

# Evaluating Human Well-being in Relation to Shellfish as a Place-Based Cultural Ecosystem Service of Puget Sound

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**Swinomish Indian Tribal Community**

A Federally Recognized Indian Tribe Organized Pursuant to 25 U.S.C. § 476  
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WASHINGTON SEA GRANT



# Presentation Outline

- Project purpose and background
- Methods
- Initial findings



# Project Purpose

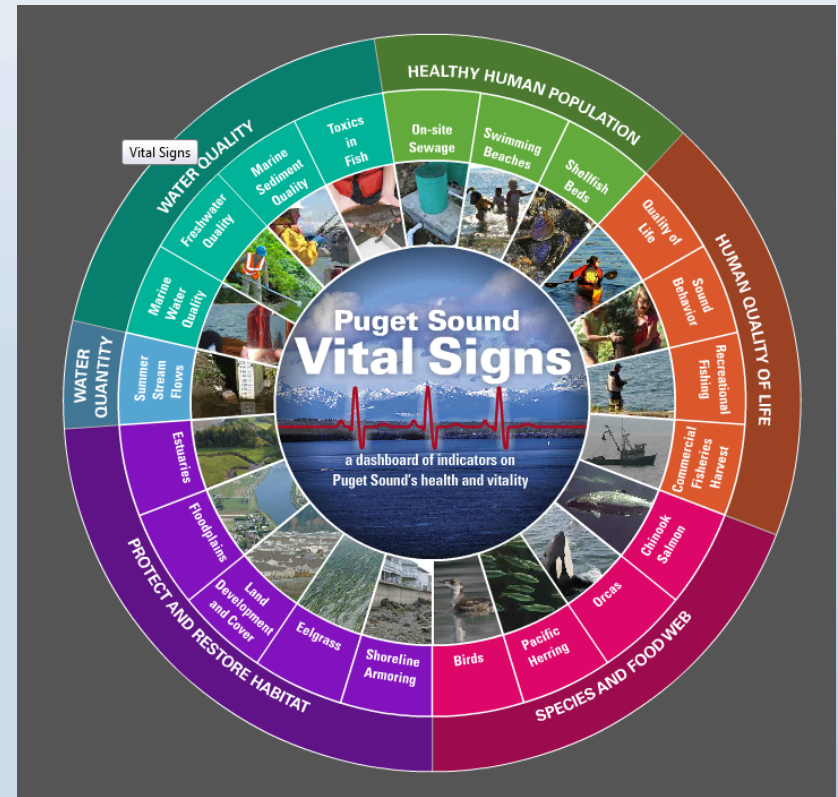
Employ cultural ecosystem services metrics to better understand relationships between:

- shellfish harvesting
- quality of life
- shoreline activities
- sense of place
- community well-being



# Background

- Puget Sound Partnership
- Biological-physical indicators
- Need locally meaningful indicators
- An indicator is a way to articulate a range of possibilities



# Background

- Informed by sense of place/ place attachment literature, cultural ecosystem services literature and community-based natural resource management
- 10+ socio-eco-cultural indicator development projects with Indigenous and non-Indigenous communities in both the US & Canada

# SALISH SEA REGION



# Methods

- Interviewed 8-10 individuals from each group in each area (56 total)
- Coded and analyzed interviews: four types of place attachment
- Two workshops in each area: tribal members and nontribal participants (4 total workshops)
- Workshop goal: verify place attachments and initiate indicator/ scale development

# 4 place attachment “themes”

- **Activities:** harvesting and non-harvesting, frequency/ consistency, livelihood
- **Social/ community:** social connections (family, friends), education
- **Sensory/ aesthetics/ feelings:** emotional bonds, identity, stewardship, sense of loss
- **Heritage/ culture:** knowledge, family history, belonging “at home”



# Workshop

Task 1: Which quote below best describes how you enjoy your time at the water? Your key activities?

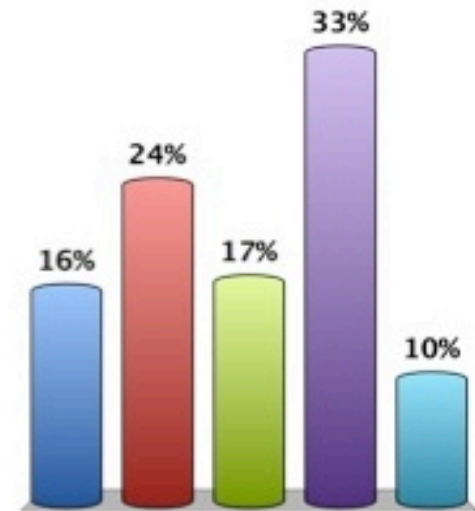
A. I may go drop a **crab** pot, I enjoy the shrimp, the **prawn** fishery. I'll shuck some **oysters** and get **clams** .

B. When I'm **in my boat**, it's just magical to me, to be out on that water.

C. I really like **birding** and bird watching.

D. I **walk along the waters** and beaches. It's just a wonderful

E. None of the above; or I prefer ...

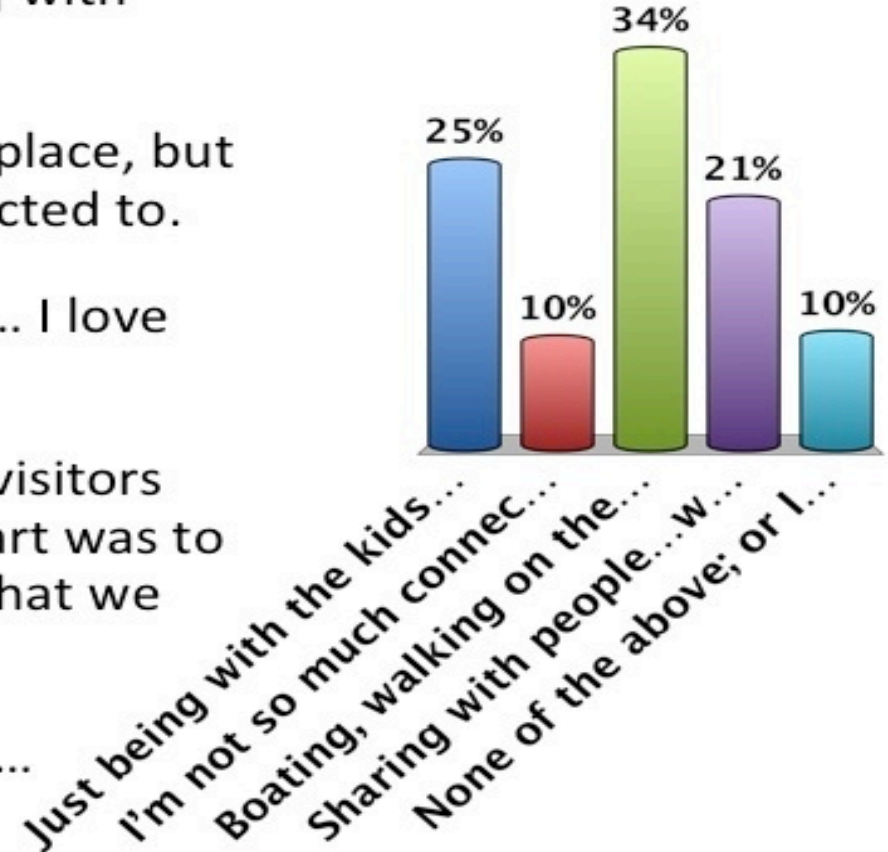


I may go drop a crab pot, I enjoy...  
When I'm in my boat, it's just ma...  
I really like birding and bird watc...  
I walk along the waters and beac...  
None of the above; or I prefer ...

# Workshop

Task 1: Which quote below best describes the social connections of being on or near Puget Sound?

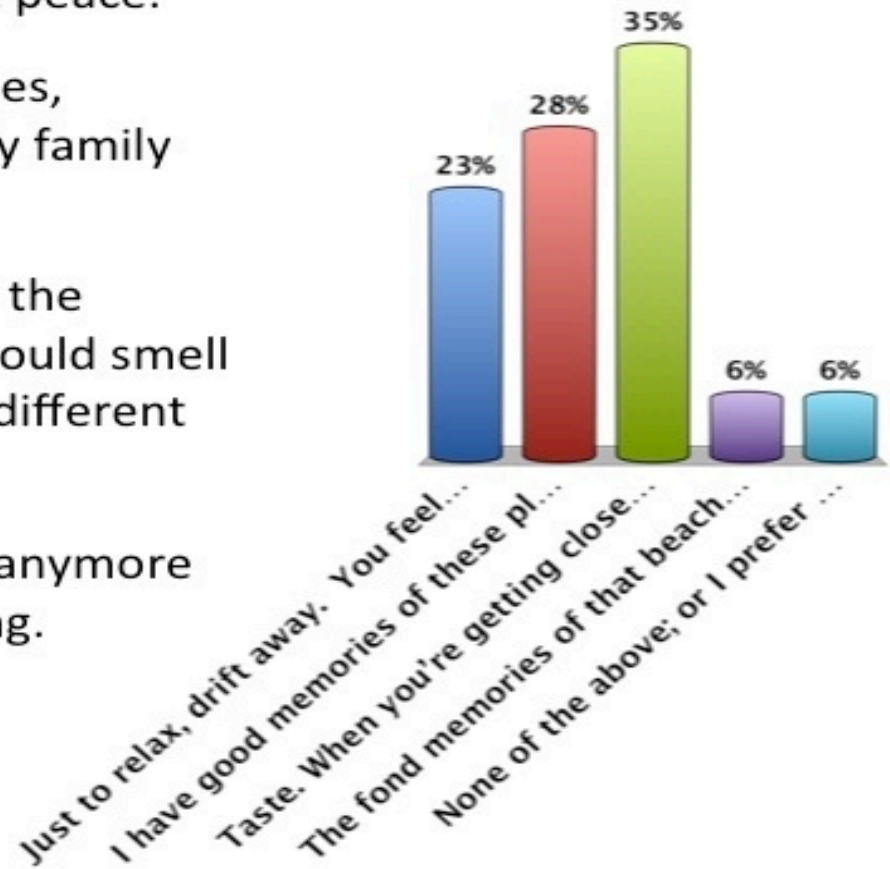
- A. Just being with the kids and teaching, being able to enjoy [the beach] with them and learn with them.
- B. I'm not so much connected to place, but it's the people that I get connected to.
- C. Boating, walking on the beach... I love to go with friends and family.
- D. Sharing with people...we took visitors clamming; the most exciting part was to be able to make a meal with what we harvested.
- E. None of the above; or I prefer ...



# Workshop

Task 1: Which quote below best describes your feelings and thoughts about local beaches and waters?

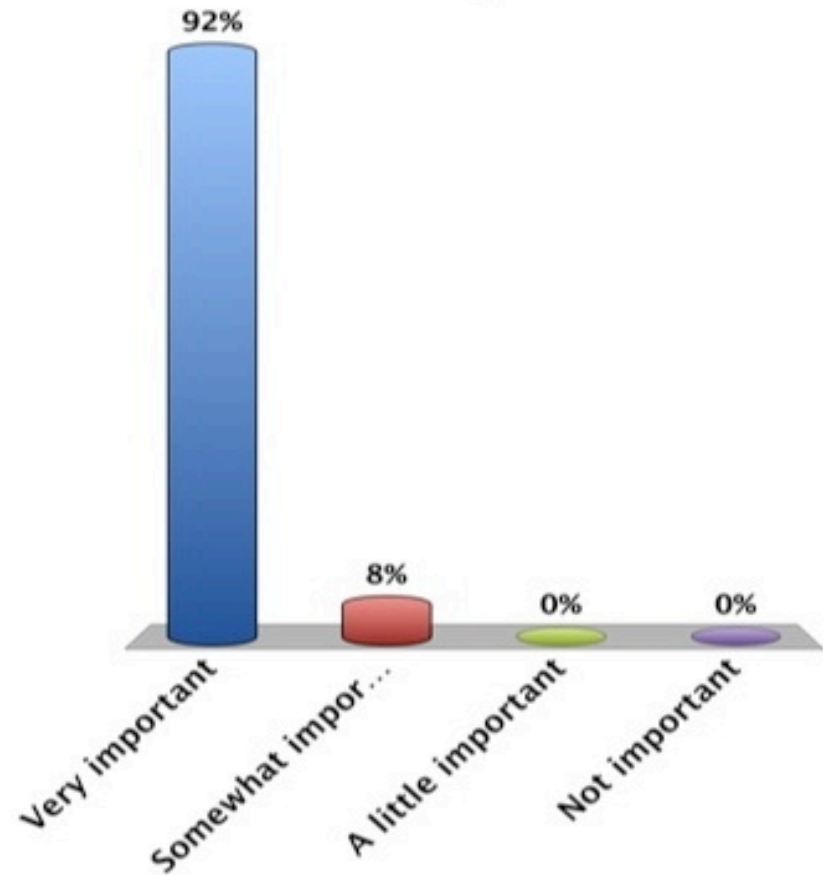
- A. Just to relax, drift away. You feel at peace.
- B. I have good memories of these places, beaches from when I was young. My family handing down family teachings.
- C. Taste. When you're getting close to the beach, you could taste it. And you could smell the seaweed in the air. You go to a different beach, has a different smell, taste.
- D. The fact that we couldn't go there anymore for so many years, it's heart breaking.
- E. None of the above; or I prefer ...



# Workshop, Task 2: Ranking

How important are the sights, smells, quietness and your feelings when you are at the beach to your wellbeing?

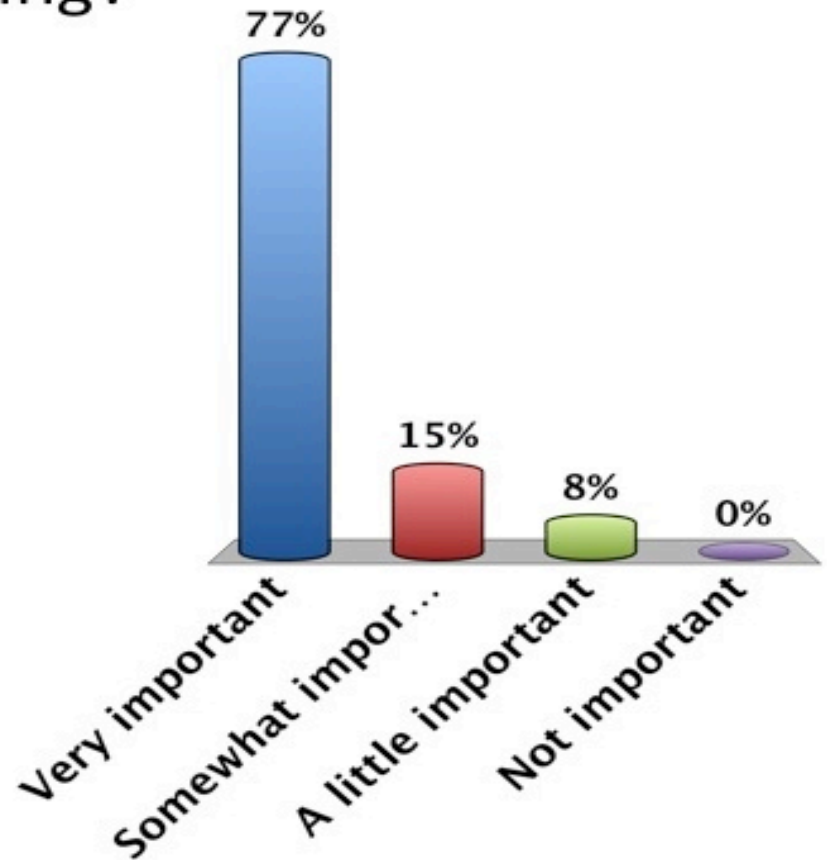
- A. Very important
- B. Somewhat important
- C. A little important
- D. Not important



# Workshop, Task 2: Ranking

How important are things like getting together on the beach, sharing activities or local seafoods, and creating memories to your wellbeing?

- A. Very important
- B. Somewhat important
- C. A little important
- D. Not important



## Task 3: Developing Scales for your top “key themes” of wellbeing

Pick one of the key themes.

- What would the key point look like when it is in excellent condition or shape?
- What about when it is in the worst possible condition?
- What would it look like to be between best and worst?

# Workshop: Task 3 results

- Tribal South workshop: shellfish harvest quality
- Nontribal South workshop: access, ecological integrity and education
- Nontribal North workshop: activity: walking on the beach and feelings, sense of peace, relaxation
- Tribal North workshop: youth education on the beach

# Example: Shellfish harvesting

## Quality of clams:

*(The scale is 1 – 5 where a 1 is poor, and 5 is excellent)*

1 = no clams or all dead

2 = few clams most of which are 'black' aka dead or rotten clams in mud

3 = seed size clams only

4 = mostly small clams under 1.5 inches (due to poor or staggered seeding)

5 = abundant larger than regulation clams



# Example: Shellfish harvesting

Puget Sound Partnership measures # of acres of shellfish beaches.

CES-based restoration could include measures based on:

- quality of natural resources
- access
- Information such as: role of ecological system, important aspects of connection to place, educational activities



# Next Steps

- Report findings to Partnership
- Work with community participants to build more complete CES as Place Attachment Indicator Scales
- Community-based cultural ecosystem restoration



# Thank you



Beach seining at Lone Tree.—Photo by: Tyler Long

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