

QUESTIONS AND RESPONSES REGARDING THE INTEGRITY AND HISTORIC SIGNIFICANCE OF THE RESERVOIRS

1) Have the reservoirs lived out their usefulness as water storage facilities?

No. Although the Water Bureau's reservoir project team has chosen to emphasize the reservoirs' age as a deficit, the exact opposite argument could be made utilizing recent facility evaluations. Reports show that although they are 108 and 97 years old, they remain functional and in generally good condition. Due to the original high quality workmanship of the reservoirs, they remain today largely intact and in as-built condition. As quoted from the facilities evaluation completed by Montgomery Watson Harza in 2001, "Considering their age, the reservoirs and facilities are generally in good condition, a detailed maintenance program could extend the useful life of the open reservoirs to the year 2050." The facilities evaluations also reveals that, "No waterborne disease outbreak or water quality incident of public significance has ever been recorded in connection with Portland's open reservoirs..."

2) Are repairs and upgrades needed for the reservoirs?

Yes. Although the reservoirs are completely functioning in much the same way that they were upon completion in 1895 and 1911, a variety of maintenance needs have been deferred. Because of the reliability of the reservoirs, maintenance needs have been relatively low over the many years that they have been in use. The primary cost associated with the reservoirs appears to be sewer charges by the Bureau of Environmental Services to the Water Bureau for draining the water from the reservoirs during cleaning.

Due to the good condition of the reservoirs, recent facilities evaluations recommended that repairs and upgrades could be implemented over a period of 5 years. Most maintenance concerns relate to leaking at various points. Evaluations recommend a variety of repairs including: recoating steel tanks, replacement of pipes, valve and gate replacement, concrete repair of the gatehouses, parapet walls and sidewalks, and refurbishing the fences. Mount Tabor's Reservoir 5, slated to be demolished in the reservoir project, was just refurbished in 1998.

It is recommended that more extensive water testing be conducted. Facilities evaluations make recommendations on various theoretical contamination risks and pending EPA standards. Security and water quality monitoring upgrades are specified in other portions of this document.

3) Have other communities opted to keep their open reservoirs?

Yes. Many cities have water systems, including reservoirs, that were constructed the mid-1800's. New York City and Boston have systems that helped to inspire the construction of Portland's water delivery system using gravity from remote watersheds. Throughout the country, communities have chosen to keep their open reservoirs. Some of these reservoirs are older than Portland's. Due to public objection, utilities in other parts of the country have been compelled to work with community values when projects that would remove the water from view have been suggested.

Case in point:

Pittsburgh's Highland Park Reservoir dates from the 1860's (cover photo). We have been in communication with officials and community members for over a year. The Highland Park reservoir is in a highly used large city park. There is a walking path encircling the reservoir. When the local

utility opted to cover the reservoir more than 10 years ago, citizen outcry was loud and clear through petitioning the city council. A city council member became a champion of the project and, together with a neighborhood and water department endeavor, helped to facilitate an award winning design for their open reservoir.

4) Are the reservoirs in Mount Tabor Park and Washington Park significant historic and cultural resources?

Yes. Built in 1894 and 1911, the reservoirs are listed on the National Register of Historic Places administered by the National Parks Service under the titles: Mount labor Park Reservoirs Historic District and Washington Park Reservoirs Historic District. A listing on the National Register of Historic Places illustrates a resource's importance to the cultural and historic fabric of the nation. The reservoirs have long been noted as one of the most thoroughly documented historic and cultural resources in the State of Oregon. The reservoirs in Mount labor Park stand as one of the few major historic resources on Portland's East Side. Portland's zoning code uses this registry to identify important historic resources and provides for design review.

Mount Tabor has archeological significance as well. The document, *East Buttes, Terraces and Wetlands*, adopted by the City Council May 26, 1993, Ordinance No. 166572 states, "In the 1950s, several Native American artifacts were discovered at the north end of Mt. Tabor, near NE 66th Avenue and NE Davis Street. The artifacts date from the Late Archaic period (2,000 years ago to historic contact in the late 1700s). The findings include several arrowheads, a moccasin and the "Mt. Tabor Bowl." The latter received its name from its general bowl form, but archaeologists speculate that it may actually have been a grinding stone or metal (Beals 1973). According to these local archaeologists, there is also an unconfirmed report of obsidian flakes on top of Mt. Tabor.¹

5) Are the reservoirs in Mount Tabor and Washington Park significant recreational resources as well as utilities?

Yes. Portland Parks and Recreation's Master Plans for Mount Tabor Park and Washington Park emphasize the significance of the reservoirs to the parks. Reports from consultants to the Water Bureau also emphasize the importance of the aesthetic components of the reservoirs, especially the water as this quote illustrates: "Portland's open reservoirs are an integral aesthetic component of two prominent City parks: Mount labor and Washington Park.... Several of the qualities which are inherent to all reservoirs are the attributes of water, architectural detailing and their educational value. However, each reservoir is experienced uniquely based on site-specific conditions," as quoted from *Portland Open Reservoir Study, Technical Memorandum, Significance of the Open Reservoirs to Park Uses* by Murase Associates, 1997. This entire memo is included in this report.

Designed during the City Beautiful movement at the turn of the 20th century, the reservoirs blend utility with beauty offering an irreplaceable, beauty. The deep open water and romantic design of the gatehouses, fences, lampposts and other amenities enrich the vistas available from the grand parks that surround the reservoirs. Mount labor was rated as having two of the top seven views in the city in Portland's Scenic Resource Inventory. Pertinent excerpts from the inventory are included in this report. Portland's reservoirs stand out as some of the most important representatives of "living" water works from the period of the City Beautiful movement in the nation.

6) Does Mount Tabor have inventoried significant views that include the reservoirs?

¹ Beals, Herb (ed.) "Screenings" The Oregon Archeological Society, Vol. 22 No. 7, July 1973.

Yes. The upper reservoirs, at an elevation exceeding 400 feet, offer grand vistas of the City and the lower reservoir. Numerous vista points exist and the original dam design of Reservoir 5 was to provide a viewpoint for visitors. The City has formally acknowledged and provided protection for these views. This is a quote from the Mount Tabor section of the document *East Buttes, Terraces and Wetlands Conservation Plan*, "The City of Portland's Scenic Resource Inventory identifies two panoramic views from Mt. Tabor, one from above the reservoir and the other from the summit. These two views were rated among the top seven in the city. The Economic, Social, Environmental, and Energy (ESEE) analysis for the Scenic Resource Protection Plan concludes that these views are fully protected through the park's Open Space zoning, and hence, no specific view regulations are needed."

"The viewpoint affords a panoramic view of the west hills and downtown. The reservoir in the foreground creates an unobstructed view and adds the element of water to the view," reports the document, *Scenic Views, Sites and Drives Inventory*, Portland Bureau of Planning, March, 1989.

7) Was the City of Portland aware of the aesthetic and historic significance of the reservoirs prior to initiating the Open Reservoir Replacement Project that included the covering of Washington Park's reservoirs with floating covers?

Yes. The City received a grant in 1984 to inventory historic resources, city wide. Five thousand one hundred and fifty-eight were identified and assigned rank I, II or III status. Out of those, fifty-two resources were given the highest rank I status. The reservoirs at Mount labor and Washington Park were five of those fifty-two. It was assumed that the City would move forward on completing the National Register of Historic Places nomination for all of the rank I resources. When the City did not nominate the reservoirs for the National Register, the Friends of the Reservoirs chose to move forward with the massive nomination process using volunteers and donations.

According to at least several facilities evaluations done by consultants for the Water Bureau, the historic, cultural and aesthetic importance of all of the reservoirs is well documented as illustrated in this quote from *Open Reservoir Study, Technical Memorandum*, Montgomery Watson Harza, 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."

The great volume of historical documentation available on these properties underscores their ongoing historical importance to the City. This was acknowledged by a City of Portland study, which stated, "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

8) Is the preservation community interested in the reservoirs and the reservoir replacement project?

Yes. All levels of preservation agencies have expressed interest in getting the reservoirs listed on the National Register of Historic Places. Others have had concern regarding the reservoir replacement project. Local letters are enclosed from the Portland Historic Landmarks Commission, the State Advisory Committee on Historic Preservation, the Bosco-Milligan Foundation Architectural Heritage Center and the Architects, Designers, Planners for Social Responsibility. National interest is expressed from The National Trust for Historic Preservation, and The Advisory Council on Historic Preservation.

9) What are some of the notable features of the reservoir historic districts?

The following are some of the notable historic features of the reservoirs listed by the categories of

significance as described in National Register of Historic Places.

Community Planning and Development: The conception of the Bull Run water system in the 1880's, including the reservoirs, was the first major effort to municipalize what otherwise were private enterprises supplying inferior water from the already polluted Willamette River.

The Water Committee of 1885 showed a commitment to cooperation between government and the private sector to manifest a public work that put Portland firmly on the map as Oregon's predominant city. The abundant good water was a hallmark of Portland. The carefully planned, simple, sophisticated gravity system is one of Portland's finest examples of the concept of a sustainable system. The water came to rest, to be delivered from the showpiece reservoirs that stand still in service 108 years (Reservoirs 1, 3 and 4) and 93 years (Reservoirs 5 and 6) later.

Completion of the Bull Run system and the reservoirs was made possible only through enactment of landmark state legislation authorizing the revenue bonds needed to fund the project.

Engineering and Architecture: By utilizing gravity, the Bull Run system brought water to the reservoirs and the reservoirs delivered water to the community. The fall between the reservoirs was also used to operate an 1894 Pelton wheel water pump and to generate electricity. Much of the ironwork, such as valves and piping, is original and functional. The concrete work utilized the patented techniques of a notable early master referred to as the "father of reinforced concrete." The patented finish on the older buildings was hand-tooled to emulate rock -- the technique of an English master. The ornamental black fences that surround the reservoirs atop the parapet walls are wrought iron. The fence was designed by notable architects Whidden and Lewis, responsible for many of the finer buildings in Portland including City Hall, completed in 1895, the first year Portland received its water from the reservoirs. The ornate fences were crafted by another old-world, award winning German ironmaster.

Entertainment/Recreation: The reservoirs were never designed to be simply utilities. Integral in their design was the notion of people meeting and enjoying the deep open water views. Lighted pathways and drives around the reservoirs were designed for access and enjoyment of the resource.

10) Does a listing to the National Register of Historic Places make a resource eligible for grants?

Yes. A variety of sources of grant money are available for specific preservation projects, especially for public resources like the reservoirs. Since the Water Bureau has expressed concern regarding maintenance costs of the historic features, grant monies may help to offset these expenses. Other money may also be available from interested individuals and organizations.

11) How has the Portland citizen's interaction with the City differed from those in other communities?

Other communities have pressured their city governments to keep reservoirs open. No other community to our knowledge, however, has researched the security risks so as to better understand the context for burying or covering open reservoirs. Because of the integrity and beauty, as well as their historic and cultural significance to prominent parks, the reservoir project mobilized many people from all walks of life into swift action. The Friends of the Reservoirs, other individuals and grassroots and professional groups have taken a keen interest in the Water Bureau, their consultants and their relationship to members of City Council in an effort to understand larger water issues affecting the Portland area.

12) How can I get more information regarding the history of the reservoirs and Portland's Bull

Run water system?

We have requested that members of the panel receive a copy of both nominations for your reference. The National Register of Historic Places nominations for the reservoirs in Mount Labor Park and Washington Park will be available for view at the Central Multnomah County Library. Copies are available from the National Parks Service <http://www.cr.nps.gov/places.htm>. The Friends of the Reservoirs will offer free tours to your group or will supply a speaker on the history or other aspects of the reservoirs. For more information, go to the website: www.friendsofreservoirs.org.

Notable Quotes

Beauty has always paid better than any other commodity and always will. Daniel Burnham, noted designer of Chicago's World Columbian Exposition's White City, 1893, that helped to ripen the City Beautiful movement that led into modern urban planning

All reservoirs have, in addition to their essential quality of storing water, an element of landscape effect; namely, that of an expanse of clear sparkling water. This same element forms the chief feature of many landscapes in public parks, where it is created at large cost, and it is clearly a thing of great value to the public when it can be made available. In itself, regardless of its outline or setting, a body of water is beautiful and refreshing, and its value to the public is so well recognized that provision is very often made for giving the public access to the enclosure about a reservoir, whence its surface may be seen. The Relation of Reservoirs to Parks, Frederick Law Olmsted, Jr., 1899

We came from the water; our bodies are largely water and water plays a fundamental role in our psychology. . . Everywhere in cities water is out of reach. Even in temperate climates that are water rich, the natural sources of water are dried up, hidden, covered, lost. Rain water runs underground in sewers, water reservoirs are covered and fenced off. . . Our lives are diminished if we cannot establish rich and abiding contact with water. . . As marvelous as the high technology of water treatment and distribution has become, it does not satisfy the emotional need to make contact with the local reservoirs and to understand the cycle of water, its limits and its mystery. From: A Pattern Language: Towns, Buildings and Construction, Christopher Alexander, Sara Ishikawa, Murray Silverstein

Many communities are just now beginning to realize the value of these irreplaceable structures recognizing that as symbolic focal points for community identity and pride, older buildings cannot be duplicated. America's Forgotten Architecture, National Trust for Historic Preservation in the United States

Section: Historic Resources Appendix

- A. 11/08/88. Scenic Views, Sites and Drives Inventory, Bureau of Planning, Portland, OR
- B. 05/16/03. Letter to Portland Historic Landmarks Commission from Anthony Veerkamp, National Trust for Historic Preservation
- C. 07/31/03. Letter to City of Portland Bureau of Water Works from State of Oregon, Parks and Recreation Dept.
- D. 09/09/03. Letter to Mark Robinson, Director of Office of Energy Projects, FERC from Advisory Council on Historic Preservation
- E. 11/19/03. Letter to Carol Shull, National Register of Historic Places from State of Oregon, Parks and Recreation Dept.
- F. Directory of Programs from Western Regional Office of the National Trust for Historic Preservation
- G. 01/14/04. Letter to Cascade Anderson Geller from City of Portland Bureau of Planning
- H. 1/15/04. Letter Cascade Anderson Geller from State of Oregon, Parks and Recreation Department
- I. 1/23/04. Press Release. Portland's Reservoirs Gain National Prominence with Listing on the National Register of Historic Places
- J. Summary: Results of Listing in the National Register of Historic Places