuit involving the City of Portland? _____NO_____

City of Portland Uniform Public Records Request Form
Last revised January 2011 Page 2 of 2
6. Does this request pertain to personnel records? _____
NOTE: If "yes," please attach a signed release from the employee.
7. How would you prefer to have this request fulfilled?

XI would like electronic copies made and sent to me.

DESCRIPTION OF RECORDS REQUESTED
Please include the following when describing the materials requested, to the extent known and with as much detail as possible:

- Type of document
- Title
- Date
- Address of any real property at issue
- Author
- Subject matter

NOTE: Additional sheets may be added if necessary.
Description:

- The City will respond to your request as soon as practicable and without unreasonable delay.
- If the estimated costs involved in fulfilling your request exceed $25, the City will advise you of those costs and require your approval before beginning work.
- If the fee estimate exceeds $100, a 50% deposit may be required to begin work.
- Full payment of the total amount of costs incurred is required before the public records may be inspected or copies released.
- NOTE: Police reports cannot be obtained through the use of this form. For these records, please contact the Police Bureau.

Form
v7. How would you prefer to have this request fulfilled?

X I would like electronic copies made and sent to me.

Under Oregon Public Records law provide:

An UNALTERED electronic copy of Cascade Design and Architect Rob Dortinacq Historic Structures report prepared for the

PWB on Washington Park Reservoirs 3 and 4 (2010/2011)

Description:
Under Oregon Public Records law provide:

An UNALTERED electronic copy of Cascade Design and Architect Rob Dortinacq Historic Structures report prepared for the PWB on Washington Park Reservoirs 3 and 4 (2010/2011) Please send copy to all parties copied on this e-mail, Jeff Boly, Arlington Heights N.A. President, Stephanie Stewart, Regna Merritt, Kent Craford, etc.
I do NOT agree to pay any fees.

I HAVE READ AND AGREE TO COMPLY WITH THE ABOVE CONDITIONS, and further agree to pay the cost of fulfilling this Public Records Request according to the conditions set forth above. These costs may include the cost of searching for records, reviewing records to redact exempt material, supervising the inspection of records, copying records, certifying records, and mailing records. I **DO NOT** agree to pay a maximum of $25 without further approval.
_____floy__jones 8/27./12_____ _____
Signature

_____ _____

From: Tim.Hall@portlandoregon.gov
To: floy21@msn.com
Date: Mon, 27 Aug 2012 15:36:01 -0700
Subject: RE: Washington Park Reservoir inquiry
Ms. Jones,

The form you sent with you message is not filled out. Thank you for your cooperation.

http://www.portlandoregon.gov/fire/article/231356

Tim Hall
Manager, Community Information & Involvement
Portland Water Bureau
1120 SW 5th Avenue, 6th Floor
Portland, OR 97204
503-823-6926 - Office
503-381-0056 - Cell 24/7

From: floy jones [mailto:floy21@msn.com]
Sent: Monday, August 27, 2012 3:22 PM
To: Hall, Tim; Shaff, David; maria.deltoro@portlandoregon.gov
Cc: Jeffrey E. Boly; Stephanie Stewart - MTNA Board; yahoogroup-reservoirs; Regna Merritt; Kent Craford
Subject: RE: Washington Park Reservoir inquiry

Portland Water Bureau,

Under Oregon Public Records law provide:

An **UNALTERED** electronic copy of Cascade Design and Architect Rob Dortinacq Historic Structures report prepared for the PWB on Washington Park Reservoirs 3 and 4 (2010/2011)

Please send copy to all parties copied on this e-mail, Jeff Boly, Arlington Heights N.A. President, Stephanie Stewart, Regna Merritt, Kent Craford, etc.
I do NOT agree to pay any fees. City form is attached.

Floy Jones

From: Tim.Hall@portlandoregon.gov
To: floy21@msn.com
Date: Mon, 27 Aug 2012 14:46:18 -0700
Subject: Washington Park Reservoir inquiry
Ms. Jones,

I was informed that you had questions about the Washington Park Historic Structures Report. This is a draft document that is still under review and therefore subject to changes.

Once it is finalized, the bureau plans to make the document public, including sharing it with the neighborhood associations as we did with the Mount Tabor Historic Structures Report.

If you let the me know specifically what information you wish, we'd be glad to provide it (except where it is confidential or in draft form).

I tried a number of times to reach you by telephone, but your line has been busy. I invite you to call me if there is anything else you wish.

Thank you.

Tim

Link to Public Records Request Form:

http://www.portlandoregon.gov/fire/article/231356

Tim Hall
Manager, Community Information & Involvement
Portland Water Bureau
1120 SW 5th Avenue, 6th Floor
Portland, OR 97204
503-823-6926 - Office
503-381-0056 - Cell 24/7

Adam, Hillary

From: Schwab Mary Ann <e33maschwab@gmail.com>
Sent: Monday, March 30, 2015 9:04 AM
To: Adam, Hillary
Subject: Fwd: ACTION ALERT: Demolition of the Washington Park reserviours is on the Historic Landmark commission agenda, Monday March 30, 1:30 p.m.

Good Morning Hillary,

For what my two cents are worth, kindly route this email to the Historic Landuse Commissioners.

They need to know that I was deeply disappointed when Mayor Hales and City Commissioner did not pay close attention when on February 4th, for 3-minutes, I begged the Council to support
the professionals serving on the Historic Landuse Commissioners recommendation these water issues go to MEDIATION.

As for who posted those public legal notification land-use hearing signs surround the Washington Park Reservoir neighborhood streets remains a mystery to me.

As always,

Mary Ann Schab, Community Advocate
605 SE 38th Avenue
Portland, OR 97214-3203

Begin forwarded message:

> **From:** Schwab Mary Ann <e33maschwab@gmail.com>
> **Date:** March 29, 2015 9:31:07 PM PDT
> **To:** Southeast Uplift Board of Directors <seulboard@googlegroups.com>, "Board of Directors, 2014-2015 Sunnyside Neighborhood Association" <board@sunnysideneighborhood.com>
>
> **Subject: ACTION ALERT: Demolition of the Washington Park reserviours is on the Historic Landmark commission agenda, Monday March 30, 1:30 p.m.**
>
> Saturday, March 28th, my friend and I rang door bells, talked with homeowners, and hung door hangers on their neighbors front doors. Not exactly what I would call an active neighborhood watch community.
>
> The homeowners reported how the Japanese Gardens were denied access to their neighborhood streets, to being in solid needed to
> expand the garden by three acres. Yet, I was surprised these homeowners were not apprised of the number of 30,000 construction trucks* rumbling in front of

their houses over a four year period. Granted there will be construction challenges, public safety, limited access to site for deliveries and materials removal, worker parking on narrow streets,
noise mitigation (1,000 pile drivers) truck traffic, concrete/materials deliveries.

We also noticed several students riding down hills on their skate boards. My fear now that Zoo park and ride parking is no longer free, commuter's vehicles parking on both sides of narrow street(s).
I'm not sure cement trucks can pass in-between parked cars.

Hand out read:
Save the Open Reservoirs and the Washington Historic Olmsted Landscape. Did you know that this proposed project will bring four years of construction and 30,000 trucks going up Jefferson/Burnside Streets and through you neighborhood? RES 3, mobilize/shoring/excavation 8,000 trucks, Res 3, MSE walls, 3, trucks, Res 3 Tank construction 7,000 trucks, Res 4 area construction 6,000 trucks and finally, Rest 3/4 visible features 6,000 trucks.

The BDS public notification signs were placed along busy Burnside Street, hidden by berry vines, and one at the entrance to the tennis court parking lot. Surely, read if they were placed next to the MAX/Tri-met bus stop or path toward the park's water fountain. As for who did the work, Park Rangers or PdOT -- I'm clueless. What I do know, no one driving East on Burnside Street -- stops to read a legal posting. That is short of the City that Works truck with red lights flashing.

Stay tuned,
mas

UPCOMING ACTION DATES- Mark your calendar

This Monday, March 30, 2015 1:30 P.M. (1st workday after Spring Break holiday)- Demolition of the Washington Park reservoirs is on the Historic Landmark Commission agenda. The Commission meets in the conference room on the 2nd floor at 1900 SW 4th Ave.
Reportedly this is but one of several upcoming HLC meetings addressing the Water Bureau's fast-track Washington Park reservoir demolition plans. Please attend if you are able and let the Historic Landmark Comission know that you oppose the Water Bureau's demolition plans. One of the HLC members works for the PWB's Washington Park consultant firm so he will not be able to vote due to conflict of interest.

Thursday, April 23, 2015 2:00 P.M.- CITY COUNCIL LU HEARING ON WASHINGTON PARK RESERVOIRS DEMOLITION- It is unclear why this Council session was scheduled to take place before the Tabor LU session. Public testimony will be taken.

Thursday, May 14, 2015 2:00 P.M. - CITY COUNCIL HEARING ON APPEAL OF THE MT. TABOR RESERVOIR DISCONNECT LU PLAN- Public testimony will be taken

APPEAL OF LANDMARK COMMISSION TABOR DECISION. As predicted the PWB under Nick Fish is appealing the conditions imposed by Historic Landmark Commission (HLC) related to the

Tabor reservoirs disconnect.- conditions requiring maintenance and restoration of the reservoir's historic features and maintaining water at historic operational levels. Tim Hall one of the many propagandists at the Portland Water Bureau has for many years told community members that if we didn't support onsite reservoir demolition and burial Tabor would be left with empty tanks- as retribution. While the Portland Water Bureau uses your ratepayer dollars to thwart community interest and bloat their budget, in order for the same ratepaying community to appeal the PWB's bad plans, ratepayers must spend more money.
Here is the Oregonian
report, http://www.oregonlive.com/portland/index.ssf/2015/03/mount_tabor_reservoirs_appeals.htm
l
As always the media gets many of the details wrong.The document the HLC supported as a guide to restoration/maintenance work is the 2009 Historic Structures report. It is not a "rule" as stated in the article.

PLEASE DONATE TODAY (see MTNA post below) TO SUPPORT THE APPEAL EFFORT (attorneys are expensive but necessary to take the case to the State Board of Appeal). Our main disagreement with the MTNA Land Use post below is with regard to the mitigation of the Washington Park reservoirs. The water feature and other mitigations at Washington Park didn't come about as a result of the HLC, they were proposed by the Water Bureau as adding in this spending further bloats their budget and might apease wealthy westside contributors to politicians campaigns. Having already installed grill work in 2003 for reservoir "covers" there is no need for ANY reservoir demolition at Washington Park in order to be in compliance with the onerous and unsupported LT2 rule. No one wants to see covers installed but covers are by far preferred to the Water Bureau plans to demolish and bury a tank with a price tag that will come close to $100 million.

The Water Bureau is big on promoting their PR blog thus they sent out an entry on conduit cleaning related to leaving Tabor's Res. 1 empty for an extended period of time.

POWELL BUTTE II REPORTS TO COUNCIL STILL MISSING
We've still not seen a Water Bureau report to Council addressing the 3200 hundred cracks at Joe Glicker's CH2MHill designed Powell Butte II tank.

And even though the CH2MHill Powell Butte II contract expired in December after having increased by 45% (or more), the Water Bureau has not brought it to Council to close it out. FOR mentioned this to City Council at their sad excuse for a budget meeting, without a peep in response.

Here is a link to the WB post on " what park users will see in the next few months at Reservoir 1."

https://www.portlandoregon.gov/water/39678

Water Bureau Appeals the Landmarks Commission Decision

We are disheartened to report that on February 26, the Portland Water Bureau (PWB) filed an appeal to overturn aspects of the decision rendered by the Historic Landmarks Commission (HLC) review. The PWB continues to resist their responsibility to care for Tabor's historic resources, even going so far now as to oppose those mandates set forth by Portland's respected Historic Landmarks Commissioners. Specifically, Water Bureau objects to aspects of the requirement to keep water as a central feature at the site, and to the requirement to perform much needed historic-preservation work. Contrast this with Water Bureau's response to directives from the Historic Landmarks Commissioners regarding the reservoirs in Washington Park — at Washington Park's reservoir site, Water Bureau respected input from the HLC, they took a careful and holistic approach to the construction plan for the site, and they're providing water features and thoughtful historic preservation work there.

MTNA has now entered an expensive appeal process, by which we hope to secure, again, deep water views and historic preservation-maintenance for Mt. Tabor's reservoir site. **Tabor's reservoirs need your financial support, today.**

Donate Now!

What is Mt. Tabor Park worth to you? What does it bring to your life and your routines? How will your park experience be affected, if Tabor's anchoring features are allowed to sit empty and crumble? The historic reservoirs on Tabor are part of a captivating American story that marries ingenuity and beauty. They provide the magnificent, deep-water views that are the hallmark of this Eastside, crown-jewel park. Historic preservation specialists agree that this site's story is worth preserving. We need your help to secure what is right for Mt. Tabor's historic site.

Please, sit down now and write a check of any size. It's tax-deductible! Every dollar counts. If 100 people write $200 checks, we can meet our goal quickly. If you can be one of those 100, please stretch yourself and help make it happen. If not, just remember, *every single dollar counts*!

Make checks payable to "SE Uplift" and **include "MTNA-reservoirs" in the memo line**.
Mail checks to:
SE Uplift
3534 SE Main St.
Portland, OR 97214

Stephanie Stewart
MTNA land use

Reservoirs mailing list
Reservoirs@friendsofreservoirs.org
http://friendsofreservoirs.org/mailman/listinfo/reservoirs_friendsofreservoirs.org

Adam, Hillary

From: Dee White <deewhite1@mindspring.com>
Sent: Sunday, March 29, 2015 6:22 PM
To: Adam, Hillary
Subject: LU14-249689DM Demolition Review for WA Park comment for HLC March 30, 2015 meeting
Attachments: The Portland Alliance Panel votes not to bury reservoir.pdf

Historic Landmarks Commission
March 30, 2015

Re: CASE FILE:LU14-249689DM(PC# 14-139549)
Demolition Review for Washington Park Reservoirs
#3 and #4 and the Weir Building

Comment from:
Dee White
3836 SE 49th
Portland, OR

The Zoning Code Approval Criteria on page 6 references the Historic Resource Review section 33.445.330, titled Demolition of Historic Resources in a Historic District. This reads: Demolition of other historic resources within a Historic District requires demolition review to ensure their historic value is considered. The Review period also ensures that there is an opportunity for the community to fully consider alternatives to demolition.

This opportunity for the community **has never taken place**. The Water Bureau made the decision to demolish the reservoirs behind closed doors. The public was NEVER given any meaningful opportunity to consider alternatives to demolition. One of the reasons for this proposal to demolish is to address the LT2 rule. This federal regulation, which is in review until 2016, requires that all public water systems that store water in open reservoirs must either cover the reservoirs or treat the reservoir discharge. There is no demolition alternative. **The public has never been allowed to weigh in on the either of the alternatives that would preserve the reservoirs until the LT2 review is completed in 2016.**

In 2003 the City created the Mt Tabor Independent Review Panel for the purpose of reviewing the options for meeting this same LT2 rule and keeping the reservoirs secure. It was created in response to the massive amount of criticism for the lack of public participation in the decision to bury the reservoirs at Mt Tabor and WA Park. In the **attached report** from Dave Mazza, who was a member of this 13 member panel, you can read about the panel's findings and the final vote AGAINST burying the reservoirs.

So, essentially, in 2004, once all of the facts were brought to light, much of it by the public, and presented to the independent panel, the panel voted not to move forward with the burial.

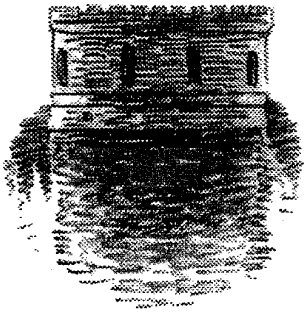
This of course, did not please the City and the Water Bureau. And this is exactly what the Water Bureau and the City want to avoid with this proposal now to demolish the reservoirs at WA Park. Cover and treat has been pushed aside behind closed doors.

A treatment option was never presented to the public for consideration. The City has always maintained that treatment would be impossible or too expensive, but these were only sound bites. The public process was never allowed to question these assertions, never mind provide meaningful consideration to the Water Bureau. The other alternative, that is putting covers on the EXISTING metal framework on the reservoirs at WA Park, thus "covering" the reservoirs until the LT2 review comes out in 2016, was never considered because the City KNOWS that if they HAD allowed the public to be at the table in this decision and subsequent application, they, the City and the Water Bureau, most likely, would have not been able to move forward with the demolition before 2016. The Water Bureau does not want anyone except themselves and their appointed cheerleaders at their decision-making table.

The goal of Citizen Involvement for the demolition decision, including consideration of the alternatives, has NOT BEEN MET.

The HLC should reject this application until a meaningful public process has taken place, and a good place to start would be to have another independent panel consider all of the alternatives that could delay demolition and finally, preserve our historic reservoirs.

Thank you.



FRIENDS *of the* RESERVOIRS

Citizens joining to protect Portland's historic reservoirs and water system

3534 S.E. Main Street, Portland, OR 97214 www.friendsofreservoirs.org

www.lists.pdx.edu/mttabor

March 29, 2015

LU 14-249689 DM (PC# 14-139549) **Demolition Review for Washington Park Reservoirs #3 and #4 and the Weir Building**

Comments submitted via e-mail by Floy Jones on behalf of Friends of the Reservoirs

The Friends of the Reservoirs strongly opposes the proposal to demolish Reservoir 3 and Reservoir 4 and the Weir buildings at Washington Park. This plan does not meet criteria and otherwise creates new and unique cancer-causing public health risks.
Demolition is not required by the onerous EPA LT2 regulation nor is it necessary for any other reason. Low cost alternate compliance has already been financed by ratepayers who will continue to pay not only for installation of the grillwork and liner installed in 2003 as preparation for installation for reservoir covers as well as for the purchased covers. Reservoir covers meet the EPA LT2 requirements. Ratepayer are also financing the Washington Park reservoir upgrades completed between in 2003 and 2010, costs that will increase over time as they are debt financed. A secondary LT2 compliance option, one that would preserve the open reservoirs but has never been fully considered is also available, "treatment at the outlet". Unlike demolition employing either of these options would likely meet LU criteria for historic resources.

The Portland Water Bureau has not met the requirements for compliance with Chapters 33.445 and 33.846
The Portland Water Bureau has not demonstrated that they considered the historic value of Portland's open reservoir resources when making the backroom and unsupported decision to demolish the Washington Park open reservoirs, a decision made by Water Bureau engineers in 2008. Also,the community was never afforded opportunity to fully consider the alternatives to demolition. There is no need to demolish the Washington Park reservoirs 3 and 4 or the Weir building when other less detrimental and lower-cost EPA compliant alternatives exist yet have not been fully considered.
The Portland Water Bureau and their cozy revolving-door consultants have been trying for decades to force "fun" reservoir burial projects as described in 2013 by Water Bureau engineer Stan Vanderberg at a wholesale customer water managers meeting. In 2004 Water Bureau Administrator Mort Anoushirivani when asked at a public infrastructure meeting why the Water Bureau was spending so much money on revolving-door consultant studys while deferred maintenance (as referenced by a 2004 City Auditor report) was being avoided, responded by saying "designing and building is glamorous and maintenance is boring."
When trying to force unsupported reservoir demolition and covering projects between 2001 and 2004, PWB PR staff including Tim Hall repeatedly told the public that the reservoirs were not historic resources. It was not the Water Bureau that worked to place the reservoirs on the National Register of Historic Places in 2004 but several members of the Friends of the Reservoirs, a Water Bureau watchdog organization with members representing both sides of the river that formed in response to 2001 line-item budget decisions to cover Washington Park reservoirs and demolish the Mt. Tabor reservoirs.
At a budget presentation earlier this month the Portland Water Bureau failed to include the historic open reservoirs as assets, let alone as the significant assets they have been and remain.

The Portland Water Bureau was the only utility in the entire nation that was secretly seated at

the table serving on the EPA LT2 Federal Advisory Committee. They brought with them a revolving-door consultant, Joe Glicker, a former PWB engineer, whose associated global engineering firms have profited from the onerous one-size-fits-all regulation that by all accounts will provide no measurable public health benefit to systems like Portland's Bull Run open reservoir water system. A list of some of the contracts awarded Glicker's associated corporations was provided the HLC in the Mt. Tabor Disconnect LU case.
It was the Water Bureau in isolation and/or in backroom consultation with consultants who set the fast-track schedule for compliance. There is no deadline in the LT2 rule for reservoir compliance.

DEMOLITION DOES NOT MEET GOALS

GOAL 1: This goal can be met by installing "covers" or "treating at the outlet or by a Oregon Health Authority deferral, an EPA waiver or a variance which is allowed by the Safe Drinking Water Act for "treatment techniques" such as the "treat or cover" EPA LT2 requirement- See additional comments below.
GOAL 2: The land around the reservoirs was opened up to the public in 2006 during daylight hours after extensive upgrades were completed including upgrading and reopening the grand entry staircase. Friends of the Reservoirs participated in the subsequent celebration which took place on the day Randy Leonard announced that David Shaff would be permenantly appointed as Water Bureau director. The value to the community will be significantly diminished not improved by demolition of the open reservoirs.
GOAL 3: The PWB specificaly avoided opportunity for the public to fully consider options to avoid demolition. It was public opposition to the lack of public process in 2001 that lead to the 2004 *"Independent Reservoir Panel"* which after opportunity to consider all of the option with much of the significant information provided the panel coming from Friends of the Reservoir failed to support the Water Bureau failed to support demolition of the Tabor reservoirs and covering Washington Park reservoirs.
Additionally, the WB failed to notify stakeholders of meetings associated with this Washington Park reservoir demolition case, including conferences with the Historic Landmark Commission. In order to make significant participation including research difficult they brought this demolition LU case forward over the Christmas holiday overlapping the Mt. Tabor LU process. See information below.
GOAL 6: The promenade around the reservoirs was opened up following costly upgrades in 2006 including the upgrade construction of a grand entry staircase, new wrought iron fencing, etc.. The significant value of the historic open reservoirs by far supercedes the minimal restrictions.
GOAL 9: CITIZEN INVOLVEMENT **– PUBLIC INVOLVEMENT AVOIDED; COUNCIL ORDINANCE REQUIRING PUBLIC INVOLVEMENT DEFIED** There has been no citizen involement in the decision-making process as required by the Independent Reservoir Review Panel **ordinance # 36237** (attached for the record). A meaninful public process would have thoughtfully and publicly considered all EPA compliance options with all community stakeholders seated at the table. All stakeholders would have equal access to all pertinent information without having to deal with the Water Bureau's stonewalling public records requests or having to go to other utilities for factual information as has been the case many times for decades. The Portland Water Bureau made all significant land use decisions backroom in **defiance of the reservoir City Council ordinance # 36267** which required bringing community stakeholders together to determine what action to take if the LT2 "risk mitigation" option could not be met. Friends of the Reservoirs was present when this ordinance was negotiated with Commissioner Saltzman in 2004. Mayor Potter was very supportive of, insistent on inclusion of all community stakeholders in ANY future decisions/actions impacting the open reservoirs.
The relevant sections of the ordinance include but are not limited to: "BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to work with Portland Parks and Recreation, the Police Bureau and members of the public representing commercial and residential ratepayers, neighbors and stakeholders, to develop and submit to the appropriate state or federal regulator agency a risk mitigation proposal for the City's open finished drinking water reservoirs after the LT2ESWTR is promulgated in final form using a process consistent with the City's adopted Principles of Good Public Involvement"; and BE IT FURTHER RESOLVED .....utilizing meaningful public process consistent with the City's adopted Principles of Good Public Involvement, in future actions related to the open reservoirs. Inexplicably the EPA removed the "risk mitigation" option that was included in the draft 2003 regulation from the onerous and scientifically unsupported final LT2 rule released in 2006. Community stakeholders (including Friends of the Reservoirs) should have been brought together prior to the Portland Water Bureau's

development of any reservoir compliance plan.

Friend of the Reservoirs devoted many tens of thousands of volunteer hours over the last 12 plus years in service of protecting the significant and well-functioning resources that are Portland's historic open reservoirs. We have worked with a broad-base of community stakeholders including many neighborhood associations, neighborhood coalitions, public health, businesses and business coalitions, environmental and social justice organizations -all of whom have written to City Council and/or the Congressional delegation in support of alternatives to the current reservoir plan. Over 30 community organizations have opposed the Water Bureau's burial and covering plans since 2002. At least 22 of these organizations have written to City Council, the Congressional delegation and/or testified in support of alternatives since 2010.

40 members of the public attended the Water Bureau's first public meeting (2014) related to the Washington Park demolition plans. No information was presented on any of the viable options that would avoid demolition. Overwhelmingly, everyone in attendance at this meeting save one opposed the Water Bureau's demolition plans. By design the Water Bureau has avoided providing opportunity for the community to fully consider alternatives to demolition. Just as in 2002 the Water Bureau wants to limit ratepayer discussion to what happens after the degradation of significant water system and community assets.

APPROVAL CRITERIA. Proposals to demolish a historic resource will be approved if the review body finds that one of the following approval criteria is met:

1. Criteria: Denial of a demolition permit would effectively deprive the owner of all reasonable economic use of the site. This is not the case here.
   RESPONSE: The Portland Water Bureau would be able to continue to use both of the open reservoirs if needed, Reservoirs 3 and 4, as part of the drinking water system and be in compliance with federal regulations if they install a reservoir cover at very low cost. Prior to construction of the Powell Butte II tank the city had an excess of in town storage at Tabor and Washington Park as reported by the PWB to the Oregon Health Authority and the EPA, 50 million gallons of excessive storage, thus the Water Bureau has not been utilizing all of the storage at Washington Park (or at Tabor) though not being clear with the public about this fact.
   In 2002/03 the Water Bureau absent any public process or regulatory requirement installed grillwork for floating reservoir covers at the Washington Park reservoirs. The Water Bureau also installed a white liner on the upper Washington Park reservoir, which was intended to last 25 years as represented by an onsite PWB engineer at the time. In a February 19, 2003 powerpoint to City Council referring to the "Washington Park Solution" of covers the Water Bureau said that this "eliminated regulatory modification" and that the "historic structures are not affected" , "trees remain in place", and "roads remain open." The cover material (Hypalon) intended to attach to the installed grillwork was purchased by the Water Bureau but never installed as the 2004 Reservoir Panel did not support the Water Bureau. When the 2004 *Independent Reservoir Panel* did not support "treating or covering" Portland's open reservoirs (the PWB's arguments failed to hold water) and City Council ordered the Water Bureau to terminate covering the Washington Park reservoirs, the Water Bureau attempted to sell the hypalon cover on E-Bay where a Water Bureau employee attempted to purchase the cover at a price well below its value. Commissioner Saltzman stopped the sale but the final disposition of the cover has remained hidden. The grillwork remained in place at the Washington Park Reservoirs 3 and 4. The estimated cost of replacement of the floating covers would be somewhere in the vicinity of $1 million compared to demolition and replacement costs that could reach $100 million. Installation of these covers would meet the regulatory requirements
   While covering the reservoirs was absolutely not supported years ago for many reasons, including the fact that the option of a "risk mitigation" option was included in the draft 2003 regulation, it is still not ideal. This option meets regulatory requirements and would provide opportunity for the Congressional delegation to work in support of revising the poorly crafted LT2 rule such that "risk mitigation" is again an option. In that the compliance deadline for Washington Park is over 5 years away, the covers might never need be installed if the "risk mitigation" option is restored as has been requested by New York's water department and others. Oregon delegation members have indicated that

they would join forces with Senator Schumer and others to support rule revision if demolition/disconnection projects were placed on hold.

or

Alternatively, "treatment at the outlet" compliance option has never been fully considered by the community. In 2004 the PWB made no argument to City Council that "treatment at the outlet" would be costly or otherwise difficult to install. Their February 19 power point to City Council (Council hearing) included "treatment at the outlet" as a viable option. Since then the costs of UV "treatment at the outlet" have dramatically declined. Rochester New York has two historic open reservoirs set in city parks. Rochester initially planned on building underground storage after learning of the EPA LT2 rule but in response to strong community opposition they investigated installing UV radiation bulbs and found that costs had dramatically dropped. Responsive to Senator Chuck Schumer's success in including revision of the EPA LT2 regulation as part of Obama's order to revise onerous regulations Rochester sought and secured a 10-year deferral of reservoir projects until 2022. Rochester is concurrently working in support of revising the EPA rule to avoid wasting money on "treatment at the outlet" a project they too believe will provide no measurable public health benefit. The Portland Water Bureau under the crony leadership of David Shaff has said that they have only done a "back of the napkin" look at treatment at the outlet since the promulgation of the EPA regulation in 2006 (documents supplied by the PWB confirm the lack of a comprehensive, independent examination of this option), thus this option has never been fully considered by the community.

And

Friends of the Reservoirs has requested that our new Governor who is the head of the Oregon Health Authority (OHA) direct that bureau to approve a deferral of projects.

If the Portland Water Buerau worked in support of, rather than against community interests, a deferral of projects minimally in line with Rochester's deferral could be approved by OHA. Previously the Water Bureau failed to submit adequate supportive documentation to back up a deferral request, used a surrogate to send a message that they wanted to pursue burial projects, and the City failed to lobby OHA to support the deferral request.

The community has never had opportunity to comprehensively examine any claims the Water Bureau might make with regard to landslide risk. After a public presentation on Mt. Tabor geology in 2012 I spoke with PSU geologist Scott Wells regarding the plans for the Washington Park reservoirs. He advised that as long as there was no digging at Washington Park there should be no serious threat of landslides.

At the end of the 2004 *Independent Reservoir Panel* process the Water Bureau knew that they had failed to convince the Panel majority (a panel that excluded every single NA in the city and every single neighborhood coalition) to support their plans. In the final week of the long-running panel process an anonymous phone call was made by a known Water Bureau shill to the Urban League panel member suggesting that the reservoirs were an earthquake threat. Friends of the Reservoir spent hundreds of hours that next week researching Water Bureau consultant documents, PSU geology maps, etc.. Water Bureau documents, geological records and other information showed that a serious earthquake was expected to cause only minor leaking at the reservoirs. The Water Bureau's backup source at the Columbia South Shore Well Field would likely be lost or severly damaged due to liquifaction.

System wide leaking including the Washington Park reservoirs is limited as has been repeatedly reported by the PWB to their budget committee including when I was a member of that committee. The Washington Park reservoirs have not been leaking anywhere close to the leaking at the newly constructed Powell Butte II tank, which was leaking as a result of the massive number of cracks, 3200 cracks as reported by KOIN 6 tv in 2014. KOIN's report came after their hard-fought public records requests subsequent to backroom industry discussion of the serious problem with the new tank. The Powell Butte II costly underground tank project, with the cozy consultant contract running at least 45% over budget, was leaking enough to fill an Olympic size pool every day. The Water Bureau wants to limit media attention to this problem.

2. Criteria :Demolition of the resource has been evaluated against and, on balance, has been found supportive of the goals and policies of the Comprehensive Plan, and any relevant area plans. Criteria has not been met.

RESPONSE:

The goals of the Comprehensive Plan are not supported by this plan- see additional comments above.

Economic and Sustainability and public health goals are not met with this demolition plan.

Significant investments have been made in upgrades at the Washington Park reservoirs between 2003 and 2010. The significant costs associated with these consultant and construction contracts will be born by ratepayer over a 25 year period with those costs increasing over time. Many of the upgrades were designed to keep the reservoirs safely operating for an 50 additional years. The majority middle class ratepayers cannot afford any further rate increases on top of rate increases that have been staggeringly high since 2004. The Water Bureau plans another 7% increase in water rates this May.

The open reservoirs avoid new and unique public health risks associated with burying Portland's open reservoirs, for example cancer-causing Nitrification, a problem EPA has long scientifically documented with buried storage. EPA acknowledged in their Coliform Rule papers that they failed to address the Nitrification problem when promulgating the LT2 regulation. Radon, from Portland's secondary lower quality source, the Columbia South Shore Well Field, which presently vents through the open reservoirs will not be able to vent adequately with the elimination of open reservoirs. Radon entering homes via water will permeate homes every time water is used for any purpose.

The historic character of these resources cannot be replaced. The water system, the park, the surrounding neighborhoods and the City will be harmed.

On June 21, 2006 Historian, Park Board Member, the former chair of the Tabor "What goes on Top" committee, Chet Orloff ,wrote to Portland City Council praising them for reconsidering their earlier decisions on the open reservoirs. He additionally suggested "greater historical interpretation of the reservoirs with some permanent, on-site exhibit boards mounted adjacent to them, presenting information and images about the history of the reservoirs , the story of our great water system.. to " more thoroughly inform citizens and deepen everyone's pride in, these great assets."The Water Bureau ignored Chet Orloff's suggestions not wanting to promote the historic resources as the significant assets to our water system and city that they have been for over 115 years.

DENY THE PERMIT

The Historic Landmark Commission should deny this application as it does not meet the criteria for approval.

MITIGATION: Approval of any alteration to the open reservoirs, including the unconsidered options of installation of the floating covers to the grillwork or installation of UV radiation bulbs, should include a mitigation plan that requires completion within the next 3 years of the short-term maintenance projects outlined in the **2010 Robert Dortignacq Washington Park Historic Structures Report** submitted for the record via separate electronic communication. All restoration and maintenance projects recommended in this Historic Structures Report should be mandated by the Historic Landmark Commission to be completed over a reasonable timeframe to suport preservation.

RESOLUTION NO. 36237

Accept final report and recommendations of the Mt. Tabor Open Reservoirs Independent Review Panel and authorize interim enhanced security measures for City open finished drinking water reservoirs (Resolution)

WHEREAS, the Mt. Tabor Open Reservoirs Independent Review Panel has completed its review of options for addressing the security needs, pending regulatory requirements and necessary infrastructure investments for the Mt. Tabor open finished drinking water reservoirs; and

WHEREAS, the panel unanimously rejected the options of burying water storage without making park improvements, constructing treatment facilities at the reservoir outlets, replacing the bulk of the existing water storage at Powell Butte, and doing nothing; and

WHEREAS, the panel unanimously rejected the option of doing nothing because it felt some action is required to ensure water safety; and

WHEREAS, the panel unanimously recognized that the pending federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) affecting the structure and operations of open finished drinking water reservoirs has not been finalized and that there is no assurance of when it will be; and

WHEREAS, a majority of 8 panel members recommended that the Water Bureau, working with Portland Parks and Recreation, the Portland Police Bureau and members of the public develop a risk mitigation plan that addresses the requirements of the forthcoming Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and is compatible with the character and uses of the park to be submitted for approval to appropriate state or federal regulating agency; and

WHEREAS, a minority of 5 panel members recommended that the City retire Reservoir 1 from use, place enclosed water storage beneath Reservoir 5 and Reservoir 6 North, restore the surface water features at Reservoir 5 as they currently exist, and restore the remaining surface water features consistent with the values and design guidelines established in the Mt. Tabor Master Plan and guiding principles; and

WHEREAS, the project to place temporary floating covers over the Washington Park open finished drinking water reservoirs has been placed on hold pending the completion of the Independent Review Panel process; and

WHEREAS, safe drinking water and a secure and reliable drinking water system are essential to the health, safety and economic vitality of Portland and the surrounding metropolitan region; and

WHEREAS, two-thirds of the City of Portland gets its drinking water directly from highly accessible open drinking water reservoirs located in public parks; and

WHEREAS, Portland's open drinking water reservoirs and surrounding structures hold significant aesthetic and historic value to park neighbors and visitors; and

WHEREAS, two separate security vulnerability assessments of the Portland water system indicate that Portland's open drinking water reservoirs are among the most vulnerable points in the water system to contamination both incidental and intentional.

NOW THEREFORE, BE IT RESOLVED, that the City Council accepts the report and recommendations of the Mt. Tabor Open Reservoirs Independent Review Panel; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to terminate all current contracts for services related to the burial of the Mt. Tabor open reservoirs; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to work with Portland Parks and Recreation, the Police Bureau and members of the public representing commercial and residential ratepayers, neighbors and stakeholders, to develop and submit to the appropriate state or federal regulator agency a risk mitigation proposal for the City's open finished drinking water reservoirs after the LT2ESWTR is promulgated in final form using a process consistent with the City's adopted Principles of Good Public Involvement; and

BE IT FURTHER RESOLVED, that should the risk mitigation plan submitted fail to gain the regulatory approval of the appropriate state or federal regulatory agency, the City Council, with full public participation and input, will evaluate and decide on appropriate alternative actions to meet the regulatory requirements for open finished drinking water reservoirs in the LT2ESWTR; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to develop and submit to Council, as part of its 2005-06 capital improvement plan, a schedule for addressing priority deferred maintenance needs at the City's open reservoirs until the City achieves compliance with the final LT2ESWTR through either risk mitigation or alternate means; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to cease installation of the temporary floating covers on the Washington Park open drinking water reservoirs until promulgation of the final LT2ESWTR and further direction from Council regarding how the City will comply with the regulatory requirements for the reservoirs at Washington Park; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau immediately to implement the phase 1 enhanced interim security measures and deferred maintenance for Portland's open finished drinking water reservoirs described in Exhibit "A" attached to this resolution; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to follow all planning and design guidelines related to the reservoir sites and surrounding parks--including those described in the Mt. Tabor Park Master Plan, the Public Advisory Committee Guiding Principles, and the requirements of the listing of the open reservoirs on the National Register of Historic Places-- utilizing meaningful public process consistent with the City's adopted Principles of Good Public Involvement, in future actions related to the open reservoirs; and

BE IT FURTHER RESOLVED, that the City Council directs the Water Bureau to use the 0.5% in FY 2004-05 rate savings associated with the phase 1 enhanced interim security measures to reduce FY 2005-06 Water rates.

Adopted by the Council, July 28, 2004

GARY BLACKMER
Auditor of the City of Portland
By /S/ Susan Parsons

Commissioner Dan Saltzman
Edward Campbell
July 22, 2004

Deputy

BACKING SHEET INFORMATION

AGENDA NO. 876-2004

ORDINANCE/RESOLUTION/COUNCIL DOCUMENT NO. 36237

COMMISSIONERS VOTED AS FOLLOWS:		
	YEAS	NAYS
FRANCESCONI	X	
LEONARD	X	
SALTZMAN	X	
STEN	X	
KATZ	X	

Comments for the record of Case File # LU 14-249689 DM (PC # 14-139549) Page 1 of 2

Demolition Review for Washington Park Reservoirs #3 and #4 and the Weir Building

TO: Hillary Adam and Stacey Castleberry, c/o BDS Staff and Historic Landmarks Commission, 1900 SW Fourth Avenue, Suite 5000, Portland, OR 97201

FAX: 503-823-5630

FROM: Katherin Kirkpatrick, 1319 SE 53rd Avenue, Portland, OR 97215

DATE: 3/30/2015

Dear Historic Landmarks Commission:

Please deny the Applicant's above proposal, to demolish Washington Park Reservoirs #3 (including Weir Building) and #4, which are registered as Historic Places due to their:

> [L]argely intact and ... as-built condition ... function[ing] as the primary water source for Portland's west side, ... protect[ing] the watershed with a well-designed distribution system [that] has given Portland high-grade water since 1895 when it first flowed to the City's faucets.
>
> *--Historic Places nomination, accepted January 26, 2006*

As abundantly demonstrated at the 2014 and 2015 hearings on the related application to decommission the Mt. Tabor historic reservoirs, the true applicant in this case—City Council—has shown its inability and unwillingness to commit, via resolution or otherwise, to carry out any mitigation plan recommended by the Commission to preserve these historic resources. The City has hidden behind a straw-man bureau whose representatives have repeatedly testified that they have neither the authority nor the intention to commit on behalf of Council regarding any future willingness to preserve these resources or abide by recommendations of the Commission; indeed, City officials in the Mt. Tabor case inserted broad caveats into pending applications, acknowledging that City Council reserved the right to change policy with regard to these resources at its whim.

Under Portland Zoning Code 33.800.060, the burden is on the applicant to prove that it is the true applicant, with clear title and decision-making ability regarding the historic resources; and to prove that it is fully capable of ensuring that the historic resource's nomination-designated use and development standards will be preserved. The courts have clarified (e.g., *Gould v. Deschutes County*, 216 Or App 150 (2007)) that such burden includes the burden to demonstrate that actions will result in actual mitigation (*testimony of attorney Ty Wyman at 2015 Mt. Tabor hearing*).

Given that Applicant proposes to demolish the historic resources outright and take them out of the use and function specifically delineated in their historic nomination, the application on its face fails to preserve the historic character and function of the resources, and the application must be denied.

Also, Applicant's application should be rejected on the ground that it is untimely, insofar as the Applicant has failed to give proper notice to all impacted citizens under the Public Notification Rules

F-18

Demolition Review for Washington Park Reservoirs #3 and #4 and the Weir Building

TO: Hillary Adam and Stacey Castleberry, c/o BDS Staff and Historic Landmarks Commission, 1900 SW Fourth Avenue, Suite 5000, Portland, OR 97201

FAX: 503-823-5630

FROM: Katherin Kirkpatrick, 1319 SE 53rd Avenue, Portland, OR 97215

DATE: 3/30/2015

Of the US Environmental Protection Agency, codified in *65 FR 25981*, and *40 CFR Parts 9 and 141-143*; and incorporated into Oregon Administrative Rules by virtue of Oregon Health Authority primacy. Such public notice is required because the loss of the open-air venting function historically served by these open reservoirs will expose the entire municipal population to increased health risk from contaminants which will no longer be eliminated by the reservoirs' open-air venting. Such health risks include but are not limited to those posed by chloroform, nitrification byproducts, light-and oxygen-sensitive microorganisms; as well as carcinogenic radon during turbidity events when the radon-contaminated Columbia South Shore Well Field is used as back-up water supply. See, e.g., *Risk Assessment of Radon in Drinking Water*, National Academy Press, Washington DC, 1999; and the report and citations provided by microbiologist Scott Fernandez, MSc, in *Scientific and Public Health Basis to Retain Open Reservoir Water System for the City of Portland, Oregon*, at http://bullrunwaiver.org/wp-content/uploads/2014/05/waive2014.pdf.

In support of my request that the Commission deny the Applicant's proposal, I cite the same reasons I cited in my written testimony regarding the Applicant's 2014 proposal to decommission the Mt. Tabor historic reservoirs, LU 14-218444 HR, and incorporate them herein by reference:

12/1/2014 Written Testimony of Katherin Kirkpatrick to HLC in LU 14-218444 HR
1/12/2015 Written Testimony of Katherin Kirkpatrick in same
1/20/2015 Written Testimony of Katherin Kirkpatrick in same, sent via facsimile
1/20/2015 Written Testimony of Katherin Kirkpatrick in same, sent via e-mail

Sincerely,

Katherin Kirkpatrick
1319 SE 53rd Avenue
Portland, OR 97215
samsa@pacifier.com
503-232-8663

City of Portland Historic Landmarks Commission
Public Hearing

10

Date of hearing 3/30/15

Name: (Please print legibly) JOHN R CZARNECKI

Organization represented (if any): N

Address: 2742 N.W. SAVIER ST

City: PORTLAND Zip: 97210 Phone: 503 · 822 · 5703

Email address: JRCA@AOL.COM

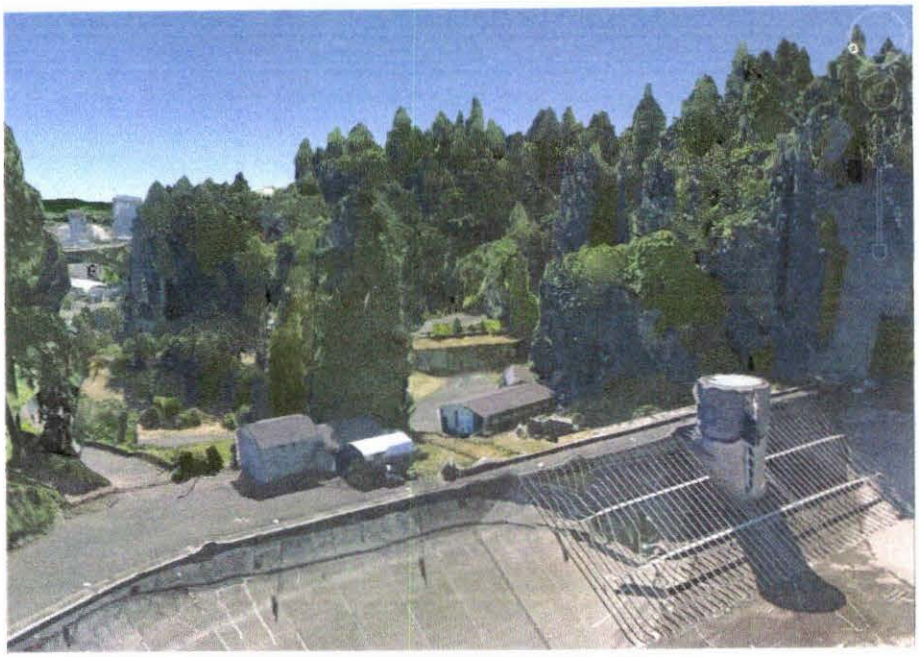
Agenda item/Case # you are commenting on: FIVE LOAVES - WASH PARK REZ.

Do you wish to make a statement? X YES ____ NO

In Favor of the Proposal: w/comment. In Opposition to the Proposal: ____

If testifying in person, a written copy of your testimony is encouraged for commission member review, and for the record. Printshop is located on the main floor.

If you do not wish to testify but would like to make a comment on the agenda item you are interested in, use the space below and/or the reverse side, and your comments will be made a part of the record.

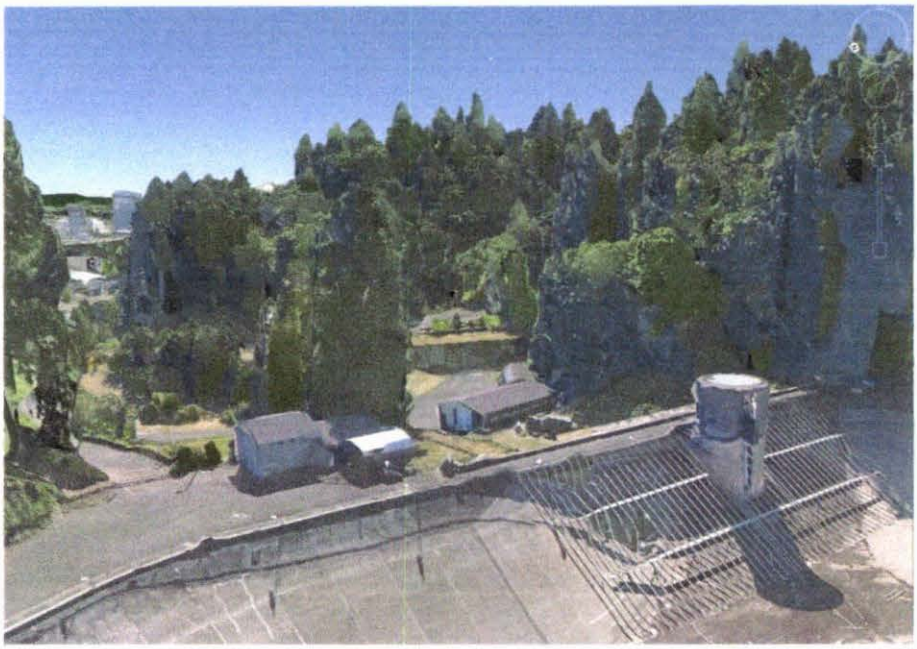


RESERVOIR FOUR SHOWING CLOSER AND LONGER VIEWS OF EXISTING OUT-BUILDINGS

John R. Czarnecki, AIA
March 30, 2015

LU-24908
4

NTA 208 SW Stark St, Suite 505 Portland OR 97204 503-222-3522 jrca@aol.com



RESERVOIR FOUR SHOWING CLOSER AND LONGER VIEWS OF EXISTING OUT-BUILDINGS

John R. Czarnecki, AIA
March 30, 2015

City of Portland Historic Landmarks Commission
Public Hearing

1

Date of hearing 3-30-15

Name: (Please print legibly) SCOTT FERNANDEZ

Organization represented (if any): CITIZEN

Address: 1824 N.E. 65

City: PDX Zip: 97213 Phone:

Email address:

Agenda item/Case # you are commenting on: WASHINGTON PARK L4M249689 DM

Do you wish to make a statement? X YES ____ NO

In Favor of the Proposal: ____ In Opposition to the Proposal: X

If testifying in person, a written copy of your testimony is encouraged for commission member review, and for the record. Printshop is located on the main floor.

If you do not wish to testify but would like to make a comment on the agenda item you are interested in, use the space below and/or the reverse side, and your comments will be made a part of the record.

March 30, 2015

To- City of Portland Historic Landmark Commission Washington Park Reservoirs

From- Testimony of Scott Fernandez M.Sc. Biology/ microbiology chemistry

Mayor appointed- Portland Utility Review Board 2001-2008

Water Quality Advisory Committee 1995-2000

The historic value of the Washington Park open reservoirs is based on structure and engineering foresight as well as public health benefits of no illnesses for over 100 years.

There is time and scientific basis to save our historic and community health and ask for EPA LT2 waiver as New York City and New Jersey have requested for their open reservoirs.

Portland Water Bureau comments have been misleading and are corrected below.

Seismic vulnerability–

The seismic safety of open reservoirs was confirmed in the 2004 Open Reservoir Independent Review Panel. The remarkable open reservoir engineering of Ernest Ransome has withstood the seismic test of time for over 100 years without incident. As example-Ransome's two 1890's buildings at Stanford University survived the 1906 San Francisco Peninsula earthquake without damage; while the university's newer, conventional brick structures literally crumbled around them. The published analysis of these two buildings by fellow engineer John B. Leonard did much to advance engineering and the safety of building in post-1906 San Francisco and nationwide.

3-30-15
rec'd@hearing

(No Model.)

E. L. RANSOME.

BUILDING CONSTRUCTION.

No. 305,226. Patented Sept. 16, 1884.

FIG. 1.

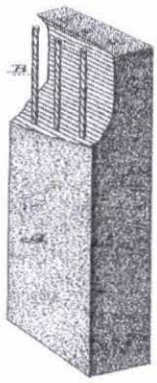


FIG. 2.

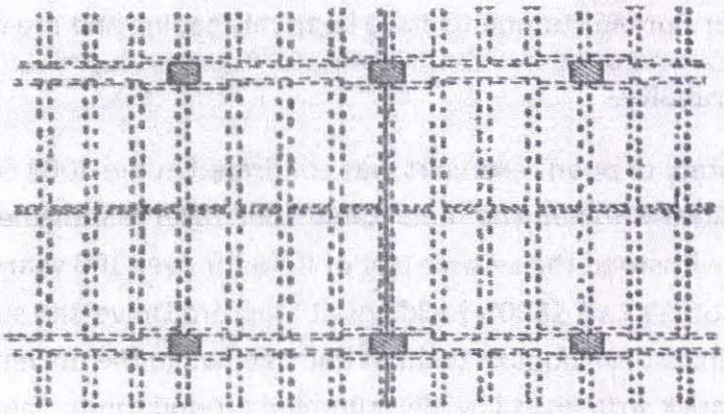
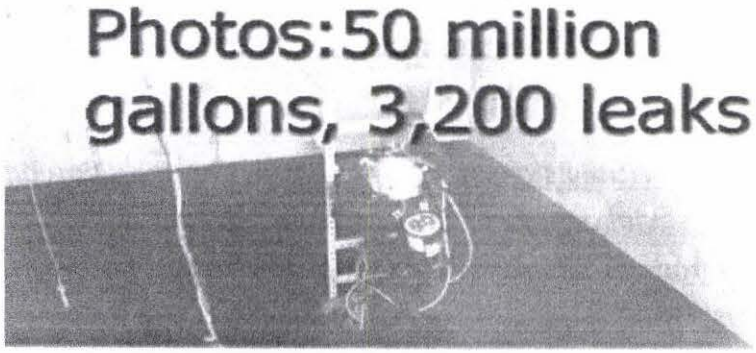


Fig. 61. Ransome System.
Plan of typical floor.

Used in Open Reservoir Construction



PWB – First Week- Powell Butte Reservoir Engineering and Construction Defects

Aging infrastructure-

City of Portland Auditor's Office- "Portland Water Bureau does not meet industry standards". The Portland Water Bureau has not kept up with maintenance of the reservoirs as acknowledged by City of Portland Auditor reports in 2004, 2011, 2012. The open reservoirs can function for many decades if maintained properly.

Open Reservoir Public Health and Engineering Assessments

"No waterborne disease outbreak or water quality incident of public significance has ever been recorded in connection with Portland's open reservoirs."

Montgomery Watson Harza. Open Reservoir Study: Phase I Summary Report. City of Portland. January, 2002.

"All features in good condition. ...a detailed maintenance program could extend the useful life of the open reservoirs to the year 2050."

Montgomery Watson Harza. Open Reservoir Study, Draft TM 5.7 Facilities Evaluation, City of Portland. August, 2001.

"All of the open reservoirs are historically significant, and thus are eligible for inclusion in the National Register of Historic Places and for local landmark status."

Open Reservoir Study, Technical Memorandum, Montgomery Watson Harza, 2001. Contracted by Portland Water Bureau (PWB)

"The reservoirs are historically significant as examples of early engineering, and serve as monuments to the social history of the City's growth and development. They provide an early example of a planned landscape, including the views and vistas into and out of the landscape."

Open Reservoir Study, Facilities Evaluation, City of Portland, 2001.

Landslides-

The landslide was stabilized in the early years of Washington Park reservoirs, by first utilizing pumps to draw down the water table; followed by digging tunnels along the slip surface to provide a network of interconnecting gravity drains. Today the lanslide creeps at only a fraction of an inch each year, being stabilized for decades.....it is not the catastrophic situation PWB wants us to believe exists. Engineering reports show 14/100 of an inch movement that is diminishing for the last few decades. The underground water mitigation programs have worked as they should de-watering and impeding movement. The reservoirs have survived the rain inundation from Christmas 1964, and more importantly the 100 year "rain on snow" event for many days in February 1996 all without issue.

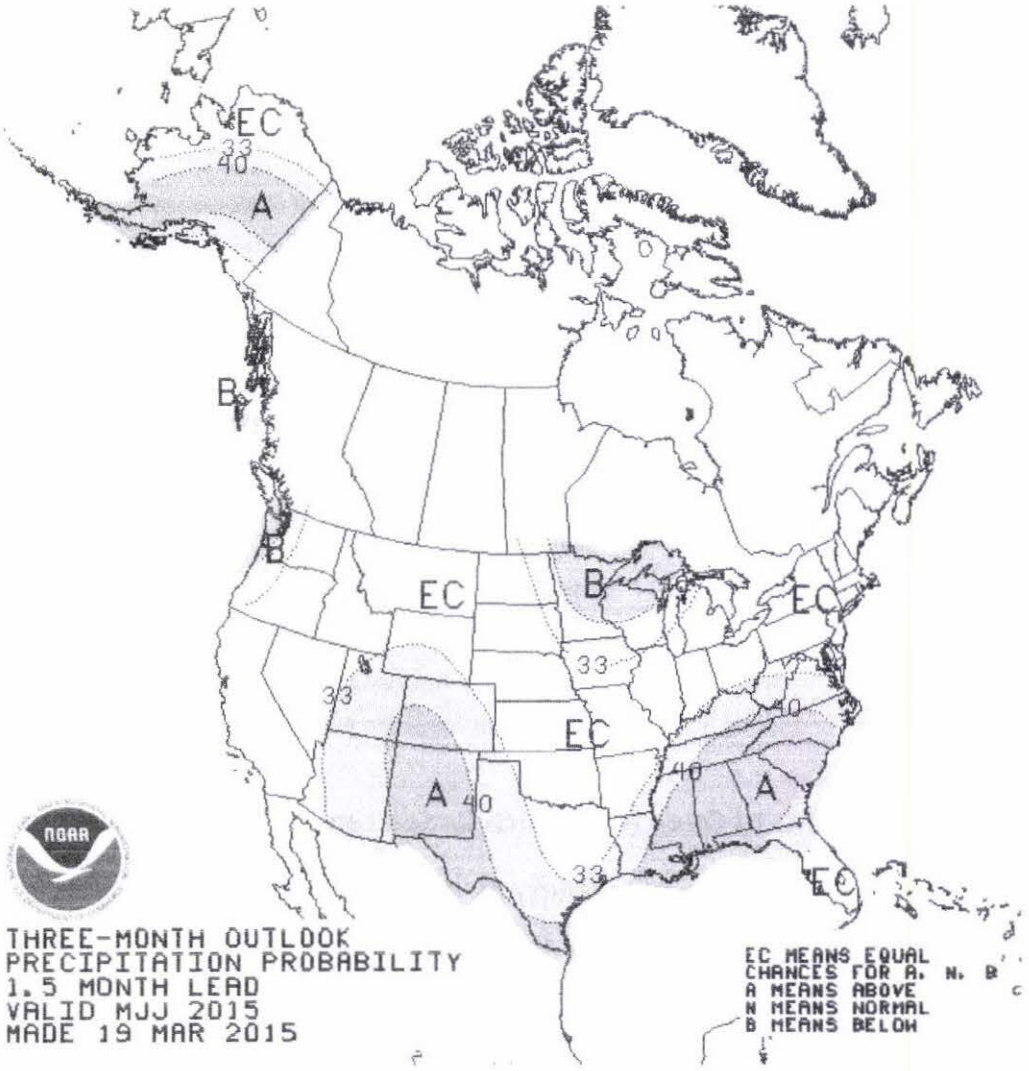
Table 1: Historical Slide Movements Since Reservoir Construction

Date	Annual Rate of Movement	Description of Events
1893-1894	Unknown	Reservoirs constructed
1895-1896	15 inch/year	Water Bureau assessing cause of movements
1897-1898	1½ inch/year	Pump dewatering of exploratory shafts reduces movement rate; focuses stabilization techniques on dewatering options
1899-1900	4 inch/year	Exploratory shafts completed; movement rates increase due to stoppage of dewatering pumps; survey grid installed
1901-1904	¼ inch/year	Drainage tunnels constructed
1904-1906	1⅓ inch/year	Movements increase; additional drainage tunnels are installed
1906-1916	½ inch/year	Detailed survey monitoring
1920-1970	⅛ inch/year	Continued survey monitoring
1975-1986	¼ inch/year	Measurements obtained from 2 EDR casings
1987-2010	0.14 inch/year	Measurements obtained from 7 inclinometer casings

Public Health Benefits of Open Reservoirs- Radon removal

City of Portland secondary water source is the Columbia South Shore Well field (CSSW) groundwater that is highly radioactive with radon gas originating from uranium in the granite substrate. EPA is clear there is "no safe level of exposure" and is the "highest risk for cancer water contaminant" they have registered. We need the open reservoirs to efficiently remove the gas natural ventilation of the water. Covered reservoirs cannot efficiently remove radon through the tiny vents. Radon gas kept in a closed and covered system without open reservoirs will end up in homes schools and work places; through our showers, toilets and washing machines generating 70% into the air leaving an additional 7 radioactive decay particles such as lead, polonium and bismuth.

Climate Change is producing less rain for us to depend on, moving us to use the CSSW radioactive groundwater. Bull Run area will be drier (see NOAA) map. We need to retain open reservoirs in our system historically and for public health. Covered reservoirs waste millions of dollars for problem that does not exist.


EC
33
40
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A 40
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THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
1.5 MONTH LEAD
VALID MJJ 2015
MADE 19 MAR 2015
EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

City of Portland Historic Landmarks Commission
Public Hearing

3

Date of hearing 3/30/2015

Name: (Please print legibly) RoseMarie Opp

Organization represented (if any): _____

Address: 1339 SE 130th

City: Portland Zip: OR, 97233 Phone: 503-253-5491

Email address: hudechrome@gmail.com

Agenda item/Case # you are commenting on: LU 14-249689 DM

Do you wish to make a statement? X YES ____ NO

In Favor of the Proposal: _____ In Opposition to the Proposal: X

If testifying in person, a written copy of your testimony is encouraged for commission member review, and for the record. Printshop is located on the main floor.

If you do not wish to testify but would like to make a comment on the agenda item you are interested in, use the space below and/or the reverse side, and your comments will be made a part of the record.

Open reservoirs provide safer, healthier water

What the Portland Water Bureau won't tell you. EPA has written a scientifically flawed drinking water regulation and wants removal of our open reservoirs to add covered storage tanks in our drinking water system. Water rate hikes +85% over the next 5 years can be expected. **All for a public health problem that does not exist.** Please write and call Senator Merkley, Senator Wyden, and Congressman Blumenauer asking for a Congressional / EPA Administrative Waiver exempting Portland from the EPA LT2 drinking water regulation. A Waiver is an agreement between Portland and Congress / EPA exempting us because the factors for the regulation do not pose a public health threat in our drinking water system. With Congressional help the Waiver can be a simple, enduring, and cost effective solution. With a strong community voice, we can have a Waiver. Open reservoirs have provided healthy and safe drinking water for over 100 years. Let's keep it that way.

Open reservoir public health benefits

- ✔ Carcinogenic gases such as Radon and chloroform vent safely into atmosphere
- ✔ No deaths from microorganisms or chemicals
- ✔ Oxygenation provides natural disinfection process and cleaner, fresher tasting drinking water
- ✔ Sunlight inhibits nitrification and toxins
- ✔ Future costs - minimal for maintenance

Public health problems with covered storage tanks

- ✔ Carcinogenic gases unable to vent end up in homes, schools, and workplaces
- ✔ Deaths from Salmonella, unvented toxic gases
- ✔ Rubberized asphalt coatings contain carcinogens from petrochemicals that may leach into water
- ✔ Covering encourages nitrification and toxins
- ✔ Future costs - $800 million with debt

City Council hearing on approving $500 million for underground reservoirs Wednesday, May 18, 9 a.m.

This from 2011 AP —

Washington Park Reservoir Improvements Project — Construction Schedule

2016 2017 2018 2019 2020 2021

RES 3 mobilize/shoring/excavation — 8,000 TRUCKS

RES 3 MSE walls — 3,000 TRUCKS

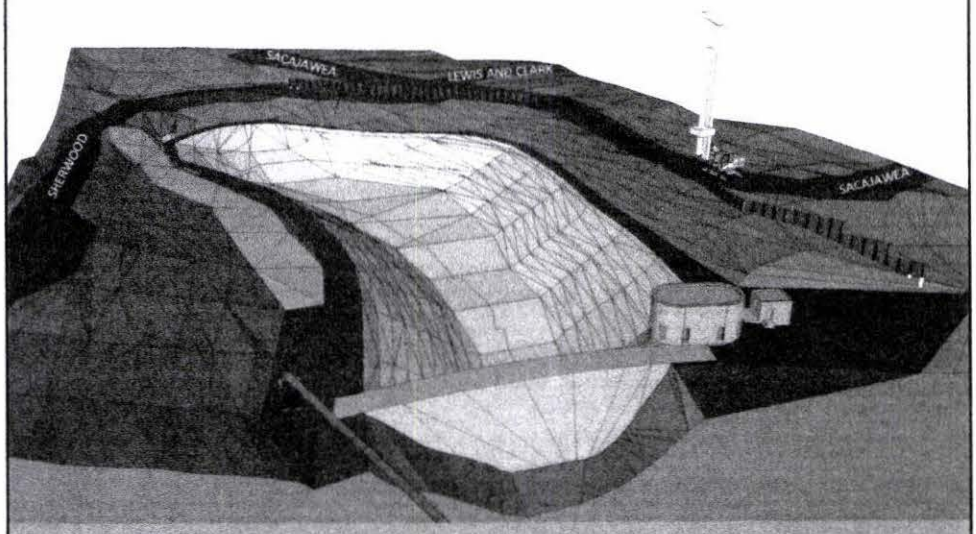
RES 3 tank construction — 7,000 TRUCKS

RES 4 area construction — 6,000 TRUCKS

RES 3 / 4 visible features — 6,000 TRUCKS

Construction and Site Logistics

Washington Park Reservoir Improvements Project — Shoring Wall 1 Construction



Construction and Site Logistics

LU-249869

Adam, Hillary

From: Adam, Hillary
Sent: Thursday, April 02, 2015 2:19 PM
To: Elliott, Teresa
Subject: RE: Save the Reservoirs / Land Use Review number LU 14-249689

Thank you.
I had never received this - the last name is wrong.

Hillary Adam
Bureau of Development Services
p: 503.823.3581

-----Original Message-----
From: Elliott, Teresa
Sent: Thursday, April 02, 2015 2:14 PM
To: Adam, Hillary
Subject: RE: Save the Reservoirs / Land Use Review number LU 14-249689

Hillary - I noticed this email was missing from the list of exhibits for WP type 4

-----Original Message-----
From: Mark Wheeler [mailto:mark@rootsrealty.com]
Sent: Tuesday, February 17, 2015 10:51 AM
To: Hillary.Adams@portlandoregon.gov; Wochnick, Lindsay
Subject: Save the Reservoirs / Land Use Review number LU 14-249689

Hello,

Once again I'm commenting to affirm that I am strongly opposed to any degradation of our perfectly fine, well-functioning open reservoirs. Please stop wasting money while making our water less safe and less able to be used in the event of a large scale emergency such as an earthquake. This whole thing has been an insulting boondogle from the beginning, a corporate money & resource takeover plan, & a byproduct of 9/11 hysteria.

Friends of Reservoirs is on the right side of history, please follow their recommendations. Thank you.

Mark Wheeler
Mt Tabor
Citizen & Voter