Solving Stormwater

It’s time to accelerate solutions to the biggest water pollution problem in urban areas across Puget Sound.

Let’s rethink the problem

What is the natural habitat of humans? It’s our social, vibrant cities and towns. It’s the bustling farmers’ markets we stroll through, the parks where our children play, our apartments, our offices and our hospitals. Let’s break down the divide between our cities and nature so that we can all thrive in the places where we live.

City Habitats is composed of organizations and individuals choosing to re-imagine our habitat as good for clean water and good for healthy communities. Let’s get to work.
Where People & Nature Thrive

CONSERVATION BY DESIGN

The fate of people and the fate of nature are tightly bound. Guided by this understanding and backed by strong science, we are using nature-based solutions to revitalize lands, waters and cities to solve Puget Sound’s biggest challenges. The successes we achieve here together—as a diverse community drawing on our many strengths—can serve as a model for the rest of the world. As the region we love continues to grow, there’s not a moment to lose.

Identifying Challenges & Goals

IMPACTS TO PUGET SOUND

Puget Sound is a place where land and water meet to create diverse communities, economies and an entrepreneurial spirit that draws people from all over the world. The quality of life here is being impacted by rapid growth and a changing climate.

CONSERVE

Plant 1 million trees across Puget Sound
Build 20,000 rain gardens on private property that filter water naturally
Divert 1 billion gallons of polluted runoff into green infrastructure
Raise $200 million per year for clean water investment

NATURE IN CITIES

CLEAN WATER

CLEAN AIR

OPPORTUNITY

Our goal is to accelerate action. Acceleration is not just about doing things more quickly; it’s about going beyond traditional conservation by working with the resourcefulness of nature itself to restore balance.

5.7 MILLION
people will live in the region by 2030

236 PEOPLE
move to Puget Sound everyday

14 MILLION LBS.
of chemicals annually run into Puget Sound

HEALTH
of fish, wildlife & people negatively impacted by pollution

CLIMATE CHANGE
is putting people and places at risk
Defining the Need

FOCUSED CHANGE FOR THE LONG HAUL

Built water and drainage systems served the Puget Sound region for the first 150 years of development. But now it is critical to the health of Puget Sound to overhaul these systems and retrofit the old, impervious surfaces. Currently, 75 percent of the toxic chemicals entering the Sound are carried by stormwater runoff that flows off hard urban surfaces. This turns rainfall from a natural resource to a vehicle for pollution when it hits the ground.

URBAN STORMWATER
flows on top of hard surfaces to nearby rivers and streams picking up...

Nutrients & Bacteria: Lawn fertilizers and animal waste
Major cause of shellfish closures in Puget Sound

Copper: Brake pad deposits on paved surfaces from vehicle wear and tear, pesticides
Toxic to fish at low levels

PAHs: Polycyclic aromatic hydrocarbons from woodstove and fireplace combustion, vehicle combustion, creosote-treated wood
Toxic to humans as it enters the food chain

Oil & Petroleum: Drips, leaks and emissions from vehicles
Toxic to plants, animals and people

Other Heavy Metals: Roof material leaching, vehicle tire abrasion and aviation fuel combustion
Toxic to wildlife and people

Pollutant loading to Seattle/King County waterbodies

<table>
<thead>
<tr>
<th>Sewage &amp; Stormwater</th>
<th>Stormwater</th>
<th>Sewage</th>
<th>Stormwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overflows Directly to Waterbodies</td>
<td>Via Treatment Plants</td>
<td>Via Treatment Plants</td>
<td>Runoff Direct to Waterbodies</td>
</tr>
<tr>
<td>174,000 Kg TSS/Year</td>
<td>584,000 Kg TSS/Year</td>
<td>514,000 Kg TSS/Year</td>
<td>5,560,000 Kg TSS/Year</td>
</tr>
</tbody>
</table>

Data Sources: The Department of Ecology, United States Geological Survey, Seattle Public Utilities.
*Total Suspended Solids (TSS)

Mapping Strategies & Places

SCIENCE BEHIND STRONGER DECISIONS

“When we built our cities, we weren’t thinking about salmon. After a grueling journey back to their native stream to spawn, toxic runoff causes the salmon heading home to spawn to become disoriented and confused. They begin to lose their ability to swim, and eventually expire, the females still full of eggs. Coho salmon have returned to the Pacific Northwest to spawn for 6 million years. We can’t afford to lose these species. Their well-being is an indicator of our own well-being as a species.” —Dr. Jenifer McIntyre, Aquatic Toxicologist, Washington State University

Data Source: Feist, et al. (2011)
*Evolutionarily Significant Unit (ESU)
Shared Outcomes

**USING THE POWER OF NATURE TO FLOURISH**

We are re-envisioning cities to function more like a forest. By enhancing nature in cities, more rainfall will be absorbed into the ground and more of the water flowing into Puget Sound will be clean. In addition to clean air and water, we thrive by integrating nature into cities in ways that accommodate growth, benefit underserved communities, promote physical and mental health and foster social cohesion and economic competitiveness.

Taking Action

**LARGE-SCALE SOLUTIONS TO LARGE-SCALE PROBLEMS**

Through collaborative action of diverse interests, and commitment to innovation, we can achieve the pace and scale of the solutions we need. Together we must coordinate action across geographies and levels of government, encourage communities to think big and provide the technical background and tools for large-scale success.
Powered by Partnership

**JOINING FORCES TO DO MORE, FASTER**

*City Habitats* is about coalescing around a common vision to save the quality of life we all treasure. We support each other and the many organizations working for the health of Puget Sound, ensuring they are equipped, aligned and funded to accelerate impact. Some of our greatest successes come from bridging traditional divides, finding unlikely partners and supporting community-driven solutions to get things done. Join us!

---

**CLEAN WATER, HEALTHY COMMUNITIES**

**CROSS-SECTOR**

NECESSARY FOR SPECIFIC EXPERTISE

- GOVERNMENT
- ACADEMIC
- BUSINESS
- NON PROFIT
- CLIMATE CHANGE
- SOCIAL JUSTICE
- GREEN JOBS
- COMMUNITY PREPAREDNESS
- WATERSHED PLANNING

**CROSS-JURISDICTIONAL**

NECESSARY TO WORK AT SCALE

**CROSS-ISSUE**

NECESSARY TO BUILD CONSTITUENCIES & POLITICAL EFFICACY

---

WashingtonNature.org/cities
CityHabitats.org