



Nick Fish, Commissioner
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MEMORANDUM

May 22
April 9, 2015 *DKC*

To: Mayor Hales
Commissioner Fish
Commissioner Fritz
Commissioner Novick
Commissioner Saltzman

From: David Shaff *David Shaff*
Bureau Administrator

Subject: LU #14-218444 HR EN, Mount Tabor Reservoirs Disconnection

In its February 27, 2015 appeal, the Mount Tabor Neighborhood Association sets out five objections to the decision reached by the Historic Landmarks Commission. Two of the objections concern the way that the approval criteria were applied in the decision. The other three applications concern the administration of the Zoning Code. MTNA also filed objections, dated April 29, 2015.

In this document, applicant/appellant Portland Water Bureau first addresses the MTNA's points of appeal in the order they were presented in the letter of February 27, 2015. We thereafter respond to points made in the filing of April 29, 2105.

FEBRUARY, 2015 APPEAL ISSUES

Objection 1. PCC 33.730.060.C.3, requiring identification of legal lot boundaries within the subject property. Failure to require such information violated MTNA's substantial rights. Inclusion of that information would have enabled MTNA to show that the applicant lacks sufficient authority over the subject property to undertake the project.

PWB Response:

PCC 33.730.060.C.3 requires that a land use application include, among other things: "a site plan . . . [showing] all [p]roperty lines with dimensions and total lot area," *unless the requirement is waived by the Director of BDS because "they are not applicable to the specific review."* That is exactly what happened here; the Water Bureau was not required to show all pre-existing lot lines because those outdated boundaries are irrelevant to the Water Bureau's project proposal.

All the land in Mt Tabor, whether administered by the Water Bureau or the Parks Bureau, is owned by the City of Portland. PWB provided a copy of the ordinance through which City Council allocated management responsibilities to the Portland Water Bureau and Portland Parks and Recreation (Exhibit H-55). That ordinance also affirms City of Portland ownership of the entire park and demonstrates that the two bureaus act as the City's agents, not as "owners" of the park. Further, for purposes of a development proposal, a "site" is defined as an "ownership," and here the property ownership is unified in the City. Once ownership is established, the underlying platted lot lines are wholly unnecessary in order to address any of the approval criteria or development standards that apply to this proposal.

MTNA asserts that the failure to provide decades old plat lines "violated MTNA's substantial rights" because without that information, MTNA could "not show that the applicant lacks sufficient authority over the subject property to undertake the project."

MTNA errs. Even if all the plat lines were laid out on a map and all the hundred year old deeds were put on display, it would do nothing to undermine the legal

ability of the City of Portland, as owner of Mt Tabor Park, to apply for a land development approval. Ownership is all that is required. Even if the split management responsibility between Parks and Water posed any issues of authority (it does not, as a legal matter, since City ownership is unitary), that issue was fully addressed in the application. PWB provided two letters from Portland Parks and Recreation demonstrating that PWB has coordinated with PP&R and will be able to acquire any necessary permits for work on property that PP&R administers (Exhibits A-7 and A-8).¹

Finally, the information the appellants demand is actually in the record, in any case. Some project opponents provided a copy of a map of the underlying platted lots and related information (Exhibits H-22 and H-46). As a result, the location of the platted lots is, in fact, in the record, and this provides the very information that the opponents claim that the case file lacks.

In summary, the record contains evidence showing that the entire park is in a single ownership that constitutes the site. The land is the property of the City of Portland, a municipal corporation. The fact that there are underlying platted lots has no bearing on the ownership of the land, or the treatment of the property in these land use reviews. In addition, PWB provided evidence that City Council has distributed management authority by ordinance to the Portland Water Bureau and Portland Parks and Recreation, and that PP&R has participated in the planning for this project and will be able to provide any necessary permit(s) for the proposed development.

In contrast, project opponents have provided only a hypothetical argument unsupported by evidence. This objection lacks merit.

Objection 2. PCC 33.815.040.A.4, governing material changes in the extent of an existing conditional use. Because the project would change the amount of existing basic utility use by more than 10%, a new conditional use approval is required.

¹ Even if the City were proposing to use a parcel contrary to an old deed restriction (and there is no evidence that it is), the City has full ownership authority to do so until an heir appears and successfully challenges the City's use. But even then, no heir could strip the authority of the City to use the property as it wishes. The City could simply condemn the heir's reversionary interest. In short, even if assumed to be true, opponents' speculative hypotheticals have no relevance to the land use decision before the Council.

PWB Response:

PWB did not seek a new conditional use review because it is not required. The Application was filed and accepted by the Bureau of Development Services with the understanding that no new conditional use review was required. See Application at 82 and Applicant's Exhibit H-75. See also, Mt Tabor Use Determination, Exhibit A-1, Appendix 1 (a use determination adopted by Council in 2003 and upheld by the Land Use Board of Appeals).

As we explain below, PCC 33.815.040A.4. does not apply to PWB's application; therefore, the MTNA objection has no sound basis.

Mount Tabor Park is zoned OS, and Park and Open Areas uses are allowed outright with four exceptions that do not apply here. Basic Utilities uses are conditional uses in this zone. (See 33.100.100).

The Portland Water Bureau infrastructure at Mount Tabor Park has "automatic conditional use status" because it was constructed before the Zoning Code was established. Therefore, although the infrastructure is considered an approved conditional use, there was never a land use review to establish the use and there are no specifically approved quantities or conditions of approval.

Whether or not a conditional use review is required for the Water Bureau proposal pursuant to PCC 33.815.040.A.4 depends on how the current proposal affects the "use" at the site.

There are two existing and, in some cases, overlapping, uses at Mount Tabor Park: "Parks and Open Areas" and "Basic Utilities." The Code anticipates such circumstances. PCC 33.920.030A.1.: "development may have more than one primary use." Each use at Mt Tabor has physical development associated with it. In general, the areas with Basic Utilities development (e.g., the reservoirs and pipes) are also used for Parks and Open Areas uses, such as walking, viewing, and similar pastimes.

Section 33.815.040.A governs "proposals that *affect the use* of the site." PWB's proposal will alter some piping at Mount Tabor and redirect the flow of water. But the reservoirs will still contain water piped in from the water system. This will help preserve the historic character of the site by maintaining the aesthetic

experience of open water in Mount Tabor Park. At the same time, the Portland Water Bureau will continue its "Basic Utilities" use of Mount Tabor Park by continuing to use the conduits, pipes, control equipment, pump station, and Reservoir #7 (near the top of Mount Tabor) to deliver drinking water. In addition, the Mount Tabor Reservoirs will continue to be connected to and filled from the Portland Water Bureau's pipelines and the bureau will continue operate and maintain the reservoirs for non-drinking water purposes. This continued use respects the demands by certain members of the community that the project at Mount Tabor be "reversible" if drinking water regulations are altered in the future to allow again the use of open reservoirs. The open reservoirs, in essence, remain part of the water system, held in reserve.

PCC 33.815.040A.4, cited by MTNA, requires review of only certain "changes to a conditional use." It provides that

4. Changes to a conditional use that will change any specifically approved amounts of the use such as members, students, trips, and events are reviewed as follows:
 - a. Changes of 10 percent or less of the amount are processed through a Type II procedure.
 - b. Changes of over 10 percent of the amount are processed through a Type III procedure.

Note that this criterion refers to the specifically approved *uses* or use *activities*, not to developments facilitating the use. See discussion below on changes to developments. The PWB proposal changes no "specifically approved amounts of the use" PCC 33.814.040A.4. Thus, the proposal needs no additional conditional use review under PCC 814.040A.4.

Objection 3. PCC 33.815.040.B.I, governing the circumstances under which alterations to an existing conditional use trigger a new conditional use review. The record contains insufficient evidence that the application is exempt from a new conditional use review pursuant to that code provision. The applicant failed even to address subsections a and b thereof, and the record shows that the "exterior improvement area" of the project exceeds 1500 square feet.

PWB Response:

Section 33.815.040.B regulates “Proposals that alter the *development* of an existing conditional use.” (emphasis added). It sets out numerous circumstances under which changes to the developments associated with an existing conditional use trigger or do not trigger additional conditional use review.

The Water Bureau proposes to alter some developments at its Mt Tabor facilities. But the alterations meet the criteria found in PCC 33.815.040.B.1. under which certain limited changes to development are “allowed by right. . . .”²

First, the Bureau’s proposal “complies with all [previous] conditions of approval. . . .” PCC 33.815.040.B.1.a. PWB provided the Land Use Review history (including conditions of approval for previous land use reviews) for the Mount Tabor Park as part of Exhibit A-1 (in Appendix G). This history shows that none of the previous conditions of approval apply to this project. Thus, the project effectively “complies with all conditions of approval.”

Second, the proposal “does not increase the floor area by more than 1,500 square feet.” PCC 33.815.040B.1.c. In fact, the proposal increases floor area by zero feet. Floor area as defined in Chapter 33.910 as “the total floor area of the portion of a building that is above ground.” Building is defined as “a structure that has a roof and is enclosed on at least 50 percent of the area of its sides.” Most of the Bureau facilities—reservoirs, pipes, underground vaults-- included in the proposal have no floor area because they are not “buildings” and they are underground, not “above ground.” The two features of a building to be altered—the roof and one wall of a Gate House—do not change the Gate House floor area. In short, nothing in the proposal would increase floor area by more than 1,500 feet. For a discussion of the relevant terms in the Zoning Code, see Council’s 2003 Use Determination, Exhibit A-1, Appendix 1.

² Further, in any case, the MTNA is fully protected if there are any changes to the proposal between this review process and the building permit stage. There will be another review of the proposal then and if the details of the Water Bureau proposal do not meet the standards to proceed “by right,” it will then have to go through a further conditional use review. As the final decision of the Landmarks Commission noted (at 29):

“The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.”

Given the Bureau’s plans, this is a highly unlikely result.

Third, the proposal “does not increase the exterior improvement area by more than 1,500 square feet.” PCC 33.815.040.B.1.d. Exterior improvements are defined in PCC 33.910 as “all improvements except buildings or other roofed structures.” The only changes to exterior improvement area will be a *net reduction* of approximately 108 square feet. This results from the elimination of 254 square feet through the removal of three at-surface vaults in Work Area 7 and an addition of approximately 146 square feet due to installation of one new vault and two concrete pads for electronic equipment cabinets.

Fourth, the project “will not result in a net gain or loss of site area.” PCC 33.815.040.B.1.e. The site is defined as Mount Tabor Park. There are no additions or subtractions to the park area. The proposal will not result in any change of site area.

Fifth, the project “will not result in an individual or cumulative loss or gain in the number of parking spaces” PCC 33.815.040.B.1.f. The project has no effect on parking spaces whatsoever.

Sixth, the record already demonstrates that the project will “compl[y] with the development standards” of the Zoning Code and will not need an adjustment. PCC 33.815.040.B.1.b. The development standards for conditional uses in open space zones are either inapplicable or easily met by the PWB project.

The development standards for conditional uses in the Open Space zones are stated in 33.100.200.B:

1. Building setbacks.
 - a. Generally. Except as specified in paragraph 1.b. below, buildings must be set back from all the property lines 1 foot for each foot of building height. Where the site is adjacent to a transit street or a street within a Pedestrian District, the maximum setback is 25 feet.
 - b. Recreational fields for organized sports. Setbacks for structures that are accessory to recreational fields used for organized sports are subject to Chapter 33.279, Recreational Fields for Organized Sports.

2. Parking. Conditional uses must meet the parking standards for that use in the CG zone, as stated in Chapter 33.266, Parking and Loading.
3. Other standards. Conditional uses are also subject to the other development standards stated in Table 110-5 in Chapter 33.110, Single-Dwelling Zones.

The proposal includes no new buildings, so paragraph B.1.a does not apply. The proposal includes no recreational fields and no structures accessory to recreational fields used for organized sports, so paragraph B.1.b does not apply.

Parking standards for the Basic Utilities use in the CG zone are stated in Tables 266-1 and 266-2. Table 266-1 indicates that the minimum and maximum standards for uses in the CG zone are shown under Standards A and B, respectively, in Table 266-2. Standards A and B for "Basic Utilities" state that there are no minimum or maximum parking standards. Therefore, paragraph B.2 does not apply. In any case, the application and record show that the project will make no permanent changes to existing parking facilities in the Park.

Basic Utilities are a conditional use in the OS zone, so paragraph B.3 does apply. Thus, the proposal is subject to the standards in Table 110-5 in the Single-Dwelling Zones chapter of the Zoning Code. The proposal easily complies with those standards.

Table 110-5 is set out below, with the standards numbered 1 through 12, for easier reference. Standards are applied to new development and alterations proposed as part of a project. These standards include the numbered notes that are included below the table.

Table 110-5 Institutional Development Standards [1]	
1. Minimum Site Area for New Uses	10,000 sq. ft.
2. Maximum Floor Area Ratio [2]	0.5 to 1
3. Maximum Height [3]	50 ft.
4. Minimum Building Setbacks [2]	1 ft. back for every 2 ft. of bldg. height, but in no case less than 15 ft.
5. Maximum Building Setback Transit Street or Pedestrian District	20 ft. or per CU/IMP review

6. Maximum Building Coverage [2]	50% of site area
7. Minimum Landscaped Area [2,4]	25% of site area to the L1 standard
8. Buffering from Abutting Residential Zone [5]	15 ft. to L3 standard
9. Buffering Across a Street from a Residential Zone [5]	15 ft. to L1 standard
10. Setbacks for All Detached Accessory Structures Except Fences [6]	10 ft.
11. Parking and Loading	See Chapter 33.266, Parking And Loading
12. Signs	See Title 32, Signs and Related Regulations

Notes:

[1] The standards of this table are minimums or maximums as indicated. Compliance with the conditional use approval criteria might preclude development to the maximum intensity permitted by these standards.

[2] For campus-type developments, the entire campus is treated as one site. Setbacks are only measured from the perimeter of the site. The setbacks in this table only supersede the setbacks required in Table 110-3. The normal regulations for projections into setbacks and for detached accessory structures still apply.

[3] Towers and spires with a footprint of 200 square feet or less may exceed the height limit, but still must meet the setback standard. All rooftop mechanical equipment must be set back at least 15 feet from all roof edges that are parallel to street lot lines. Elevator mechanical equipment may extend up to 16 feet above the height limit. Other rooftop mechanical equipment that cumulatively covers no more than 10 percent of the roof area may extend 10 feet above the height limit.

[4] Any required landscaping, such as for required setbacks or parking lots, applies towards the landscaped area standard.

[5] Surface parking lots are subject to the parking lot setback and landscaping standards stated in Chapter 33.266, Parking and Loading.

[6] Setbacks for structures that are accessory to recreational fields for organized sports on a school, school site, or in a park, are stated in Chapter 33.279, Recreational Fields for Organized Sports.

Here is how the development standards apply to or are met by the Mt. Tabor Reservoirs proposal:

1. Minimum site area for new use: There is no new use proposed, so this standard does not apply and the project is in compliance.

2. Maximum floor area ratio: There are no new buildings and no new floor area proposed, so this standard does not apply and the project is in compliance.
3. Minimum building setbacks: No new buildings are proposed, so this standard does not apply and the project is in compliance.
4. Maximum height: No new structures exceed the 50 foot height limit, so this standard does not apply and the project is in compliance.
5. Maximum building setback for a Transit Street or Pedestrian District: No new buildings are proposed, so this standard does not apply and the project is in compliance.
5. Buffering from abutting residential zone: No new buildings or uses are proposed, so this standard does not apply and the project is in compliance.
6. Buffering across the street from a residential zone: No new buildings or uses are proposed, so this standard does not apply and the project is in compliance.

The only new above-ground structures proposed with this project are a SCADA (Supervisory Control and Data Acquisition) cabinet and a cathodic protection electrical cabinet. Both of these are considered mechanical equipment, which has its own setback and screening standards in various Chapters of the Zoning Code.

There are no standards for mechanical equipment in Table 110-5 or in Chapter 33.100. PWB is providing vegetation around both of these cabinets to screen them from view and to help soften their appearance, as described in the application narrative (Exhibit A-1).

In summary, the proposal can meet all applicable development standards when it is reviewed for construction permits. This, with everything else just discussed, demonstrates that the project meets the criteria in PCC 33.815.040B.1. for conditional use development alterations “allowed by right.” The Council should reject MTNA’s argument to the contrary.

Objection 4. PCC 33.846.060.G.I, requiring demonstration that "the historic character of the property will be retained and preserved." Improvement and use of the property as reservoirs is the material facet of its historic character. The record lacks sufficient evidence to demonstrate that the applicant will retain and preserve the reservoirs.

PWB Response:

This approval criterion in its entirety states: *"The historic character of the property will be retained and preserved. Removal of historic materials or alteration of features and spaces that contribute to the property's historic significance will be avoided."* This criterion clearly requires that the development activity "avoid" the "removal" of existing historic materials, features, and spaces. It also states that the "historic character" of the "property" is to be retained and preserved.

Section 33.846.060.G of the Zoning Code applies to specific development proposals on specified properties. The current proposal is to plug or cap certain pipes, install new pipes, vaults, and associated equipment, carry out some landscaping, and make slight alterations in a reservoir gate house. It is described in detail in Exhibits A-1 and A-3. The proposal includes no removal of any historic materials or alteration of any features or spaces. With one minor exception, the reservoirs, the parapet walls, the gatehouses, and all the associated historic structures, features, and spaces will remain in their current configuration, dimensions, and condition at the end of the proposed work. There is more than enough evidence in the application itself to show that the historic resources at issue will be retained and preserved. That evidence was reviewed, as well, by the State Historic Preservation Office. SHPO has found that the proposal has "no adverse effect" on the historic resources of the reservoirs and the Park.

MTNA explains its Objection #4 by asserting that "improvement and use of the property as reservoirs is the material facet of its historic character." If by this, MTNA means to say that the Zoning Code requires that the reservoirs continue to be used for the storage of potable, rather than non-potable water, it misconstrues the Code. The MTNA conflation of "historic character" with historic "improvement and use" in this way would lead to clearly incorrect outcomes. In MTNA's interpretation, no historic use could ever be abandoned and no historic structure under review could ever be put to a different future use. A shrinking

congregation could never leave its aging historic church, and a failing department store in its historic flagship building could never legally close or build a hotel on the upper floors. That is not what the Code says, however.

The Water Bureau's proposal retains and preserves the historic character of the reservoirs for it does nothing to change that character. Insofar as the MTNA means to argue that the Water Bureau must repair, restore, and upgrade the reservoirs, that argument is based on a misreading of City Code, as the Water Bureau has discussed in its own appeal of the Landmarks Commission Condition E.

Objection 5. PCC 33.846.060.G.2, requiring demonstration that the historic resource remain a physical record of its time, place, and use, and PCC 33.846.060.G.9, requiring demonstration that the project be reversible. Because the project jeopardizes the existing conditional use status (basic utility), the decision does not ensure possible future restoration of the historic function of the site.

PWB Response:

Briefly, the entire record demonstrates conclusively that the historic resources in Mt Tabor will "remain . . . a physical record of . . . [their] time, place and use. . . ." because *they will not change*. The Bureau proposes to make underground piping and vault changes and a minor modification to Gatehouse 6. The historic resources will suffer no adverse effects. Moreover, while nothing in the Code requires that developments be reversible, the record shows that nothing in the proposal undermines the integrity of the historic resources and, if drinking water rules change, the project does not foreclose the possibility of the reservoirs' re-use in Portland's drinking water system. Further, even if the concern were relevant (which it is not), as discussed in the Water Bureau's response to MTNA Objection #2 (as well as elsewhere in the record), the project does not jeopardize the existing conditional use status of Basic Utilities in the Mount Tabor Park.

To meaningfully discuss MTNA's fifth objection, it is useful to quote the complete text of the specific approval criteria upon which it relies.

G.2

In its entirety, the approval criterion in subparagraph G.2 states:

The historic resource will remain a physical record of its time, place, and use. Changes that create a false sense of historic development, such as adding conjectural features or architectural elements from other buildings will be avoided.

The PWB project clearly meets this criterion. The term “historic resource” is defined in the Zoning Code (33.910) as “a place, structure or object that has historic significance.” In this case, the “historic resources” are the “structures or objects that are identified as contributing to the historic significance of a Historic District.” Merriam-Webster.com defines “record” as “something that recalls or relates past events.” The structures themselves, with or without “restoration,” will recall or relate past events. Thus, after the PWB project is completed, the historic structures on the site, in their essentially unchanged state, will continue to serve as “physical record(s) of (their) time, place, and use.”

In its discussion of approval criterion #2, the Historic Landmarks Commission correctly found that:

“As noted above, minimal alterations are proposed to the historic resources listed as contributing. The applicant has worked with the local community, resulting in a proposal that is essentially reversible should the federal rule requiring enclosure or treatment of open reservoirs be reversed. For instance, the proposed grates, screens, pipe welds, are easily reversible. Such appurtenances are not conjectural features but are utilitarian and will be minimally visible. As such, they will not create a false sense of historic development. The same is true for vaults proposed for removal and construction as the existing vaults are not noted as contributing and the proposed vaults will differ minimally from the existing.”

- Findings and Decision by the Landmarks Commission, Rendered on February 9, 2015; Case File Number LU 14-218444 HR EN, PC # 14-118276 – Mt. Tabor Reservoirs Disconnection; p. 18.

The Water Bureau proposal meets the approval criterion found in PCC 33.846.G.2 and the Council should so find, dismissing the MTNA appeal on this point.

G.9

In its entirety, subparagraph G.9 states:

Preserve the form and integrity of historic resources. New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic resource and its environment would be unimpaired.

In its findings concerning approval criterion #9, the Historic Landmarks Commission found that:

“While the Commission was not presented with representations of what the “cover” or “treat” options might look like, the current proposal does appear to preserve the essential form and integrity of the reservoirs historic district and Mt. Tabor Park, at least in that it does not propose significant irreversible changes to the listed contributing resources. For instance, the proposed grates, screens, pipe welds, are easily reversible. Likewise, underground piping proposed for removal could be reinstalled if the Water Bureau decided to return the open reservoirs to drinking water service.

Findings and Decision of the Landmarks Commission, p. 21

A reading of the plain language of this criterion shows that it seeks to prevent alterations that change the essential form and integrity of a historic resource, such as a historic structure. A typical example of this would be the addition of a room to a historic house. If a section of historic façade were removed where the new room was added, it would affect the essential integrity of the historic house if the room were later removed. In this case, the Water Bureau proposes virtually no changes to the historic structures at issue and no one can seriously assert that their form or integrity is threatened. Moreover, the Bureau is making no significant “additions” or “new construction” adjacent to the reservoirs. Even more than, the removal of any of the proposed minor changes will not impair the form or integrity of the contributing historic resources

Finally, there is no textual support for MTNA's assertion that Criterion G.9. Imposes some free-standing obligation for "reversibility." But even if that requirement existed, the record shows that the Bureau could reconnect the reservoirs and reverse its current project if directed to do so.

In short, Criterion G.9 is met because any of the proposed project work could be removed in the future without affecting the essential form or integrity of the historic resource. Indeed, any of this work *could be left in place* without affecting the essential form or integrity of the historic resource. The Water Bureau's proposal satisfies Criterion for Approval G.9. and that Criterion provides no basis for Appeal of the Commission's decision. (Exhibits A-1 and A-3 detail all of the proposed alterations and new construction. Exhibit A-3 is the original plan set assembled; Exhibits C-1 through C-52 are the individual plan sheets. See Exhibits C-14 through C-29 for the proposed work. Approval criterion G.9 is discussed on pp. 116-117.)

RESPONSE TO ISSUES RAISED IN MTNA APRIL 29, 2015 FILING

In its filing of April 29 filing, MTNA raised several new issues not contained within its appeal letter. To those the Water Bureau now turns.

MTNA REQUEST FOR DENIAL OF PWB APPEAL

MTNA asks the Council to deny the Water Bureau's appeal. The Water Bureau has explained the basis of appeal in its own filings and will rely on its previous filings in response to MTNA's request.

MTNA REQUEST TO ALTER DEFINITION OF HISTORIC RESERVOIR OPERATING RANGE FROM 50-75% TO 65-85%

The Bureau addressed this issue in a technical memorandum provided to the Council previously. It said (p. 2):

BDS originally proposed in its staff recommendation that the reservoirs must continue to hold water, while some commenters demanded that they be kept "full." PWB does not keep any of the reservoirs "full," but rather keeps them within an operating range.

This operating range has historically changed seasonally with consumer demands and operational needs. PWB has stated both in writing and orally that the historic range is 50-75% and 65-85% full. Both ranges are correct. The difference is an operational issue weighing distribution needs against supply needs.

For reasons also explained in the Technical Memorandum, if the higher numbers are used, the time to drain, clean, and refill the reservoirs will increase. Given the trade-offs, the Water Bureau recommends that the 50-75% provides sufficient water for aesthetic purposes and also assures some additional operating flexibility as the Bureau operates the reservoirs, for the first time, for non-water supply purposes. At a minimum, if the Council decides to change the percentages, the most accurate historic range would be 50-85%.

MTNA REQUEST TO AMEND FURTHER CONDITION B

MTNA asks that Condition B be amended so that replace the words “the normal historic operating range” with the words “the normal historic operation range producing iconic views.” If Condition B contains percentages, this amendment is unnecessary and will create ambiguity in place of clarity.

For these reasons, the Water Bureau recommends against the proposed change to Condition B unless the Council simultaneously affirms that the operational obligations of the Bureau are established use the objective criteria of percentages of full pool level.

MTNA REQUEST FOR ACCELERATED RESTORATION PLANNING AND IMPLEMENTATION

The Landmarks Commission’s Condition E obligates the Water Bureau by 2019 to undertake millions of dollars of repair, replacement, and restoration work at the Mt Tabor Reservoirs. The Water Bureau has appealed that condition. MTNA wants to make Condition E even more difficult to accomplish by demanding a written restoration plan in one year and by accelerating completion of all restoration work contemplated in Exhibit E to 2017.

For reasons explained in its own appeal, the Water Bureau urges the Council to eliminate Condition E. It will not repeat its arguments on that point here. But as explained in the Bureau's Technical Memorandum, what Condition E may require may take substantial time both to plan and implement. Accelerating the schedule would make it much more difficult and more expensive of completion. The Water Bureau urges the Council not to accept the MTNA request for a 2017 completion date for work required under Condition E.

MTNA asserts that the Bureau should be obligated to undertake this work as "mitigation" for its project at Mt. Tabor. It compares the Bureau's proposal at Mt. Tabor unfavorably to that proposed at Washington Park, where the Bureau has committed to invest significant resources into mitigation for historic alterations.³

MTNA's analogy is inapt. In Mt. Tabor, almost nothing in the project proposal touches or alters, let alone harms the historic structures. There is one minor alteration in the roof and wall of Gatehouse 6. But as the Landmarks Commission found, the proposal "does preserve the essential form and integrity of the reservoirs historic district. . . ." Final Decision at 21. SHPO concluded that the Mt. Tabor proposal has no adverse effect on historic resources. In short, there are simply no historic losses to be mitigated.

By contrast, in Washington Park, the Bureau acknowledges that it must demolish one historic resource (Reservoir 4) and alter another (Reservoir 3). Of course, mitigation and compensation is part of such a proposal. There is simply no comparison between rearranging underground piping in Mt. Tabor Park and demolishing a reservoir in Washington Park.⁴

The Historic Landmarks Commission and now the MTNA demand Water Bureau actions beyond the scope of the Bureau's Mt. Tabor project, actions unrelated in any way to the work proposed. Restoration of resources not affected by the Bureau's project is unnecessary and inappropriate and cannot be justified as mitigation when the Bureau has proposed nothing at Mt. Tabor that harms resources and for which mitigation can be justified.

³ Similarly, in 2002-2004, the Bureau offered \$14 million in park improvements when it proposed to eliminate the reservoirs altogether. No such mitigation is required for the current project, which proposes to keep the reservoirs intact.

⁴ This why the MTNA citation of LUBA cases requiring mitigation are inapposite, as well.

MTNA DEMAND FOR AN ADDITIONAL CONDITIONAL USE REVIEW

In its April 29, 2015 filing, MTNA repeats its demand for a new conditional use review. The Bureau addressed that issue in previous parts of this memorandum and need not discuss it further. In sum, nothing the Bureau proposes requires additional use review.

CONCLUSION

The Water Bureau respectfully requests the MTNA appeal be denied and that the Water Bureau's appeal be granted so that the important work at Mt. Tabor can proceed.



Nick Fish, Commissioner
David G. Shaff, Administrator


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Memorandum

Date: May 14, 2015

To: Mayor Hales
Commissioner Fish
Commissioner Fritz
Commissioner Novick
Commissioner Saltzman

From: David Shaff, Administrator 
Teresa Elliott, PE, Principal Engineer
Tom Carter, Senior City Planner

Re: Arguments in support of PWB appeal of the Historic Landmarks
Commission's Decision in Case File Number LU 14-218444 HR EN, the
Tabor Reservoirs Adjustments Project

Nature of the Proposed Land Use Action

The Portland Water Bureau has for decades used open air reservoirs in Mt Tabor Park as part of its water supply. Because of the federal Long-Term 2 Drinking Water Quality Rule (LT2) and at the direction of City Council, the Bureau must now stop using those reservoirs for storing finished drinking water. The Bureau proposes to disconnect them from the drinking water system distribution system in partial satisfaction of the requirements of LT2.

Because the reservoirs are in Mt Tabor Park, the Water Bureau's proposal is subject to two land use reviews: an environmental review and a historic resource review. The City's Historical Landmarks Commission presided over both reviews.

The Water Bureau's project will have essentially no effect on the features of the reservoirs that contribute to their historic significance. The State Historic Preservation Office (SHPO) determined that the proposal would have "no adverse effect" on the Mount Tabor Park Historic District, the Mount Tabor Reservoirs Historic District, or on the individual historic resources in these districts (Exhibit H-61), as long as the reservoirs continued to contain water. The Historic Landmarks Commission also concluded that "the current proposal does appear to preserve the essential form and integrity of the reservoirs historic district and Mt. Tabor Park..." (Historic Landmarks Commission decision findings, p. 21)

The Water Bureau proposed as part of the project to fill the reservoirs and periodically refresh the water until some alternative plan is adopted by the City or until City Council directs otherwise (Exhibit A-1, p. 12). At the time of application, two Commissioners had initiated a separate project to plan the future use of the park, including the water reservoirs. (Exhibit A-1, p. 14). PWB's proposal will keep open options for a variety of potential future uses.

The Landmarks Commission determined that the Water Bureau proposal met the Approval Criteria for environmental review. It also announced that, with certain conditions, the proposal met the Approval Criteria for historic review.

The Water Bureau accepts the bulk of the Landmarks Commission's decision. It has no objections to the Environmental Review and it appeals only two of the conditions of approval imposed as part of the Historic Resource Review, referred to as Condition B and Condition E.

Reason for Appeal: Summary

The Water Bureau balances dual responsibilities in the Mt. Tabor Reservoirs Historic District and the Park Historic District: operating a safe, effective drinking water supply system and being a steward of the historic resources in these districts. This appeal seeks review of two of the Historic Landmarks Commission's conditions of approval in the Historic Resource Review, Condition B and Condition E. The Water Bureau believes those two conditions impair the bureau's ability to balance successfully its multiple responsibilities. The specific reasons for the appeal are stated below.

Appeal of Condition B

The Water Bureau appeals the terms of Historic Resource Review Condition B and requests that the condition be amended. Condition B in its entirety directs continued operation of the reservoirs as follows:

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 concerns. The reservoirs shall not be partially or fully emptied for more than 60 days total, either consecutive or nonconsecutive, 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.

The Commission said that it imposed this condition in order to satisfy approval criterion #1 (PCC 33.846.060.G.1), which states:

“The historic character of the property will be retained and preserved. Removal of historic materials or alteration of features and spaces that contribute to the property's historic significance will be avoided.”

The Commission found that “the deep open water . . . is an integral part of the experience of both the reservoirs and Mt Tabor Park.” It concluded that the historic character of the reservoirs could not be preserved unless “the reservoirs... continue to hold water” (Final Decision and Findings of Historic Landmarks Commission, Case File Number LU 14-218444 HR EN, p. 18). Based on that conclusion, the Historic Landmarks Commission imposed Condition B during deliberations after the record was closed.

The Water Bureau has doubts about the appropriateness of Condition B as a whole.¹ Nonetheless, because this is an important issue for SHPO as well as many

¹ The Zoning Code regulates use categories, development, or alteration of the physical or natural environment, not facility operations. Whether and how to use the reservoirs and

members of the public, PWB has agreed to keep the reservoirs filled and periodically refreshed unless and until City Council decides on some different long term plan for the reservoirs. Unfortunately, the 60 day time limit imposed by the Historic Landmarks Commission is unworkable as a practical matter. It seems that the principal concern that Condition B addresses is that the reservoirs be drained and left standing empty no longer than necessary. Thus, PWB appeals only the third sentence of Condition B, which reads:

“The reservoirs shall not be partially or fully emptied for more than 60 days total, either consecutive or non-consecutive, within a calendar year, except in emergency circumstances.”

The reason for this appeal is:

PWB cannot operate the reservoirs within this time constraint and simultaneously keep them clean, healthy, and safe.

Today, the reservoirs are drained and cleaned twice a year, even though water flows through them essentially continuously. The Bureau estimates that after the reservoirs are disconnected from the system, they will have to be drained more often, at least three times a year, to prevent the creation of nuisance conditions.² Thus, under the new regime, just as now, the level of water in all the reservoirs will fluctuate over time and will only be emptied by normal operations during actual cleaning or repair work.

During cleaning cycles, all the reservoirs will be at the normal operating level except the one being cleaned. In practice, PWB will carry out each cleaning cycle by first draining a single reservoir and cleaning it. At this point, the first reservoir can start to be refilled and the next reservoir can start to drain. Again, as soon as

whether they are full or empty are operational issues, not concerns of the Zoning Code. Water is not a historic material, feature, or space regulated by the Zoning Code. The Water Bureau proposes essentially no changes to the physical features of its reservoirs.

² The estimate of how often the reservoirs will have to be drained is based on current best information. They have never been used to contain water not fed into the distribution system. The Bureau will need to monitor conditions during the early months or years of the new operation to determine if draining and cleaning three times a year is sufficient.

the second reservoir is clean, it will start to re-fill and the next will start to drain. This cycle is staffing-resource dependent and weather-dependent.

As PWB explains in the accompanying technical memorandum, there is a limited rate at which the reservoirs can be emptied into the City storm sewer system. Assuming the reservoirs are 50% full, it takes 30 to 45 days per cleaning cycle to drain all three reservoirs including both cells of reservoir 6.³ It requires another 21 days to clean and refill the reservoirs under ideal conditions. Therefore, each cleaning cycle requires 51 to 66 days just for draining, cleaning and refilling to the 50% level for all three reservoirs.

It is important to note that the “fully empty” period occurs only during the cleaning, which is approximately 14 days per cycle. The rest of the time during the cleaning cycle, the reservoirs will have water in them. Draining takes a long time; refilling is quite fast. Thus, under the new regime, just as now, the level of water in all the reservoirs will fluctuate over time and will only be emptied by normal operations during actual cleaning or repair work.

All of this means, however, that the 60-day limit on when the reservoirs can be “*partially or fully*” empty allows only one cleaning cycle per year. In contrast, the Bureau currently cleans them twice a year and anticipates that they will have to be cleaned at least three times a year once they are disconnected from the distribution system.

Condition B’s timetable also does not allow for unexpected contingencies, such as equipment failure, unexpected need for repairs, state regulatory direction, or other emergency conditions. The water system and the BES storm water system into which the reservoirs must be drained are complex and the demands placed upon those two systems vary from day to day. Large fires, drought, heavy rainstorms, pipe breaks, and other events can make it necessary to redirect water flow. Equipment can fail and need repair or replacement. Any of these reasons could affect the number of days needed either to drain or fill a reservoir and the

³ Under the current operating conditions, with the reservoirs connected to the distribution system, prior to draining the reservoirs for cleaning, reservoir inlet valves are closed and the reservoirs are discharged into the distribution system until the water level reaches the outlet pipes. Then the remaining water in the reservoirs, approximately 3 to 4 million gallons for all 3 reservoirs, is discharged to the sewer system at a rate of 1,000 to 1,500 gpm. When the reservoirs are no longer used for storing drinking water, the full volume in the reservoir has to be discharged to the sewer.

number of days that one or more reservoirs would have to stay empty. The Water Bureau must have flexibility to address such issues if they arise.

There could even be occasions when the reservoirs might have to be emptied for public safety reasons. PWB's Chief Engineer is responsible for keeping all of PWB's facilities safe. At Mount Tabor, this includes not only the reservoirs, but also the dams that create the reservoirs, all the piping, all the operating equipment, and so on. If a situation arises that poses a hazard to the public, the Chief Engineer must have the flexibility to direct that one or more reservoirs be emptied.

In addition, state law regulates the operation of the dams and other PWB facilities at Mount Tabor. The Oregon State Department of Water Resources (DWR) regulates the safety of the dams at Mount Tabor. If DWR directs the reservoir levels to be altered, the City must comply.

In short, the Water Bureau cannot meet the Commission's schedule. The result will be either the inevitable violation of the Condition or a reduction of the cleaning and refilling schedule, which carries with it the risk of nuisance conditions from odor, health vectors, or other water-quality-related problems. PWB therefore asks that the Condition of Approval B be amended to read as follows:

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 cleaning and to address system operational requirements, to maintain security, regulatory compliance, or for safety concerns. The Water Bureau shall take reasonable steps to schedule any such work so as to limit the number of days that the reservoirs are below their historic operating range and to stagger such work so that, if practical, not all reservoirs are empty at the same time. Any proposal to permanently remove visible water from the site, as required in the preceding sentence, will require a follow-up land use review.

With this modification, the Water Bureau should be able to implement this condition of approval. It will make every effort consistent with proper operation

of the water system to limit the time when reservoirs are empty or only partially full. But it is physically impossible to meet Condition B as currently written.

Please refer to the attached technical memorandum for details about the anticipated operation of the reservoirs in future.

Appeal of Condition E

The Water Bureau appeals the terms of Condition E of the Historic Resource Review and requests that the condition be removed entirely from the final land use decision. Condition E states:

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 Park Reservoirs Historic District by December 31, 2019.

The Historic Landmarks Commission explained in its order that it adopted Condition E in order in an effort to fulfill the requirements of approval criterion #9 (PCC 33.846.060.G.9), which states:

“New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic resource and its environment would be unimpaired.”

The Historic Landmarks Commission made the following findings about this approval criterion:

“The proposal to disconnect the Mt. Tabor Reservoirs from the City’s drinking water system is the Portland Water Bureau’s response to a federal ruling that the City of Portland cover or treat the water held in our open reservoirs. Covering the reservoirs would potentially be a much more invasive

treatment than the proposed disconnection. Likewise, treating the water in the reservoirs would also potentially result in significant alterations to the reservoirs and Mt. Tabor Park. While the Commission was not presented with representations of what the “cover” or “treat” options might look like, the current proposal does appear to preserve the essential form and integrity of the reservoirs historic district and Mt. Tabor Park, at least in that it does not propose significant irreversible changes to the listed contributing resources. For instance, the proposed grates, screens, pipe welds, are easily reversible. Likewise, underground piping proposed for removal could be reinstalled if the Water Bureau decided to return the open reservoirs to drinking water service.

However, as the public and Commission have noted, the reservoirs, and associated structures and elements currently exist in a deteriorated form. Thus, in order to ensure continued preservation of their historic form and integrity, the City of Portland must be proactive in addressing this state of disrepair by formally adopting the May 2009 Mount Tabor Reservoirs Historic Structures Report and fully implementing the restorative recommendations therein...”(Final Decision and Findings of Historic Landmarks Commission, Case File Number LU 14-218444 HR EN, p. 21).

The Historic Landmarks Commission erred when it imposed Condition E. The Condition is unrelated to and unnecessary to meet the Approval Criterion found in PCC 33.846.060.G.9. There is nothing in the historic review criteria that authorizes the Commission to impose an expensive and long term facility repair and restoration obligation on the Water Bureau as a condition of approval of the Bureau’s request to disconnect its reservoirs from the water distribution system. In doing so, moreover, the Commission appears to have invaded the Council’s own policy and budget authority over Water Bureau expenditures.

This condition of approval should be removed from the decision for a number of important reasons:

1. Approval Criterion 9 is satisfied without Condition E. The Historic Landmarks Commission imposed Condition E even though without the Condition, the Water Bureau’s proposal fully satisfies Approval Criterion 9. The Commission found that nothing the Water Bureau proposed was irreversible and that none of the alterations proposed, whether left in place or removed later, would harm the historic character of the reservoirs or of either historic district. To the contrary, in discussing the proposal in light of Criterion 9, the Commission found that the Water Bureau’s proposal “preserve[s] the essential form and integrity of the reservoirs historic district and Mt. Tabor Park...” (Final Findings and Decision of the Landmarks Commission, Case File Number LU 14-218444 HR EN, p. 21). Elsewhere in its decision, the Landmarks Commission found that:

As noted above, minimal alterations are proposed to the historic resources listed as contributing. The applicant has worked with the local community, resulting in a proposal that is essentially reversible should the federal rule requiring enclosure or treatment of open reservoirs be reversed. For instance, the proposed grates, screens, pipe welds, are easily reversible. Such appurtenances are not conjectural features but are utilitarian and will be minimally visible. As such, they will not create a false sense of historic development. The same is true for vaults proposed for removal and construction as the existing vaults are not noted as contributing and the proposed vaults will differ minimally from the existing.”

(Final Findings and Decision of the Landmarks Commission, Case File Number LU 14-218444 HR EN, p. 19)

The State Historic Preservation Office (SHPO) came to a similar conclusion (Exhibit H-61). It found that the Water Bureau’s proposal will have no adverse effects on the Mt Tabor and Reservoir Historic Districts.

Having found that nothing the Bureau proposes would impair the “essential form and integrity of the historic resource and its environment,” the Commission should have found that the proposal satisfied Approval Criterion 9 and imposed no additional conditions.

2. The Zoning Code does not require historic restoration. No provision in the Portland City Code requires that historic resources be maintained in any particular state of repair or be restored to prior condition. Indeed and to the contrary, the Code establishes that a restoration project itself is a proposal for action that must be subject to Historic Review. For instance, “historic restoration” appears in all of the Code’s lists of “proposals affecting” Historic or Conservation Landmarks or Historic Districts, proposals that trigger historic resource review (Zoning Code Section 33.845.060).

Here, the Water Bureau made no application to conduct historic restoration so historic restoration proposals were simply not on the Commission’s agenda. Ironically, as a result, the Commission has directed the Water Bureau to undertake a restoration program that the Bureau cannot legally undertake without another full historic review. The Commission is without authority to direct an applicant to propose projects that are not in the applicant’s contemplation.⁴

3. The Zoning Code cannot require an additional project beyond the scope or effect of an applicant’s proposal. Even if there were some Code provision allowing the Commission to impose restoration obligations on a historic review applicant, in this case there is simply no nexus between the Commission’s Condition E and the Water Bureau’s proposal.

The Water Bureau proposes to change some of the underground piping running into and out of the reservoirs in order to isolate them from the drinking water system. This is required by Oregon drinking water regulations. No one contends that any part of what the Water Bureau proposes will adversely affect the reservoirs themselves or their historic character. Condition E, however, requires the Water Bureau to undertake restoration work on those very parts of its property that the proposed project *will not affect, including the removal of non-historic items*. This exceeds the scope of the Bureau’s proposal and the scope of any proposal review. The Zoning Code does not authorize the Commission to require restoration of the Reservoir structures or replacement of existing light

⁴ This not to say that the Water Bureau intends to ignore the recommendations of the Report. As budget has allowed, the Bureau has already spent about \$450,000 on some of the repair and restoration measures discussed in the Report. But decisions to do more are the Council’s to make in the budget process, not the Landmark’s Commission’s to decide in a land use review.

standards at the reservoirs simply because the Bureau wants to cut and plug underground pipes.

Condition E also requires “removal of non-historic elements, such as light fixtures and conduit.” All of the non-historic elements in the Mount Tabor Reservoirs Historic District have a necessary function. If they are removed, they will have to be replaced with something else. This requirement is beyond the scope of the Bureau project and therefore beyond the review authority given to the Historic Landmarks Commission.

Under the Bureau’s project, none of the historic structures will be damaged, no historic materials will be removed, and everything in the historic district will look as it did before the project. In such circumstances, there is simply no basis for the Commission to impose unrelated and expensive restoration conditions as part of the decision to approve a project that will have no adverse effects on the Mt Tabor Historic District.

4. The Historic Landmarks Commission has intruded on City Council’s budgetary prerogatives with Condition E. The May 2009 Mount Tabor Reservoirs Historic Structures Report investigated the condition of historical features at the reservoirs and presented a number of alternative restoration recommendations. The report was intended to provide City Council options to consider in deciding whether and how much to budget for maintenance, repair, and restoration activities each year. It contains multiple approaches to consider for each task. The Landmarks Commission’s proposal to “fully implement” the Report creates confusion over which of the options should be carried out.

But more importantly, by demanding that the Bureau carry out restoration activities (and by imposing a date for completion), the Commission has intruded into City Council’s own budgetary prerogatives. The Historic Structures Report itself could not and did not attempt to estimate all the costs of implementation of its various options. The low-end figure for partial implementation was set by the Historic Structures Report at \$1.5 million in 2009 dollars. The Water Bureau is conducting a preliminary engineering assessment of the costs to implement the most comprehensive restoration alternatives. The current estimate of the cost of that option is approximately \$8 million but would be higher if the removal of non-historic items is included

The establishment and funding of a multi-year historic resources program to restore historic structures to their approximate original condition affects all the citizens of Portland. The Water Bureau urges that such a program, if it is to be considered, is best developed by City Council through consultation with a broad cross-section of citizens in connection with other Bureau budgetary priorities. It is inappropriate for the Historic Landmarks Commission to impose such budget and schedule requirements on the Council in the context of a Historic Resource Review of the current Water Bureau proposal, which itself has no significant effects on the reservoir historic resources.

Conclusion:

The Water Bureau respectfully requests that its appeal be granted and that the City Council alter the Landmarks Commission order as follows:

1. Condition E of the Landmarks Commission decision be removed; and
2. Condition B be revised to read as follows:

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 cleaning and to address system operational requirements, to maintain security, regulatory compliance, or for safety concerns. The Water Bureau shall take reasonable steps to schedule any such work so as to limit the number of days that the reservoirs are below their historic operating range and to stagger such work so that, if practical, not all reservoirs are empty at the same time. Any proposal to permanently remove visible water from the site, as required in the preceding sentence, will require a follow-up land use review.

Memorandum

Date: May 12, 2015

To: Mayor Hales
Commissioner Fish
Commissioner Fritz
Commissioner Novick
Commissioner Saltzman

From: Teresa Elliott, PE, Principal Engineer 

Subject: Technical Responses for Council Appeal of
LU 14-218444

Thank you for giving us the opportunity to respond to some of the issues raised in the land use hearings (LU 14-218444) before the Historic Landmarks Commission for the Tabor Reservoir Adjustments. The bureau appealed the Commission's Condition B because it is not technically possible to meet the condition as written and still maintain water in the Mt Tabor reservoirs in a safe and clean manner. The Bureau appealed the Commission's Condition of Approval E because it believes the Condition exceeds the Commission's jurisdiction and impermissibly usurps the Council's role in budget decisions. This memorandum provides technical information to support the Portland Water Bureau's appeal of the decision.

Conditions of 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 concerns. 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.

Discussion:

1. Normal operating levels.

BDS originally proposed in its staff recommendation that the reservoirs must continue to hold water, while some commenters demanded that they be kept “full.” PWB does not keep any of the reservoirs “full,” but rather keeps them within an operating range. This operating range has historically changed seasonally with consumer demands and operational needs. PWB has stated both in writing and orally that the historic range is 50-75% and 65-85% full. Both ranges are correct. The difference is an operational issue weighing distribution needs against supply needs.

2. 60-day time limit on “partially or fully” emptying the reservoirs.

The 60-day time limit was added during deliberations by the Historic Landmarks Commission during the final hearing on February 9, 2015. The time restriction was imposed without any information about how the reservoirs are or can be operated. Unfortunately, the condition is impossible to meet while at the same time maintaining reservoir water in a safe and wholesome condition.

The most serious problem is that it is impossible to drain, clean, and re-fill the reservoirs more than one time per year with this limitation in place. Even completing one cleaning cycle in 60-days is only possible if there is no precipitation during the cleaning operations.

All discharges to the sewer system are regulated by BES in order to comply with its state discharge permit obligations. (City code 17.34.010, and Council Ordinances 172879, 180037 and 185397). Discharges from the reservoirs are

currently restricted to a discharge rate of 1,000 gallons per minute (gpm) to 1,500 gpm altogether during Dry Weather conditions. This limit is in place to prevent a combined sewer overflow in the Willamette River which could be a fineable violation of the City's discharge permits. Dry Weather conditions are defined by BES permit and by DEQ as periods of no rain in the last 8 hours, not currently raining and no prediction of rain in the next 24-hours.

Assuming the reservoirs are 50% full, it takes 30 to 45 days per cleaning cycle to drain all three reservoirs including both cells of reservoir 6.¹ (See attached table for calculations for different levels). It requires another 21 days to clean and refill the reservoirs under ideal conditions. Therefore, each cleaning cycle requires 51 to 66 days just to drain, clean, and refill all three reservoirs to the 50% level. It is important to note, however, that the fully empty period occurs only during the cleaning which is approximately 14 days per cycle. The rest of the time during the cleaning cycle, the reservoirs will have water in them. Draining takes a long time; refilling is quite fast.

All of this means, however, that the 60-day limit on when the reservoirs can be "partially or fully" empty allows only one cleaning cycle per year. In contrast, the Bureau currently cleans them twice a year and anticipates that they will have to be cleaned at least three times a year once they are disconnected from the distribution system. In addition, the 60-day condition allows no time for maintenance, restoration or any other weather related restrictions or operational needs

Operating the reservoirs is much more complex than simply turning a few valves and draining the water. PWB must carry out work to maintain compliance with water quality and other regulations and to protect the safety of the public. In addition, facilities at Mount Tabor need to be maintained and repaired on a regular basis, and this can require draining of the reservoirs as well.

¹ Under the current operating conditions, with the reservoirs connected to the distribution system, prior to draining the reservoirs for cleaning, reservoir inlet valves are closed and the reservoirs are discharged into the distribution system until the water level reaches the outlet pipes. Then the remaining water in the reservoirs, approximately 3 to 4 million gallons for all 3 reservoirs, is discharged to the sewer system at a rate of 1,000 to 1,500 gpm. When the reservoirs are no longer used for storing drinking water, the full volume in the reservoir has to be discharged to the sewer.

The reservoirs and other infrastructure serving them are old and the future need for repair cannot be well predicted. The need for repairs can occur at any time and some replacement items have long turnaround times. The specifications for some materials may not be known until the materials are removed for inspection. The necessary replacements often require long lead times to procure and fabricate. As a result, it is not possible to guarantee to keep water in all the reservoirs when a repair is needed.

Finally the reservoir dams are now under the dam safety jurisdiction of the Oregon Water Resources Department and their overall safety is the ultimate responsibility of the Bureau's Chief Engineer. If a situation arises that poses a hazard to the public, the Chief Engineer must have the flexibility to comply with any orders from Water Resources to drain one or more reservoirs or to himself determine that public health and safety require such action.

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 Park Reservoirs Historic District by December 31, 2019.*

Discussion:

The 2009 Historic Structures Report is a condition assessment report of the aesthetic or visual appearance of the historic features. It presents a range of options (temporary fix to full restoration) for each work component. The work outlined in this report is intended to extend the historic structures' visual lifespans and does not address what is necessary to extend their functioning lifespans, to meet codes, or to make them continue to function for utility purposes.

PWB commissioned this report to provide a menu of options for the PWB to propose and City Council to approve, depending on needs and funding availability. It was never intended for PWB to do everything in the report and in fact there are items that cannot be undertaken together because they conflict with each other.

- Some items in the report have already been accomplished, as indicated in the revised table (Exhibit H-52). Much of the work completed to date was carried out by the Tabor – Washington Park Deferred Maintenance and Security project completed in 2010. Those costs were not included in the summary table in the Historic Resources Report in 2009. PWB added them to the table submitted as part of Exhibit H-52.
- The work called for in the Historic Structures Report will be costly and will require Historic Resource Review. The table of costs from Exhibit H-52 has been reviewed and updated since the February 9, 2015 Historic Landmarks Commission decision. The updates add missing costs, amend estimated costs to the present, and project costs forward to 2018 dollars to provide a more complete picture of the budgetary impact. The Bureau’s current estimate is that fully to implement all the work identified in Exhibit H-52 could cost on the order of \$8 million and would be higher if removal of non-historic items is included.
- The costs identified in the 2009 Historic Structures Report were planning-level budget numbers for construction only from an aesthetic restoration view point, and did not consider engineering or current building code requirements. The Bureau’s experience so far is that the numbers underestimate the true costs of the projects contained in the report.
- PWB cannot simply remove all “non-historic elements” at the reservoirs as required by the Commission:
 - Existing lights would need to be replaced with historic lighting, and because electric lights require wiring, the existing conduits would have to be replaced with new conduits. In addition, some of those conduits are actually historic according to the original as-built records.
 - The non-historic vaults, pump station, and chain-link fence on Dam 5 all serve necessary functions, will still be in use and cannot be removed.
 - Some non-historic elements cannot be replaced, because their historic counterparts do not exist.
- If non-historic elements are required to be removed , it cannot be done by 2019.
 - Before this work can be carried out, the more complex elements will require time for design work. Many of the work elements will require

contractors with specialized skills and the development of unique specifications to govern the work.

- Restoration, removal of the non-historic elements, and the replacement of necessary features with acceptable substitutes will require a land use review. Such a review will require considerable planning and design work to provide adequate plans. The time and cost required cannot yet been fully estimated, but is expected to be substantial.

Attachments:

1. Cleaning Cycle Duration Table

Attachment 1: Cleaning Cycle Duration Table

Mt Tabor reservoir LU 14-218444 Appeal

Days per cleaning cycle

12-May-

2015

Reservoir Draining Duration

Reservoir	Total Volume (gallons)	Drain Rate ^{2,3} (gpm)	Volume to Drain (Percent of Total Volume)				Drain Rate ^{2,3} (gpm)	Volume to Drain (Percent of Total Volume)			
			50%	65%	75%	85%		50%	65%	75%	85%
			Time to Drain per Cleaning Cycle ¹ (days)					Time to Drain per Cleaning Cycle ¹ (days)			
1	12,000,000	1000	4	5	6	7	1500	3	4	4	5
5	49,000,000	1000	17	22	26	29	1500	11	15	17	19
6N	35,000,000	1000	12	16	18	21	1500	8	11	12	14
6S	35,000,000	1000	12	16	18	21	1500	8	11	12	14
Total	131,000,000		45	59	68	77		30	41	45	52

Total Duration per Cleaning Cycle

Reservoir Cleaning Duration

Reservoir	Wash-down Operations (days)	Filling ⁴ (days)
1	3	1
5	5	2
6N	3	2
6S	3	2
Total	14	7

Total Duration for 1,000 gpm Drain Rate (Percent of Total Volume)				Total Duration for 1,500 gpm Drain Rate (Percent of Total Volume)			
50%	65%	75%	85%	50%	65%	75%	85%
TOTAL DURATION⁵ (days)				TOTAL DURATION⁵ (days)			
8	9	10	11	7	8	8	9
24	29	33	36	18	22	24	26
17	21	23	26	13	16	17	19
17	21	23	26	13	16	17	19
66	80	89	98	51	62	66	73

NOTES:

1. Time to Drain = (Volume to drain in gallons/gpm)x(1 hr / 60 min) x (1 day / 24 hrs)
2. NPDES MS-4 permit #101314, limits discharges according to the City's approved stormwater management plan.
3. Drain rate is for dry weather only (defined by DEQ as; not currently raining, has not rained in the previous 8 hours and no rain predicted for the next 24 hours).
4. Fill rates are considered to be the shortest duration required of filling operations and are dependent on potable water demand.
5. Total Duration = Time to Drain per Cleaning Cycle + Wash-down Operations + Filling