

Opening Statements



Mt. Tabor Land Use Appeal

Project Introduction

City Land use reviews:

- *Type III Historic Resource Review
- *Type II Environmental Review

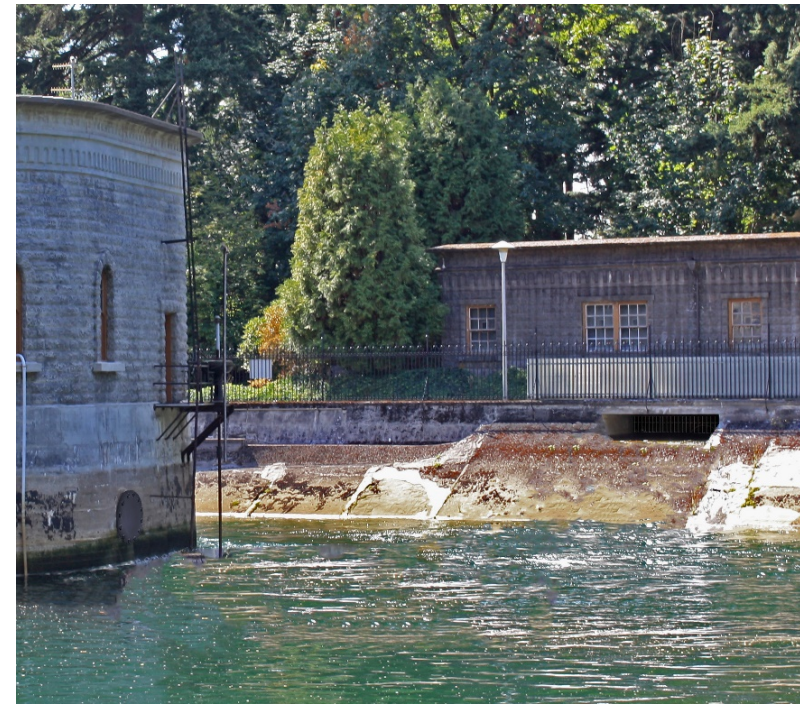
Oregon State Historic Preservation Office has reviewed required documentation



Mt. Tabor Land Use Appeal

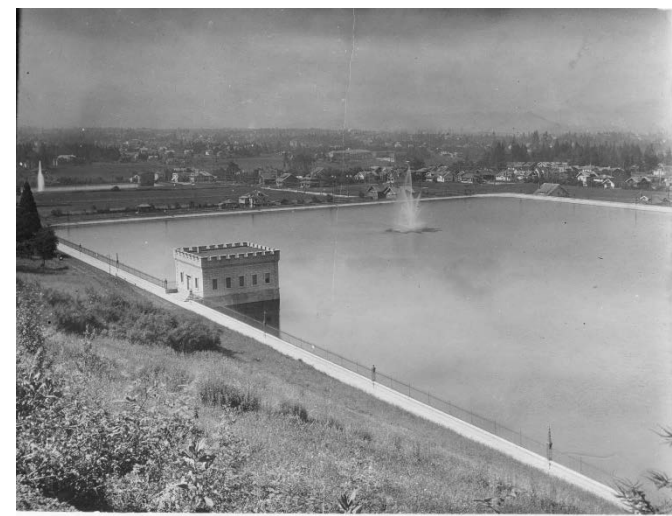
Project Summary

- *Disconnect the reservoirs from the drinking water system
- *Construct a (buried) large-diameter pipe to carry water past the reservoirs
- *Maintain water (non-potable) in the reservoir basins
- *Plant trees and shrubs added to meet permit requirements;
- *Add several vaults, manhole covers, and vents; cap or screen inlets and drains at Reservoirs



Effects of the Project on Historic Resources

Contributing Resources vs. Noncontributing Resources
District Compatibility and Historic Landscape Evaluation



(Reservoirs Historic District)

Contributing Resources :

- Res. Basin 1 (with fences, parapets, lampposts & walkways)
- Res. Basin 5 (with fences, parapets, lampposts & walkways)
- Res. Basin 6 (with fences, parapets, lampposts & walkways)
- Inlet Gatehouse 6
- Outlet Gatehouse 6
- Gatehouse 1
- Gatehouse 5
- Weir Building 1
- Weir Building 5
- Covered Storage Tank Building
- Covered Storage Tank
- Fountain at Reservoir 1



Noncontributing Resources:

- Out Building 5
- Pump Station betw. Reservoirs 5 & 6
- Chlorination Building 6



Effects of the Project on Historic Resources

Concept of Reversibility

Visual Impacts and SHPO Concurrence



Mt. Tabor Land Use Appeal

Basis of Appeal by the Portland Water Bureau

PHLC Approval **Condition B:**

*Following completion of the disconnection, Reservoirs #1, #5, and #6 must continue to hold water within the normal historic operating range for each reservoir, which is 50% to 75%. The reservoirs must be maintained and cleaned, and may be emptied (partially or fully) for brief periods, as necessary, to address system operational requirements, to maintain security, regulatory compliance, or for safety reasons. **The reservoirs shall not be partially or fully emptied for more than 60 days total, either consecutively or non-consecutively within a calendar year, except in emergency circumstances.** Any proposal to permanently remove visible water from the site, as required in the preceding sentence, will require a follow-up land use application to be reviewed by the Historic Landmarks Commission.*

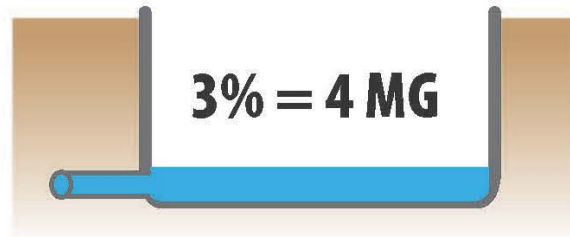
PHLC Approval **Condition E:**

The City of Portland shall formally adopt the May 2009 Mount Tabor Reservoirs Historic Structures Report and fully implement the short- and long-term restorative recommendations and maintenance therein, including removal of non-historic elements, such as light fixtures and conduit, and restoration of the contributing resources of the Mt. Tabor Reservoirs Historic District by December 31, 2019.

Draining the Reservoirs



Current



$$\text{Time to drain} = \left(\frac{\# \text{ of gallons}}{\text{discharge rate}} \right) \left(\frac{1 \text{ hr}}{60 \text{ min}} \right) \left(\frac{1 \text{ day}}{24 \text{ hrs}} \right) = \left(\frac{4,000,000 \text{ gal}}{1,000 \text{ gpm}} \right) \left(\frac{1 \text{ hr}}{60 \text{ min}} \right) \left(\frac{1 \text{ day}}{24 \text{ hrs}} \right) = 3 \text{ days to drain}$$

Future



$$50\%: \text{Time} = \left(\frac{65,500,000}{1,000} \right) \left(\frac{1}{60} \right) \left(\frac{1}{24} \right) = 45 \text{ days to drain}$$

$$85\%: \text{Time} = \left(\frac{111,350,000}{1,000} \right) \left(\frac{1}{60} \right) \left(\frac{1}{24} \right) = 77 \text{ days to drain}$$

Notes:

1. Total storage = 131 MG
2. Current includes only one cell in Res. 6
3. Disinfection time not included
4. Discharge rate set by BES permit

Cleaning the Reservoirs

Current



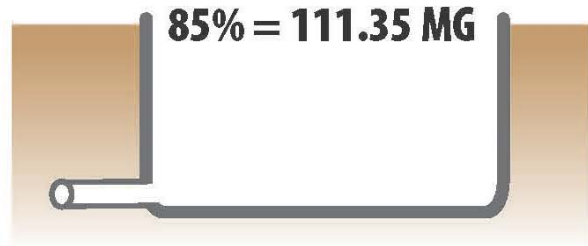
14 days to clean (completely empty)



Future



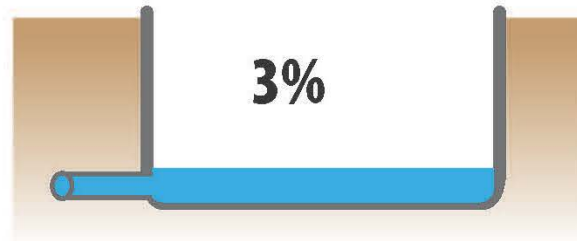
14 days to clean (completely empty)



Note:
1. Disinfection time not included for comparison

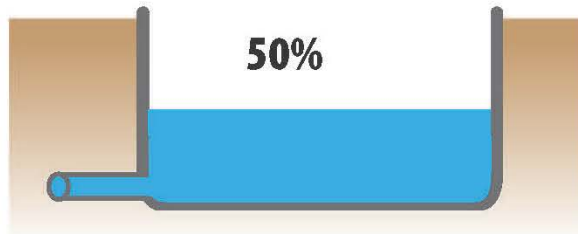
Total time to Drain, Clean, and Refill the Reservoirs

Current



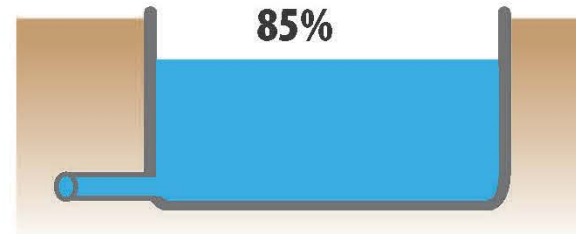
$$\begin{aligned} \text{Time Total} &= \text{Time to Drain} + \text{Time to Clean} + \text{Time to Refill} \\ \text{Total} &= 3 \text{ days} + 14 \text{ days} + 7 \text{ days} = 24 \text{ days} \end{aligned}$$

Future



$$50\%: 45 + 14 + 7 = 66 \text{ days}$$

$$85\%: 77 + 14 + 7 = 98 \text{ days}$$



Notes:

1. Total storage in all 3 reservoirs = 131 MG
2. Current includes only one cell in Res. 6
3. Disinfection time not included
4. Discharge rate = 1,000 gpm

Draining, Cleaning, and Refilling the Reservoirs



PHLC Approval Condition B (third sentence):

- *Allows for no more than one cleaning cycle/ year, which could create **water quality problems**
- *Too rigid to allow draining for **maintenance, safety, or other reasons**

Maintenance and Repair Work to Historic Resources



Projected cost: \$100,000.00

Mount Tabor Reservoirs Historic Structures Report
Condition Analysis and Recommendations
TABULAR SUMMARY

Structure	Component	Observation	Recommendation	Priority ⁽¹⁾			Cost	Contractor Skill Level ⁽²⁾
				S	L	M		
RESERVOIR 1								
GATEHOUSE 1								
GH1	CONC	Wall surface spalling, deterioration and exposed reinforcing	Clean exterior, test for absorption, apply sealer	X			\$12,000	A
GH1	CONC	Wall openings and projections deteriorated	Clean exterior, test for absorption, rebuild severely deteriorated projections, apply sealer	X			\$66,000	A
GH1	CONC	Roofing in fair condition, ponding at drain, inadequate roof drip	Replace roofing, provide overflow drain	X			\$25,000	B
GH1	BALC	Iron work is rusted, ladder connections rusted	Further investigation needed, clean and repair rusted connections, repaint.		X		\$8,000	B
GH1	DOOR	Non-original main entry doors	Option A.1: Repair doors, preserve cast-iron sills. Option A.2: Repair and replace with units matching original design and materials		X		---	C
GH1	WIND	South and west side wood members weathered, paint missing/oxidized, glass units need repuniting	Option A.1: Rehabilitate windows and deteriorated frame parts, select certain openings to be operable. Option A.2: Rehabilitate all windows and deteriorated frame parts; all openings to be operable		X		\$6,000	B
GH1	INT	Damage to concrete floor deck, metal stair rusting	Option A.1: Maintain wood restroom structure, stairway, equipment Option A.2: Limited interpretive tours; signage graphics Option A.3: Additional documentation, inventory and photographs of existing historic equipment		X		\$11,500	B
GH1	STEP	Substantial spalling, coating breaking up	Clean concrete surfaces, remove loose and deteriorated material, patch tests, patch spalled areas	X			---	B

⁽¹⁾
S: Short-term (less than 5 yrs)
L: Long-term (5-10 yrs)
M: Maintenance (Varies/Ongoing)

⁽²⁾
A: Requires Historic Preservation Consultant
B: Contractor w/ preservation background
C: Qualified contractor w/ PWR Maintenance Personnel

Table Page 1

Projected cost to meet entire 2009 HSR: \$8M (2018 costs)

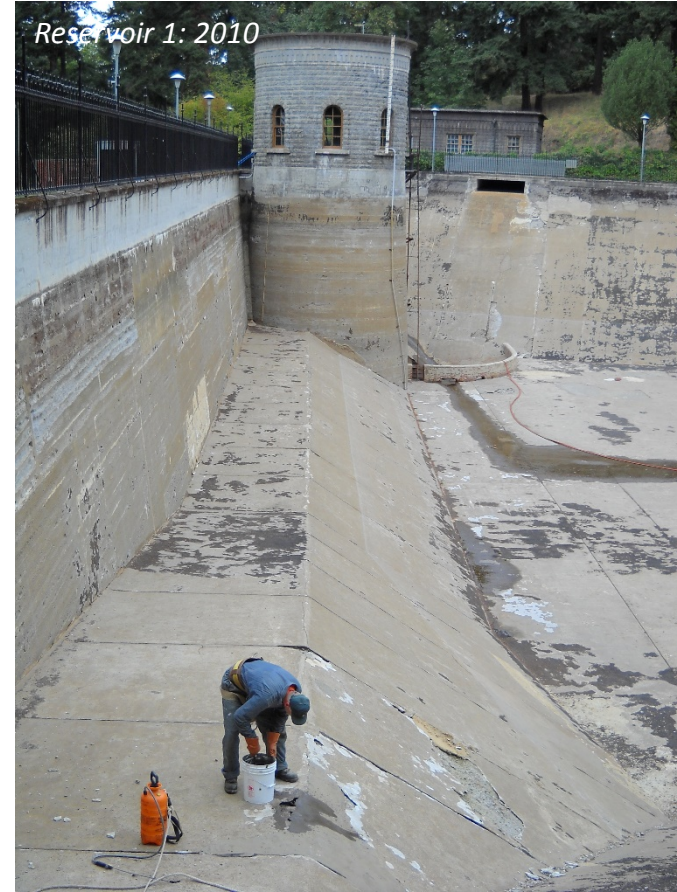
PHLC Approval Condition E was added to meet compliance with approval criterion #9 (not impairing the essential form and integrity of the resource). Not justified because:

- * **The proposal does not affect the form or integrity of the resource.**
- * Code itself does not require—or even mention—restoration.
- * The work required would itself require one or more historic resource reviews.
- * This condition intrudes on City Council’s budget (and program) authority. Such a program decision would properly be made in Council budget deliberations, not in Historic Review.

Mt. Tabor Land Use Appeal

Maintenance and Repair Work to Historic Resources

Examples of Restoration and Rehabilitation: Ongoing work (no review required)



Mt. Tabor Land Use Appeal