Resilience Dialogues Facilitate Solutions Oriented Collaborative Science

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National Estuarine Research Reserves
Science Collaborative

Dual Purpose for Today's Talk

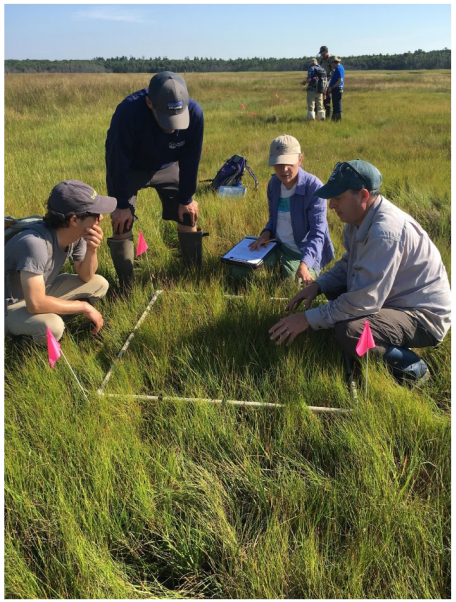
I. Identify key factors contributing to success in *Transdisciplinary Collaborative Science* projects in the NERRS.

I. Describe the *Resilience Dialogues* project and share best practices and links to resources.

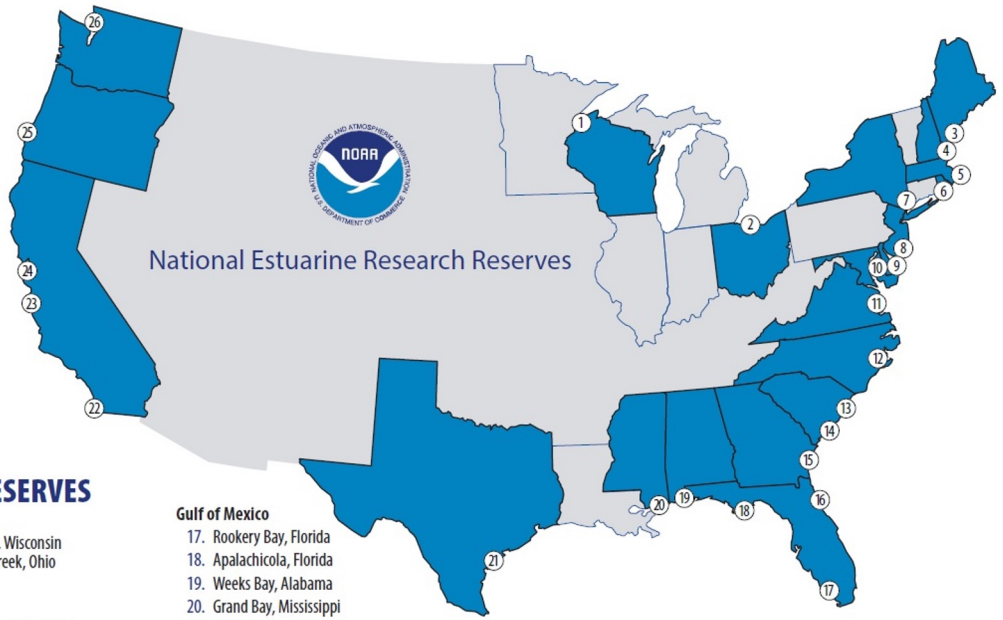
National Estuarine Research Reserves
Science Collaborative

Transdisciplinary Teams Engage in Resilience Dialogues

Resilience Dialogues are conversations that occur among people with diverse perspectives who have agreed to collaborate to improve a situation that contributes to building social and ecological resilience.



The National Estuarine Research Reserve System is the setting for this project



LIST OF RESERVES

Great Lakes
1. Lake Superior, Wisconsin
2. Old Woman Creek, Ohio

Northeast
3. Wells, Maine
4. Great Bay, New Hampshire
5. Waquoit Bay, Massachusetts
6. Narragansett Bay, Rhode Island

Mid-Atlantic
7. Hudson River, New York
8. Jacques Cousteau, New Jersey
9. Delaware
10. Chesapeake Bay, Maryland
11. Chesapeake Bay, Virginia

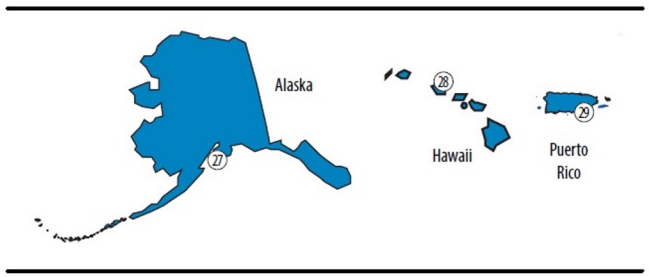
Southeast
12. North Carolina
13. North Inlet-Winyah Bay, South Carolina
14. ACE Basin, South Carolina
15. Sapelo Island, Georgia
16. Guana Tolomato Matanzas, Florida

Gulf of Mexico
17. Rookery Bay, Florida
18. Apalachicola, Florida
19. Weeks Bay, Alabama
20. Grand Bay, Mississippi
21. Mission-Aransas, Texas

West
22. Tijuana River, California
23. Elkhorn Slough, California
24. San Francisco Bay, California
25. South Slough, Oregon
26. Padilla Bay, Washington
27. Kachemak Bay, Alaska

Pacific
28. He'eia, Hawai'i

Caribbean
29. Jobos Bay, Puerto Rico



National Estuarine Research Reserve System Science Collaborative

Science for estuarine and coastal decision-makers.

Managed by the University of Michigan Water Center, through a cooperative agreement with NOAA.

Funding opportunities support user-driven collaborative research, assessment, and transfer activities.

Address critical coastal management needs identified by the NERRs

http://www.nerrssciencecollaborative.org/

Resilience Dialogues are a key ingredient of Collaborative Science

The Three Goals of the Resilience Dialogues Project

1. Synthesize conflict related lessons learned in the practice of collaborative science in the NERRS.

1. Increase the capacity of NERRS and others to understand and mediate conflict in their roles as boundary spanning organizations, science integrators, project managers and facilitators of collaborative science.

1. Improve collaboration among teams engaged in transdisciplinary collaborative science to foster resilience in coastal communities and ecosystems.

Within Team Conflict

- Language barriers and differences in perspective
- Perceptions of two-way communication from end users to researchers, not viewed as important by researchers as they are by Collaborative Lead

End User/Stakeholder Conflict

- Conflict between goals and motivations of academic researchers and CTP concerns for end user or stakeholder readiness, involvement and expectations.
- Over-promising what can be realistically achieved.
- Concern for Reserve's reputation when a project does not meet objectives and end users are disappointed.

Project Management Conflict

- Traditional Role of “P.I” is not the same as Collaborative Project Management
- Conflict arising from the Collaborative Lead role on a project: budgeting, knowledge, commitment.
- Mismatch in timing between a university research calendar and the realities of time commitment required for stakeholder engagement.

Build Competency across the NERRS for Collaborative Science

Resilience Dialogues shared knowledge and lessons learned from within the National Estuarine Research Reserve System about managing conflict in collaborative science.

About this resource

The Resilience Dialogues curriculum is a 1-2 day training to build skills for the management of conflicts that arise in collaborative science projects. This training workbook contains an example agenda, activities, and worksheets that can be customized to create a training for collaborative science facilitators or partners. The workbook also contains a collection of resources to support collaborative learning.

Individual worksheets contained within the workbook are also available as Word documents:

- Needs assessment interview form
- Stakeholder role assessment
- Situation map activity
- Conflict assessment worksheet
- Collaborative potential assessment
- Tools and resources for implementation

https://nerrssciencecollaborative.org/media/resources/Resilience-Dialogues-Collaborative-Learning-Training-Workbook.pdf

1. Adapt the Collaborative Learning approach to provide the boundary spanning methodology for collaborative science

https://www.dealislandpeninsulaproject.org/community-conversations

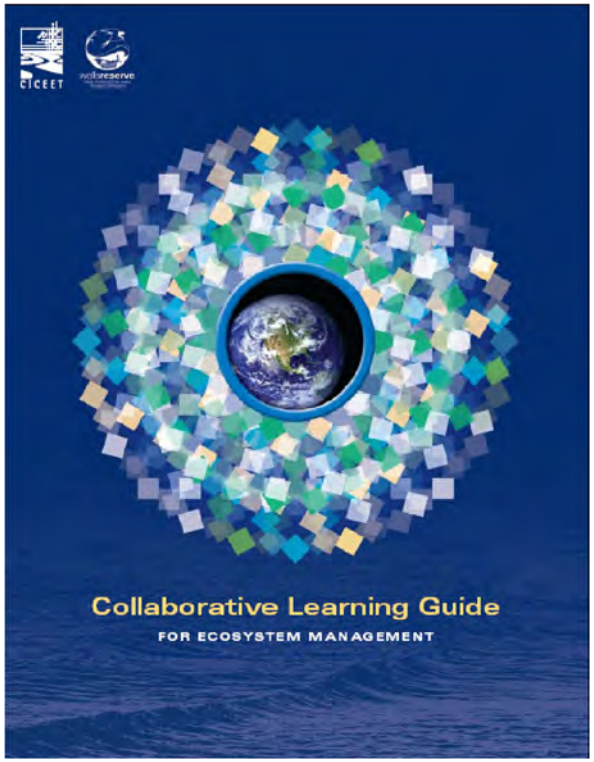
What is Collaborative Learning?

Working Through Environmental Conflict, The Collaborative Learning Approach

By Steven E. Daniels and Gregg B. Walker (2001)

"A framework and set of techniques intended for multiparty decision situations… A means of designing and implementing a series of events to promote:

Creative thought,
Constructive debate and the
Effective implementation of proposals that the stakeholders

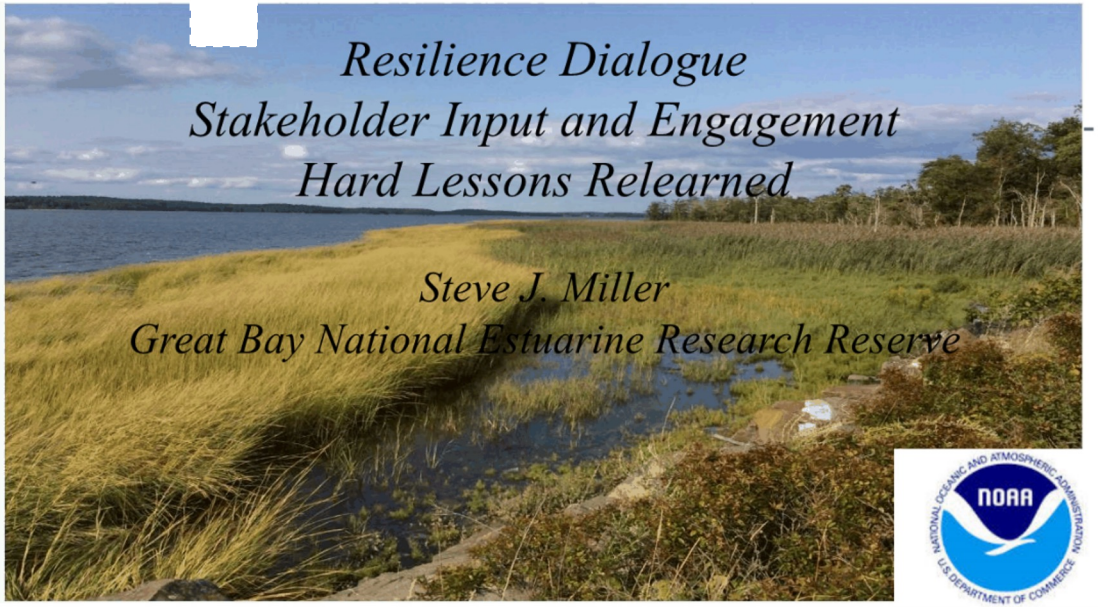


Integrates:
Systems Thinking,
Conflict Resolution,
Adult Learning

Practitioners guide
Case Study from Wells NERR including cultural models
https://www.wellsreserve.org/writable/files/Collaborative-Learning-Guide-for-Ecosystem-Management-by-Dr.-Christine-Feurt.pdf

2. Assess the social-ecological system where the project is embedded

Buffer Options for the Bay or BOB



3. Develop a common language among interdisciplinary teams including local knowledge

NEW YORK STATE OF OPPORTUNITY | Hudson River National Estuarine Research Reserve

A program of New York State Department of Environmental Conservation in partnership with National Oceanic and Atmospheric Administration

Common Language for the Hudson River Sustainable Shorelines Project Resilience Dialogues Fall 2019

Emilie Hauser

Estuary Training Program Hudson River National Estuarine Research Reserve

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation | Hudson River Valley Greenway | Cary Institute of Ecosystem Studies | Stevens Institute of Technology | cbi Consensus Building Institute | NOAA | National Estuarine Research Reserve System Science Collaborative | Hudson River Sustainable Shorelines

NYSDEC HUDSON RIVER NATIONAL ESTUARINE RESEARCH RESERVE | NORRIE POINT ENVIRONMENTAL CENTER | STAATSBURG, NY 12580 | HRNERR.ORG

4. Reveal and use mental and cultural models to develop shared meaning, manage conflict and track progress

Mental & Cultural Models Defined

Mental models are a simplified representation of the world used by people to *interpret observations, infer from what is known to unknown and solve problems*.

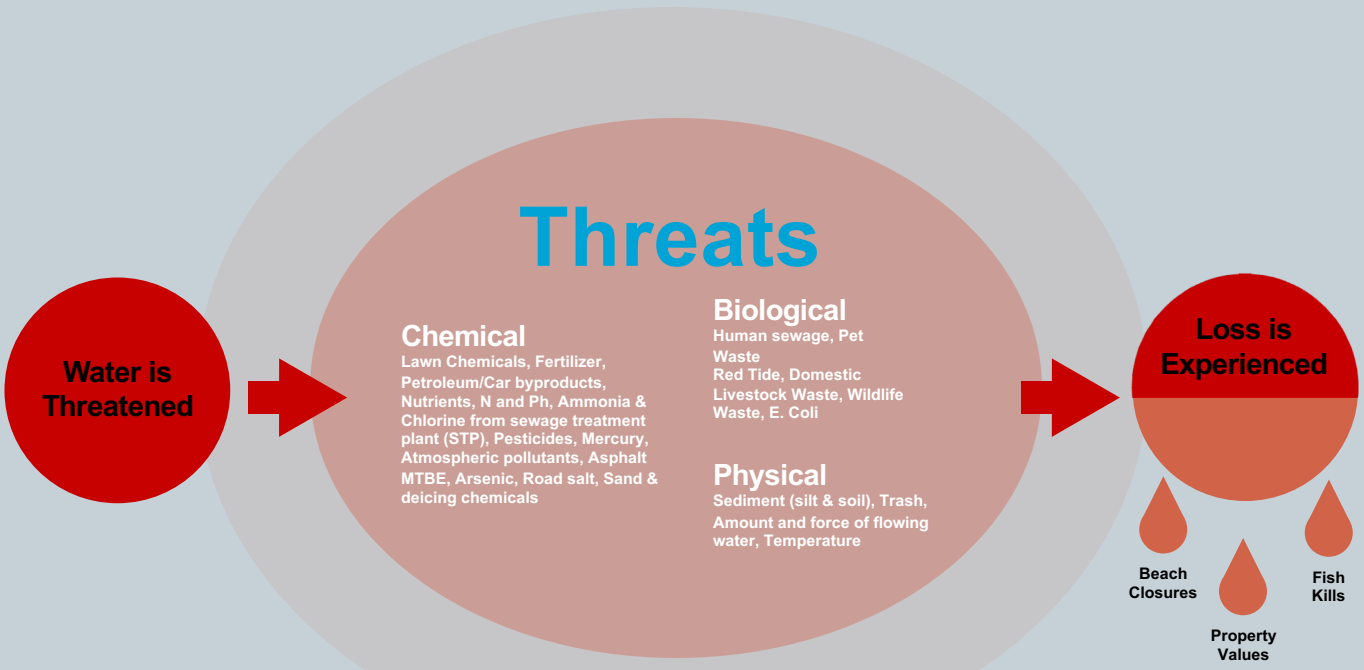
(Kempton, et al., 1995, emphasis added)

Cultural models are shared perceptions and attitudes about how the world works. They are implicit, taken for granted and operate below the level of consciousness.

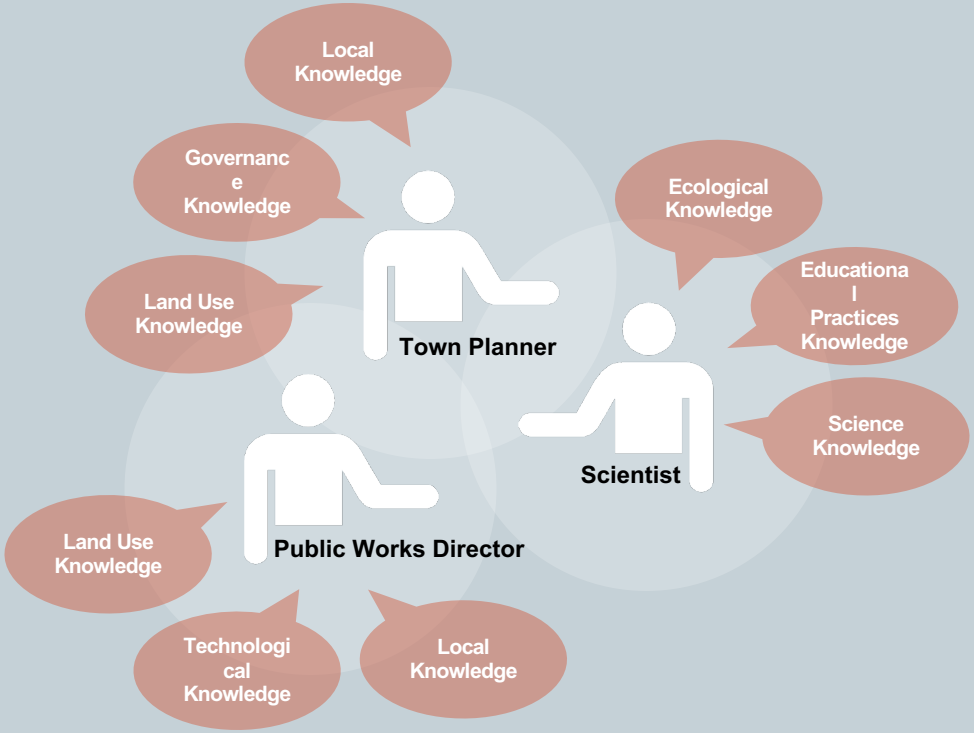
(Holland and Quinn, 1987; Strauss & Quinn, 1997)

Perceptions of Threats to Water's Value

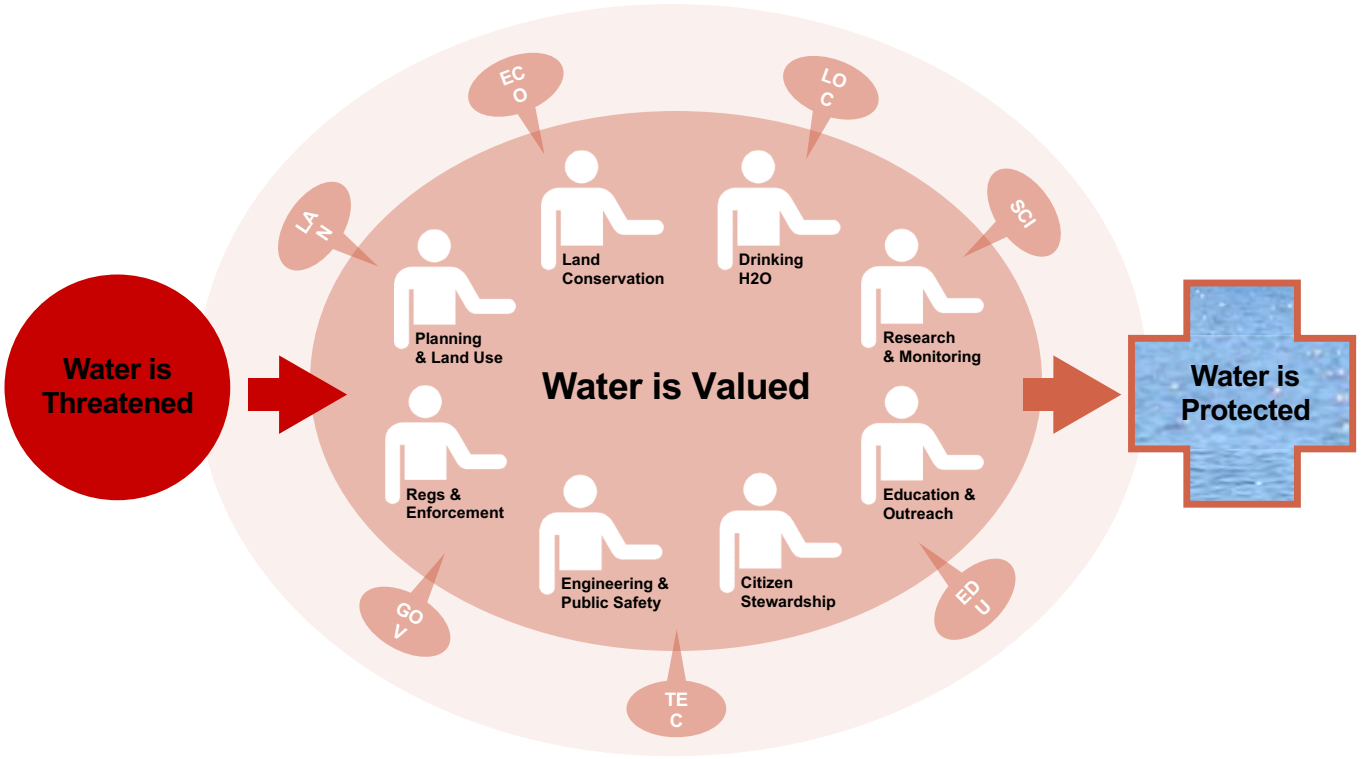
A Diagnostic Cultural Model



Multiple Ways of Knowing are activated in dialogues



A Resilience Dialogue
Stakeholder Engagement Model



Generating a Situation Map to Reveal Mental Models

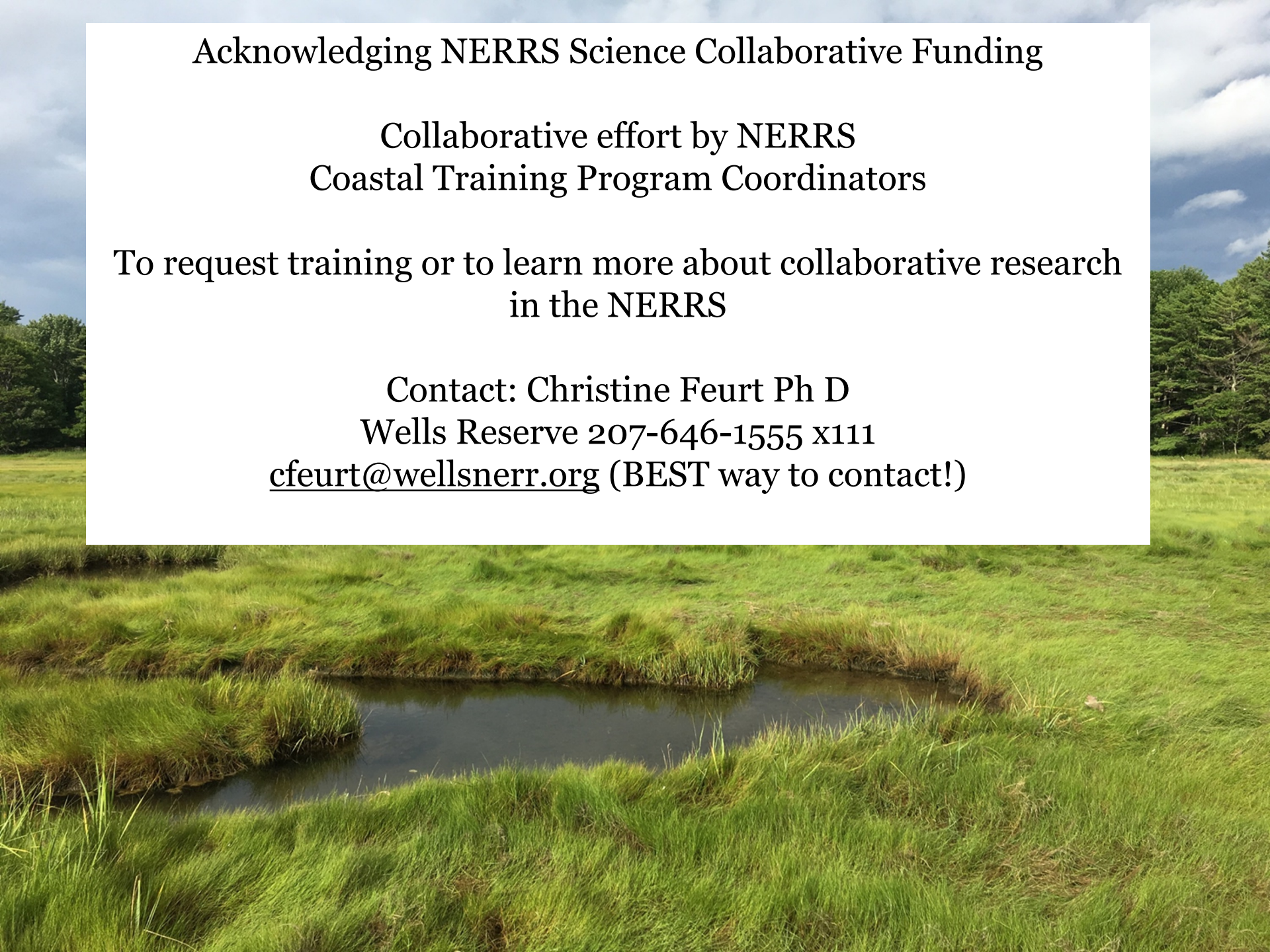
Resilience Dialogues Best Practices

1. Adapt the Collaborative Learning approach to provide the boundary spanning methodology for collaborative science.
2. Assess the social-ecological system where the project is embedded.
3. Develop a common language among transdisciplinary teams including local knowledge.
4. Reveal and use mental and cultural models to develop shared meaning, manage conflict and track progress.

The Resilience Dialogues Project page:
https://nerrssciencecollaborative.org/project/Feurt18

The Resilience Dialogues Workbook:
https://nerrssciencecollaborative.org/media/resources/Resilience-Dialogues-Collaborative-Learning-Training-Workbook.pdf

Collaborative Learning Guide for Ecosystem Management https://dune.une.edu/env_facpubs/5/



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Collaborative effort by NERRS
Coastal Training Program Coordinators

To request training or to learn more about collaborative research in the NERRS

Contact: Christine Feurt Ph D
Wells Reserve 207-646-1555 x111
cfeurt@wellsnerr.org (BEST way to contact!)