



Innovative Financing for Watershed Conservation

working collaboratively across sectors and landscapes

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Pacific Northwest Region

A Community on Ecosystem Services ~ Washington, DC ~ December 5, 2018



for the greatest good

Why Partner?

The Forest Service Mission...

to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations

...requires a collaborative approach

The Challenges are Complex...

climate change, population growth, shrinking habitats, increasing demand for access and development pressure

...we must work together to address them



“An all-lands approach requires valuing the social outcomes needed for shared stewardship across landscapes.”

Toward Shared Stewardship Across Landscapes: An Outcomes-Based Investment Strategy
USDA Forest Service, August 2018



for the greatest good



Working With States to Achieve All-Lands Conservation

"A sustainable forest land base requires relief from development pressures, an intact industry infrastructure, and **conservation incentives and markets that value working forests' ecosystem services.**"

~ Washington State Forest Action Plan



Forests are Critical to Communities, Governments and the Private Sector

Socially

Ecologically

Economically



We all have a stake in forest stewardship

Making the Economic Case for Restoration *broadening the tent*

U.S. requires
\$1 trillion in
investments for
water
infrastructure
over the next
25 years

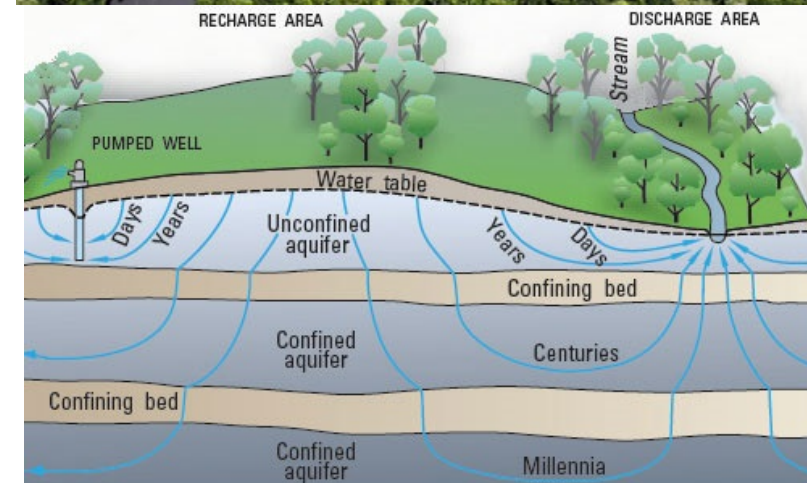
~ American Water Works Association



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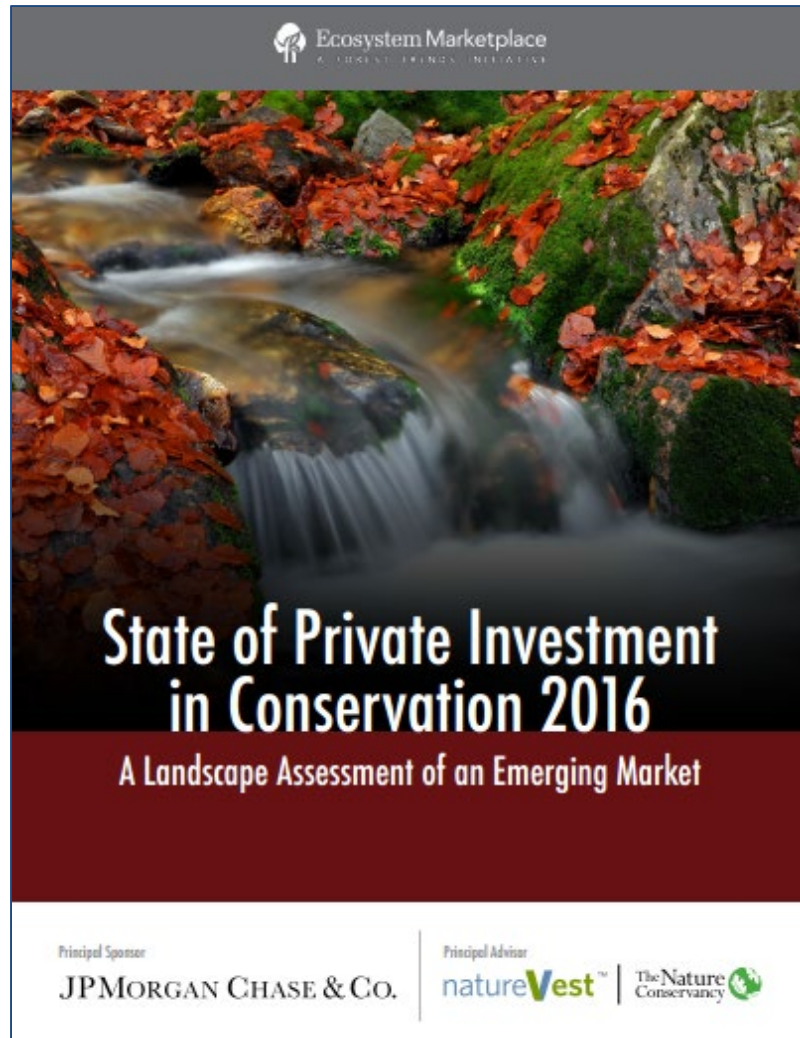
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*At the core of conservation finance is the underlying belief that it is possible to align **environmental, social and economic** returns: the so-called triple bottom line*



Leveraging Conservation Finance Opportunities



From 2004 to 2015, the private sector channeled **\$8.2 billion** into investments seeking measurable **environmental benefits in addition to financial return**

Aligning Finance with Forest Service Goals

Priorities and risk assessments

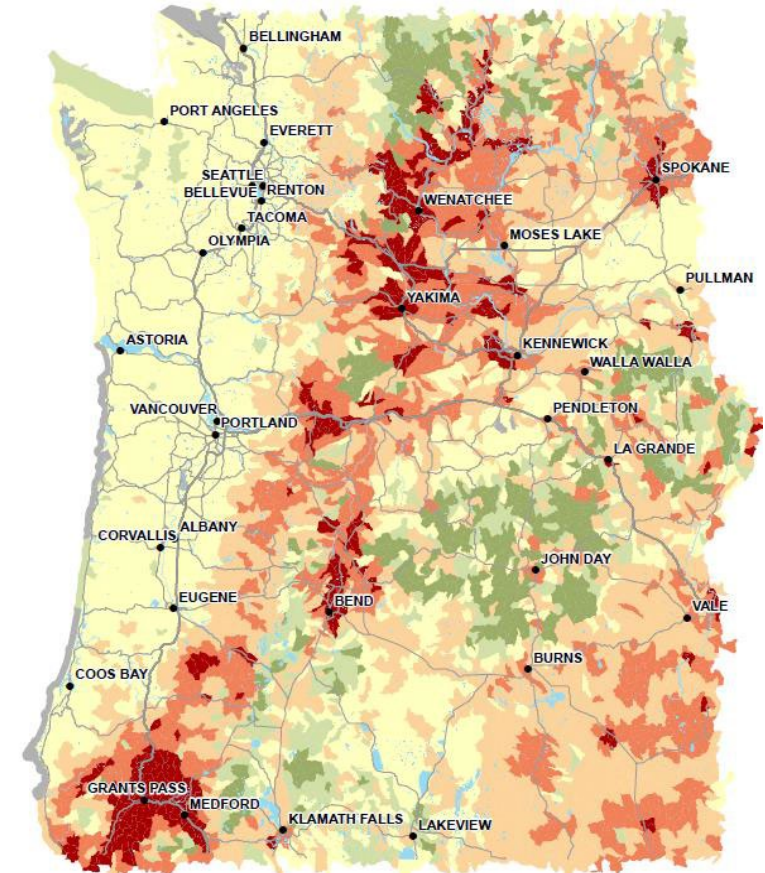
Coordination with states

High value resources and assets

Engaged leadership

Committed partners

Measurable results

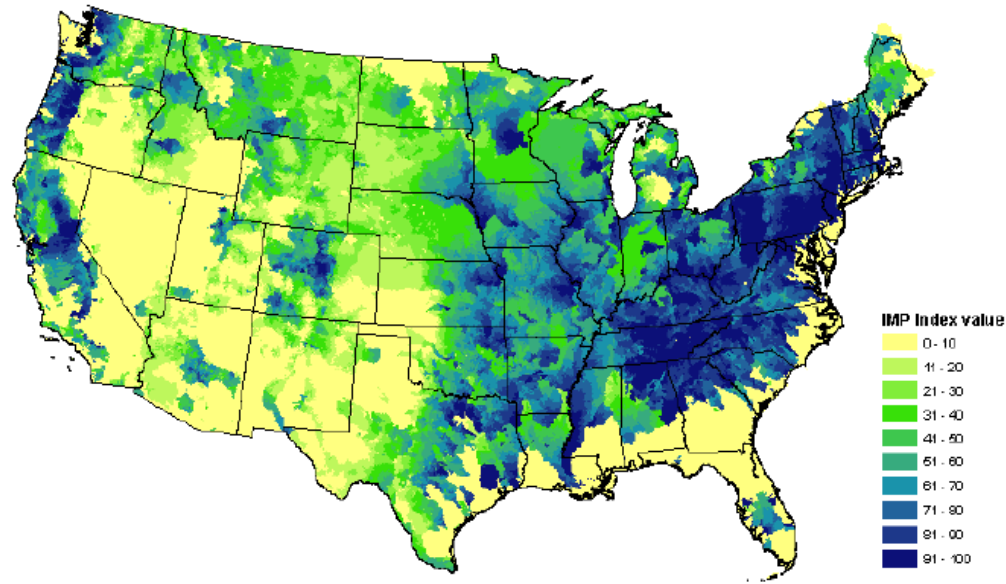


PNW Quantitative Wildfire Risk Assessment,
Stratton et al. 2018

Driver	Example	Potential Partner
Mission or Outcome	Desired ecological, social or economic result (e.g. habitat restoration)	Public Philanthropic NGO
Corporate Social Responsibility	Business approach that delivers social and environmental benefits	Private
Avoided Cost	Mitigate expected future expenditure (e.g. infrastructure loss due to wildfire)	Municipality Utility Private Sector
Resource Reliance	Sustain a critical input (e.g. water for a beverage company or a recreation opportunity)	Private
Environmental Markets	Meet regulatory requirements (e.g. mitigation of wetland or habitat impacts)	Public Private

Forest Contributions to Water Supplies

building metrics / assessing outcomes



Use **geospatial tools** to quantify benefits delivered to the public

Characterize threats to **justify** and **target** restoration actions

Forests to Faucets Project

Assessing Drinking Water Importance and Threats

“Eighty percent of all flowering plants depend upon
pollination for reproductive success.
This ecosystem service is critical
to our national security and food security.”

Chief Tom Tidwell
National Pollinator Week Proclamation
June 12, 2017



Economic Benefits of Recreation



United States Department of Agriculture

Spending Patterns of Outdoor Recreation Visitors to National Forests

Eric M. White



Forest Service

Pacific Northwest Research Station

General Technical Report
PNW-GTR-961

October
2017

National Forest visitors in the Pacific Northwest spend approximately **\$738 million annually** in nearby communities.

This supports approximately **6,000 year-long jobs** and contributes **\$210 million in labor income** for local businesses and employees.

Economic Benefits of Recreation

Recreation produces more jobs and contributes more to GDP than anything else the National Forest System does.



One dollar invested in Forest Service recreation programs becomes a \$33 contribution to GDP.

Nature and Public Health

- ✓ Reduces stress and anxiety
- ✓ Increases attention capacity and creativity
- ✓ Enhances ability to connect with others



Watershed-Based Collaboration

Eugene Water and Electric Board

Partnership with the Willamette National Forest

payments to private landowners to maintain high quality riparian areas

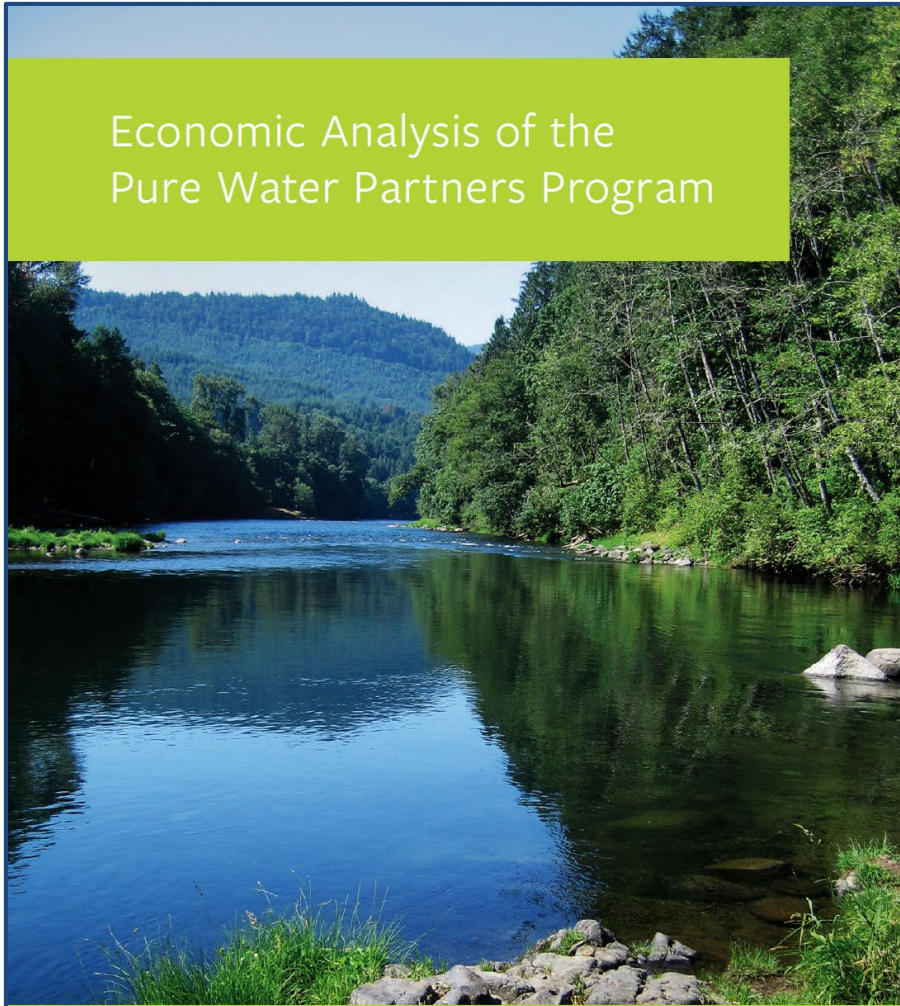
partnerships with NGOs to fund restoration of degraded areas

collaboration with the Willamette National Forest to manage headwaters through stewardship contracting



Making the Case

Economic Analysis of the Pure Water Partners Program



On average, each acre of healthy riparian forest protected through the program results in an **\$438 economic benefit per year**, with a **260% return on investment** over 20 years

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BULLITT
FOUNDATION



EARTH
ECONOMICS

Mt. Baker-Snoqualmie National Forest: An economic powerhouse

One of the country's most visited forests provides sustainable economic activity and natural benefits we tend to take for granted.



2 million+
visitors each year



\$80 million
spent annually in nearby
communities by visitors

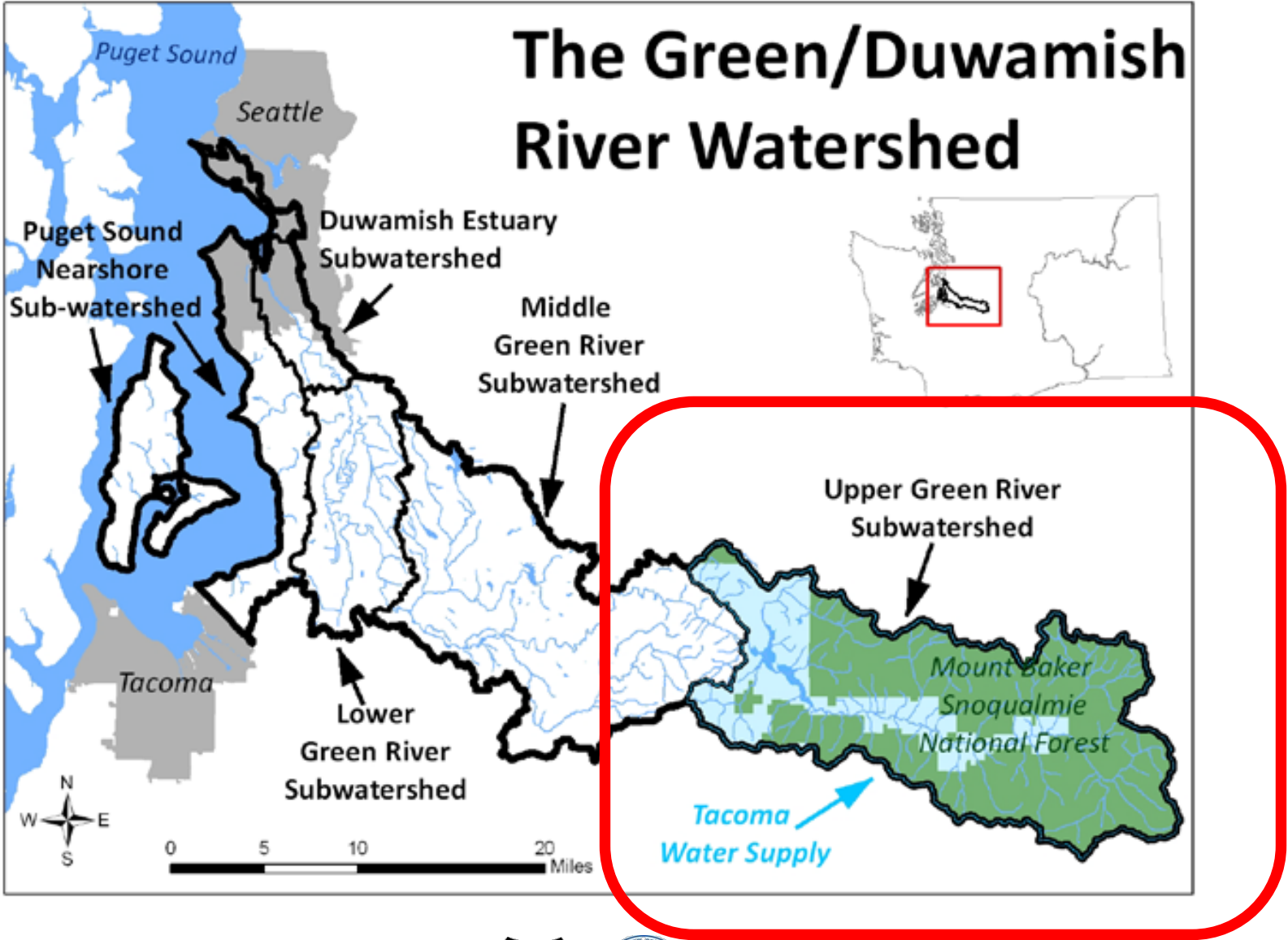


\$1 trillion
in products, jobs and
services predicted over
the next 100 years



\$30 billion
in clean water, improved
air quality and other
natural benefits

Federal Cost Share: Urban Waters Federal Partnership



Stewardship and Community Cohesion

Duwamish Valley Youth Corps

Building knowledge and personal
connections with the land



photos courtesy of Tracy Stanton

Innovative Partnerships Across the Urban to Rural Gradient



Green Infrastructure for Stormwater Management



**Seattle
Public
Utilities**



FROM WASTE TO WEALTH

Wood is salvaged from building deconstruction and urban tree care operations, and taken out of the city's waste stream.

1



2



Collected wood is diverted from space-limited landfills and other waste facilities.



A local facility is dedicated to sorting and processing salvaged wood for its best use.



The wood is repurposed and resold locally, creating a closed loop system. Reclaimed and upcycled wood products are available for sustainable building, furniture, energy, and other uses.



Transformational Change Through Urban Wood Economies

- Lives & livelihoods
- Jobs, businesses, markets
- Environmental outcomes
- Social cohesion & wellbeing



Support for Innovative Forest Products and Restoration Economies



National Forests and Communities

The relationships between land and people
in the Pacific Northwest Region

Fall 2016



Ecosystem Workforce Program, University of Oregon
Pacific Northwest Region, US Forest Service



Tillamook-Nestucca Salmon SuperHwy Project

Talking points, facts and figures

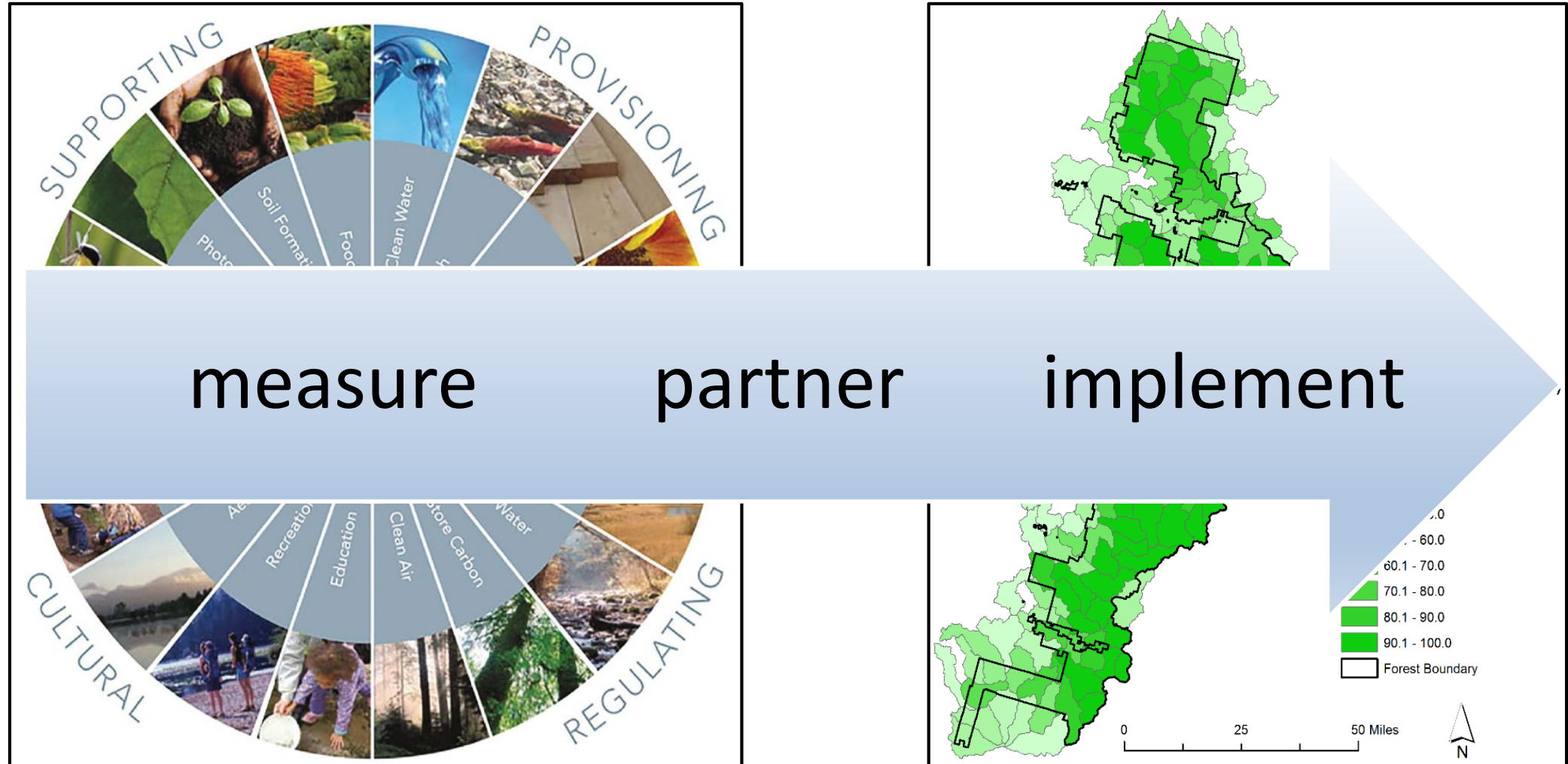
www.salmonsuperhwy.org

Combining Fish Conservation with Economic Development

- 95% of **habitat** accessible for 6 fish species
- 400 local **jobs** created
- \$53 million contributed to the **local economy** in direct and indirect benefits
- \$34 million direct investment in Tillamook County's **river and road infrastructure** over 10 years



Applying Ecosystem Services to Watershed Investments



Thank You!

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