

Stormwater Code - Accelerating GSI Growth in Seattle

The Seattle City Council established a goal to manage 700 million gallons (MG) of stormwater runoff every year with Green Stormwater Infrastructure (GSI) by the year 2025. GSI constructed as part of development and redevelopment projects as required by stormwater code is one subset of this goal that has made up an increasing share of Seattle's collective progress. Many of these projects are built by local private property owners, often relatively small in scale, and easily overlooked in their contribution

towards 700MG. However, recent data demonstrate that stormwater managed by projects required through stormwater code has shown substantial growth. Thanks to the combined contribution of these projects the City is on track to meet the 700MG goal, of which 200MG can be attributed to projects required by the stormwater code.

Types of GSI Practices Commonly Used Within Seattle

Bioretention

Rain Gardens

Stormwater Cisterns

Infiltration

Biofiltration

Permeable Pavements

Green Roofs

Tree Canopy

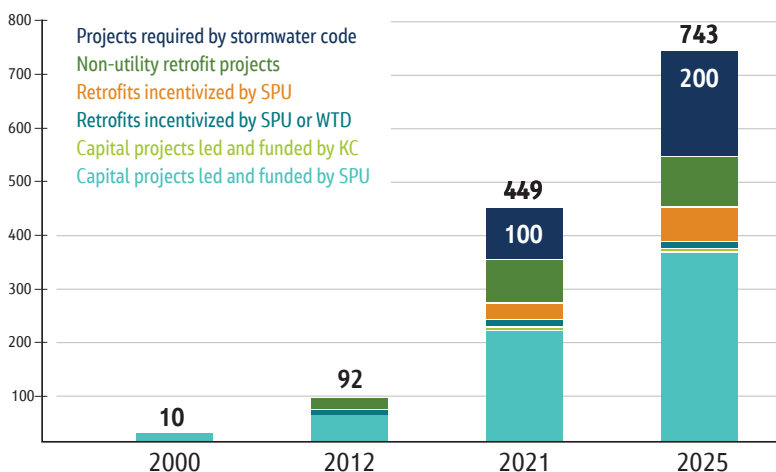
2021 Stormwater Code Updates

The 2021 stormwater code update further increases the yearly number of gallons managed across Seattle. There were many changes to the manual, but most notably the code updates design standards for GSI facilities, increasing the amount of rainwater that needs to be collected and reducing barriers for private property owners to install cisterns for rainwater harvesting. Additionally, there is now an increased emphasis on GSI when planning projects.

Beyond Code Partnerships

Beyond Code Partnerships promote the integration of stormwater designs and increases the benefits of GSI for partnering projects by bringing SPU and designers together during the design process. Starting these conversations early can help recognize opportunities for expanded GSI implementation that go beyond traditional code requirements. Future projects then have the potential to use this expanded GSI as a credit toward their projects. SPU currently offers free consultations for developers looking to partner on projects.

Gallons of Stormwater Managed Per Year with GSI



Timeline of Code-Related GSI Growth

- 1999** Start of Seattle's GSI Program
- 2009** Seattle begins requiring GSI and Low Impact Development (LID) as part of stormwater code
- 2012** 5MG managed by stormwater code, 92MG managed in total
- 2013** Official Start of the 700MG Program (began accounting for projects built in 2000 and later)
- 2015**
- 2020** UW Health Sciences Education Building and Aurora Bridge GSI projects enter into Beyond Code Partnership with Seattle
- 2021** GSI growth accelerated through implementing the 2021 stormwater code updates
 - 100MG managed by stormwater code, 450MG managed in total
- 2025** (Projected) 200MG managed by stormwater code
- BEYOND 2025** - Work continues to grow GSI across Seattle

LID now required by Washington State Department of Ecology

End goal of managing 700MG of stormwater annually

SEATTLE STORMWATER CODE PROJECT HIGHLIGHTS

#1 Salish Sea Elementary

Located in the Othello neighborhood, this recently constructed project manages a total of 210,000 gallons yearly by using a combination of non-infiltrating bioretention planters (shown at right), pervious pavement, and new/retained trees on site.

#2 Google South Lake Union Campus

The recently constructed four-building Google campus in South Lake Union was built to LEED Gold certification and Salmon-Safe accreditation standards. GSI included at the site include non-infiltrating bioretention, permeable pavement and green roofs.

#3 UW Population Health Facility

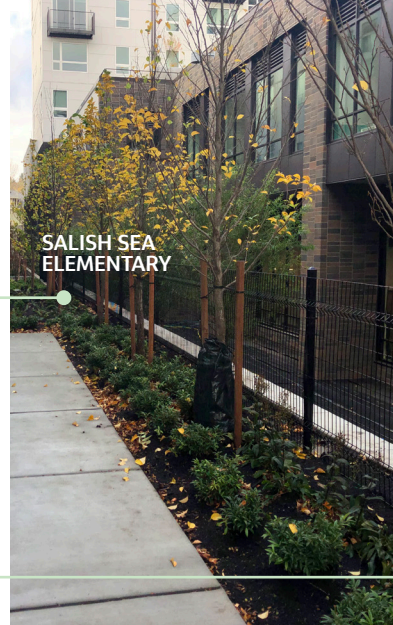
This Beyond Code Partnership project, completed in summer of 2020, manages a total of 350,000 gallons yearly through various integrated uses of infiltrating bioretention, drainage swales and non-infiltrating bioretention.

#4 Public Storage on Aurora Ave

The Public Storage off Aurora Ave in North Seattle manages 660,000 gallons per year through large bioretention and drainage swales across the site.

#5 Shilshole Bay Marina

At an interface between North Seattle and the Puget Sound, the Shilshole Bay Marina is salmon safe accredited utilizing permeable pavement and bioretention to manage a total of 450,000 gallons per year.



SALISH SEA
ELEMENTARY



GOOGLE SOUTH LAKE
UNION CAMPUS



UW POPULATION
HEALTH FACILITY



PUBLIC STORAGE
ON AURORA AVE



SHILSHOLE
BAY MARINA