Quality of Life/Human Wellbeing Indicators in the Puget Sound

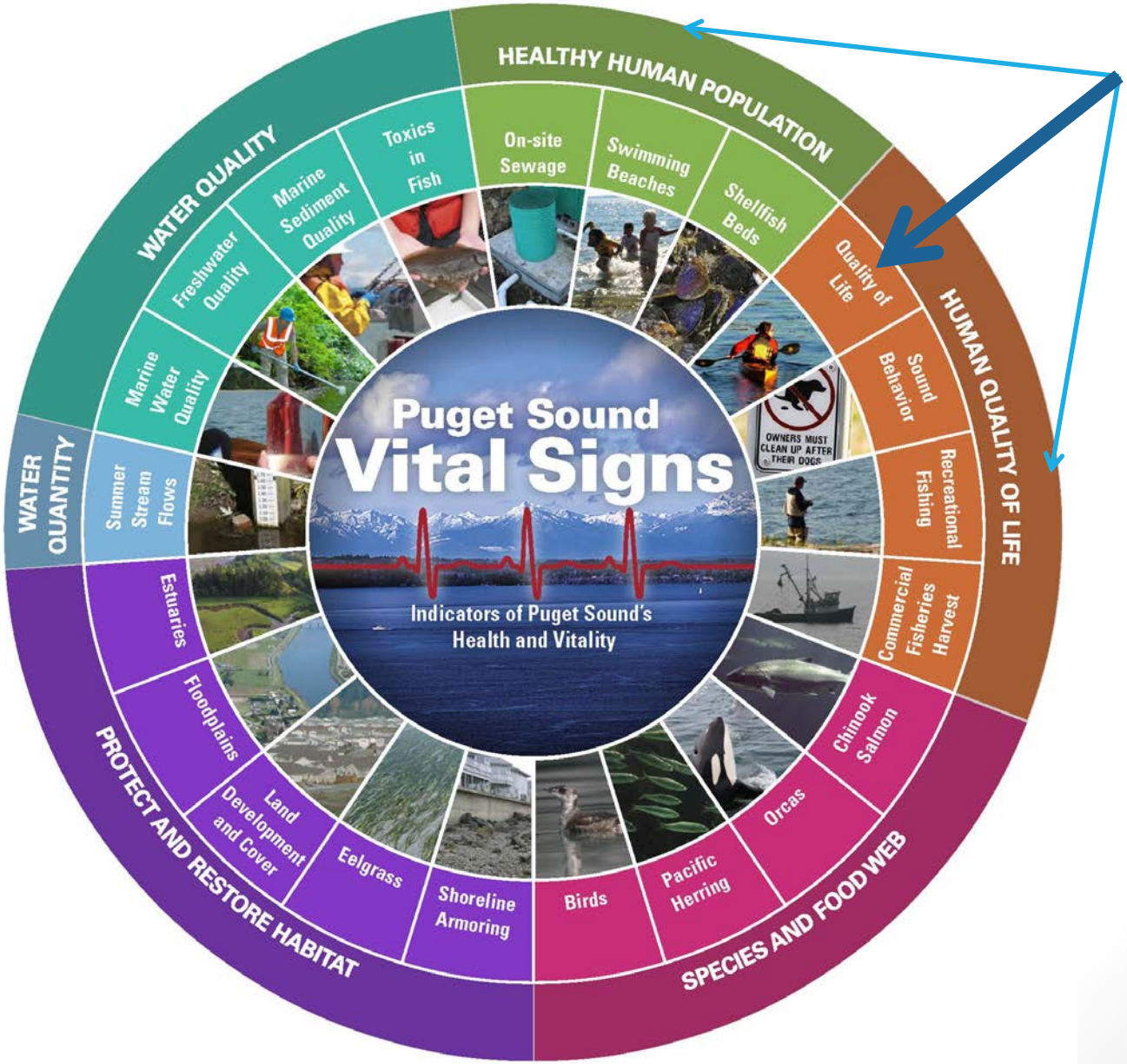
Partner and Stakeholder Orientation to Human Wellbeing Indicator Evaluation
October 22, 2014

Trina Wellman, PhD, Economist and Vice Chair, Science Panel
Kari Stiles, PhD, Puget Sound Partnership
Kelly Biedenweg, PhD, Puget Sound Institute

PugetSoundPartnership
LEADING PUGET SOUND RECOVERY

PUGET SOUND INSTITUTE

Welcome & Introductions



Agenda for Today

- Overview of human wellbeing indicator development
- Orientation to feedback request and associated materials

- Presentation of three case studies (2012-2014)
  - Local input process
  - Human wellbeing indicators

- Review request for your input
  - review criteria, survey tool, resources

- Next steps

Materials

- Summary of 3 Local Pilot Projects
  - Appendix III. Reference tables (indicators and criteria)
- Survey Link (shared after meeting)
- Meeting recording

Human Wellbeing Indicator Timeline

2011 2012 2014 2015

Q.o.L Vital Sign placeholder

Local Pilot Projects (3) → 22 Recommended Indicators

Partner/Stakeholder Input

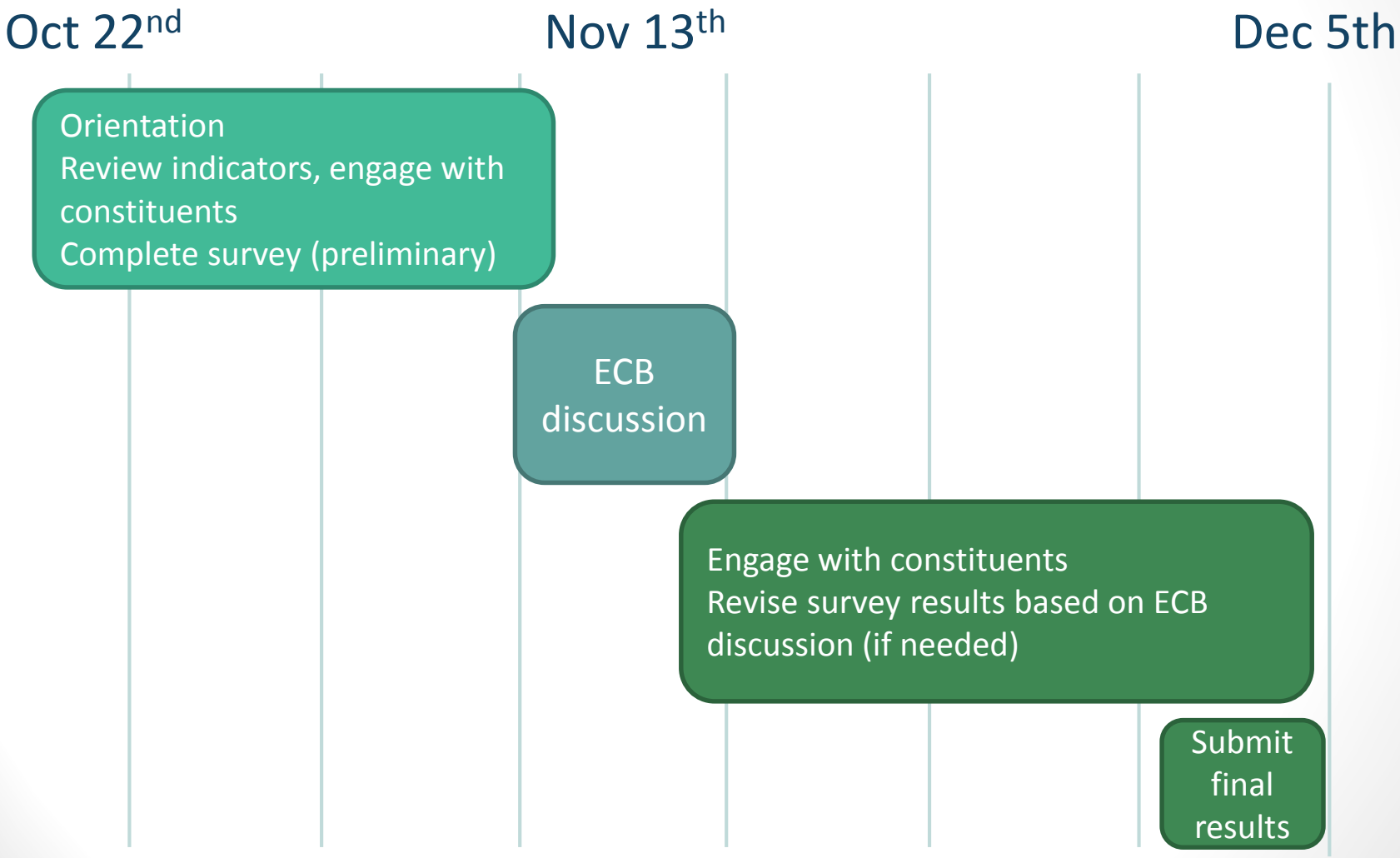
Social Science Input

Task force develops recommendations

External science review

LC adoption of Q.o.L Vital Sign

Partner & Stakeholder Input



Local Case Studies (2012-2014)

Hood Canal Coordinating Council
Puyallup Watershed Initiative
Whatcom County

Kelly Biedenweg, PhD, Puget Sound Institute

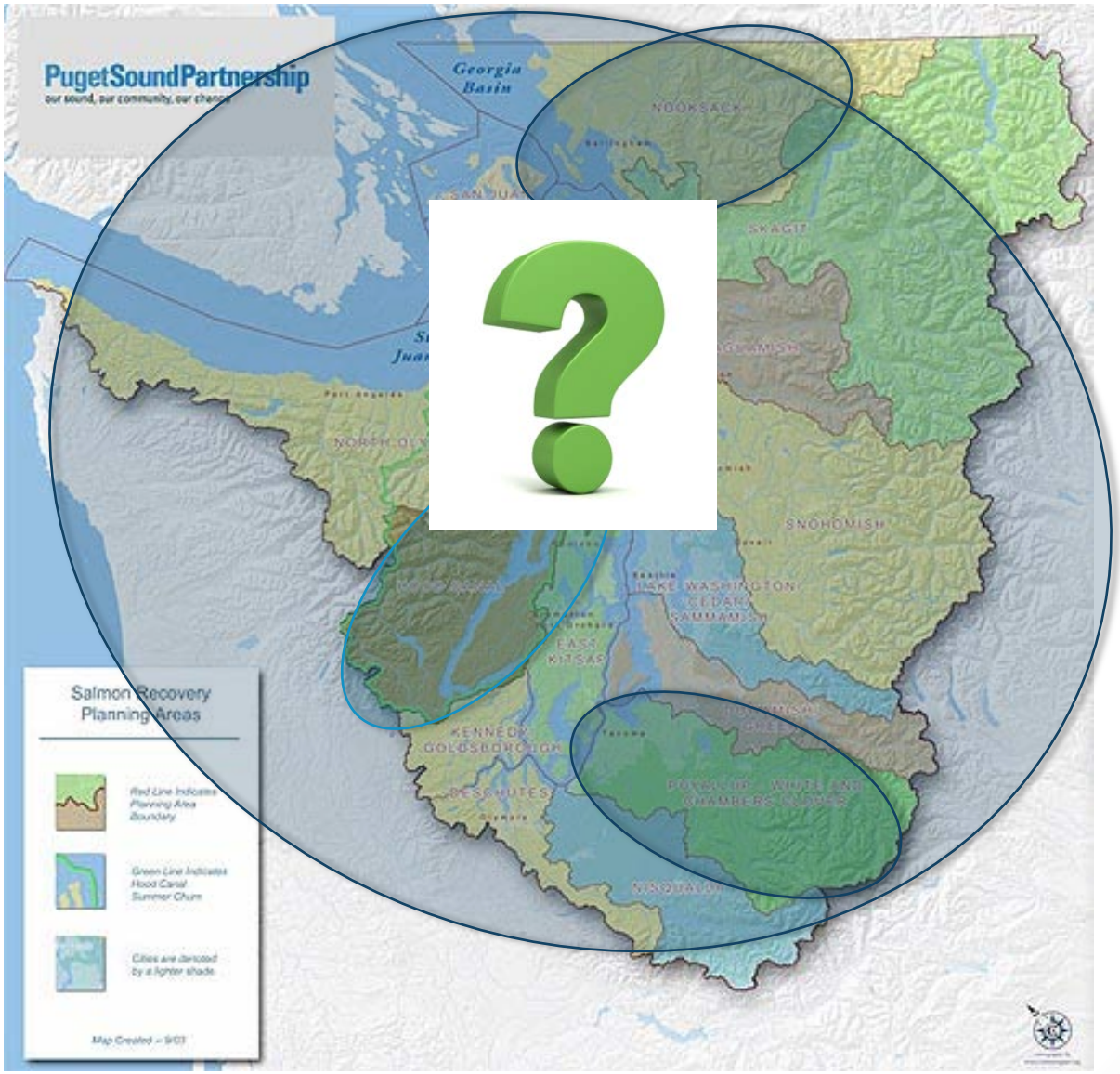
PugetSoundPartnership
LEADING PUGET SOUND RECOVERY

PUGET SOUND INSTITUTE

BONNEVILLE ENVIRONMENTAL FOUNDATION

HOOD CANAL COORDINATING COUNCIL HCCC EST. 1985

Regional Approach

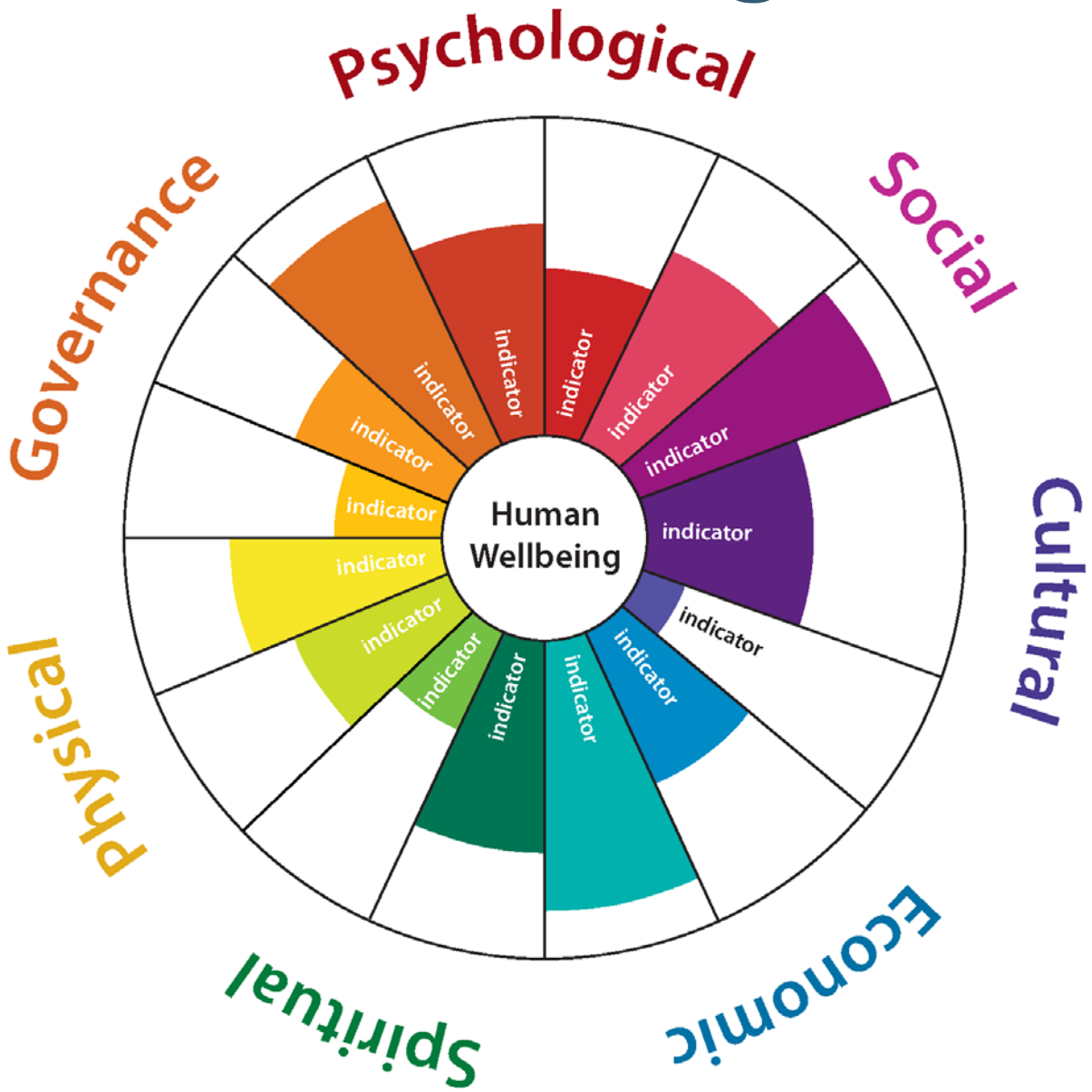


Whatcom County

Hood Canal Watershed

Puyallup Watershed

Human Wellbeing Domains



Attributes and Indicators

- **Attributes**: A general grouping of indicators
- **Indicators**: A specific measurable item

Example

Domain: Social

Attribute: Family Connections

Indicator: Number of times in past month you enjoyed the outdoors with family members

Objective vs. Subjective Social Indicators

Objective Measures

GDP, Life expectancy, Literacy Rates

Subjective Measures

Life satisfaction

Most wellbeing scientists agree we want both whenever possible

Two Overarching Themes

- Overall Wellbeing Indicators vs.

  Indicators Specific to the Environment

- Shifting Baselines

Methods

Literature Review and Interviews

Well-Being Indicators in the Puget Sound Basin

A summary and categorization of types of social indicators and metrics used by government and non-government agencies in the Puget Sound Basin

October 2012

Adi Hanein, UW School of Marine and Environmental Affairs

Dr. Kelly Biedenweg, Stanford University and Puget Sound Institute

PUGET SOUND INSTITUTE

W UNIVERSITY of WASHINGTON

Community Workshops

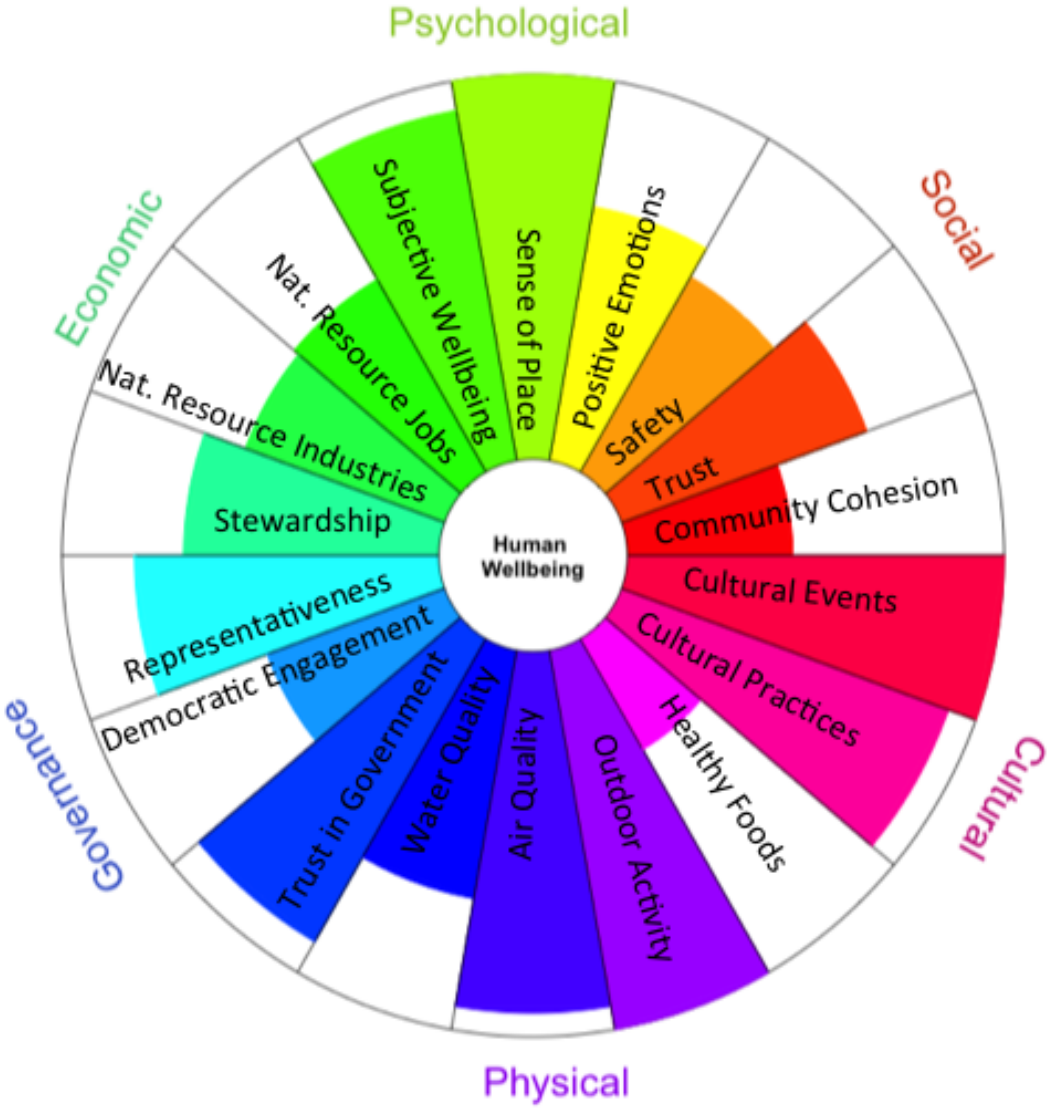
Questions?

The Numbers…

	Hood Canal Watershed	Puyallup Watershed	Whatcom County
# Interviews	19	3	24 +15-person focus group
# Documents reviewed	7	69*	22
#potential indicators provided at workshop	98	103	103
# workshops	3	2	3
# workshop participants	32	26	28
Total people involved (124)	43	29	56

Number of Recommended Attributes/Indicators

	Hood Canal Watershed	Puyallup Watershed	Whatcom County	Total
Governance	5/6	6/15	6/6	14/25
Social	3/3	0/0	2/6	4/7
Cultural	3/3	2/2	2/2	5/8
Psychological	3/3	3/3	2/3	7/8
Physical	5/6	4/5	5/5	8/12
Economic	2/5	6/7	4/8	9/19
TOTAL	21/26	21/32	21/30	47/79



All disaggregated by demographics:
Tribal, non-Tribal, County, Rural, Urban

Cultural Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Traditional resource practices	**X**		**X**	X
Cultural events	**X**	**X**	**X**	
Cultural heritage		X		
Rural character	X			
Respect/Stewardship				X

Cultural Indicators

Attribute: Cultural events

Indicator: Number of opportunities and % of residents who participate in natural-resource inspired cultural activities (such as salmon homecoming, farmers market, outdoor recreation events, etc.)

Attribute: Cultural practices

Indicator: % of residents who feel they are able to maintain cultural practices associated with natural resources

Social Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Community Cohesion	X		X	X
Strong Families and Friendships	X			X
Trust	X		X	

Social Indicators

Trust

% of residents who trust people in their immediate and broader communities (2-3 levels)

Community Cohesion Index

1) Frequency of outdoor activities with friends/family
2) Frequency of working with other community members to steward environmental resources, prepare cultural events, or solve problems
3) Ability to get sufficient natural resources from formal and informal networks

Psychological Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Sense of Place/Place Identity	**X**	**X**		**X**
Positive emotions	**X**			**X**
Safety		**X**	**X**	**X**
Subjective Wellbeing	X			
Freedom			X	
Pride			X	
Aesthetics	X			

Psychological Indicators

Safety

% of residents who feel safe in their neighborhood, open spaces and natural areas

Sense of Place

1) % of residents who express a positive connection to the region
2) % of residents who express (or nurture) a sense of stewardship for the watershed

Positive emotions

% of residents who describe experiencing positive feelings/emotions from being in nature, such as awe, inspiration, fulfillment, appreciation, solitude, relaxation, sense of peace and reflection

Physical Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Access to healthy/local food	X	X	X	
Safe Food	X		X	
Access to Natural Areas		X	X	
Outdoor Activity	X	X	X	
Air Quality		X	X	
Drinking Water Quality	X	X	X	

Physical Indicators

Outdoor Activity

1) % of households within 1/2 mile of parks, urban plazas, public courtyards, community gardens or trailheads (10miles rural)

2) Average number of hours per week of outdoor activity (by activity: outdoor work, gardening/farming, walking, bicycling, swimming, etc.)

Air Quality

Number of moderate air quality days in urban and rural areas per year

Drinking Water

% of drinking water tests results comply with appropriate standards

Safe/healthy Foods Index

1) Average household distance to fresh produce (personal farm, grocery store, farm stand)

2) Availability of commonly harvested food species

3) # shellfish bed closures per year

Economic Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Natural Resource Industries	**X**	**X**	**X**	
Natural Resource Jobs/Income	**X**		**X**	**X**
Livable Communities			X	
Working lands		X		
Job Satisfaction		X		
Equity		X		

Economic Indicators

Natural Resource Industry

Percent of regional economic activity that is from natural resource-based industries: agriculture, commercial shellfish, commercial fishing, timber, non-timber products and tourism

Natural Resource Jobs/Income

1) Number of living-wage jobs by resource-based industry categories
2) Unemployment rate in natural resource-based jobs

Governance Domain

Attribute	Hood Canal	Puyallup Watershed	Whatcom County	Swinomish
Stewardship	**X**	**X**		**X**
Effective government	**X**		**X**	
Trust in government	**X**		**X**	
Democratic Engagement/Open Participation		**X**	**X**	
Leadership/Equity		**X**	**X**	
Access	X			
Communication	X			
Collaboration			X	
Transparency			X	
Sustainable Infrastructure/Policy		X		

Governance Indicators

Trust in Government

% of residents who trust local and regional government to make the right decisions to protect natural resources

Democratic Engagement

% of residents who feel they have the opportunity to influence natural resource decisions if they wanted to

Representativeness

1. Diversity of perspectives and participants in natural resource decision-making (advisory boards, councils, etc.)
2. % of residents who feel represented by community and government leaders (see themselves reflected in leadership)

Stewardship

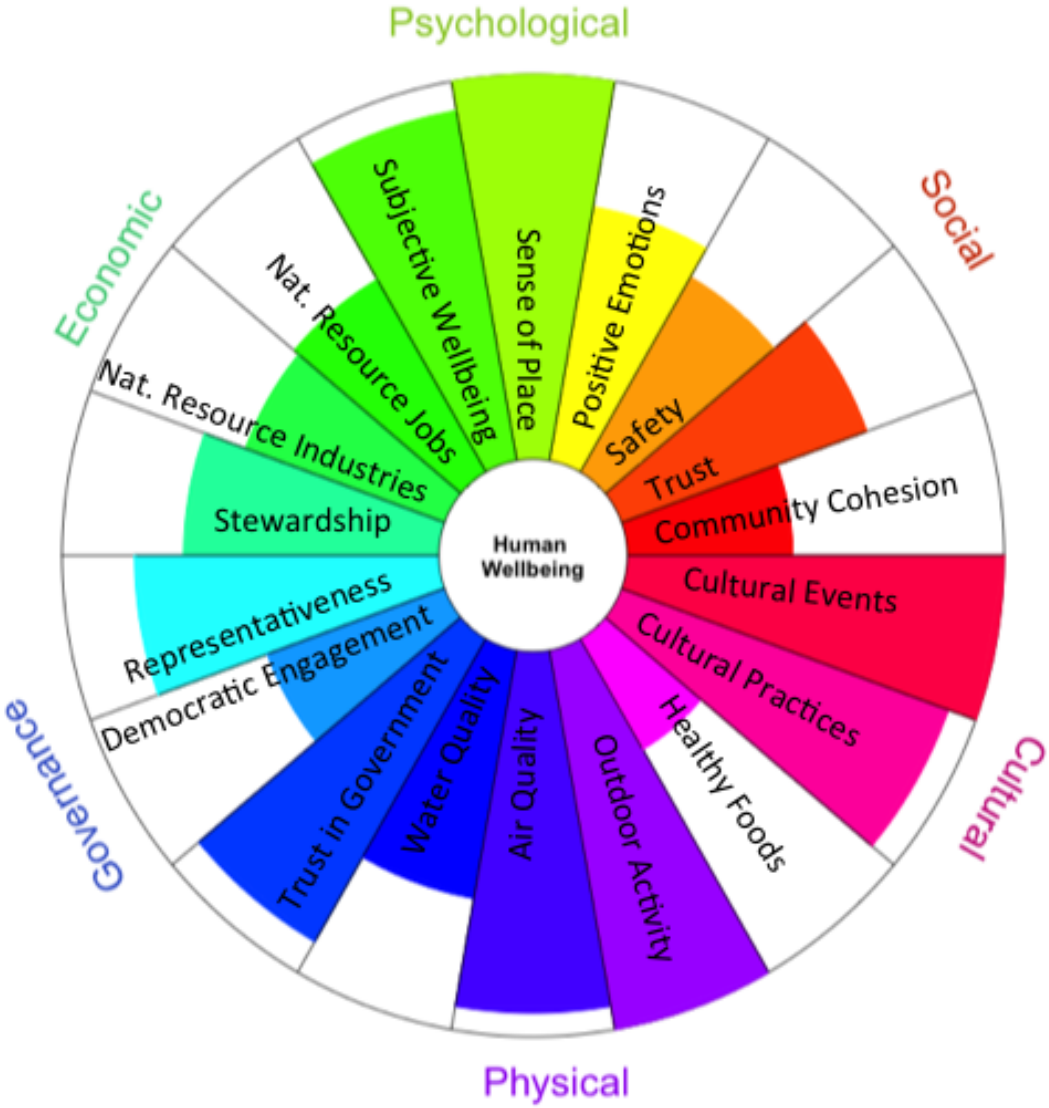
1. Percent of participants engaging in a natural resource stewardship activity/year
2. # natural resource development projects

Also recommend…

A Standardized Subjective Wellbeing Measure (Available in CDC's BRFSS)

Example from OECD:

"Overall, how satisfied are you with life as a whole these days?" 0-10 scale



All disaggregated by demographics:
Tribal, non-Tribal, County, Rural, Urban

Funding provided by

- NSF grant #1215886
- Puget Sound Institute at UW Tacoma
- Bonneville Environmental Foundation
- Hood Canal Coordinating Council
- EPA grant to Puget Sound Partnership

Questions?

Thanks to

Haley Harguth
Adi Hanein
Julie Horowitz
Stacy Vynne
Kara Nelson
Katharine Wellman
Brenda Le-May
Jennifer Arnold
Robert Warren
Tom Webler
Kristen Stavros
Morgan Ruff

Next Steps:
Gather input on potential indicators

- Partner and stakeholder input (ECB, LC, others?)
- Social science input

Partner & Stakeholder Input

Six Criteria for Prioritizing Indicators

- Relevance to human wellbeing in Puget Sound
- Importance
- Appropriateness (local or soundwide)
- Relevance to management concerns
- Communication power
- Progress assessment

3 Criteria from Social Sciences

- **Relevance** to human wellbeing in Puget Sound
  An indicator is most relevant when it is meaningful to a diversity of stakeholders and reflective of management priorities.

- **Importance** for comprehensively representing human wellbeing
  An indicator is important when it provides unique added value to the existing list of indicators, rather than being redundant, and is complementary to other indicators.

- **Appropriateness** as local or soundwide measure
  An indicator is more appropriate at the local scale if there is enough variability across the region to make a soundwide measure meaningless.

3 Criteria from Puget Sound Indicator Development
(Levin et al, 2011; O'Neil, in prep)

- **Relevance to management concerns**
  Indicator should provide information related to specific management goals and strategies

- **Communication Power:** Understandable by the public and policymakers
  Indicator should be simple to interpret, easy to communicate, and public understanding should be consistent with technical definitions.

- **Progress assessment:** Linkable to scientifically-defined reference points and progress targets
  It should be possible to link indicator values to quantitative or qualitative reference points and target reference points, which imply positive progress toward recovery goals.

PugetSoundPartnership

LEADING PUGET SOUND RECOVERY

Exit and Save

Human Wellbeing Indicator Review - Partners and Stakeholders

Description: Number of opportunities and % of residents who participate in natural-environment inspired cultural activities (such as salmon homecoming, farmers market, outdoor recreation events, etc.)

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	○	○	○	○

Is this indicator more appropriate as a local or a soundwide indicator?

- ○ Local
- ○ Soundwide
- ○ Both

Please include any additional comments on this indicator

Overall Priority Rating (Low → Very High)

- **Very High** – *should be included in any portfolio (or index) of <u>five or more</u> indicators of human wellbeing*
  - highly relevant, important *and* appropriate (≥ 70% of Puget Sound)
  - AND best measure of domain and attribute
  - AND not covered by existing Vital Sign

- **High** – *should be included in any portfolio (or index) of <u>ten or more</u> human wellbeing indicators*
  - relevant and important indicator across 25%-70% of Puget Sound,
  - OR is critical for representing a small area or vulnerable community in Puget Sound
  - AND good indicator of domain and attribute, but not the best
  - OR topic covered at least partially by another human wellbeing indicator or existing Vital Sign

Overall Priority Rating (Low → Very High)

- **Medium** – *should only be included in a larger Puget Sound portfolio (or index) of human wellbeing indicators*
  - an important indicator but only relevant to <25% of Puget Sound
  - OR associated domain and attribute are better measured using another indicator
  - OR domain and attribute are not the most important or relevant to Puget Sound human wellbeing

- **Low** – *should not be included in any portfolio (or index) of human wellbeing indicators*
  - not an important indicator of human wellbeing in Puget Sound
  - OR important indicator but only relevant to a very limited area of Puget Sound

- **Not Rated** – *do not feel qualified or would prefer not to rate indicator as measure of Puget Sound human wellbeing*

PugetSoundPartnership

LEADING PUGET SOUND RECOVERY

Exit and Save

Human Wellbeing Indicator Review - Partners and Stakeholders

If possible, please limit your ratings of Very High to 5 or fewer indicators, and your rating of High or Very High to 10 or more indicators, total.

Priority Ratings

	Low	Medium	High	Very High	Not Rated
Indicator 1: Participation in natural-resource inspired cultural activities	○	○	○	○	○
Indicator 2: Perception of cultural practices	○	○	○	○	○
Indicator 3: Trust in community	○	○	○	○	○
Indicator 4: Community Cohesion Index	○	○	○	○	○
Indicator 5: Perception of safety in environment	○	○	○	○	○
Indicator 6: Positive connections to region	○	○	○	○	○
Indicator 7: Sense of stewardship	○	○	○	○	○
Indicator 8: Positive feelings associated with experiences in natural environment	○	○	○	○	○
Indicator 9: Distance from Outdoor Recreation	○	○	○	○	○
Indicator 10: Average number of hours per week of outdoor activity	○	○	○	○	○
Indicator 11: Number of moderate air quality days in urban and rural	○	○	○	○	○

Additional Feedback

Were any indicators missing?

How should we construct Vital Sign(s) that best represent human wellbeing related to Puget Sound?

- Consider human wellbeing domains (wheel)
- Consider existing Vital Signs (biophysical)
- Consider the purpose of the Vital Sign(s) and how they will be used
- Consider science and communication implications
- Portfolio vs index

General feedback?

Questions on Criteria?

Questions on Input Survey?

Other Questions?

Final Steps: Development of Vital Signs

Q.o.L Vital Sign placeholder

Local Pilot Projects (3) → 22 Recommended Indicators

Partner/Stakeholder Input

Social Science Input

Task force develops recommendations

Engagement with boards and advisors

Dec 16th – Science Panel

Jan/Feb:

- ECB
- Social Science Committee
- Science Panel
- Leadership Council

External science review

March – Leadership Council

LC adoption of Q.o.L Vital Sign

Funding provided by

- NSF grant #1215886
- Puget Sound Institute at UW Tacoma
- The Russell Family Foundation
- Hood Canal Coordinating Council
- EPA grant PC 00J32101 to the Puget Sound Partnership

Thanks to

Haley Harguth
Adi Hanein
Julie Horowitz
Stacy Vynne
Kara Nelson
Katharine Wellman
Brenda Le-May
Jennifer Arnold
Robert Warren
Tom Webler
Kristen Stavros
Morgan Ruff

PugetSoundPartnership
LEADING PUGET SOUND RECOVERY

PUGET SOUND INSTITUTE