

*Jennifer Josephs*

## **EDUCATION**

Conflict Analysis And Resolution – Ph.D., Nova Southeastern University

*(Dissertation Topic:*

*Agricultural Biotechnology: Perception And Validation Of Safety And Knowledge  
From Research To Regulation)*

TESL – M.A., St. Cloud State University

*(Thesis Topic:*

*Native American Language And Cultural Revitalization)*

ANTHROPOLOGY – B.A., University Of MN, Duluth

## **WORK**

Social Science Researcher/Trainer

Non-profit Program Director/Project Manager/Coordinator

University Instructor



# **Research Highlights**

**(Pre-EPA)**



# OJIBWE LANGUAGE AND CULTURAL REVITALIZATION



*Participatory Ethnography*



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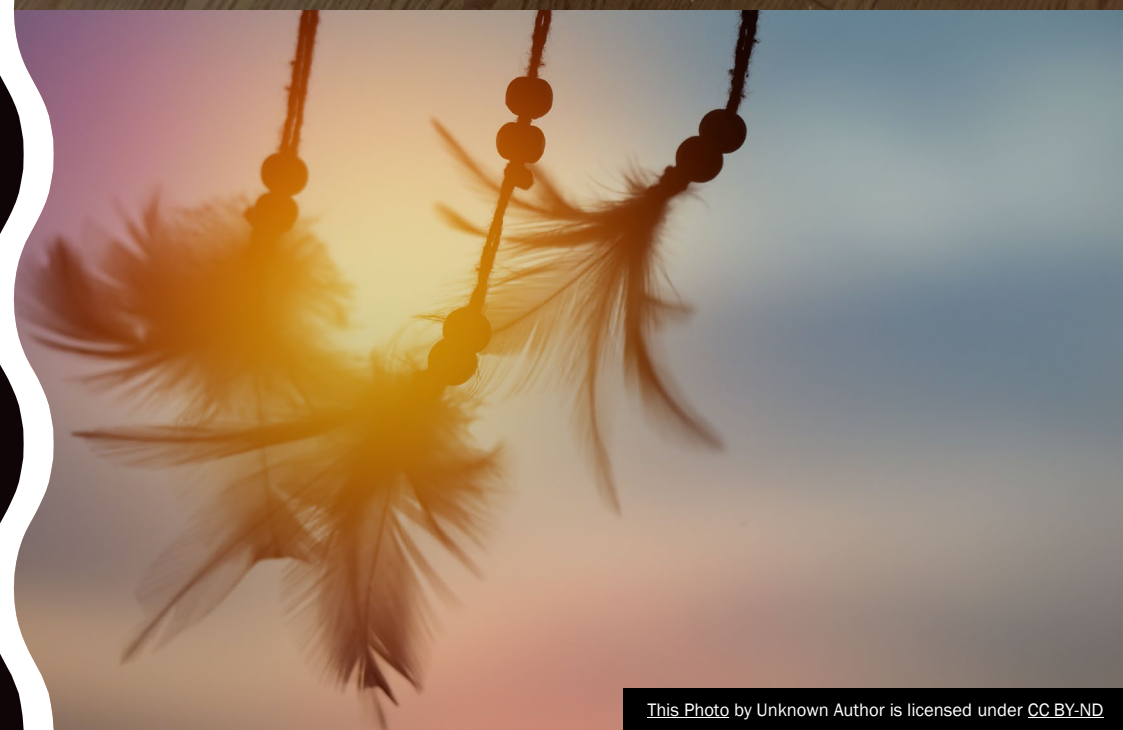
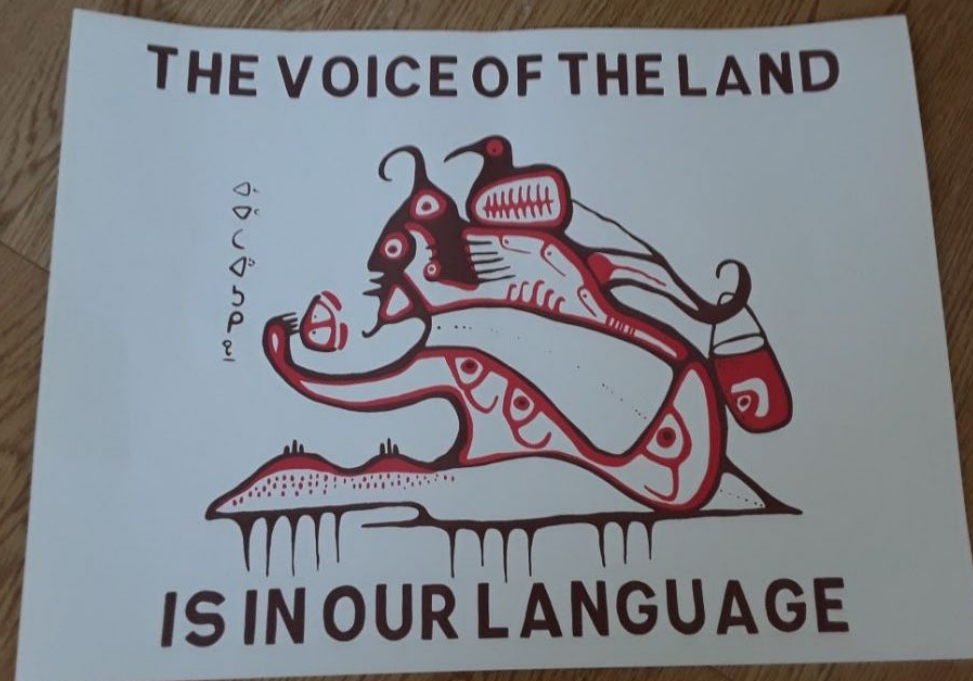
*Anishinaabe-Ojibwe language  
and culture immersion camp,  
Rainy River District, Canada*

*Foundation for revitalization:*

- intergenerational
- culturally-oriented
- experiential

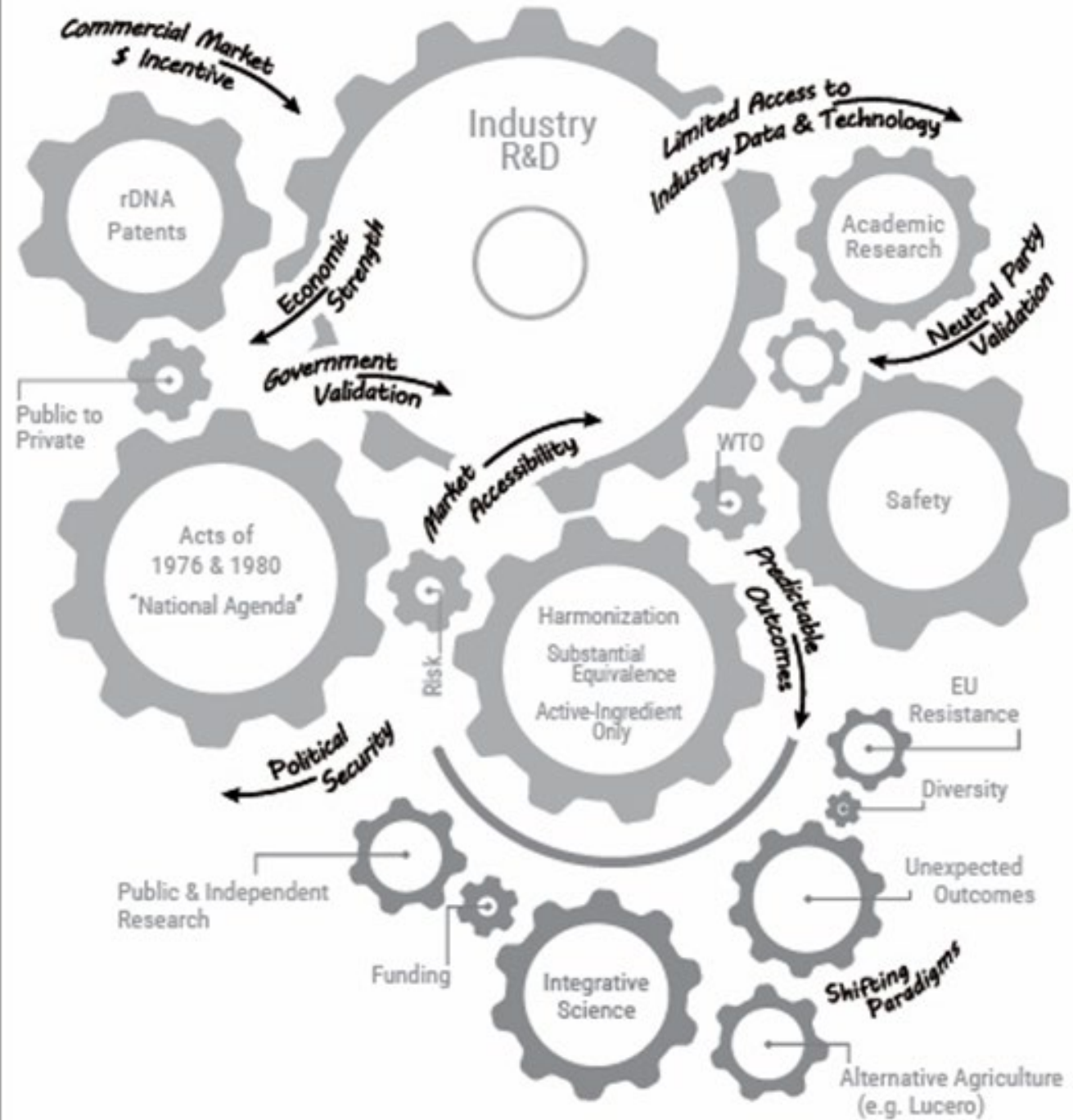
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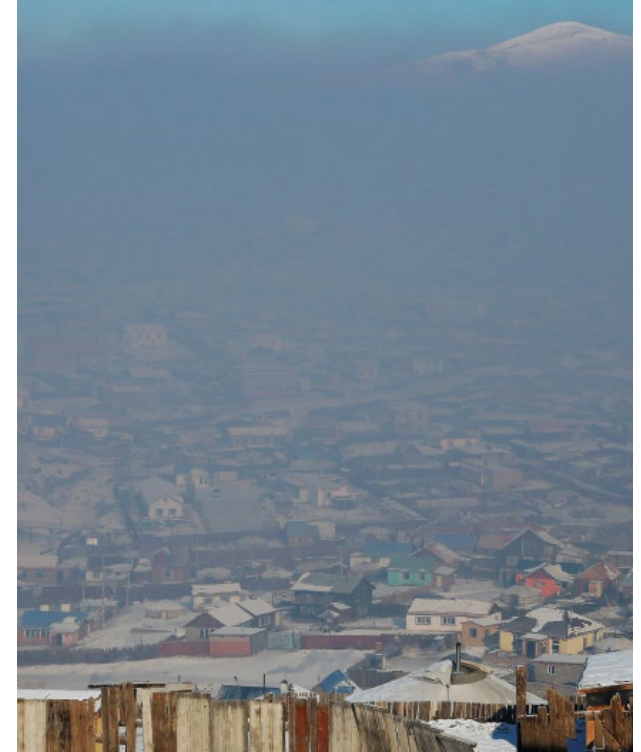
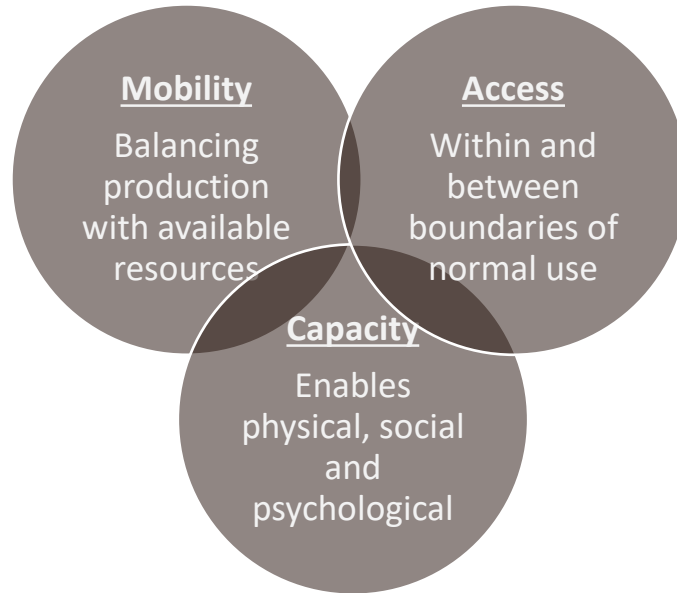
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Case study (Pre-EPA)  
**NK-603**  
*(Round-Up Ready Corn)*

Systems perspective:  
*How knowledge  
influences perceptions  
of safety and validity*





## Case Study

Mongolian pastoralism, climate change, and intrusive globalization: cultural and psychosocial impacts

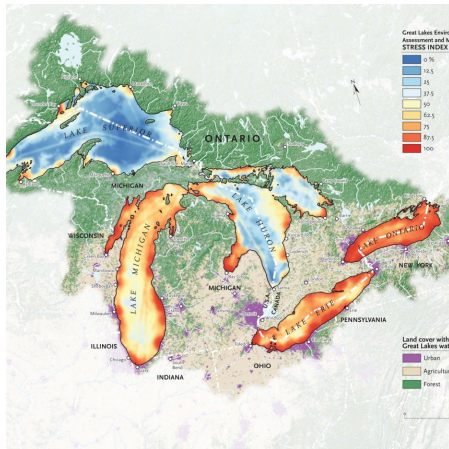




**EPA/CCTE/ORD/GLTED/ES**

# **Research Highlights**

# Human Well-Being in Great Lakes Areas of Concern: a social science perspective





## AOC public engagement, outreach, and outcomes

# Who participates? Who benefits?





## **Typical Research Subjects**

- Government
- Academics
- Technical Experts
- Non-profits

*Whose voice is missing?*





## **POWER RELATIONS**

Awareness  
Expertise  
Validation  
Influence



### Community Impact

- Who is impacted? How are they impacted?

### Funding Priorities:

- How do relational dynamics of stakeholders influence equity and justice?
- Is there a relationship between redlining patterns and AOC funding distribution?

### Tribal Focus

- How do the interests and values of area Native American populations inform the AOC process and influence the outcomes?

### Tools, Techniques, and Indicator Development

- Develop creative engagement tools to promote broader awareness and engagement.
- Develop monitoring criteria to indicate changes in health and human well-being in relation to AOC actions.

An aerial photograph of a lake area. In the foreground, a multi-lane road runs parallel to a narrow strip of land that separates a smaller pond from a larger body of water. To the right, a marina is filled with numerous sailboats. The background shows a distant shoreline under a blue sky with scattered white clouds. The entire image is overlaid with a semi-transparent dark rectangle containing white text.

# **Project 2 Community Benefits of Environmental Remediation and Restoration**

## **A Pilot Study of a Great Lakes AOC Project Area: Pickle Pond**



## Where:

Superior, WI

## Why This Site:

Dredging contaminated sediment

Restoration and revitalization baseline data

Reasonable project scope and timeline

## Timeframe:

Baseline data collection 2020-2022

\*Post-project data collection 2023-2024

# Pickle Pond



# Qualitative and Quantitative Methods



## **Aesthetics Survey**

Record environmental conditions over time



## **Customer Service Satisfaction Survey**

Community perceptions of the area



## **Trail Counters, Trail Cameras, and a Web Camera**

Counts site-usage, captures recreational activities, provides overview of project area



## **Website**

Public access to project information, updates, and online survey.



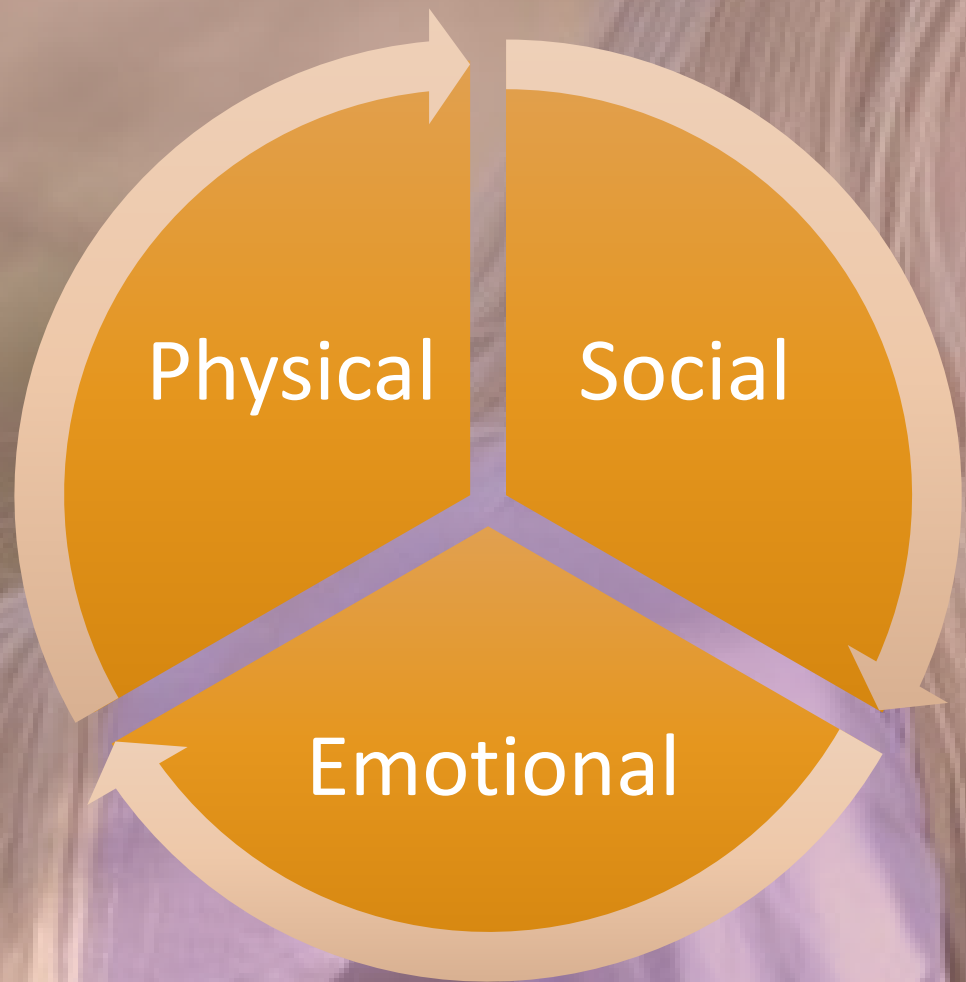
Factors Influencing Human Health and Well-being

Methods to Measure and Assess Change

Methods for Public Engagement and Outreach

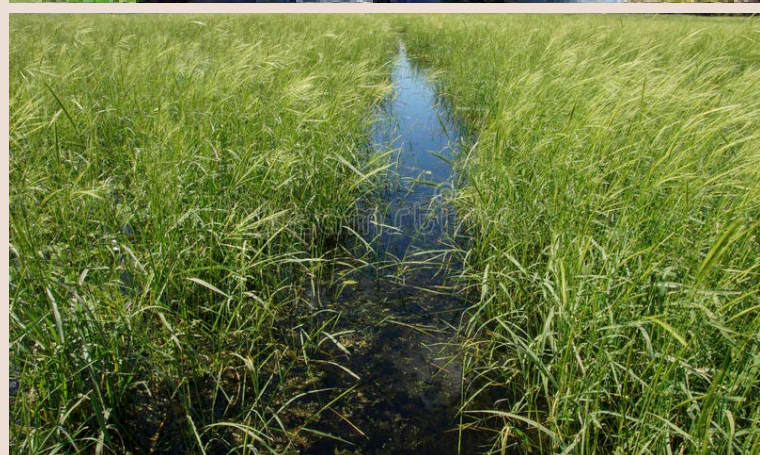


Adaptive Management



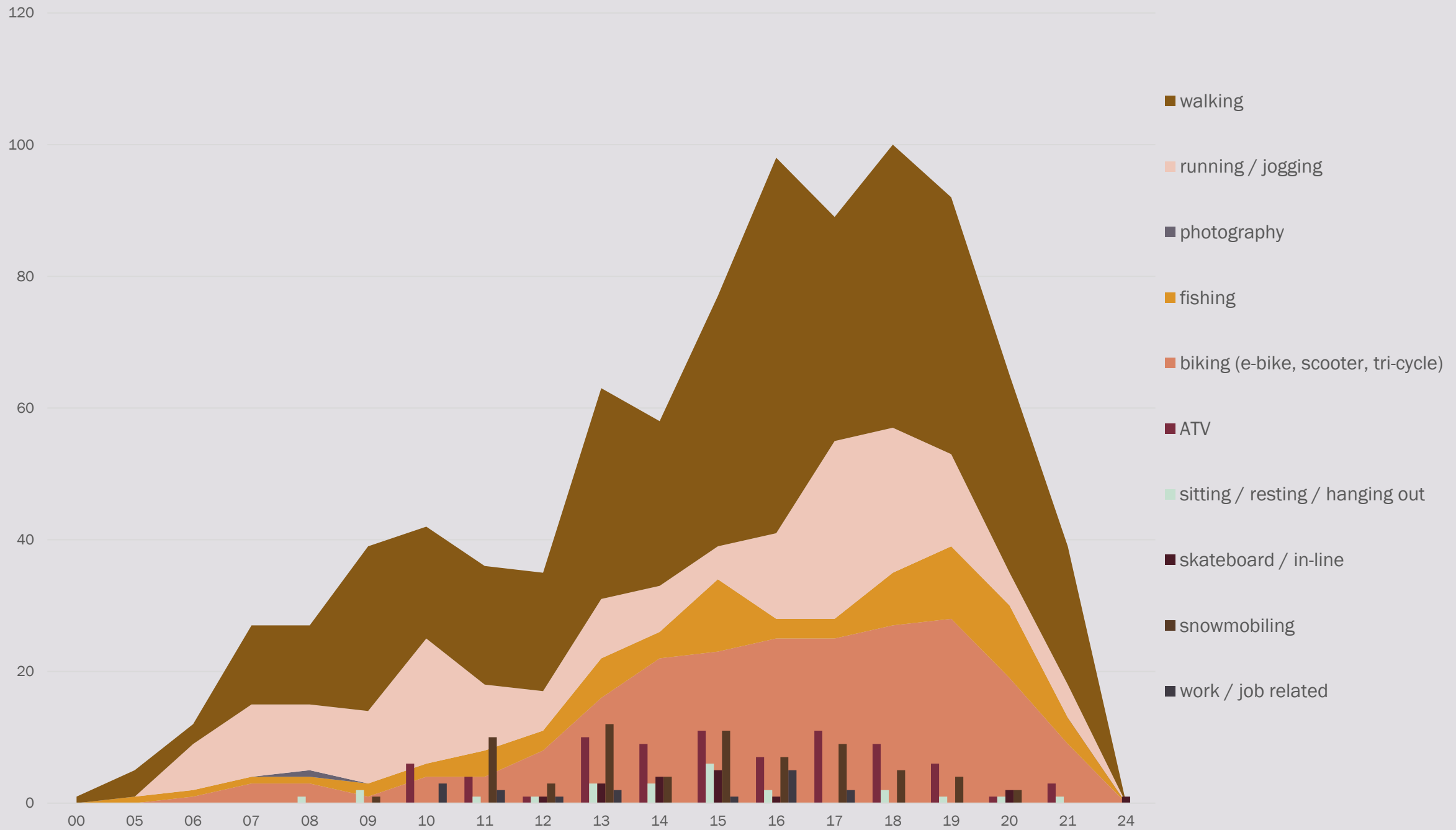
**How do we  
define  
well-being?**





## **Activities YOU like to do in or around a particular lake or river**

Work?  
Exercise?  
Forage?  
Birding?  
Fish?  
Other?





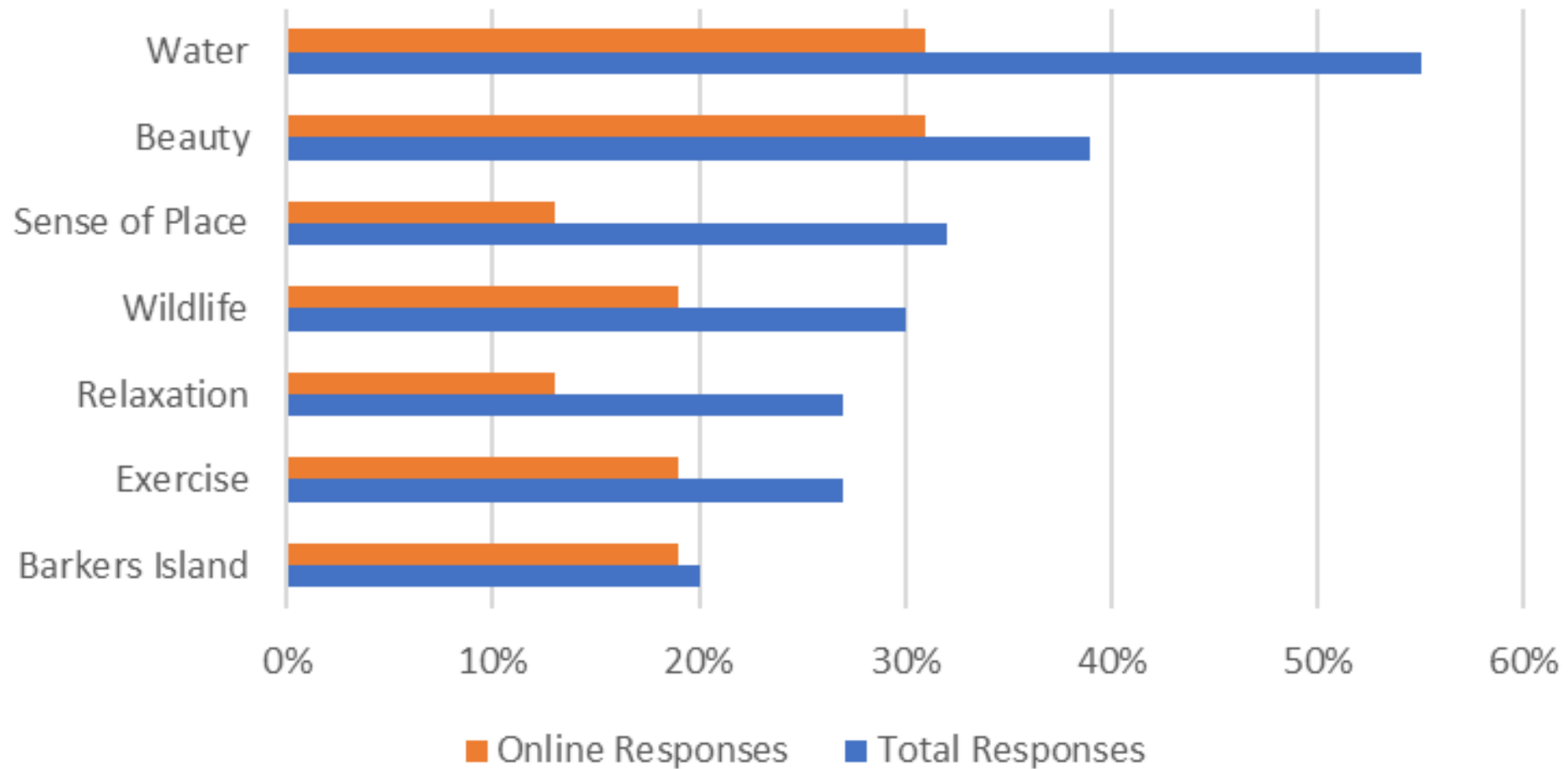
**Think about that lake or river  
and what it is about the area  
that attracts you.**

**In other words, ...**

- What does this place mean to you?
- How do you benefit by being here?
- Why is this place special to you?



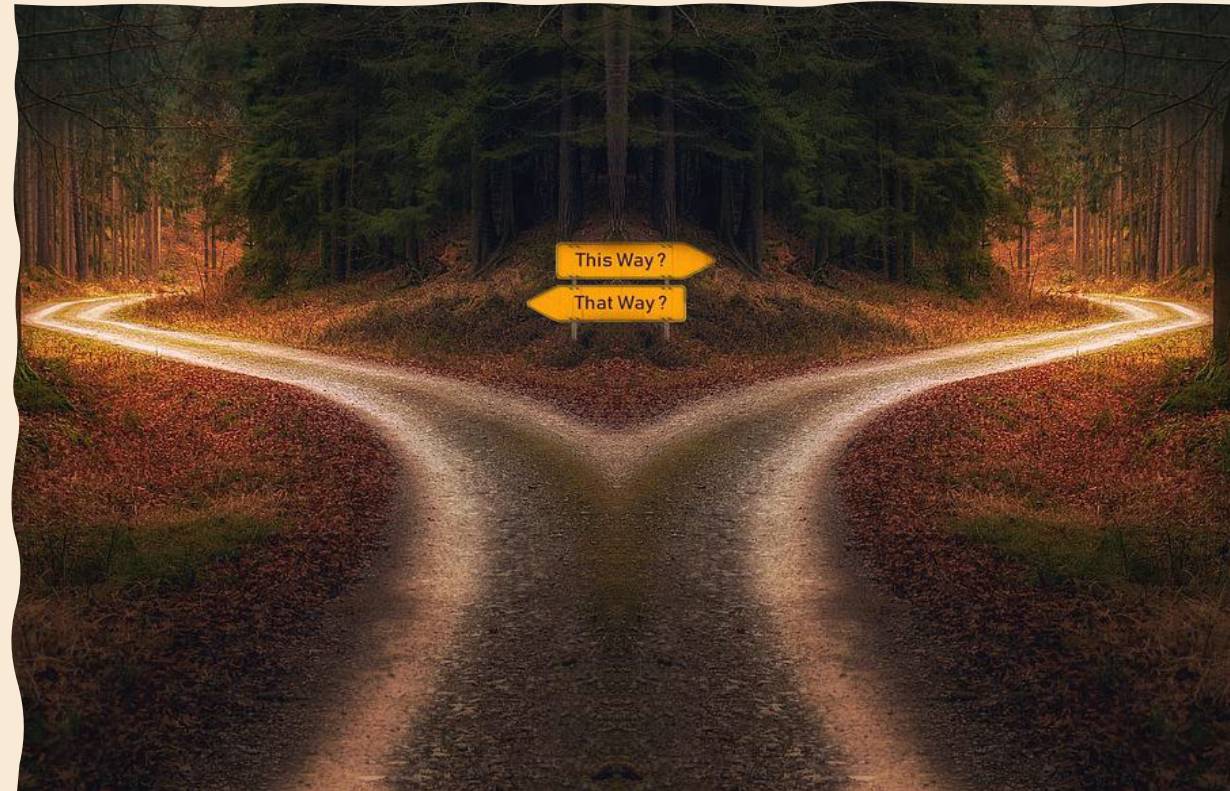
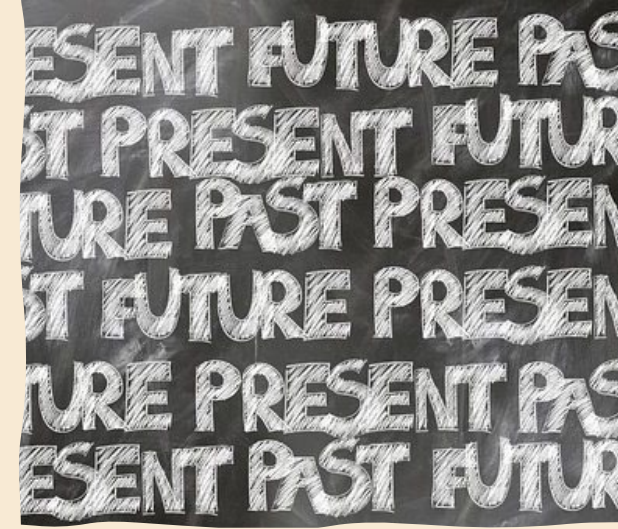
## Why Participants Visit the Area



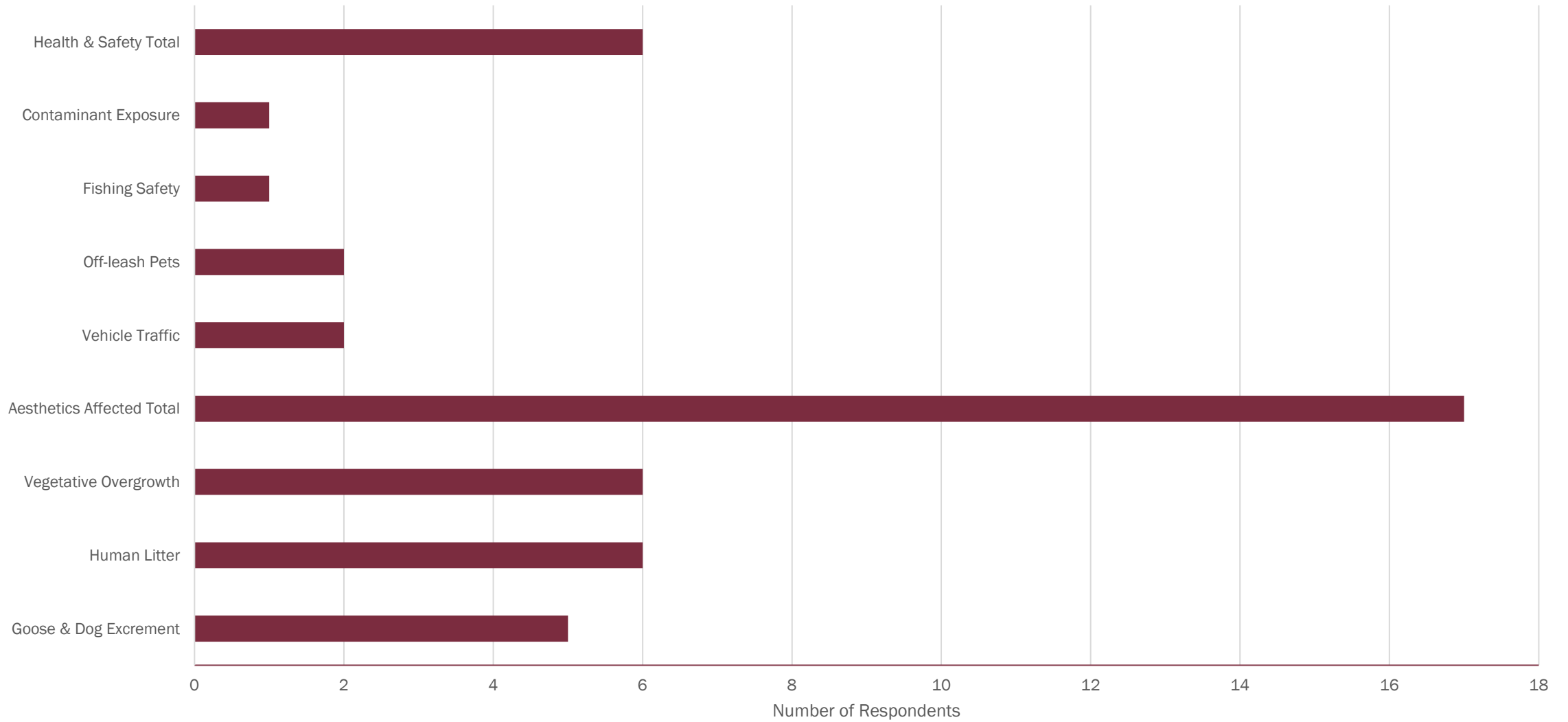


# Desired Change

- What is your vision for area improvements?
- Is there anything you would like to see changed in the area in or near the lake or river where you work, recreate, or relax?

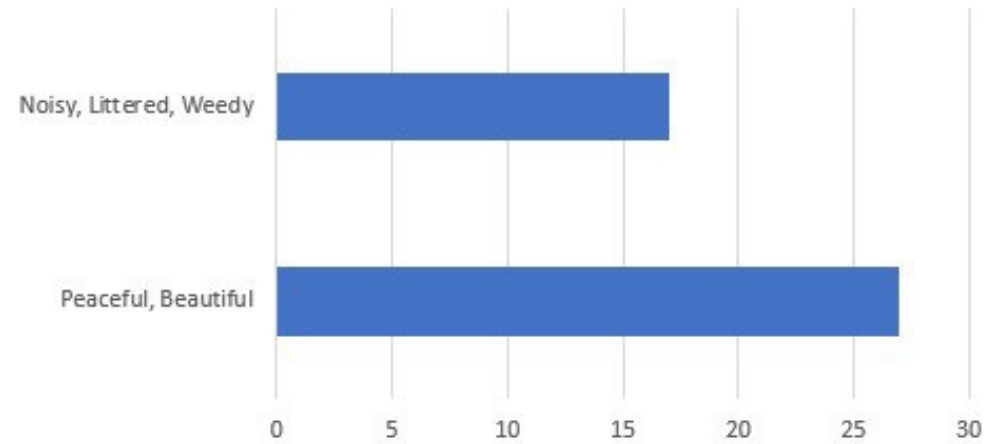


## Concerns Identified by Users

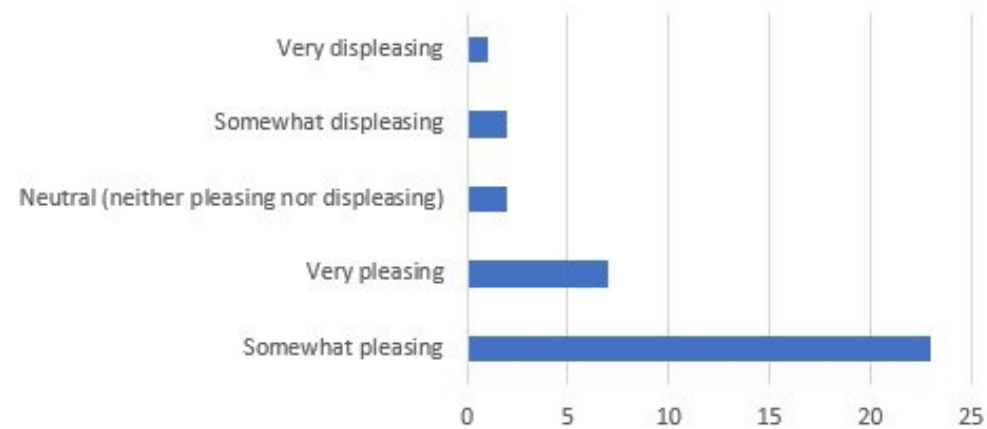




### Positive and Negative Site User Perceptions of the Area



### Overall Site Rating from Aesthetics Monitoring Team



# Next Steps

- Complete baseline data collection/analysis and initial write-up
- Collect and analyze project and post-project data
- Final write-up; suggestions for modifications and transferability







# **Project 3 Climate Change and Mental Health**

# **Solastalgia**

## **Ecological Grief – Environmental Trauma**

Solastalgia relates to the pain experienced when there is recognition that the place where one resides and that one loves is under immediate assault (physical desolation).

It is manifest in...

- an attack on one's sense of place,
- in the erosion of the sense of belonging (identity) to a particular place and
- a feeling of distress (psychological desolation) about its transformation (Albrecht, et al., 2007)

Solastalgia has been related to a breakdown between an individual's identity and their environment – negative emotional responses that can influence engagement with effective coping responses and paralysis or inaction towards negatively perceived environmental change (Phillips and Murphy, 2021).

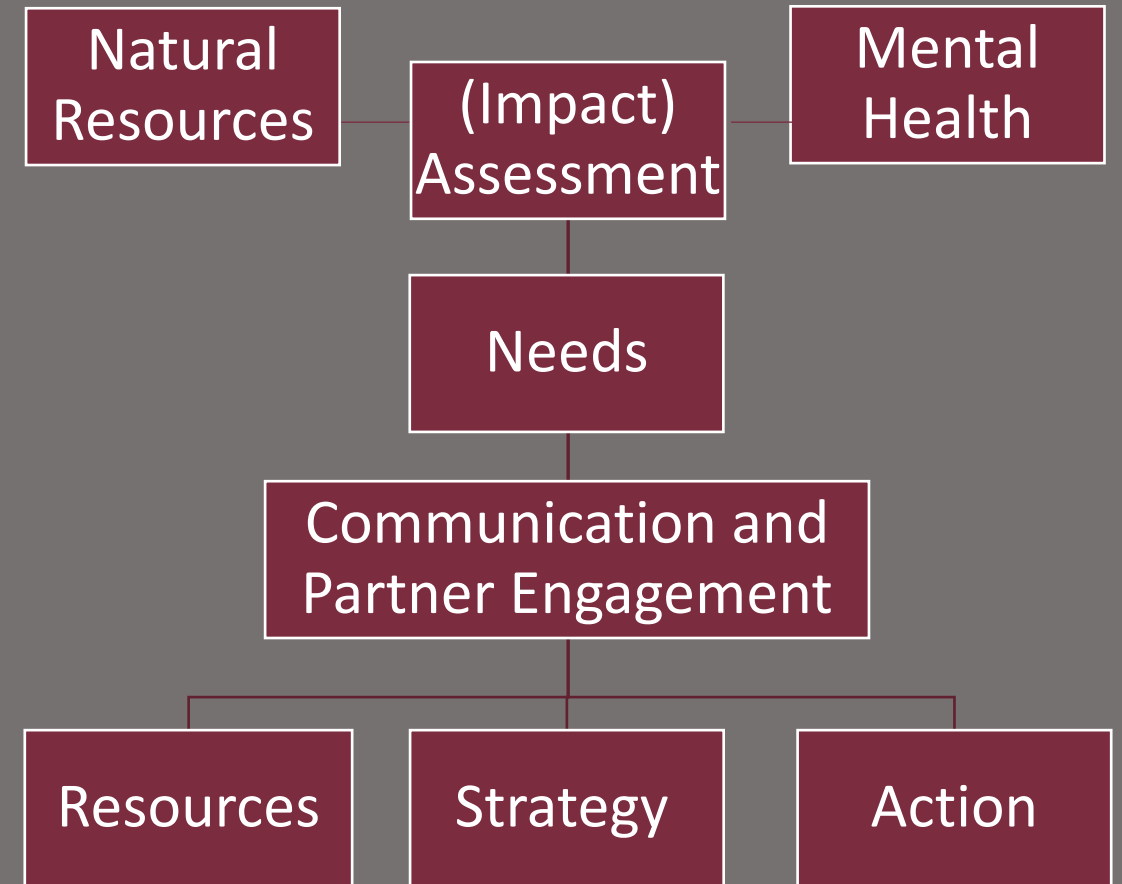
Albrecht, G., Sartore, G. M., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., ... & Pollard, G. (2007). Solastalgia: the distress caused by environmental change. *Australasian psychiatry*, 15(sup1), S95-S98.

Phillips, C., & Murphy, C. (2021). Solastalgia, place attachment and disruption: insights from a coastal community on the front line. *Regional Environmental Change*, 21(2), 1-14.





**RESILIENCE**



*The End.* **QUESTIONS?**

