Watershed Investment District
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Food Production
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The Green/Duwamish Watershed
<table>
<thead>
<tr>
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The Green/Duwamish Watershed Salmon Habitat Plan

$300,000,000

Identified Project Needs
Watershed Investment District

Background

The Green/Duwamish and Central Puget Sound Watershed (WRIA 9) covers 664 square miles of land and water where nearly 700,000 people make their homes, and where many thousands more people work, commute and play. Jobs, services and economic development are provided by thousands of businesses, non-profits, 35 cities, the Port of Seattle, King County, federal agencies, and many other public institutions. All these people and institutions affect, and are affected by, the watershed they share.

This shared watershed provides natural capital goods and services to all of these stakeholders. These goods and services include salmon (such as threatened Chinook and steelhead) and other fish and wildlife, flood protection, water production, floodwater storage, stormwater conveyance, carbon sequestration, biodiversity and recreation. Yet, there is no institutional responsibility for making sure, at the watershed level, that these goods and services are being managed in a coordinated, efficient way that reduces overall costs and increases overall benefits.

Problem

Currently, activities affecting the watershed’s ecosystem services are inefficiently delegated across diverse institutions. Many cities have separate storm water systems in which jurisdictional boundaries matter more than watershed boundaries. Increased storm water contributes to flooding and current stormwater management methodologies lead to unacceptable levels of pollution in Puget Sound. This trend requires more flood protection and pollution remediation expenditures and reduces groundwater recharge for drinking water and salmon. Better coordinated, these investments could be less costly, more effective and longer lasting. The overall tax burden would be reduced with greater services provided.

Opportunity

The WRIA 9 Watershed Ecosystem Forum brings many watershed stakeholders to a common table, resulting in reduced conflict, increased collaboration, secured sustainability and improved efficiency for participants. Natural evolution of the WRIA 9 partnership would involve working with these stakeholders on salmon habitat restoration and improvements in additional closely-related ecosystem services to ensure that watershed investments are mutually beneficial and not at odds with each other. Improved coordination could save of hundreds of millions of dollars and ensure the more effective provisioning of ecosystem goods and services.

Investment District

Each would implement salmon habitat restoration and coordinate investments in improving watershed health.

Investment District without taxing authority, having a collaborative Watershed Ecosystem Forum, where existing jurisdictions and other key stakeholders agree to improve the lands and waters of the watershed. This design would result in a Watershed Investment District as a separate tax district. The creation of a vote of approval by people in WRIA 9. A tax authority funding mechanism is analyzed in the Analysis section below.

WRIA 9 would improve efficiency by aligning the management scale of a watershed with capital. For example, better, less costly flood control could be established by having the watershed and King County redesign stormwater systems to recharge groundwater through peak flows, resulting in reduced flooding for salmon and drinking water.

Figure 1: Investments in salmon habitat restoration, potable water, flood protection, storm water systems, recreation, agriculture and other areas can be mutually supportive or in conflict.

Figure 2: Green/Duwamish and Central Puget Sound Watershed (Water Resource Inventory Area 9).
Watershed Investment District:
Watershed Investment District:

- Sustainable Scale
- Fairness
- Efficiency
- Certainty/Revenue
The Green/Duwamish River Watershed

King County
Department of Natural Resources and Parks
Water and Land Resources Division

Produced by:
Department of Natural Resources and Parks, WLRD, GIS, Visual Communications & Web Unit
File Name:0605greenbase  sk
Purposes

✓ Salmon recovery
✓ Fresh water provisioning
✓ Flood risk reduction and management
✓ Storm water management
✓ Salmon habitat restoration
✓ Climate adaptation
✓ Payments for ecosystem service systems
Identifying carriers & ES flows

- Flood Protection
- Aesthetic viewsheds
- Carbon sequestration, some cultural values
- Recreation, aesthetic proximity, some cultural services
Provisioning
Assets/Institutions
Beneficiaries
Impairments
Funding Mechanisms

- Lid Lift on Flood District Property Tax
- Property Tax or Assessment
- Smart Development Incentives
- Payments for Ecosystem Services (PES)
- Mitigation Banks
- Mitigation Trading
- Bulkhead charge
- Cruise Ship charge
Earth Economics

- Valuation of ecosystem services
- Benefit/cost analysis
- Development of funding mechanisms
- Environmental Impact Statements (ESV)
- Jobs analysis
- Rate of return on restoration investments
Simple and Effective Resource for Valuing Ecosystem Services

what is your planet worth?
Thank You

dbatker@eartheconomics.org

www.eartheconomics.org
Goods Provisioning

- Water
- Food
- Timber
- Fuel
- Fiber
- Medicines
Regulating Services

Flood Protection

Water Quality/Filtration

Water Temperature

Hydrological Functions

Soil Erosion Control

Gas & Climate Stability

Biological Control

Soil Formation
Supporting Services

Biodiversity and Habitat

Nutrient Cycling

Pollination

Net Primary Production
Cultural Services

Aesthetic

Recreation

Spiritual & historic

Science & education
Applying Ecosystem Services

Steps 1-5

1. Identify
2. Value
3. Model and Map
4. Analyze
5. Fund

Where are these ecosystem services provisioned? Who is benefiting from them? And what are their impairments? Where is there redundancy? What opportunities exist?

What are our goals? What local and regional policies are supportive of our goals? Are there redundancies? What investment options are available?