



Presentation to Seattle Design Commission

October 15, 2009

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Seattle Public Utilities

Overview

- Seattle Public Utilities (SPU) is owned directly by the City of Seattle and funded primarily by the rates paid for services
- SPU provides retail water service in Seattle and wholesale water service to 21 water purveyors in the Seattle Metropolitan Area
- Wastewater within City of Seattle is collected by SPU and treated by King County

SPU Overview

- **Four Utilities (Lines of Business)**

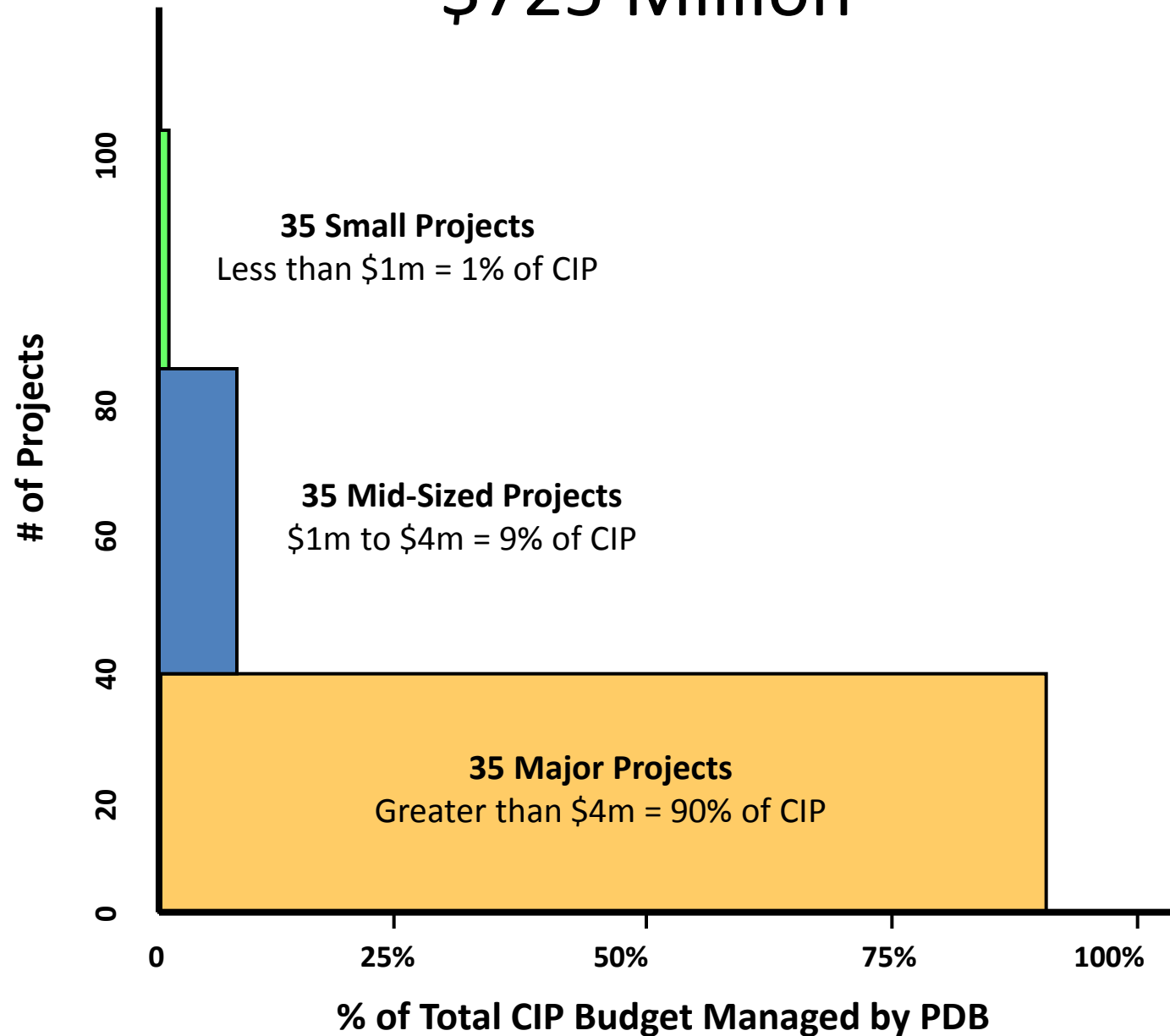
- Water - established in 1889
- Wastewater – established in 1955
- Drainage – created in 1987
- Solid Waste – established in 1961

- **More than \$4.5 Billion in Assets**

- 1, 830 mile water system serving approximately 1.3 million retail and wholesale customers
- 2020 mile drainage and wastewater system serving approximately 700,000 retail customers

CIP Portfolio Value

\$725 Million



Madison Valley Stormwater Project

Phase 1 - Proposed Art

NW Diversion and Washington Park Storage Project

PHASE 2 NW DIVERSION
AND WASHINGTON PARK
STORMWATER STORAGE

SELECTED
STORMWATER
PIPELINE ALIGNMENT

WASHINGTON
PARK

E VALLEY ST

E MERCER ST

E ROY ST

E MERCER ST

E REPUBLICAN ST

LAKE WASHINGTON BLVD E

E HARRISON ST

E THOMAS ST

E JOHN ST

24TH AVE E

25TH AVE E

26TH AVE E

E DENNY WAY

29TH AVE E

DEWEY PLE

30TH AVE E

31ST AVE E

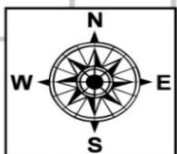
30TH AVE E

31ST AVE E

PHASE 1 EXISTING
ABOVE GROUND
STORMWATER STORAGE

EXPANDED
ABOVE GROUND
STORMWATER
STORAGE

Total 1.7
million
gallons



E MADISON ST

28TH AVE E

M L KING JR WAY

EARTHUR PL



SIDEWALK

ORNAMENTAL TREE

ADA PATH

PLANTING AROUND "CAGE"

CONIFER

BUFFER VEGETATION

OVERLOOK

GABION LAND BRIDGE

EXISTING QUAKING ASPEN

"DRY CREEK" WALK

"DRY CREEK" PLANTINGS

split stone

bowls

weaving stones

30TH AVE E

OPEN LAWN

EXISTING KIOSK

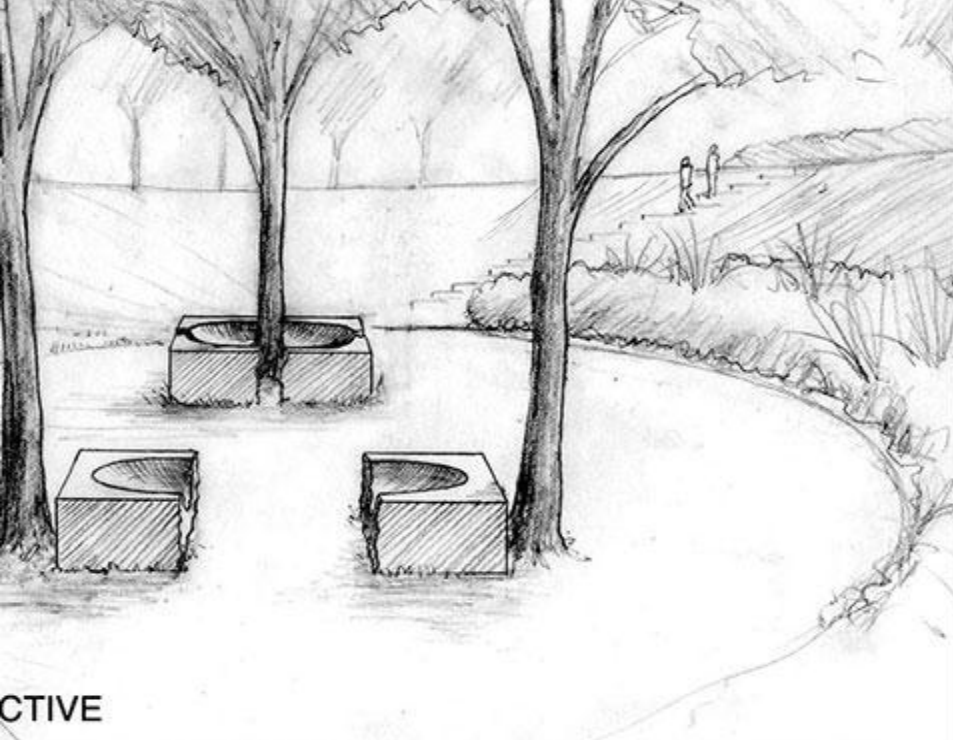
ADA PATH

ROLLING LAWN

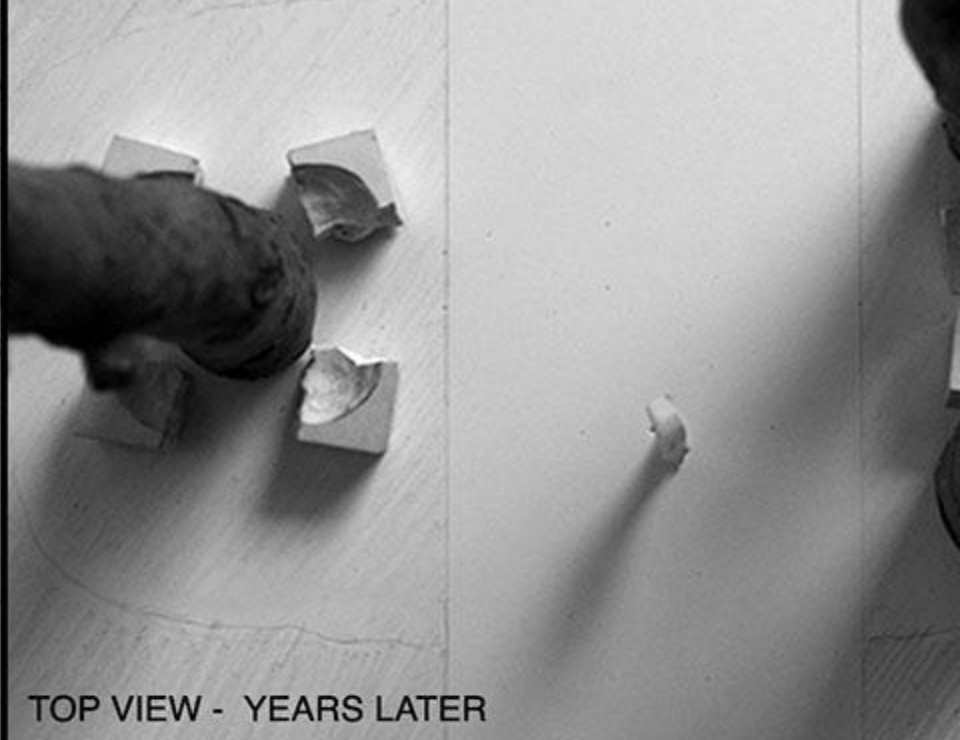
STEPS

BENCH

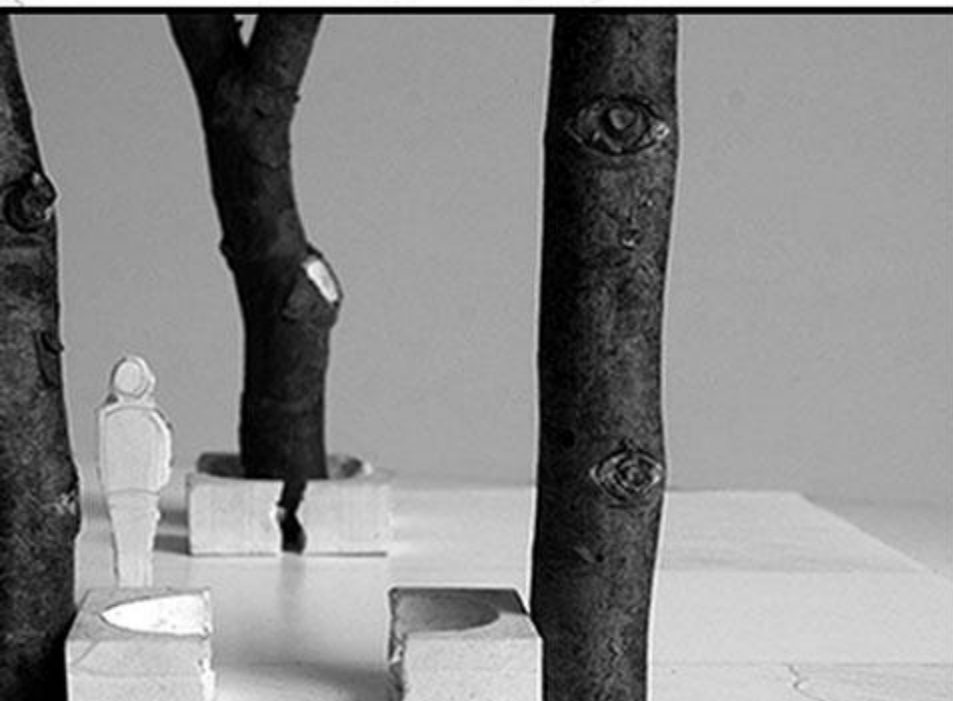
STONE GARDEN



CTIVE

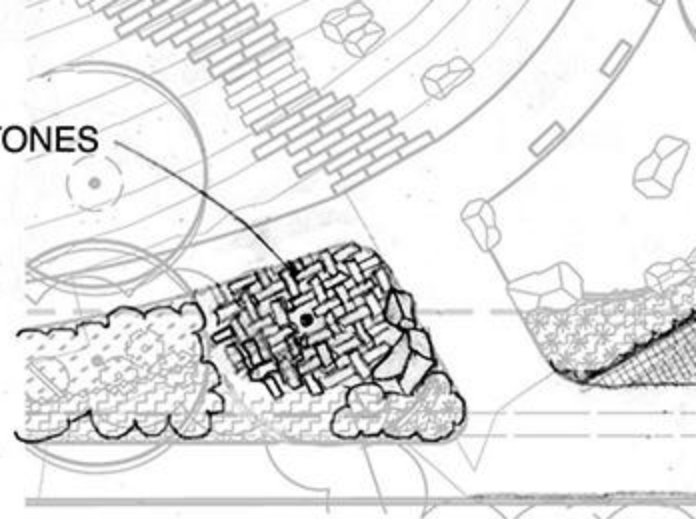


TOP VIEW - YEARS LATER

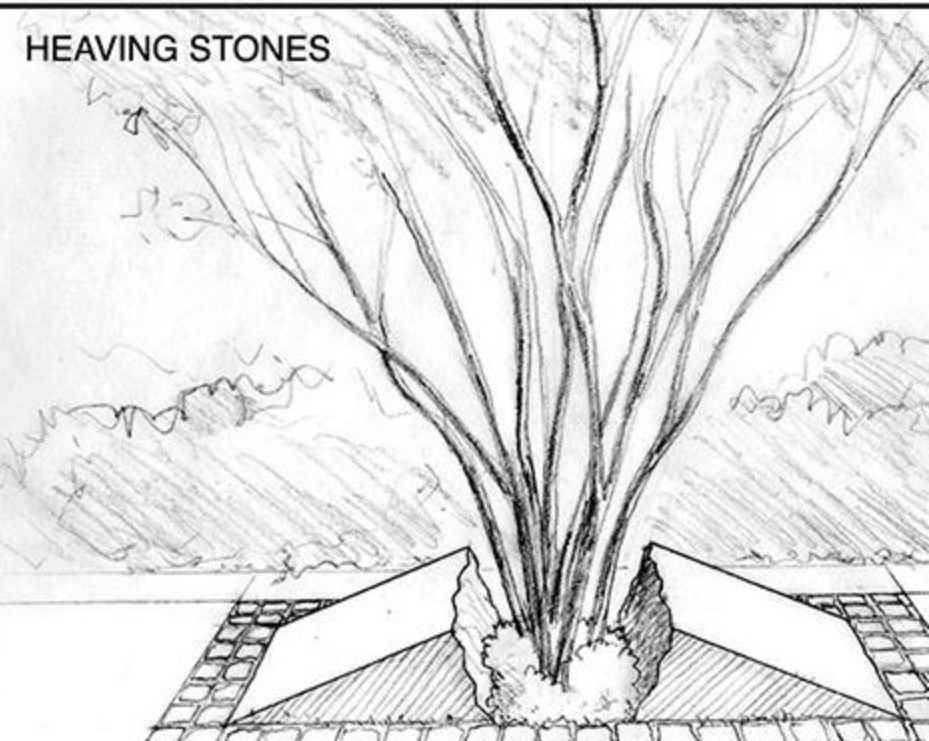




WEAVING STONES



HEAVING STONES

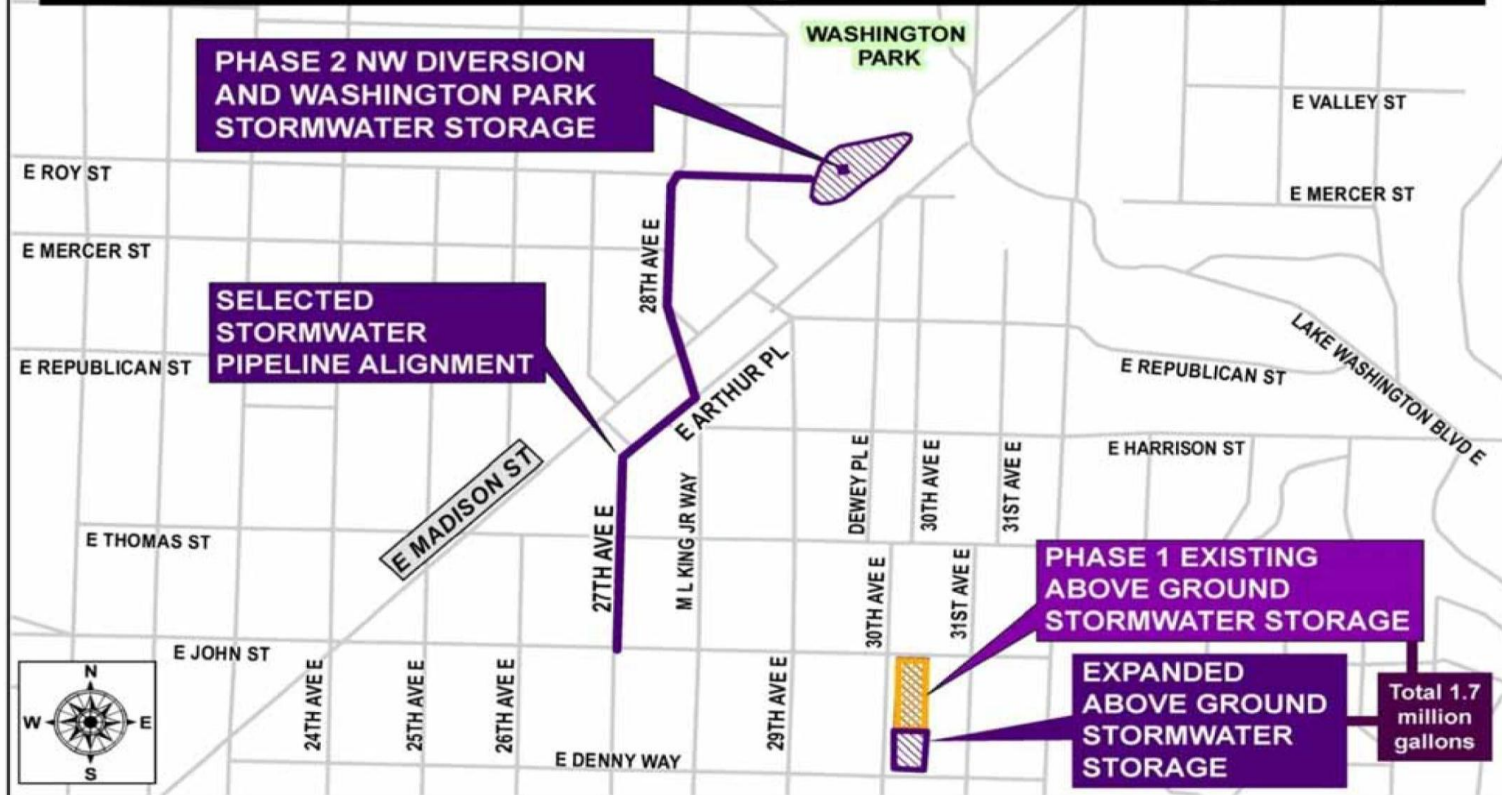


Madison Valley Stormwater Project

Phase 2 – Proposed Art

Project Area Close-Up

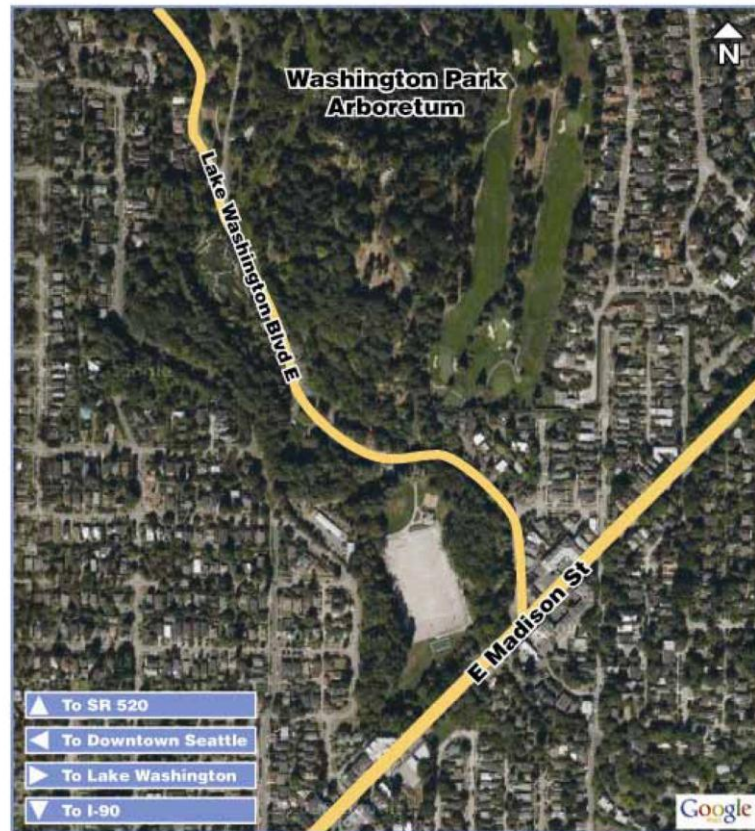
NW Diversion and Washington Park Storage Project



Madison Valley – Phase 2

Washington Park Orientation Map

Seattle
Public
Utilities



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Madison Valley – Phase 2

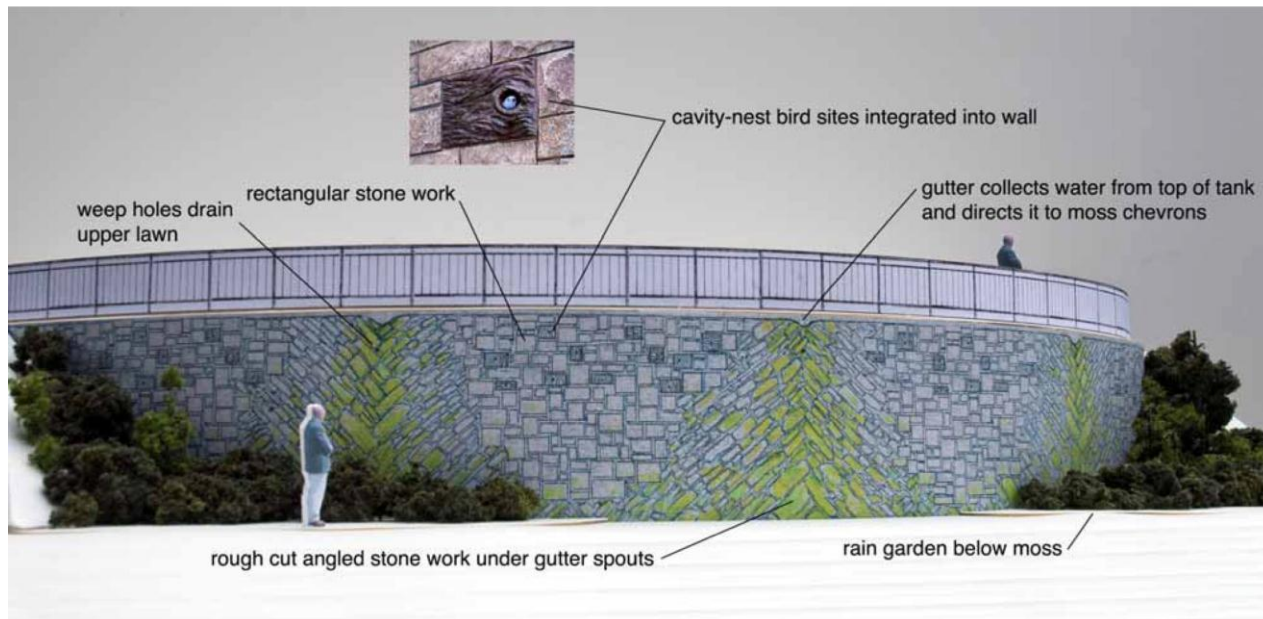
Landscape Plan

Seattle
Public
Utilities



Madison Valley – Phase 2

Art Wall



Madison Valley – Phase 2

Landscape Details

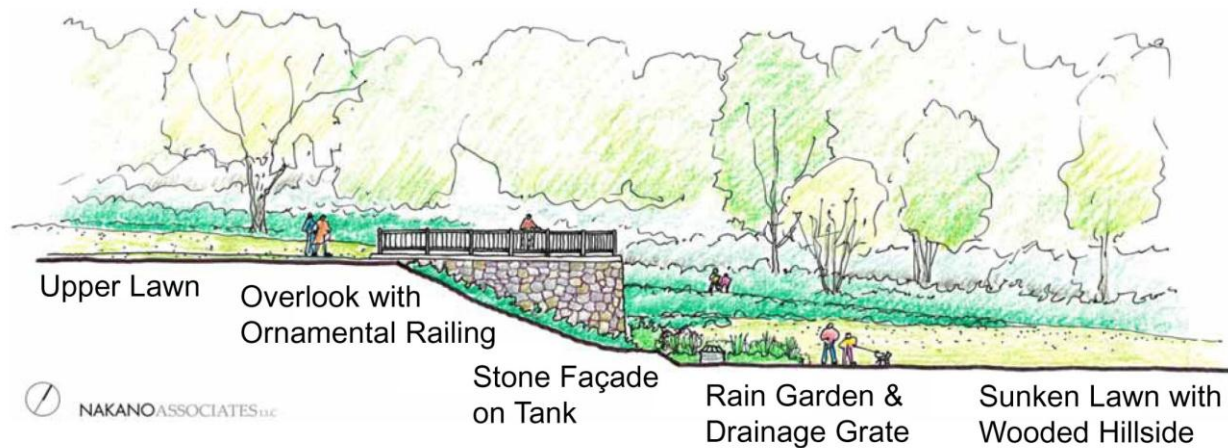
Seattle
Public
Utilities



Metal Guardrail



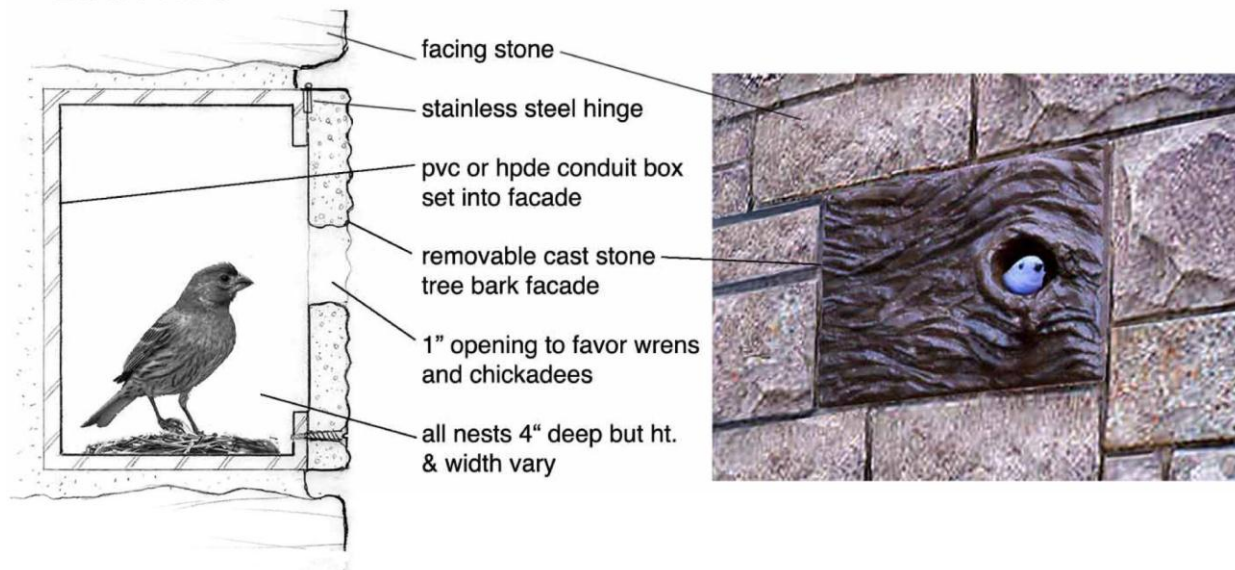
Concrete Pavers



Madison Valley – Phase 2

Art Wall

Bird Nest

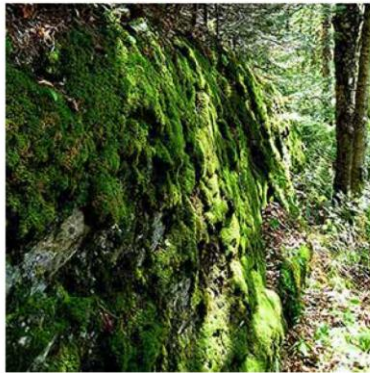


Madison Valley – Phase 2

Art Wall



Hydrology: Storm runoff from the top of the tank, the upper lawn and possibly the access road is captured and directed to a gutter at the top of the wall. Captured runoff flows down the wall creating 3 moss zones of the tank into the rain garden below.



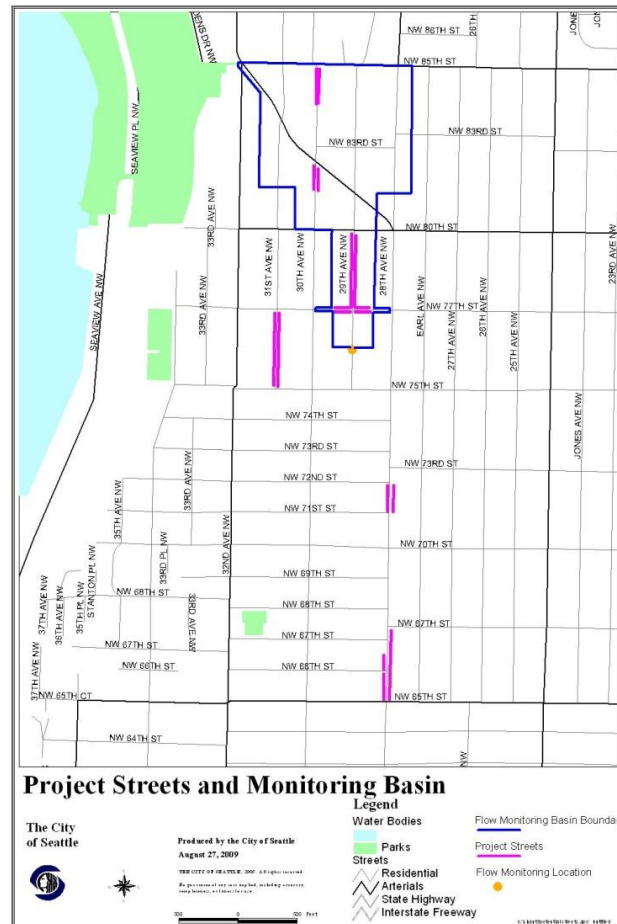
Moss Wall Zones: The mossy wall zones located on the northeast side of the tank, an easy place for moss to grow. In addition to moss, ferns can also grow on the wall.

Ballard Green Streets

Ballard Roadside Raingardens Phase 1

The Ballard Roadside Raingardens Phase 1 Project is a smaller scale version of the Natural Drainage Systems project that SPU has completed in the past

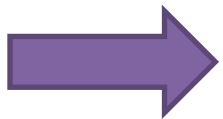
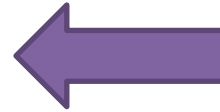
Map of North Ballard with the Roadside Raingardens Streets



Ballard Roadside Raingardens



Change this...



... to this



Ballard Roadside Raingardens

Initiating Roadside Raingarden Program



Curb bulb design

Planting strip design



Ballard Roadside Raingardens

We will only use the existing parking strip on some streets

Roadside Raingardens within the planting strip are:

Shallow depressions filled with a designed soil mix and plants that capture and infiltrate street runoff.



Ballard Roadside Raingardens

And on other streets SPU will install curb bulbs.



Roadside Raingardens that bump out into the street

Ballard Roadside Raingardens

Multiple benefits:

Remove stormwater
from combined system
and reduce overflows

Provide water quality
treatment

Traffic calming

Aesthetics



Proposed South Park Water Quality

Site Map: South Park Pump Station and Water Quality Facility



South Park Pump Station Duwamish River



South Park Pump Station Work Duwamish River (street view)



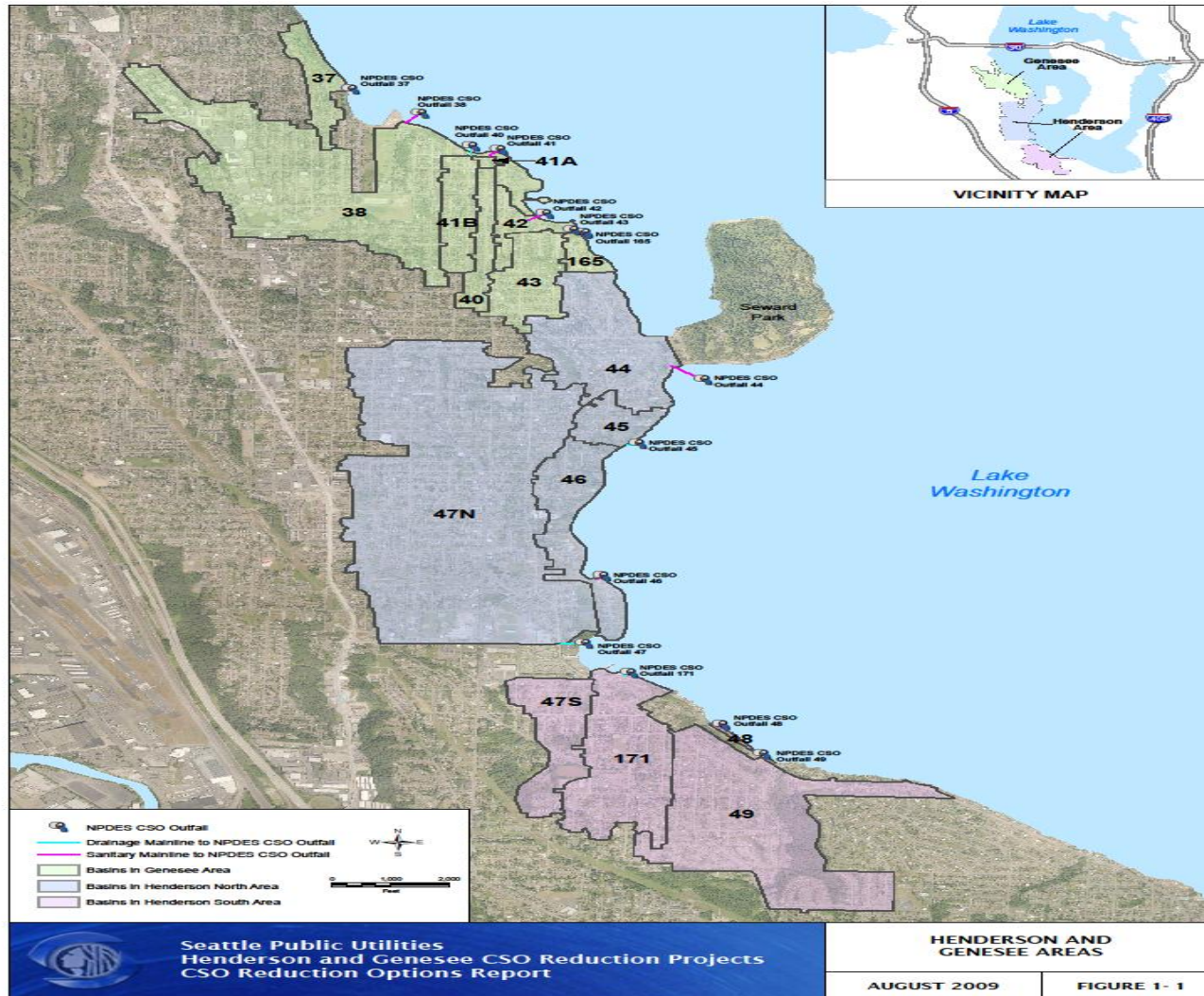
South Park Pump Station Work



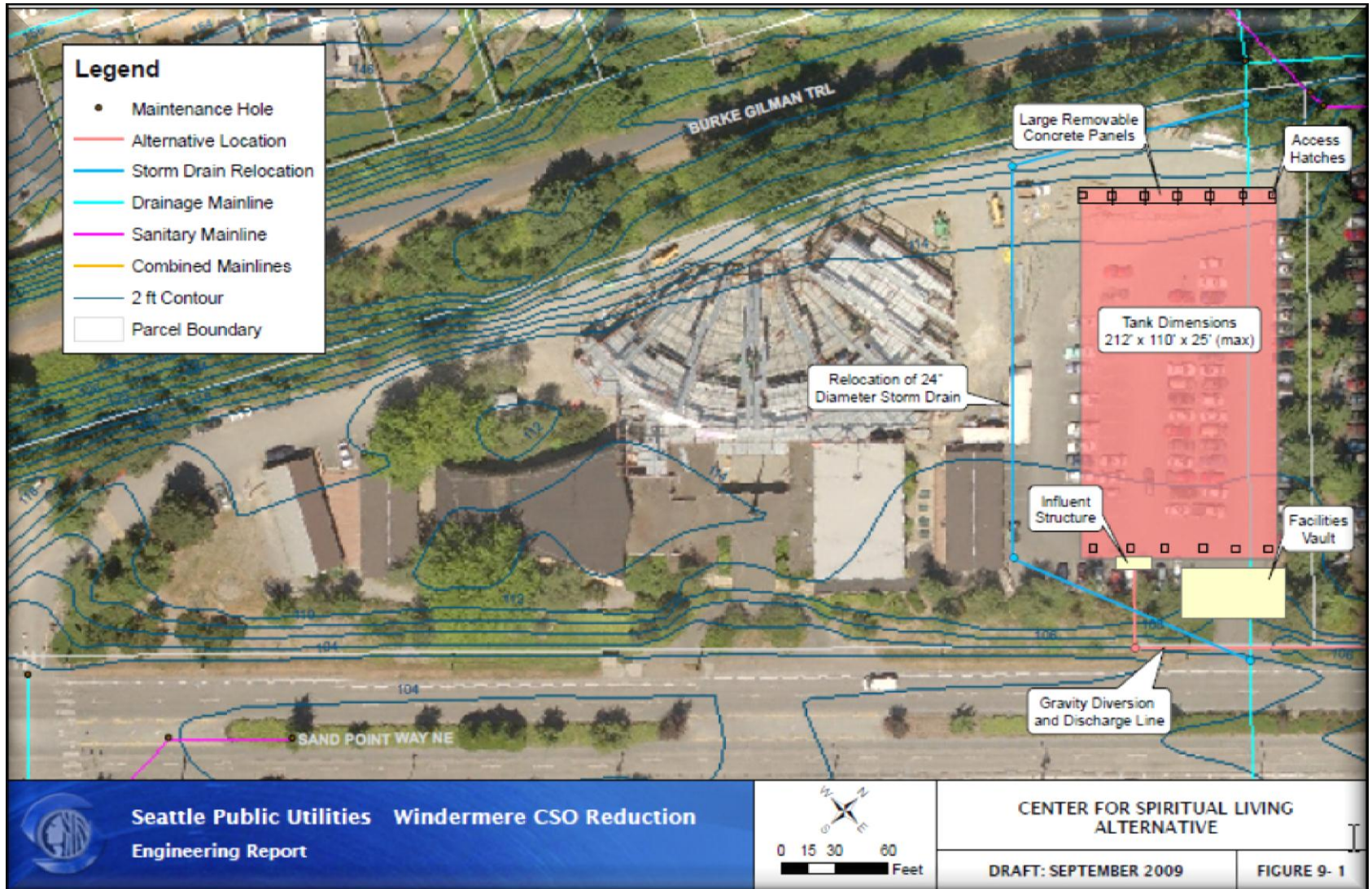


Combined Sewer Overflow (CSO) Improvement Sites

Genesee/Henderson CSO Site



Windermere CSO Site



Transfer Station Improvements





NORTH CLING & DISPOSAL

STATION
CITY OF SEATTLE

8:00 AM - 5:30 PM

8:00 AM - 5:30 PM

8:00 AM - 5:30 PM

REFRIGERATORS
WITH DOORS
TAKEN OFF
ONLY

RATES

North Transfer Station



South Transfer Station



South Transfer Station



Reservoir Burying Program

Seattle Reservoir Burying Program replaces the existing open basins at Beacon, Myrtle, West Seattle, and Maple Leaf Reservoir sites with new reinforced concrete buried structures to protect the drinking water and provide open space.

SPU Drinking Water Reservoirs



Reservoir	Status
Riverton	Covered (from start)
Eastside	Covered (from start)
View Ridge	Covered (from start)
Magnolia	Covered (1994)
Bitter Lake	Covered (floating / 2003)
Lake Forest Park	Covered (floating/ 2003)
Current Reservoir Covering Program	
Lincoln	Covered (2005)
Myrtle	Covered (2008)
Beacon	Covered (2009)
West Seattle	In Construction
Maple Leaf	In Construction
Roosevelt	Decommission
Volunteer	TBD (likely decom)

Original Beacon Reservoirs



Beacon Reservoir Construction

**Reservoir Placed into service in
February 2009**



West Seattle Reservoir



West Seattle Reservoir



**Project on schedule to
complete construction in
summer 2010**

Interior of Buried Reservoir



Myrtle Reservoir Construction

•Reservoir Placed into service in July 2008



Myrtle Reservoir



Maple Leaf Reservoir

The original 1910 60 MG open reservoir before reconstruction begins in 2009



Lincoln Reservoir under Cal Anderson Park



Volunteer Reservoir



Thank You!