

Bringing Community Capacity into Conversation with Ecosystem Services and Environmental Justice in Great Lakes Coastal Communities

Megan Dwyer Baumann, PhD¹ (Presenter)

Kathleen Williams, PhD²

Molly Wick, PhD¹

¹ Oak Ridge Institute for Research and Education; hosted by EPA

² Ecosystem Services Branch, Great Lakes Toxicology and Ecology Division
Center for Computational Toxicology and Exposure, Office of Research and Development

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Mud Lake, MN

Photo Credit: DNR

Context

Great Lakes Areas of Concern

regions experiencing
social-environmental change

industrial legacies, contaminants

remediation, restoration,
revitalization

ecosystem service benefits

Research Questions

RQ1: How can EPA and partners in remediation and restoration work integrate human wellbeing and environmental health into planning and execution of project phases?

RQ2: How can EPA and partners do (RQ1) while also accounting for power dynamics, specifically recognizing disparities in resources, capacities, and health?

Defining Terms

Meaningful engagement

“offer public participation opportunities that provide information about the EPA actions and allow people convey their concerns and share information in a way that can contribute to EPA’s decision-making process” ([Meaningful Engagement Policy](#))

Community or Actors

Residents, users of space, agencies,
organizations, grassroots initiatives

Actors – Tribal Governments

Concept 1: Environmental Justice

The just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards,... and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

Concept 1: Environmental Justice

Recognitional Justice

experiences of change;
values, beliefs

Recognition of experiences,
differences in oppression,
cultures, values, more

Eisenhauer et al. 2021, Schlosberg 2004 (draws from Nancy Fraser and Iris Young)

Capabilities Justice

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Capabilities Justice

no equity without context; opportunity
to participate in governance

Recognition of basic needs, including
environmental, versus or in relation
to public participation in policy

Martha Nussbaum 2022: "What is she actually able to do and be?",
Schlosberg 2012

Concept 2:

Community Capacity for Resilience

Community Capacity:

“characteristics that enable a community to identify, mobilize, and address social and public health problems”

(Goodman et al., 1998, 2)

- Interaction of human, organizational, and social capital existing that can be leveraged to solve collective problems and improve or maintain the well-being of a given community (Chaskin, 2001, 4)

Concept 3: Ecosystem Goods and Services

We refer to ecosystem services with the following in mind:

- Social benefits from ecosystems (direct and indirect)
- Relational values (Himes & Muraca 2018, Ishihara 2018)
- Cultural ecosystem services in relation to human well-being: identities, experiences, capabilities (Fish et al. 2016)
- Consideration of cultural worldviews (Diaz et al., 2018)

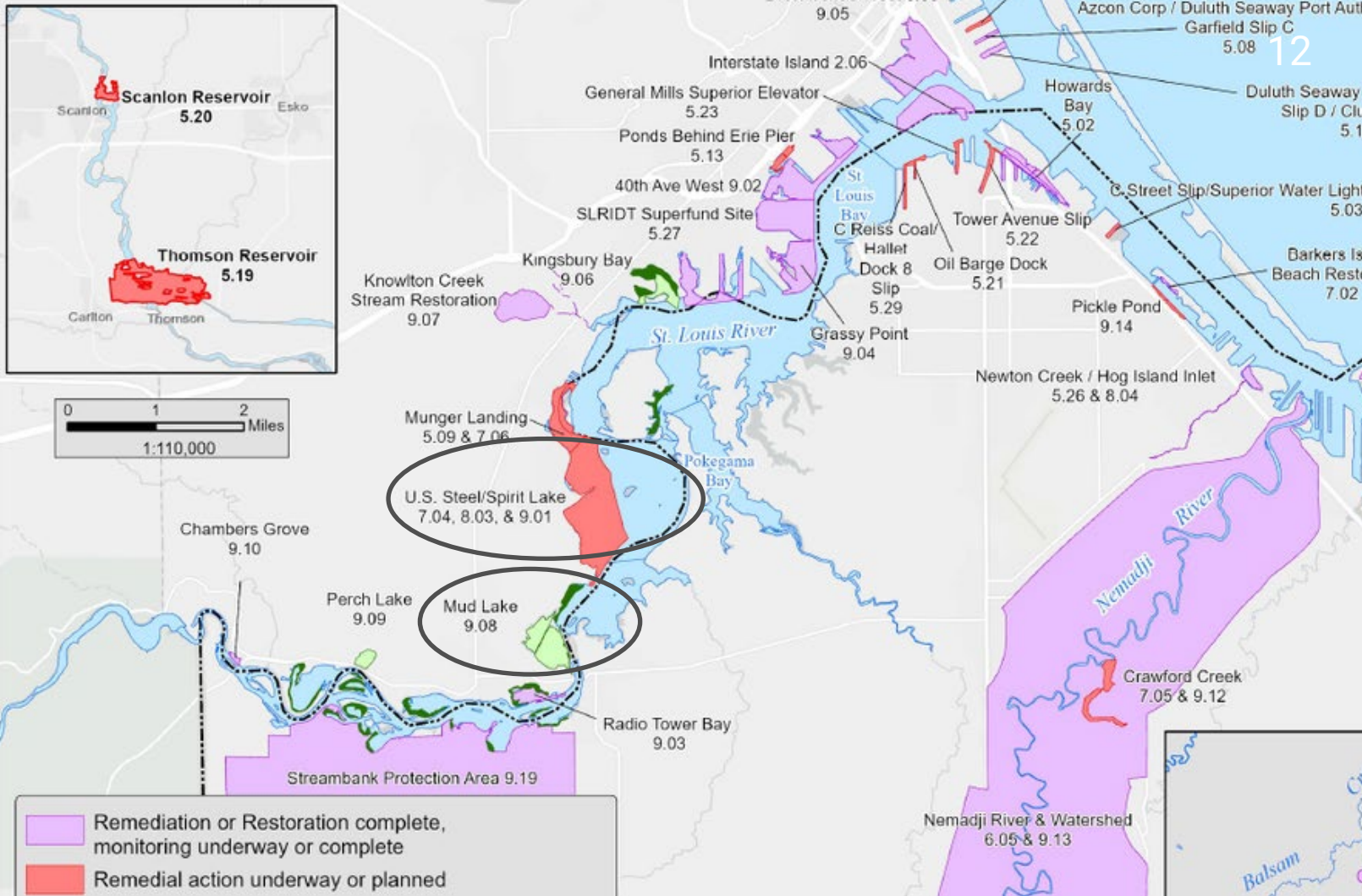
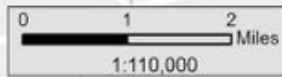
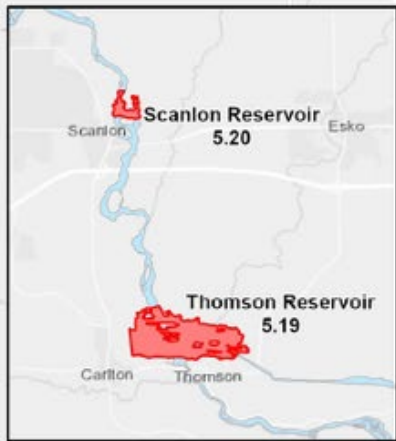
Theoretical challenge: Account for and apply to social-ecological change.

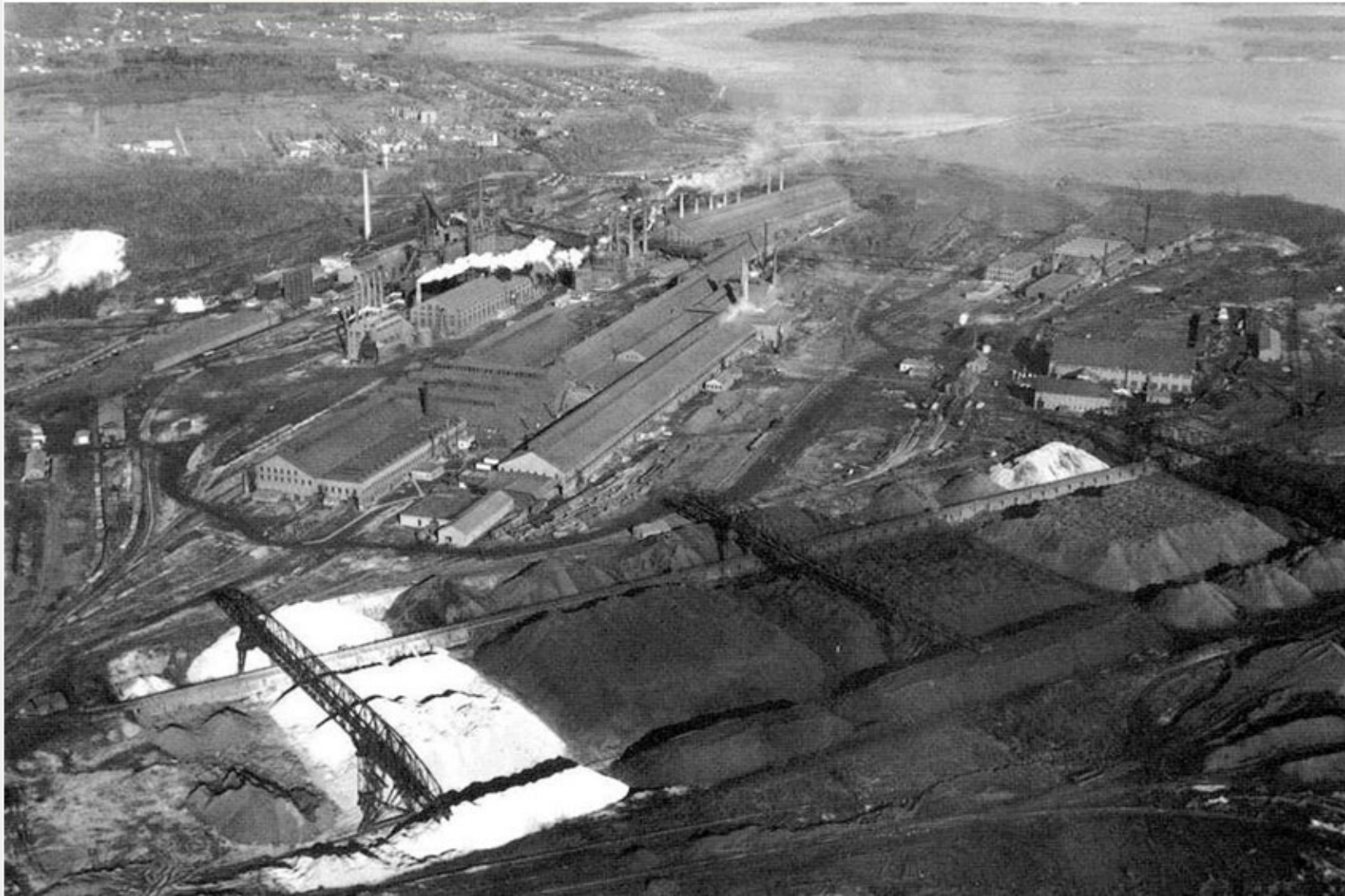
Wick 2024
Yee et al. 2017

Mud Lake, MN

Causeway





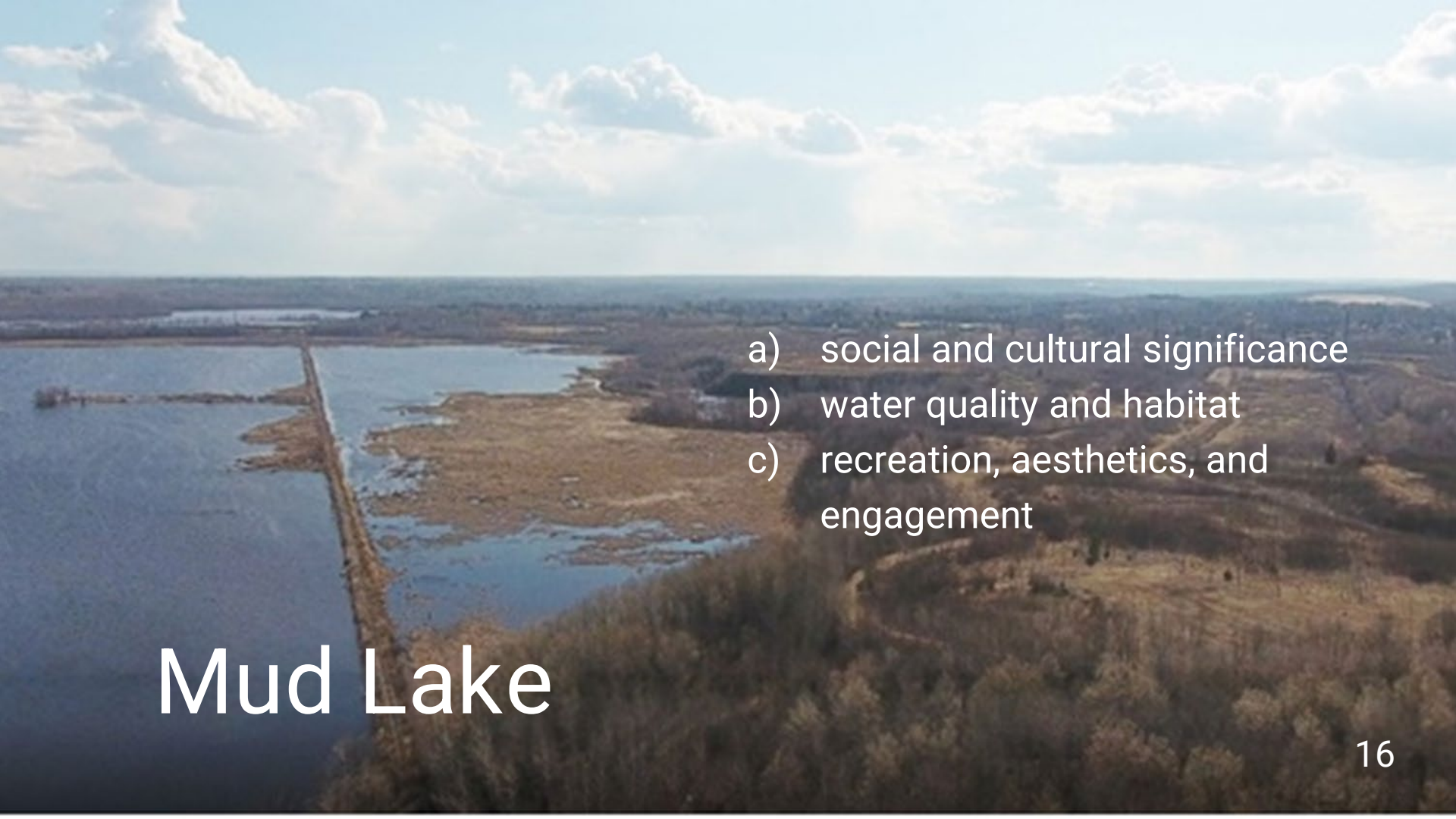




Morgan Park, U.S. Steel site, Spirit Lake



Mud Lake



- a) social and cultural significance
- b) water quality and habitat
- c) recreation, aesthetics, and engagement

Mud Lake

Community Capacity + Benefits



Pedestrian Trail lakeside

Community fought for early plans
they participated in making



Lake Superior & Mississippi Railroad

All volunteer railroad; first train
from St. Paul to Duluth, 1870

Use of space

Asked community
BEFORE design
finalization

Tradeoffs

Balance culture and
identity with aquatic
habitat

Recognition

Community historically
overburdened and under-
recognized

Takeaways

Ecosystem Services

Boundary language for participation, can expand circle of participation to recognize, value

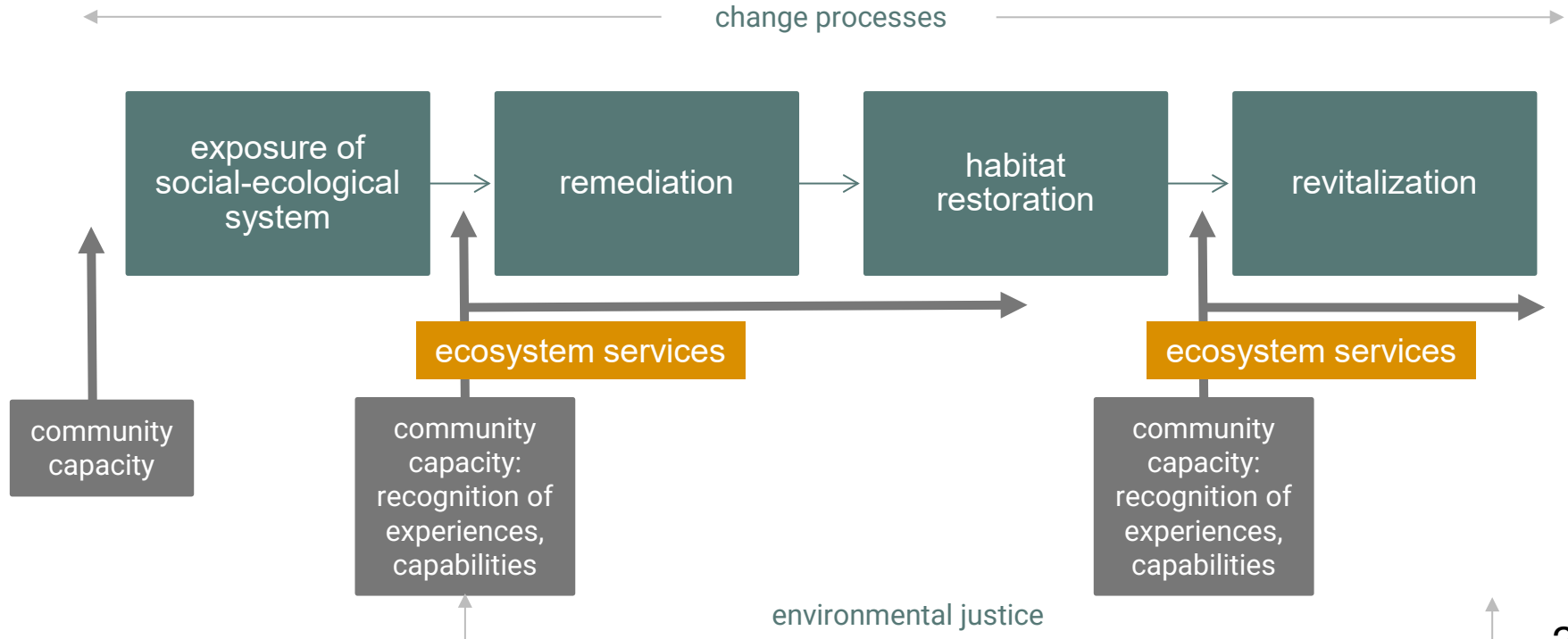
Environmental Justice

More than distribution, procedure but recognition of experiences of change, capabilities (agency) and provision of participation opportunities

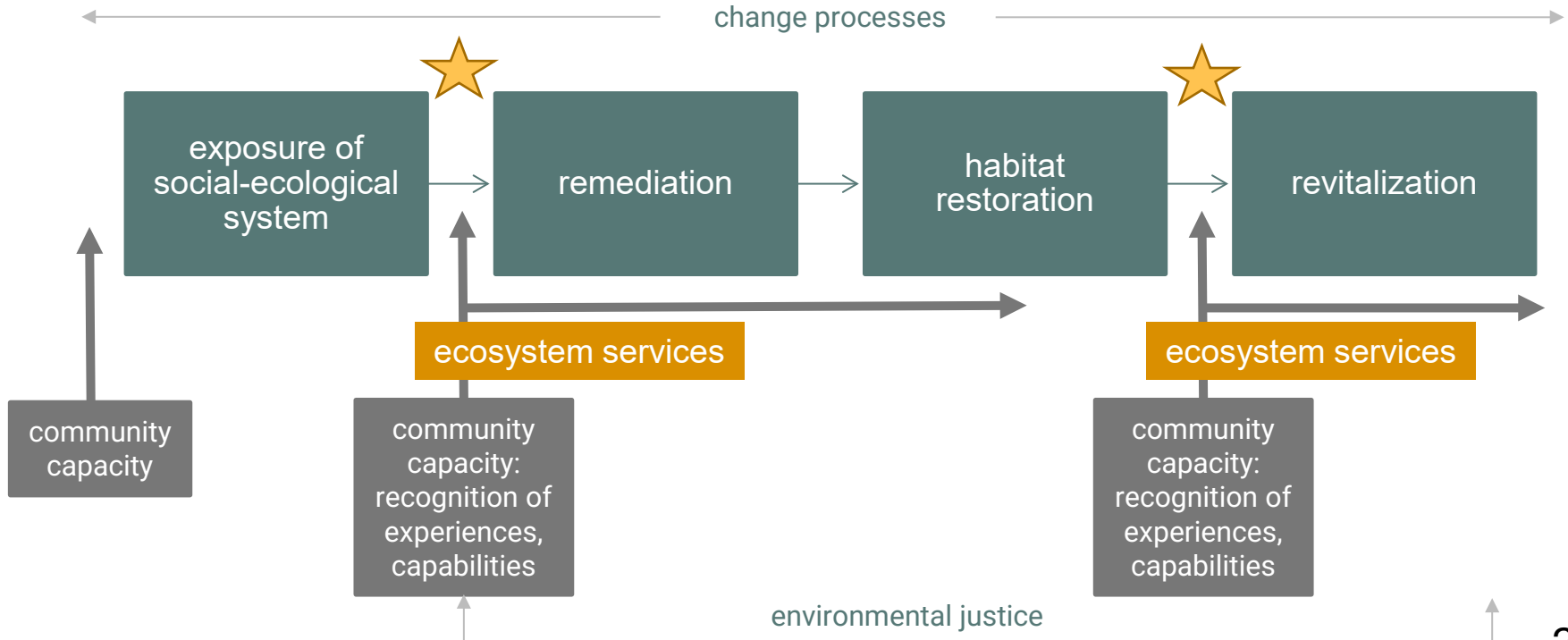
Community Capacity + Resilience

Change-centered → advance EGS
Recognition of strengths, agency, values

Conceptual Model



Conceptual Model





Mud Lake

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