Puget Sound Partnership Human Wellbeing Framework: Integrating Ecosystem Services & Human Wellbeing in Puget Sound Recovery

Leah A. Kintner
Regional Manager, Ecosystem Recovery Team
Puget Sound Partnership

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Puget Sound Estuary

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Snowcaps to Whitecaps ...
with a focus on the watery bits

Water Quality

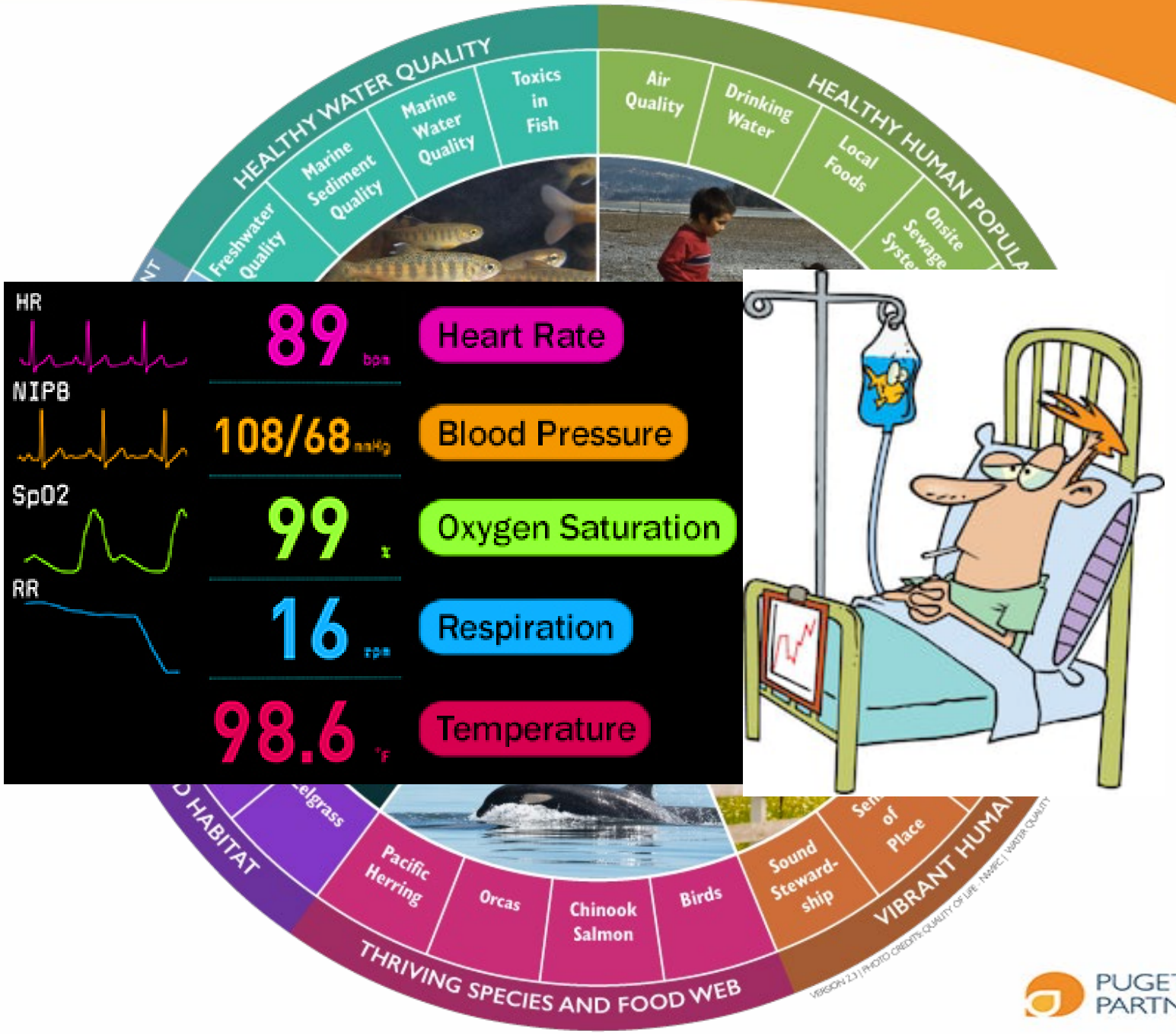
Water Quantity

Habitat

Species

Human Health

Human Wellbeing



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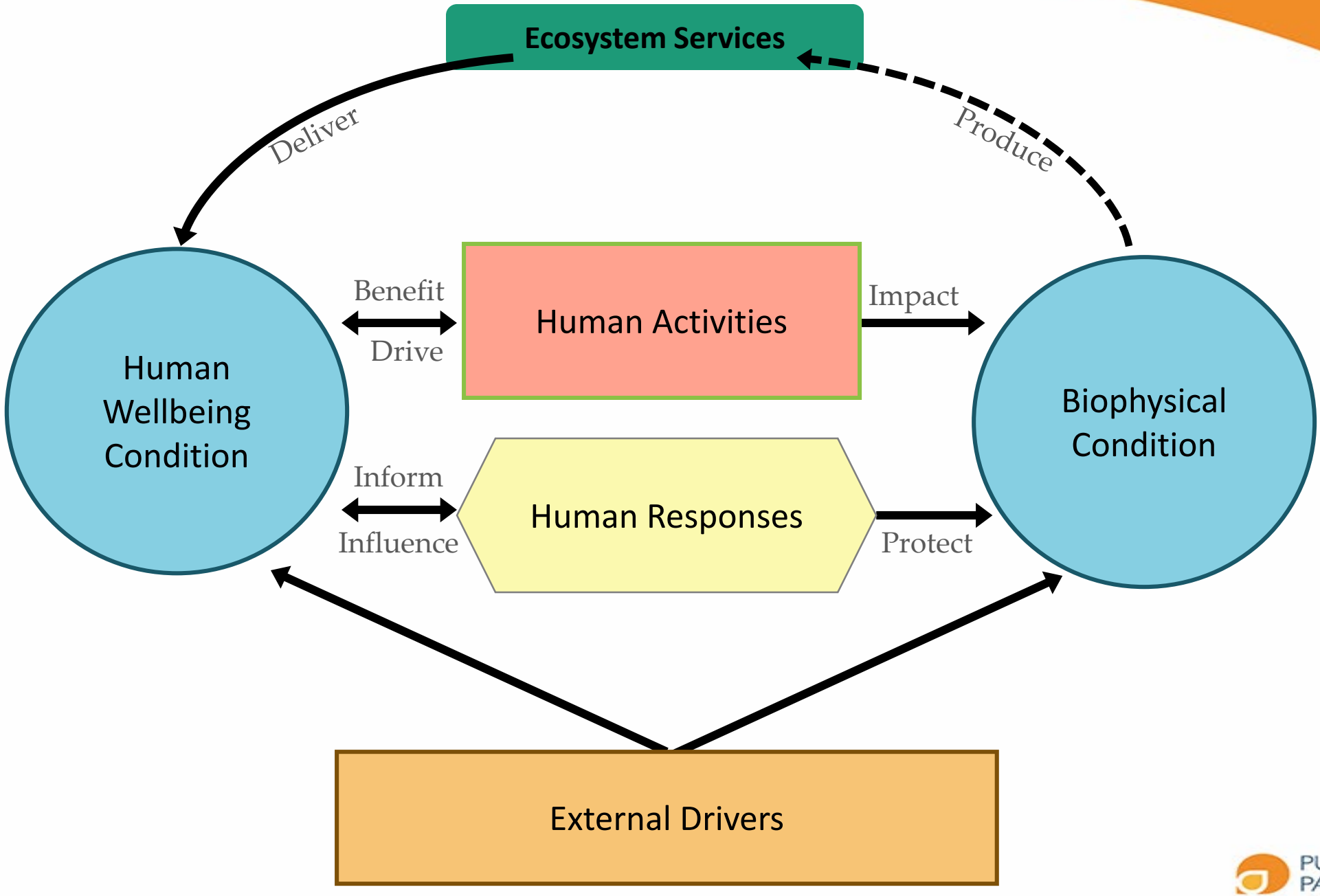
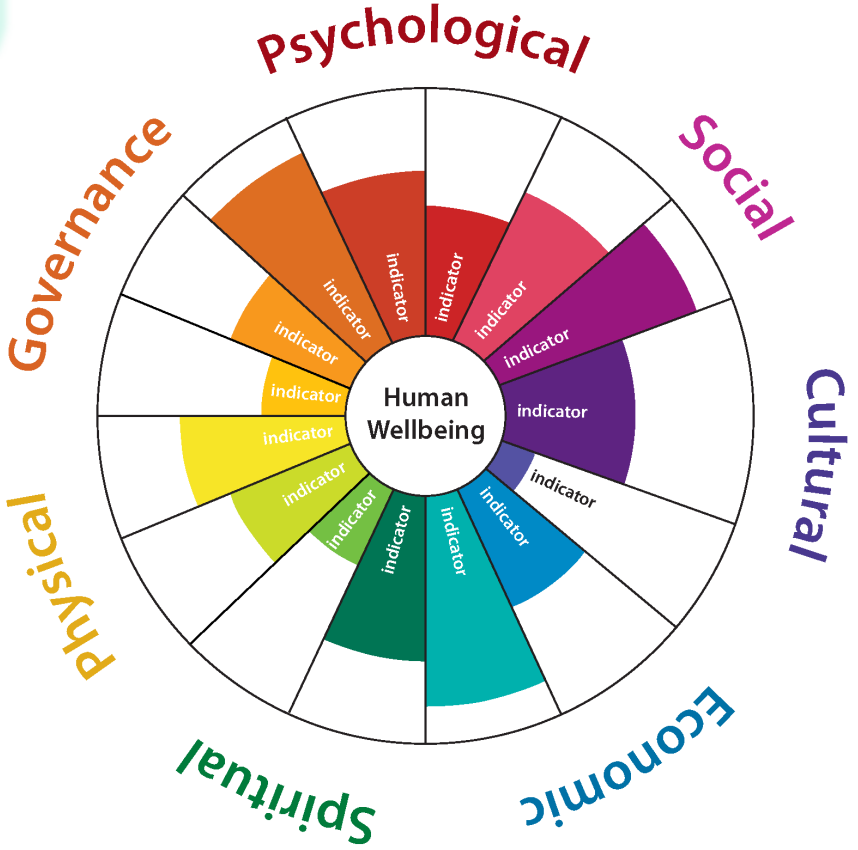
Human Wellbeing Framework


Ecosystem Services
Deliver
Produce
Human Wellbeing Condition
Benefit
Drive
Human Activities
Impact
Biophysical Condition
Inform
Influence
Human Responses
Protect
External Drivers

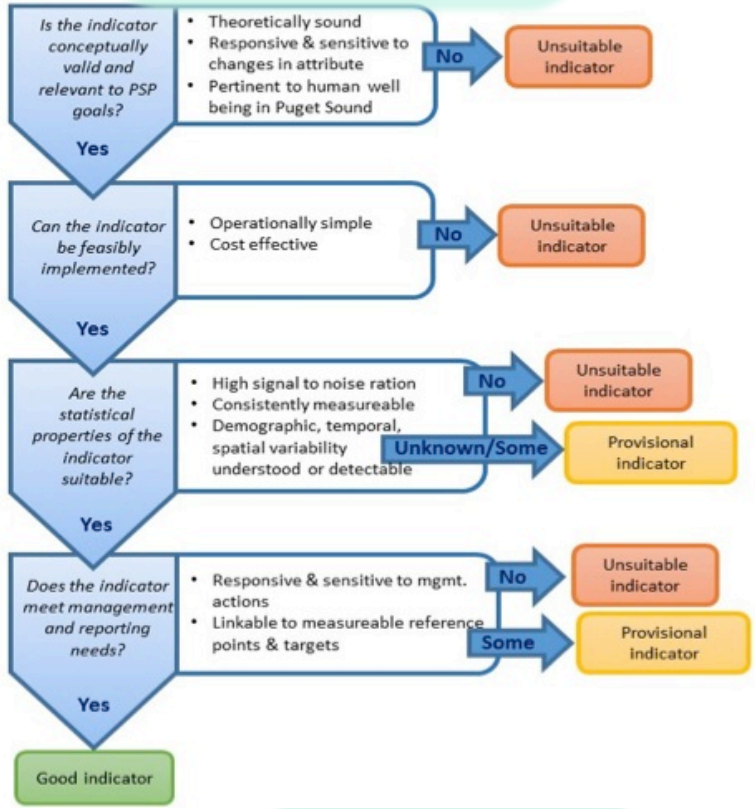
HWB Indicator Development

Local Documents (n=120)

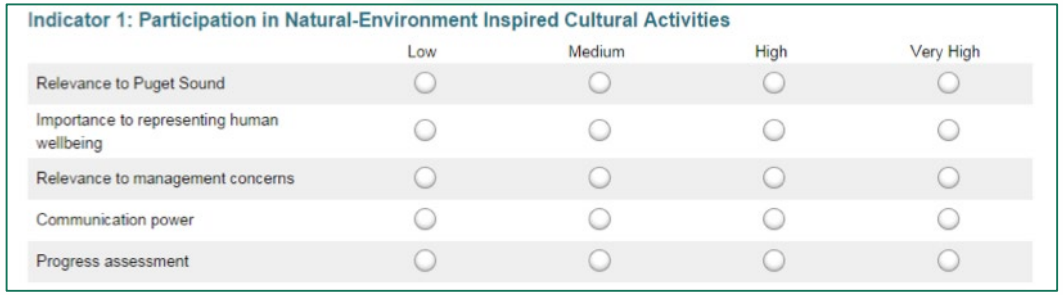
Local Stakeholders (n=160)



Social Scientists



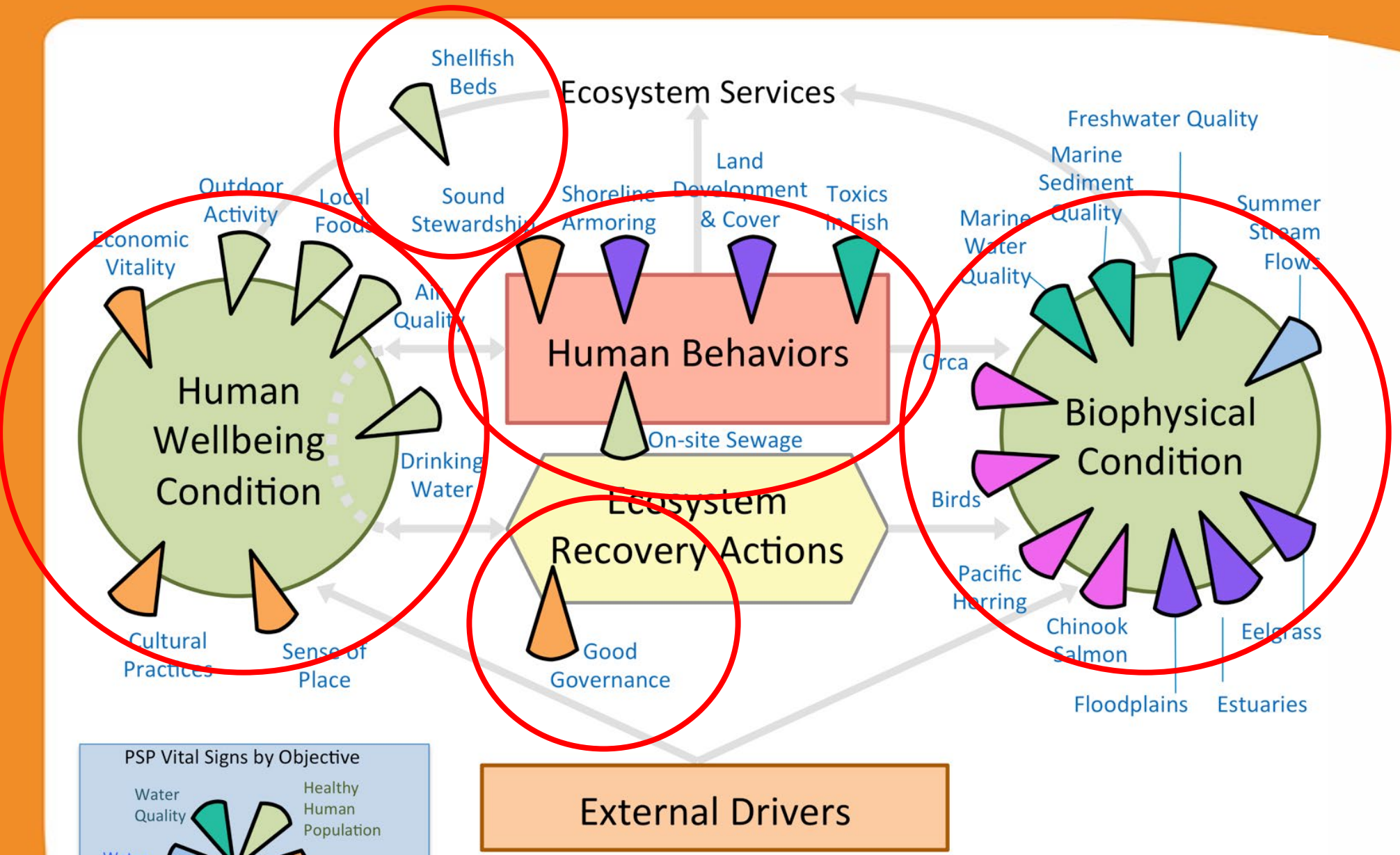
Policymakers

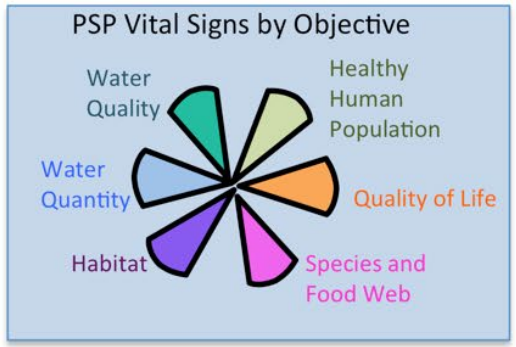


Indicator 1: Participation in Natural-Environment Inspired Cultural Activities

	Low	Medium	High	Very High
Relevance to Puget Sound	○	○	○	○
Importance to representing human wellbeing	○	○	○	○
Relevance to management concerns	○	○	○	○
Communication power	○	○	○	○
Progress assessment	○	○	○	○

Source: Dr. Kelly Biedenweg, OSU





Post 2015

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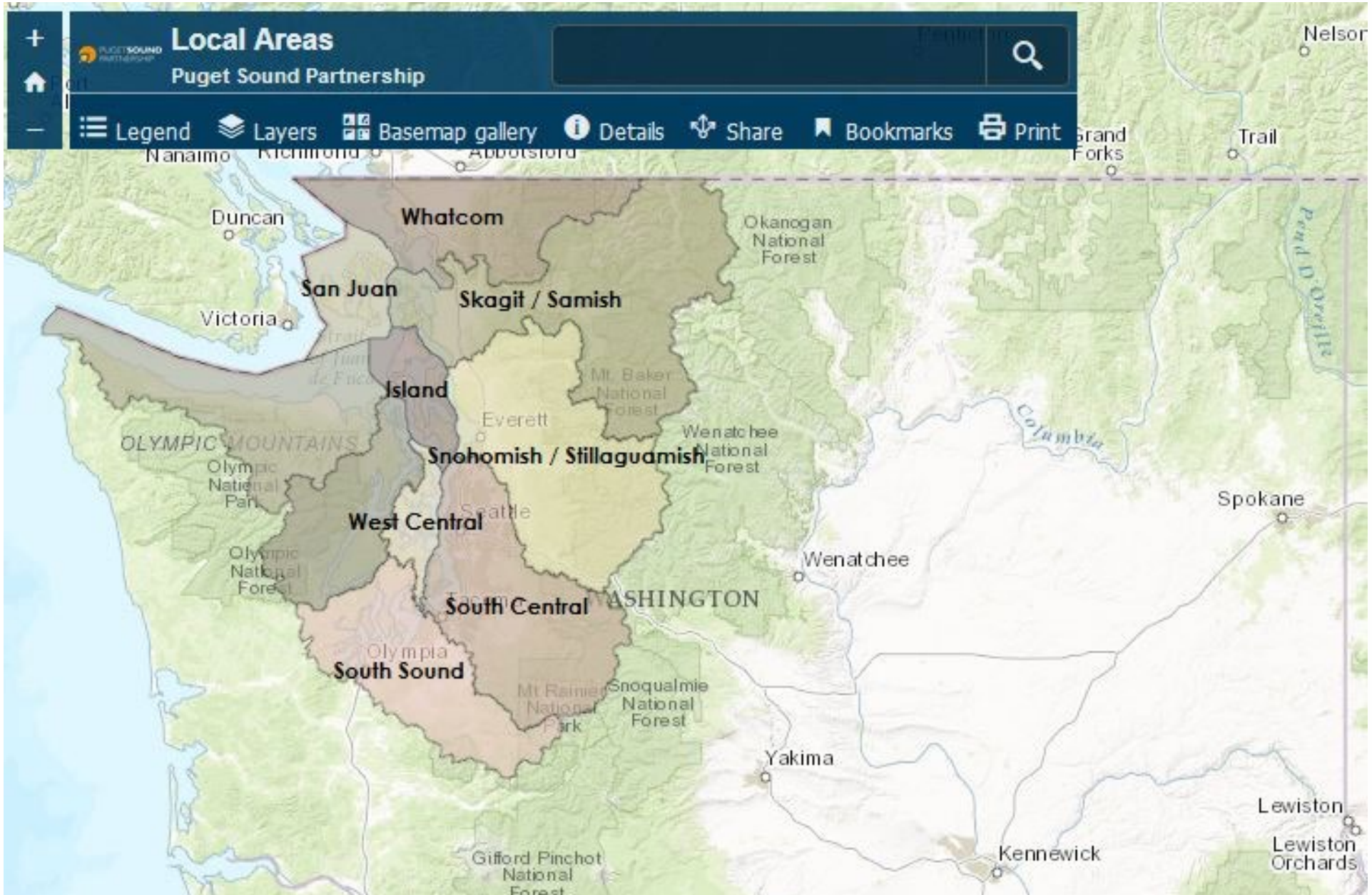
The scale of planning – Local Integrating Organizations



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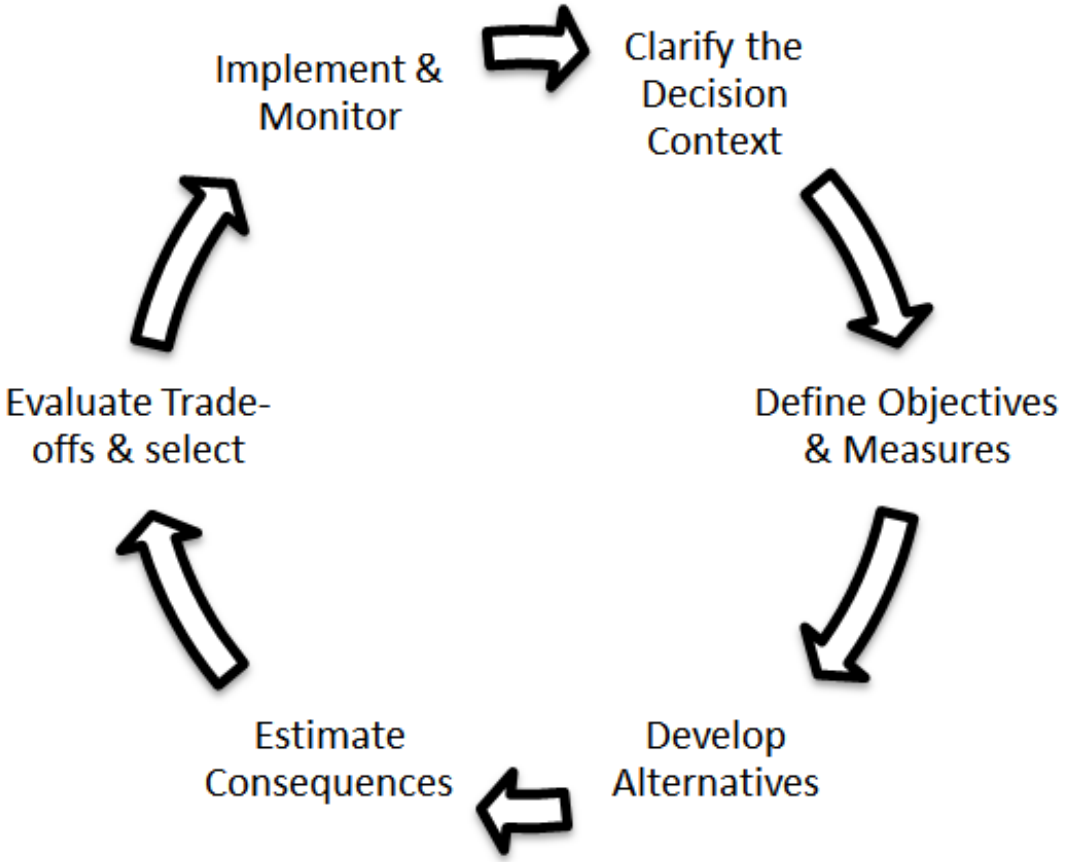
Integrating Human Wellbeing and Ecosystem Services

...how??

- Open Standards Logic Models
- Cost-benefit Analysis
- Public surveys
- Consequence Tables
- Bayesian Belief Networks
- Spatially-explicit impact overlays

- Structured Decision-Making!



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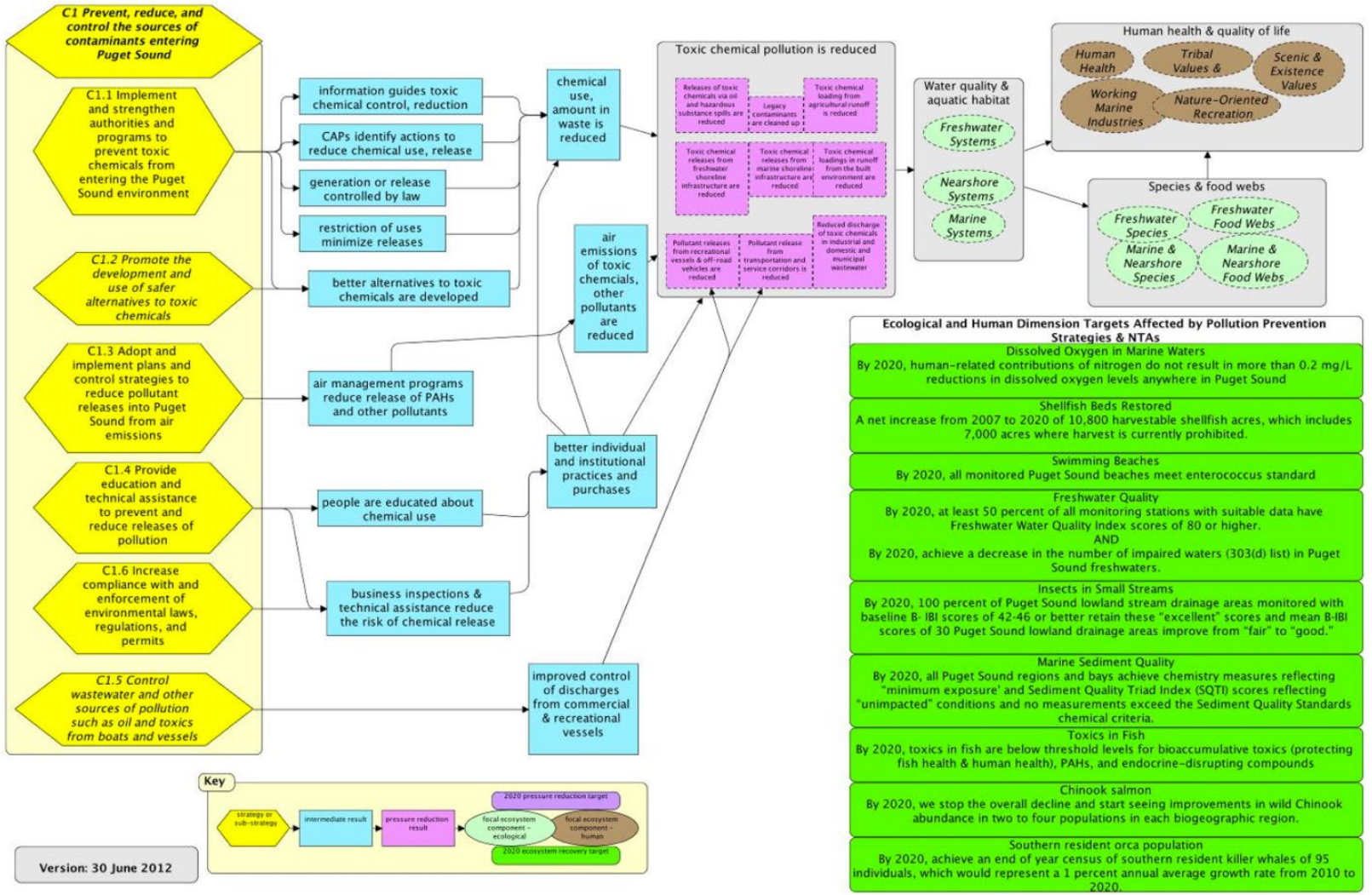
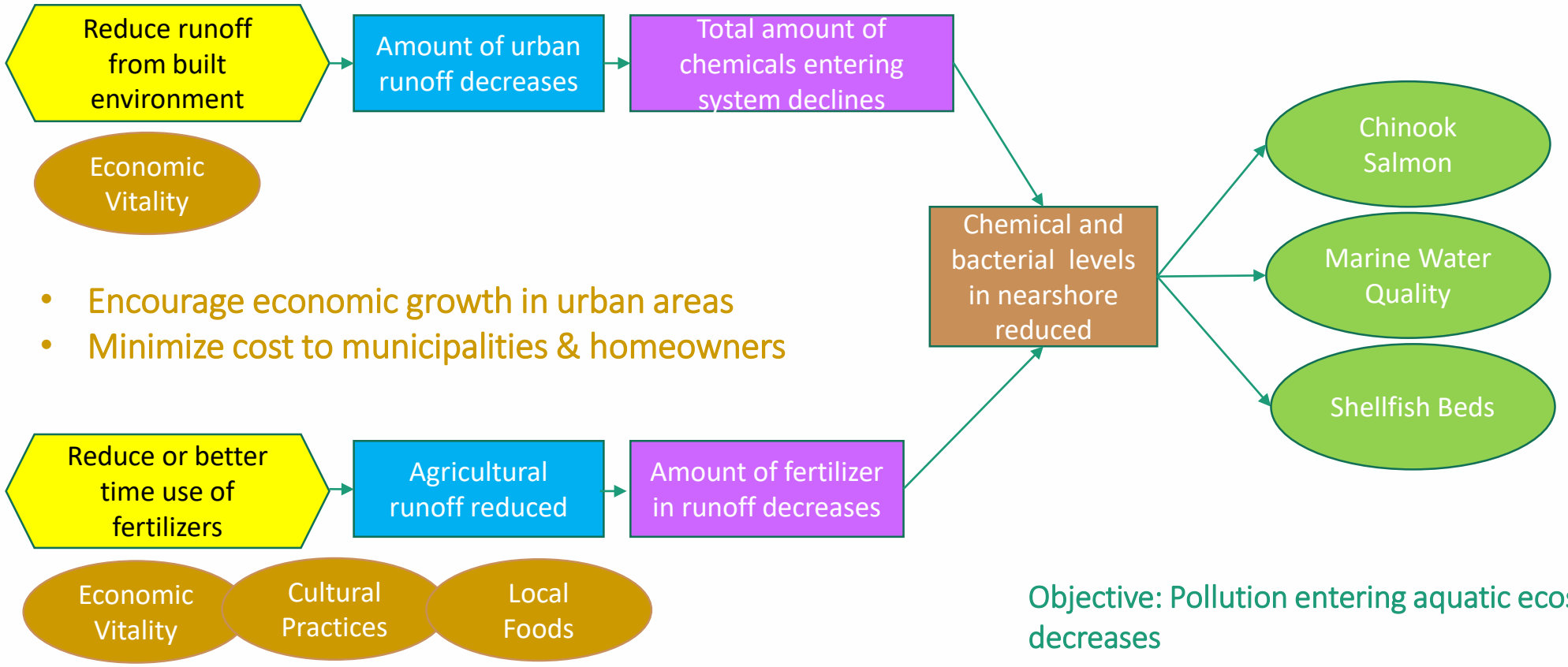
Integrating Human Wellbeing and Ecosystem Services

- **Open Standards Logic Models**

C1. Prevent, reduce, and control the sources of contaminants entering Puget Sound



Theory of change



- Encourage economic growth in urban areas
- Minimize cost to municipalities & homeowners

- Maintain viable agriculture in region
- Increase opportunities for local food harvesting in watersheds

Objective: Pollution entering aquatic ecosystems decreases

Indicator 1: Fecal coliform concentrations
Indicator 2: Jobs in natural resource industries
Indicator 3: Opportunities to gather local foods

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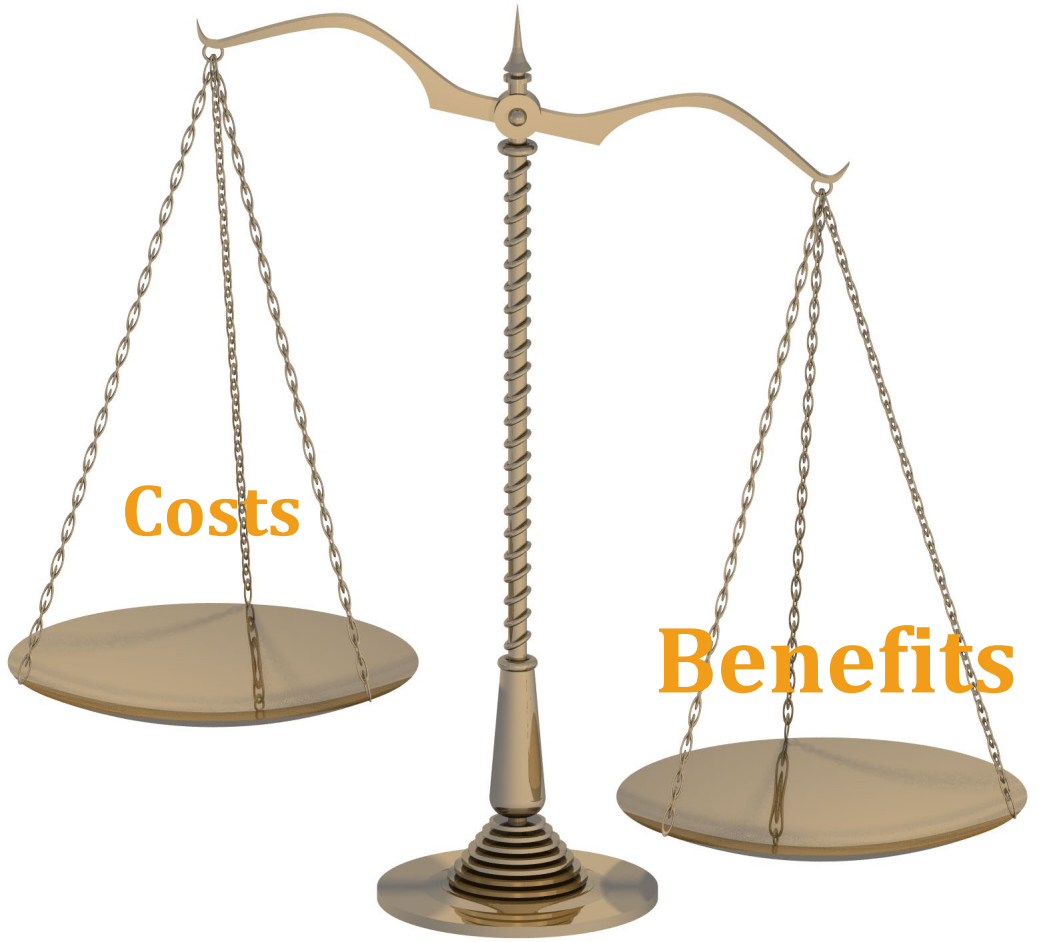
Integrating Human Wellbeing and Ecosystem Services

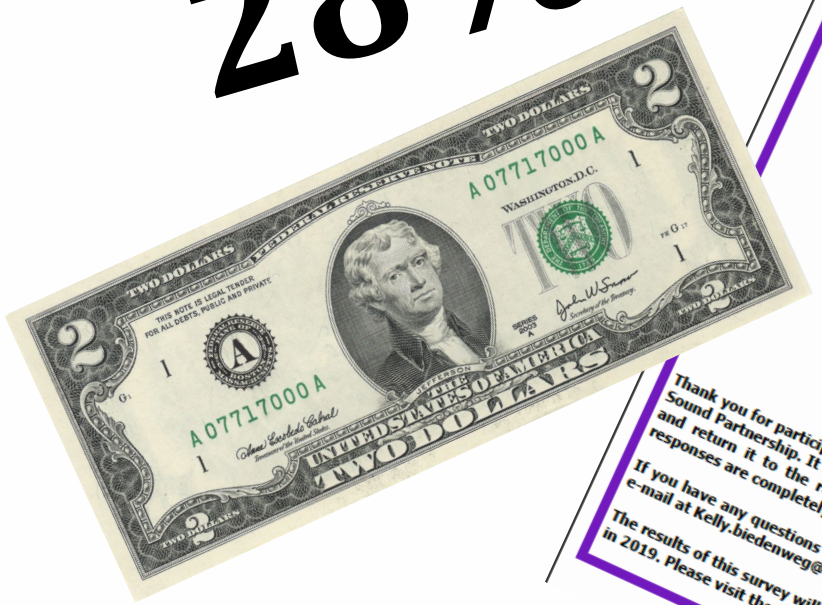
- Open Standards Logic Models
- **Cost-Benefit Analysis**

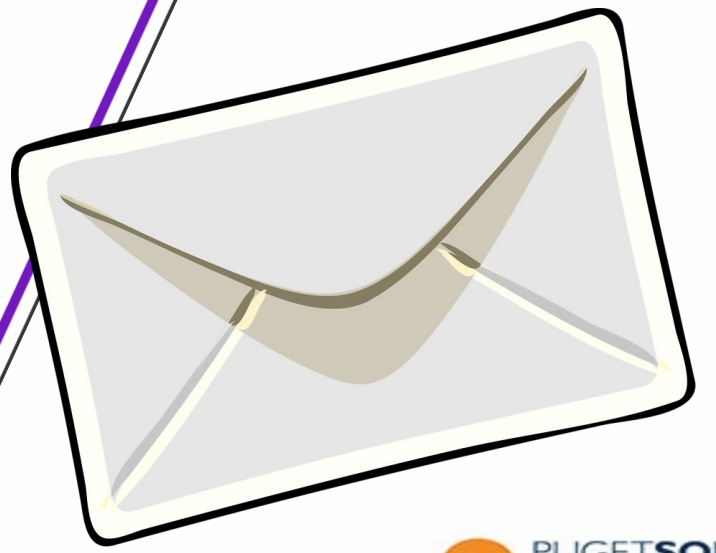


Integrating Human Wellbeing and Ecosystem Services

- Open Standards Logic Models
- Cost-Benefit Analysis
- **Public survey**

28%





Integrating Human Wellbeing and Ecosystem Services

- Open Standards Logic Models
- Cost-Benefit Analysis
- Public survey
- **Consequence Tables**

Vital Sign	Strategy A	Strategy B
Chinook Salmon	200x	100x
Economic Vitality	$5.4 million	$8.7 million
Land Cover Change (Forests)	same	-1,000 ha
Cultural Wellbeing	increase	same

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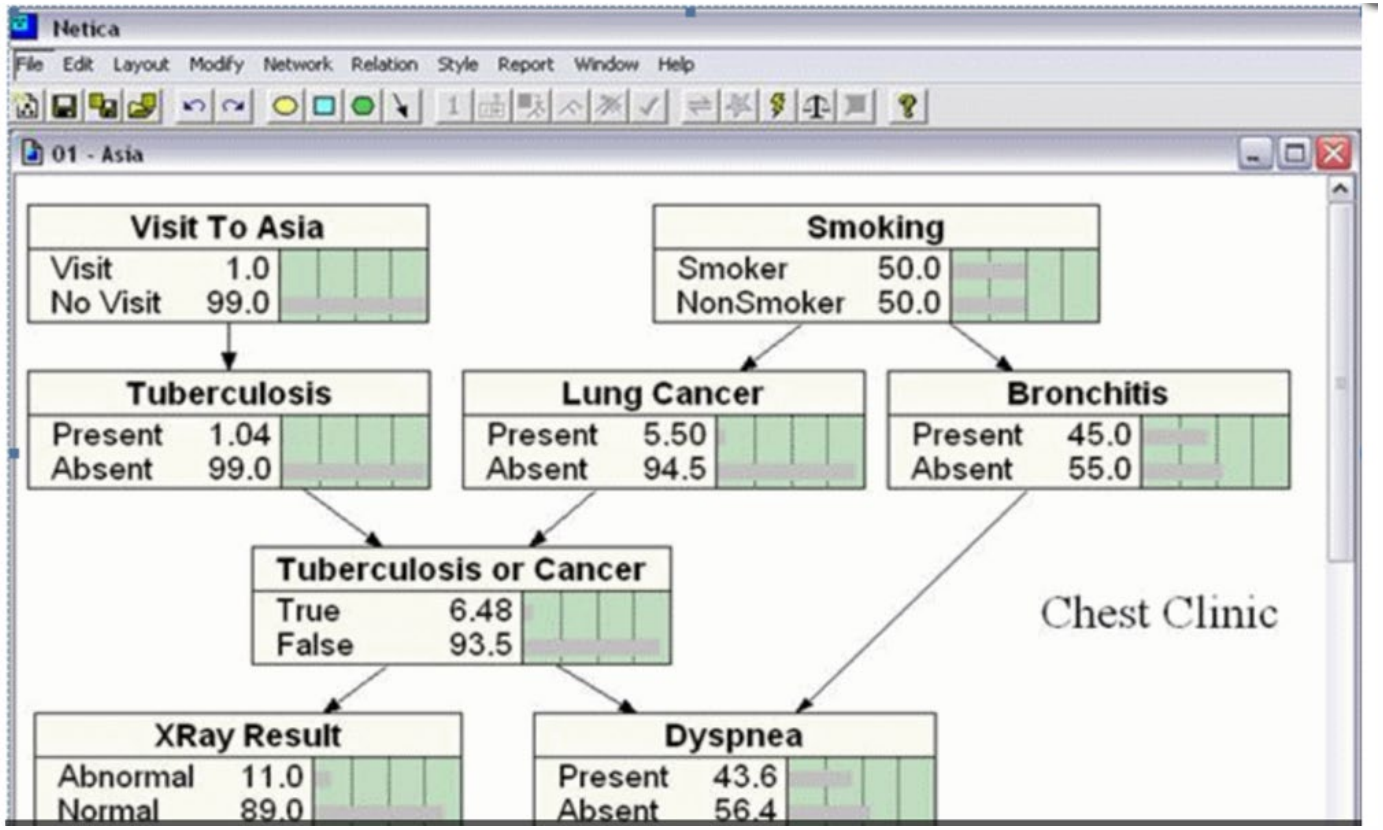
Integrating Human Wellbeing and Ecosystem Services

- Open Standards Logic Models
- Cost-Benefit Analysis
- Public survey
- Consequence Tables
- **Bayesian Belief Networks**



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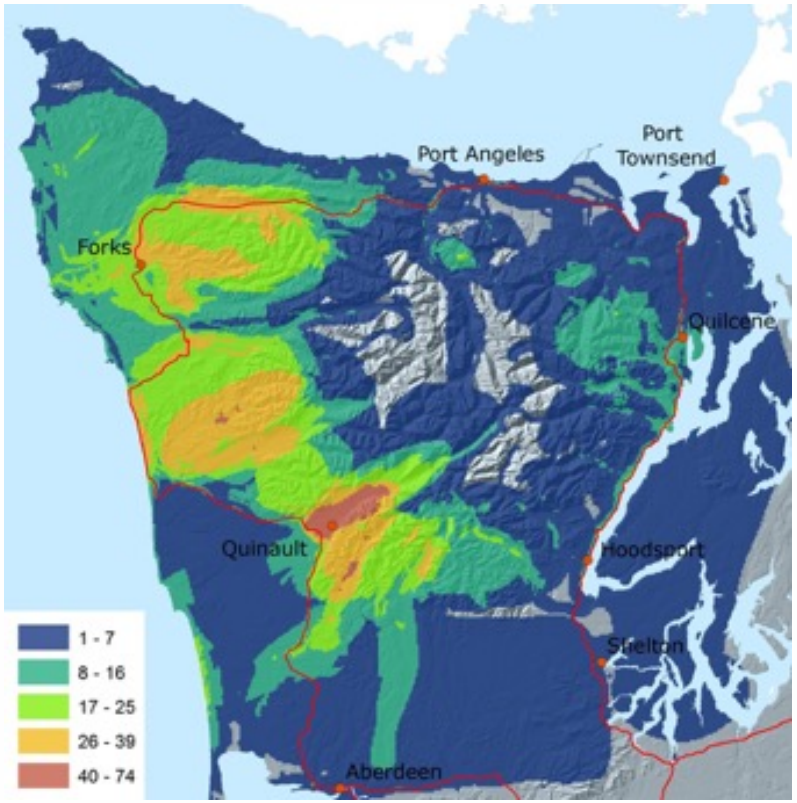
Integrating Human Wellbeing and Ecosystem Services

- Open Standards Logic Models
- Cost-Benefit Analysis
- Consequence Tables
- Bayesian Belief Networks
- **Spatially-explicit impact overlays**



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Structured Decision Making

REVIEW

Decision Support Frameworks and Tools for Conservation

Mark W. Schwartz[1], Carly N. Cook[2], Robert L. Pressey[3], Andrew S. Pullin[4], Michael C. Runge[5], Nick Salafsky[6], William J. Sutherland[7], & Matthew A. Williamson[1]

Actionable Science for Communities

DASEES

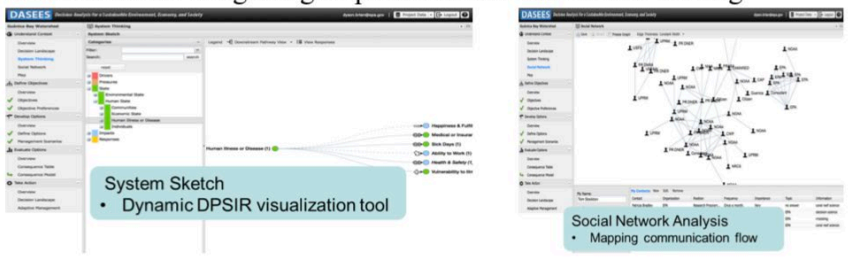
(Decision Analysis for a Sustainable Environment, Economy, and Society)

HC 1.61– Decision Science and Support Tools, Task 5 – Next Generation Tools

Brian Dyson, National Risk Management Research Laboratory

Highlights

- Web-based functionality allows geographically dispersed groups to work on a problem at the same time.
- Progress Tracking provides a "TurboTax" user experience
- Project-based implementation scope is flexible across multiple scales, locations, and issues
- Common platform for documenting, and sharing decision data and records
- Integrated, easy to use, system visualization tools
- Framework for integrating disparate metrics in decision making



Dr. Kari Stiles
Adaptive Systems Manager

Dr. Nathalie Hamel
Vital Signs Reporting Lead

Dr. Scott Redman
Science & Evaluation Director

Local & Regional

Dr. Kelly Biedenweg
Principle Investigator

Dr. David Trimbach
Project Manager

Dr. Katharine Wellman
Economist

Whitney Fleming
PhD student

Practitioner & Academic

Thank you!

Leah Kintner

Regional Manager
Ecosystem Recovery Team
Puget Sound Partnership
leah.kintner@psp.wa.gov

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