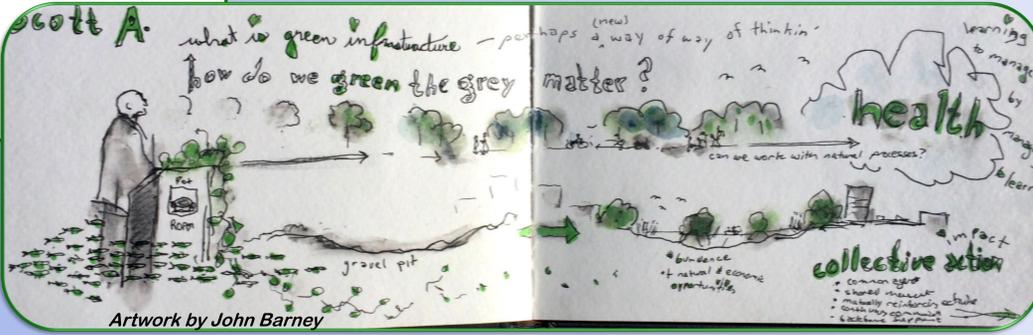




## URBAN GREEN INFRASTRUCTURE SUMMIT

### Pacific Northwest Urban Green Infrastructure

Metropolitan areas face many challenges: urban flooding, storm-water management, air and water quality, urban heat islands, chronic diseases and public health issues, access to green spaces, and equity and social justice. Urban green infrastructure has a role in addressing all these urban issues.



Artwork by John Barney

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Promoting More Effective and Widespread Green Infrastructure

### Summit Objectives

- Characterize challenges and opportunities in the implementation of green infrastructure.
- Elucidate next steps for research, coordination, and extension.
- Determine avenues for collaboration for maximum human and ecosystem benefit.
- Identify issues that arise from a non-stormwater lens.

### Summit Themes

- Landscape scale challenges and management – land use planning, floods and floodplain management, climate resiliency, riparian and wetland management, open spaces.
- Green stormwater infrastructure – runoff reduction, water quality treatment practices, and urban trees and forests.
- Non-traditional, non-water green infrastructure issues – social justice and equity, public health, air quality and heat islands, contaminants of emerging concern, and economics.



### Is this Poster Sustainable?

This poster is made from recycled water bottles. After life as a poster is over, the fabric can be recycled or upcycled into a tote bag or garment.



### Green Infrastructure Summit Outputs

- Summit website  
<https://metroextension.wsu.edu/2017/10/10/gisummit/>
- Presentations archived  
<https://metroextension.wsu.edu/2017/10/10/gisummit/>
- Overview paper in preparation
- Green Stormwater Infrastructure in Western Washington and Oregon: Perspectives from a Regional Summit
- NSF Sustainable Urban Systems Conference Proposal



Catching Stormwater



Green Infrastructure Implementation  
Photos: Washington Stormwater Center



Pervious Concrete

### Desired Outcomes & Attendees

Our goal was to connect communities and university faculty to share existing resources, inform education and research priorities, and build new collaborative problem-solving networks.

### Discussion Questions

- What are greatest challenges in implementing green infrastructure?
- What are the areas needed for new research?
- Who are your primary partners?
- Do you manage green infrastructure for non-water benefits, either formally or informally?
- How would you like equity and green infrastructure to integrate in your practice?
- What critical questions do your need answers for that would transform your work?



Rain gardens Seattle, WA  
Photo Washington Environmental Council

### Building a National Green Infrastructure (GI) Network

- Green infrastructure workshop at National Urban Extension Conference: May 2019
- Green infrastructure tour at WSU Stormwater Center: May 2019
- NSF Research Collaboration Network Proposal
  - 9 teams composed of academics, extension, and practitioners.
- Collect and organize data and information from existing GI research and active community projects.
- Build a coordinated understanding of how communities are using, maintaining, and coordinating GI.
- Integrate and synthesize physical and social data on GI through field, survey, or modeling efforts to assess the benefits and impacts of GI development.
- Build a base of interdisciplinary, intellectual, and practical capacity through university, government, and citizen-based partnerships to link current knowledge about how GI is implemented across locations, disciplines, and scales.

### Challenges Identified

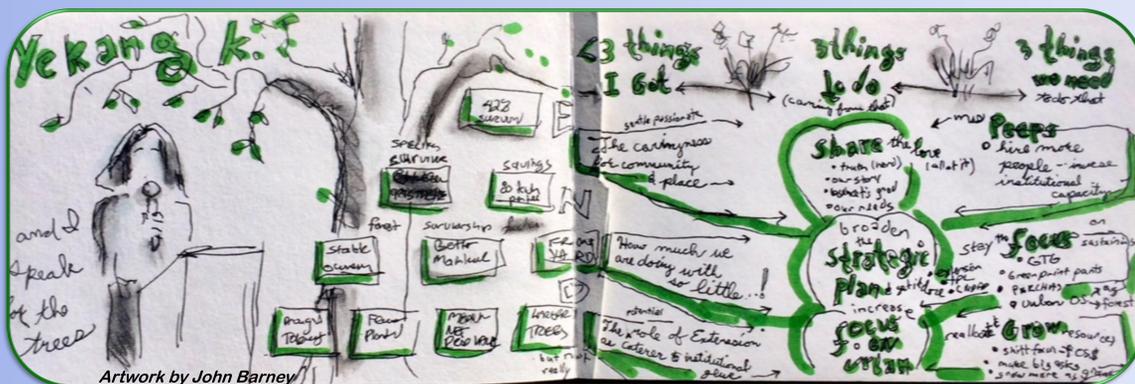
- Silo effect** – design, construction, and maintenance are often done by different departments, groups, or agencies in different stages and are often never discussed with all parties involved.
- Best management practices mindset** – typical approach to water quality issues has been to address in isolation by collecting the stormwater, treating it for quality and quantity in separate facilities.
- Designing for change** – designing facilities that harness natural ecosystems processes is more complicated than traditional stormwater management.
- Maintenance is hard** – most facilities should look their best after being built, but inadequate resources devoted to maintenance means they often get overburdened with weeds and fall apart.

### Emergent Themes

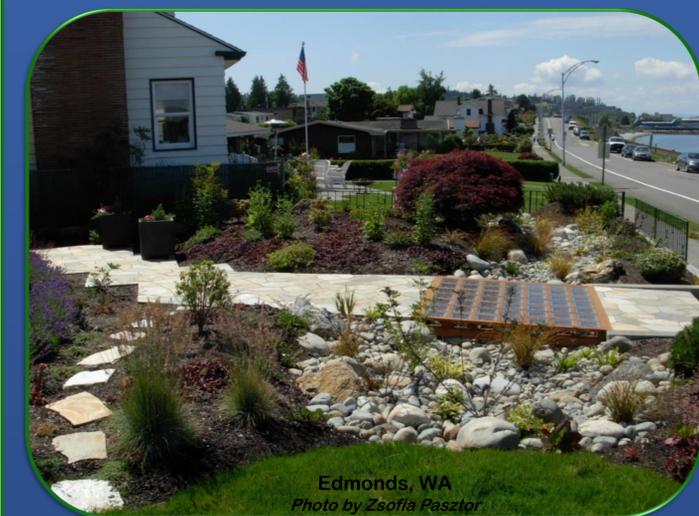
- Adaptive design and maintenance** – wider acceptance and implementation has meant that practitioners are looking for new ways to utilize science, technology, and people to improve operation.
- Placement for maximum cumulative impact** – strategically installing and monitoring across the landscape for maximum benefit ranged from environmental sensors to developing collective evaluation.
- Design from a non-water lens** – many communities value walkable, bikeable neighborhoods, and some have found that implementing curbside green infrastructure helps achieve “better streets.”
- Intersection with community health** – a future area of growth may be to align with the missions of community health organizations, non-profits, and major health providers invested in preventative care.

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Socioeconomic and Policy Implications from a Long-term Monitoring of Sacramento Shade Trees



Artwork by John Barney



Edmonds, WA  
Photo by Zsolt Pasztor