



Drinking Water State Revolving Fund

Seattle Public Utilities

Maple Leaf Reservoir project



Maple Leaf Reservoir and Park

Seattle Public Utilities (SPU) is nearing completion of its Reservoir Covering Program for improved public health and water quality.

The program began in the mid-1990s in response to the Clean Water Act and to comply with state Department of Health requirements. The goal is to cover and secure all of Seattle’s reservoirs by 2020.

One of the largest of those projects involved replacing the Maple Leaf open reservoir with underground and reinforced alternatives on the same property, already owned by the City of Seattle. The \$41.6 million project was completed October 27, 2013.

Goals

SPU is responsible for distributing safe, reliable drinking water to 1.3 million people in the metropolitan Seattle area. Now that all of Seattle’s reservoirs are covered or out of service, Washington meets state and federal regulations for covered reservoirs.

The Maple Leaf project included demolishing concrete panels lining the sloped sides and bottom of the open reservoir, building a new steel-reinforced concrete water containment structure in the reservoir basin, replacing piping into the reservoir, building a new 30-by-43-foot vault to house outlet valves, pumps, electrical instruments and control wiring, and placing about 15,000 cubic yards of structural backfill around the side walls and about 20,000 cubic yards of drain rock and soil over the reservoir roof.

Maple Leaf Reservoir covering project	
Funding Source	Amount
Drinking Water State Revolving Fund	\$10,371,758
Bonds, Grants and Internal Funds	\$35,582,030
Total budgeted to date	\$45,953,788
Lower 1.5% interest rate saved Seattle Public Utilities \$2,866,779.	

Security

Underground and covered reservoirs increase security for a resource that is integral to daily life. Restricted access to water storage helps ensure that Seattle’s water supply will remain clean and safe from any source of potential contamination.



Photo: Courtesy of Seattle Public Utilities

Seattle's covered reservoirs have hundreds of columns that support above-ground parks.

Open spaces

Underground reservoirs create valuable open space above ground. SPU partners with Seattle Parks and Recreation to develop inviting and accessible open spaces above the covered reservoirs. Although the reservoir covering program primarily seeks to promote safety and security, it additionally grants Seattle access to new public spaces.

The program replaced six of its open reservoirs (Magnolia, Lincoln, Myrtle, Beacon, West Seattle, and Maple Leaf) with underground structures so far, and created 76 acres of new open space. The most recently created park atop a reservoir is in West Seattle. Established in 2014, it includes a recreational area, play structures, landscaping, parking and restrooms.

The future

Seattle still has four above-ground reservoirs: Lake Forest Park, Bitter Lake, Volunteer and Roosevelt. To ensure security during the life of these facilities, SPU has installed floating covers on the Bitter Lake and Lake Forest Park reservoirs. The remaining locations, Volunteer and Roosevelt, are not in service. They are being tested for decommissioning. Testing is expected to conclude in 2015.

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