

# More of the Story

from the

## Mt. Tabor Reservoir History Project

### **While you are visiting the Summit of Mt. Tabor...**

We hope you enjoy some of the story we share below, as you stroll around today.

### **Our Unique Drinking Water**

#### **We don't drink snow**

On a clear day you can look up from this spot and in the distance see Mt. Hood, which the Native people knew by the name "Wy'east." It is a common misconception that Portlanders drink snowpack and glacial runoff from Mt. Hood. Our watershed, on this side of Mt. Hood, is in fact protected from the silt and scoria normal to glacial streams, by a great basalt ridge. And as our watershed is largely fed by rainwater, water is reliably present even in a year without good snow.

#### **The Search for Clean Water**

The Multnomah Indians, who inhabited this region for thousands of years, hunted on the hill you are standing on and gathered seasonal foodstuffs on its forested slopes, but their permanent dwellings were along the Columbia and Willamette rivers, close to those nourishing sources of fresh, pure water.

With the influx of white settlers, the growing population fouled the river with waste, and local waters became unfit to drink. By the mid-1880's Portland was experiencing a public health crisis due to the lack of a clean water supply.

#### **Our Gravity-fed system**

In 1885, Portlanders wondered aloud if there was a way to supply the city with reliably pure water, cheaply. Ideally, the new source would be geographically situated such that water could flow into town under the force of gravity alone, sparing the city the cost and consumption of electricity. The newly founded Water Committee, appointed to establish a publicly owned water system, turned to engineer Isaac Smith. His answer was, yes, it could be done.

Attention turned to an isolated mountain river called the Bull Run whose watershed was 102 square miles of virtually untouched, rugged slopes of old growth forest and pristine streams. With an average of 135 inches of precipitation yearly, predominantly in the form of rainfall, and a large and deep natural lake, the Bull Run provided a high-volume of cold, clear water. In this watershed, rainwater is filtered through tree canopy, forest floor, and geologic formations before it abundantly percolates up from natural springs – over the course of many years this natural process filters, damages and kills contaminants. More than 100 years later a scientific analysis would describe Bull Run water as being "close to distilled water" with "little room for improvement."

After a grueling five-month surveying expedition into the wilderness of Bull Run, Smith emerged with an engineered plan for laying the 25 miles of pipe so that water would always flow downhill. He sited the first reservoirs here at Mt. Tabor because the elevation is ideal for maintaining enough gravity pressure to further distribute the water around the city.

Despite almost paralyzing bush and mud, the first conduit pipe project was completed on time, on budget, and with capacity to lay a second pipe along the same route in the future. In January 1895, the first clear, cold mountain springs of Bull Run made their way into Portland faucets.

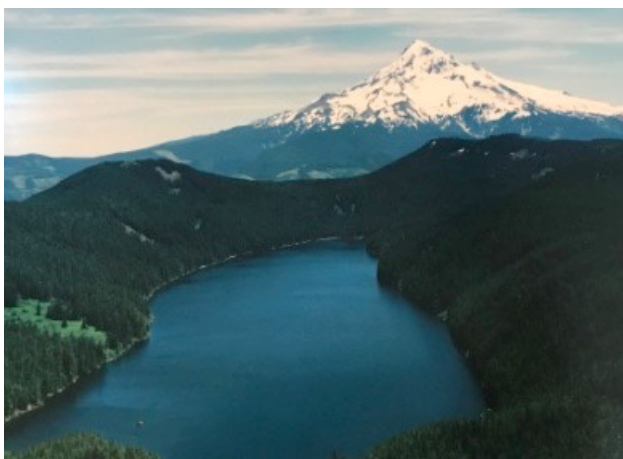
### Protecting this Resource

Common sense tells us the surest way to keep tap water affordable and clean, is to start with the cleanest water source possible. From the moment our fates were tethered to the health of Bull Run, until the mid 1950's Portlanders fervently isolated and protected that forest. Timber stands are essential for the maintenance of a pure water supply -- timber regulates the flow of water into the lake and river, and protects a lush undergrowth which keeps the soil from washing away. Natural undergrowth is understood to be dramatically less fire fuel than the debris left after a forest clear-cut.

Still, the will of Portland's influential citizens has waxed and waned through the century, with financial temptations from timber sales and development. In the 1960's and 70's, commercial scale logging operations took place in Bull Run. In 1976, a citizen lawsuit restored isolation, only to be reversed two years later by Congressional legislation that allowed multiple-uses of the reserve. Future Portlanders will certainly have their will to preserve tested too.

### Photos/Captions

- Photograph of the Bull Run lake
- Cross-section drawing of the system from Bull Run to Mount Tabor = This is a great illustration of elevation changes from Bull Run to Portland, that make the gravity fed design possible.



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Or?...IMG\_9224

Bull\_Run\_Pipeline\_Map\_1

