

A RESOLUTION establishing a City policy that green stormwater infrastructure is a critical aspect of a sustainable drainage system and adopting a 2025 goal for green stormwater infrastructure implementation in Seattle.

**Joint Committee Meeting**  
Libraries, Utilities, and Center  
Energy and Environment

July 16, 2013



SEATTLE OFFICE OF  
**Sustainability & Environment**

Seattle  
**Public  
Utilities**



## Relevant Policy Context (City-wide Sustainability)

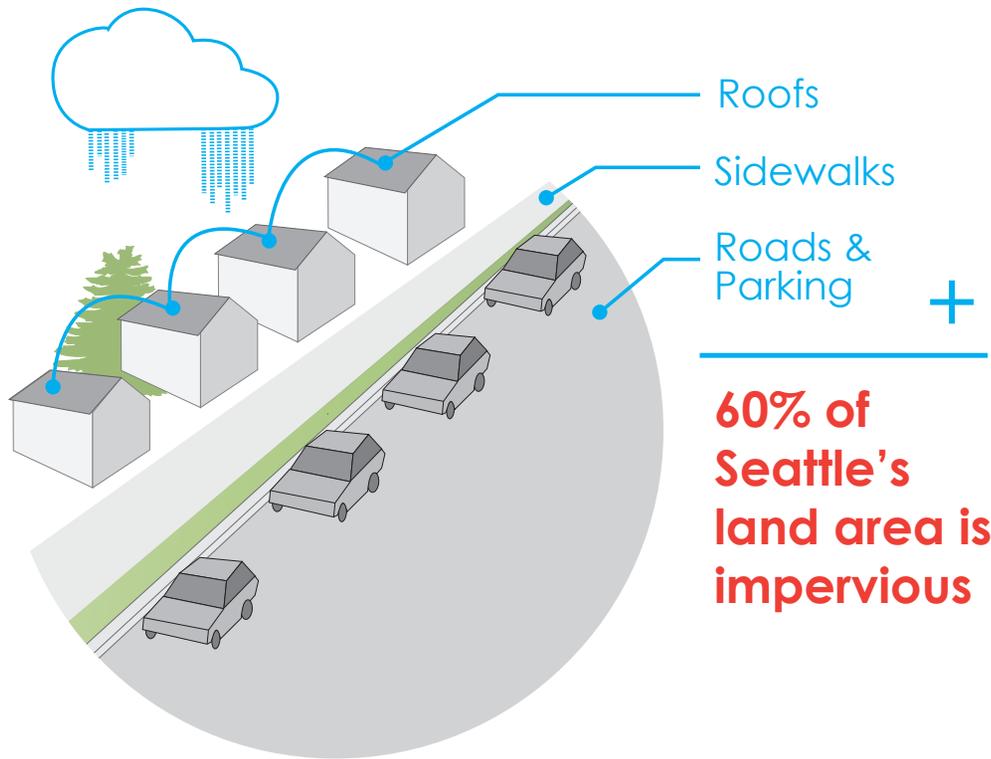
- Climate Action Plan & Climate Adaptation Strategy
- Urban Forest Stewardship Plan
- Modal Plans & Updates (Bike and Pedestrian)
- Sustainable Buildings and Sites Policy
- Parks Legacy Plan
- Zero Waste Strategy

## Relevant Policy Context (Utility-specific )

- Current Stormwater Code requires “GSI to the maximum extent feasible”
- New NPDES Permit requires updates to development-related codes
- CSO Consent Degree allows Integrated Planning
- King County-SPU Joint Program Planning for GSI is underway
- Citizen interest on private property
- **2025 GSI Goal and Implementation Strategy**



# What is the problem?



## Context:

- climate change (need for adaptive management)
- population growth & increasing density
- increasing demands on public realm
- opportunity to leverage capital investments (i.e.: Neighborhood Greenways)
- opportunity to foster private sector collaboration



## EFFECTS

# GREEN STORMWATER INFRASTRUCTURE MIMICS OUR NATURAL HYDROLOGY

In an urban context & form



# Green Stormwater Infrastructure Delivers Multiple Benefits

Gray	Green		
n/a	●	Preserved Pipe Capacity	<b>Urban Water System &amp; Utility Benefits</b>
●	●	Decreased Flow/Flood Prevention	
●	●	Improved Water Quality	
	●	Potable Water Conservation (Reuse)	
	●	Groundwater Recharge	<b>Other Environmental Benefits</b>
	●	Energy & Carbon Savings	
	●	Improved Air Quality + Health	
	●	Carbon Storage / Sequestration	
	●	Biodiversity & Habitat Support	
	●	Neighborhood Beautification	<b>Neighborhood Benefits</b>
	●	Improved Pedestrian Safety + Experience	
	●	Mitigated Heat Island Effect	
	●	Education & Engagement Opportunities	
	●	Increased Property Value	

**2001-2012**  
Capital Projects  
(SPU)



NW 110th St. Cascade



SEA Streets



Pinehurst Green Grid



Ballard Natural Drainage 2010



Highpoint Natural Drainage

<b>2001</b>	<b>SEA Streets</b>	2.3 acres	99% reduction in runoff volume
<b>2003</b>	<b>NW 110<sup>th</sup> Cascade</b>	28 acres	48-74 % reduction in runoff volume
<b>2004</b>	<b>Broadview Green Grid</b>	32 acres	70% reduction in runoff volume
<b>2004</b>	<b>Pinehurst Green Grid</b>	49 acres	82% reduction in runoff volume (design estimate)
<b>2005-9</b>	<b>High Point Natural Drainage</b>	129 acres	Without NDS approach, project would have required detention pond 5x as big
<b>2010</b>	<b>Ballard Natural Drainage 2010</b>	1.4 acres	38000 gallons of control volume removed
<b>2010</b>	<b>RainWise Program</b>		250+ installations, 1250 sq. ft. of impervious managed per install (average)

### The Shift:

- Rely on GSI wherever technically feasible and aligned with urban development priorities
- Integrate GSI into appropriate infrastructure investments to maximize community benefits
- Encourage & facilitate GSI on private land

### The Resolution:

- Establishes GSI as a critical aspect of a sustainable urban drainage system and livable community
- Sets a 2025 implementation goal for GSI in Seattle
- Directs OSE to coordinate City departments to develop a plan to achieve the goal

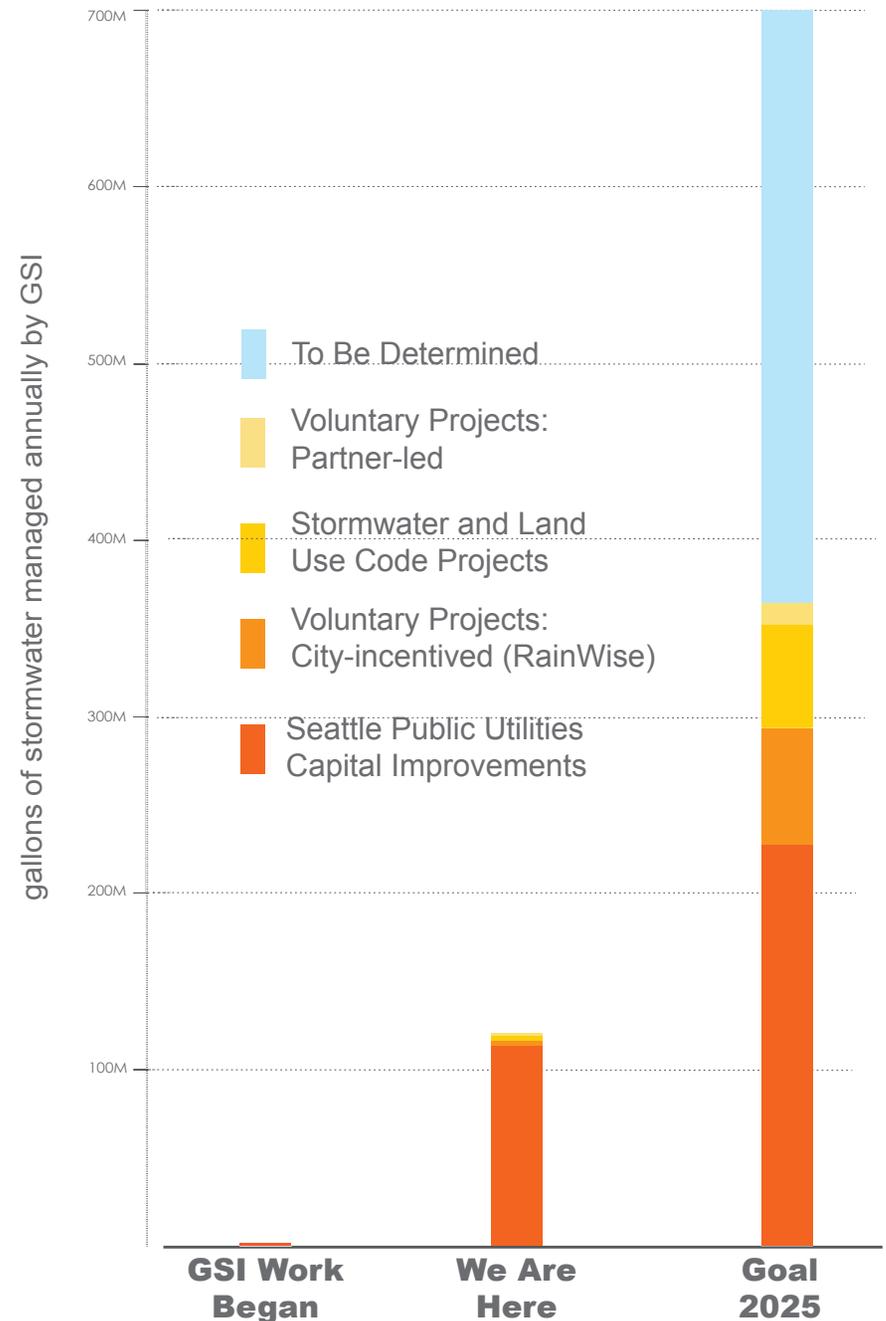
### The Goal:

By the year 2025, Seattle will be managing 700M gallons of stormwater annually with green stormwater infrastructure:

- rain gardens
- roadside swales
- green roofs
- pervious pavement
- stormwater cisterns
- rainwater harvesting & reuse

## Seattle Green Stormwater Infrastructure

2025 Goal: Manage 700M gallons Annually



# Implementation Plan Development

## Near-term SPU Capital Projects & Incentives

Venema (creek focus)  
Swale on Yale (Lake Union water quality)  
Ballard (combined sewer focus)  
Delridge ( Neighborhood Greenway focus)  
Integrated Plan Development  
RainWise Program

## Develop Partnerships & Leadership Opportunities

King County  
Parks-SDOT-SPU ROW Opportunities  
2030 District (beyond code)  
Community-based Organizations  
Financial Partnerships (public-private)  
O&M Partnerships  
Integrated Infrastructure Planning, Legacy Projects

## Refine Code & Policies

Stormwater Code: on-site management  
Innovative Incentives & Financing  
Additional Design Guidance (pre-vetted with SDOT)

## Deliver 2025 GSI Implementation Plan/Strategy

Technical/Policy Document  
Public Document

