Putting Collective Impact to the Test in Puget Sound

Stories from the Watershed, the Region and Research Coordination

Urban Forest Symposium
May 15, 2018
Story Overview

- Watershed scale: Urban Waters Federal Partnership (UWP) National Overview
- The Green-Duwamish UWP (partners/goals)
- Operating approach
- Example projects/outcomes to date
- Regional scale: Emerald Alliance
- Research linkages/collaboration (shared measurement)
- Questions/Discussion
Urban Waters Federal Partnership
Building on . . . . other Federal Initiatives
The UWFP Program

CONNECT
COMMUNITIES TO WATERWAYS

IMPROVE
water quality

REVITALIZE
communities

ENGAGE
ENGAGE PEOPLE IN RESTORATION
National Initiative—Local Roots

Green-Duwamish Watershed
Seattle & King County, WA
Green-Duwamish Watershed
‘from snow cap to white cap’

water supply for communities

recreation opportunity

salmon & wildlife habitat

industry & commerce

adapted from Puget Sound Regional Council 2009
GD-UWFP Program

Principal Federal Partners

- USFS, PNW R&D & State/Private Forestry
- US EPA, R10
- Natural Resource Conservation Service (NRCS)
Green-Duwamish UWP: Goals

- Promote conservation, clean water
- Promote cross-agency partnerships
- Reconnect people to their waterways
- Advance social equity & environmental justice
- Promote local economic benefits & jobs
GD-UWP Operational Approach

What is Collective Impact?

Read or download the article on Stanford Social Innovation Review’s website:
http://www.ssireview.org/articles/entry/collective_impact
5 elements of collective impact

- Common Agenda
- Shared Measurement
- Mutually Reinforcing Activities
- Continuous Communication
- Backbone Organization

For more information on Collective Impact, please visit www.iss.org. This work is licensed under a Creative Commons Attribution-NonCommercial 3.0 Unported License. Please contact info@iss.org with requests or questions.
**Modified** Collective Impact in the Green-Duwamish UWP

Leveraging existing multi-stakeholder initiatives:
- Watershed Restoration Groups
- Community-based organizations
- Federal agencies
- Local/regional governments
- Local NGOs & foundations

Opportunity triage . . .
- Supporting key community groups
- Collaborating on multi-benefit projects
- Highlighting the nexus of Nature/Health
- Connecting resources to community priorities
Projects/Activities of Interest:

- **Re-green the Green Strategy**
- **Duwamish Valley Youth Corps**
- **Middle Green Riparian Restoration Project (Fish-Farms-Floods)**
- **Lower Duwamish Restoration Blueprint**
  - Mapping Watershed Activities (a mapping tool)
  - Healthy River/Healthy Communities Project engagement
  - Ecosystem Services Valuation of the watershed
  - Return on Investment Analysis of key Restoration Project
RE-GREEN THE GREEN:
Riparian Revegetation Strategy for the Green/Duwamish and Central Puget Sound Watershed (WRIA 9)
Duwamish Valley Youth Corps:

• Launched in 2014 meeting key community priority
• As of Spring 2017, graduated some 100 youth in 7 cohorts:
• Activities include:
  • planted 250 trees in highly urban neighborhoods
  • installed rain gardens
  • Pick up truckloads of trash along the river and in the communities
  • Help 45 residents build high-quality indoor air filters
  • Served as mentors through the Every Kid in a Park Program
The Emerald Alliance: Collective Impact at Scale
Unconventional Collective Impact

Green Cities Research Alliance

UW Remote Sensing & Geospatial Lab
University of Washington
Parks & Recreation Division
City of Seattle

FORT&ERRA
Earth Corps
Institute for Culture and Ecology
GCRA
Research Themes and Accomplishments

Socio-Ecological Systems :: Landscape Gradient

Wolf, 2013
Project Highlights

Urban Forest Assessments

Forest Ecosystem Values (i-Tree Eco) – City of Seattle

Forest Landscape Assessment Tool – King County

sampling all of Seattle

all King County parks & open spaces
Project Highlights

Urban Foraging

• Identified 433 plant, 53 fungal species with value for gatherers in Seattle

• Detailed knowledge of ecology and stewardship

• Results used by
  – 5 pubs
  – National news outlets (NPR, Nat’l Geog.)
  – Seattle Urban Forest Management Plan
  – Replicated in NY City, Baltimore, Philadelphia

• Widely cited
  – Social & Cultural Geography (top 10 in 2014-15)
  – Local Environments (most cited EVER)
Project Highlights

Citizen Stewardship Assessments

Stewardship Mapping of Organizations
Participant Motivations (Environment AND Community)
Costs and Benefits
Trees: Human health and well-being

Modeling the links . . .

- Lower *energy use* if trees are on south & west side of house
- Lower *crime rates* in areas with street trees and larger yard trees
- Fewer *underweight babies* if trees are within 50 meters of house
- Higher rate of *respiratory and cardio-vascular deaths* in areas of dying trees
Metro nature - including trees, parks, gardens, and natural areas - enhance quality of life in cities and towns. The experience of nature improves human health and well-being in many ways. Nearly 40 years of scientific studies tell us how. Here's the research ...

**RESEARCH THEMES**

- Livable Cities
- Community Building
- Local Economics
- Place Attachment & Meaning
- Crime & Fear
- Safe Streets
- Active Living
- Reduced Risk
- Wellness & Physiology
- Healing & Therapy

[www.greenhealth.washington.edu](http://www.greenhealth.washington.edu)
Potential Annual Cost Savings and Increased Income Associated with Human Health and Well-being Benefits Derived from Metro Nature

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<th>Benefit (geographic scope)</th>
<th>Minimum ($)</th>
<th>Maximum ($)</th>
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<td>Newborn Health (U.S.)</td>
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<td>Attention Deficit Hyperactivity Disorder (U.S.)</td>
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<td>Schools (U.S.)</td>
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<tr>
<td>Alzheimer’s Disease (U.S.)</td>
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<td><strong>Totals</strong></td>
<td><strong>2,694.4</strong></td>
<td><strong>6,754.5</strong></td>
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Millions of U.S. Dollars (2012)

The Nature Conservancy

Puget Sound Conservation collaborative product

February 2016

Outside our Doors
the benefits of cities where people and nature thrive
Trees & Health: Moss Research with FIA

- Tree moss and lichens as bio-indicators of air pollution
- 350 sample sites; analyzed for 22 elements
- Found ‘hotspots’ of 10 toxic elements
- Used cadmium and arsenic results to illustrate how modelling can develop of city-wide density maps & even specific sources
- Low cost, high efficiency air pollution detection method depends on trees
Green-Duwamish Learning Landscape

Conceptual Approach

- Independent research projects with similar or complementary research outcomes (blue center)
- Projects unified by formal collaboration and by shared vision and governance (green circle)
- Within GD (large blue circle) gradient
- Projects based on the identified needs/concerns of local governments and communities
- Projects designed around citizen participation when possible and appropriate
Comments & Questions

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http://www.urbanwaters.gov/seattle/index.html