**Final Report Narrative**

**Title page**

1. Project title

**Resilience Dialogues: Strategies for Conflict Management in Collaborative Science**

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1. Name of reserves involved in the project

All 29 Reserves were involved in this Project through the Needs Assessment process; trainings, webinars and presentations at Annual Meetings 2017, 2018, 2019.

1. Project period: October 2017- August 2020

**Abstract**

Resilience dialogues are conversations that occur among people with diverse perspectives who have agreed to work together to increase community and ecological resilience. Planning and facilitating resilience dialogues requires boundary spanning skills and practices in collaboration, stakeholder engagement, and conflict management. To help support and facilitate these conversations in coastal communities, the Resilience Dialogues project of the National Estuarine Research Reserve System (NERRS) looked across a decade of collaborative science projects to distill key lessons learned and best practices used to build resilience.

Collaborative science engages scientists from diverse disciplines, practitioners active in real world management situations, and stakeholders with commitments to places, businesses and communities. As these diverse stakeholders work together on challenging projects, shared goals for resilience can be obscured by conflict. For over a decade, the NERRS has wrestled with approaches to collaborative science, casting a wide net over coastal management issues in every bioregion of the country. While considerable effort has focused on the definition, design and implementation of collaborative science projects, conflict and conflict resolution strategies that arise during a collaborative science project have received less scrutiny. This Transfer Project tapped the knowledge and experiences generated during collaborative science projects within the NERRS to develop a curriculum, case studies, resources and training that synthesized lessons learned and best practices about collaboration, stakeholder engagement and conflict management associated with the practice of collaborative science.

The NERRS model for solutions-based collaborative science engages interdisciplinary research teams with environmental managers and communities (NERRS Science Collaborative, 2020). Collaboration begins during the proposal writing stage and continues throughout the research project. The interaction among researchers, managers and stakeholders is mediated by a required “collaborative lead” whose boundary spanning role (Bednarek et al., 2018) is to facilitate integration and adaptation of the research process to maintain alignment with targeted solutions. This innovative model is challenging and contrasts with end-of-project models for translating results to unsuspecting managers. While all members of a collaborative science project team are responsible for integrating principles of collaborative science into their work, the Coastal Training Program (CTP) Coordinators at each Reserve frequently fill the role of the collaborative lead. Transferring the knowledge of experienced Coordinators to those who have not served as collaborative leads is a primary goal of this project.

Findings from a training needs assessment characterized types and sources of conflict and identified four best practices for managing conflict in collaborative science projects. The four best practices were incorporated into the curriculum and trainings. Case studies and resources showcased examples of the ways best practices were embedded within complex long-term collaborative science projects. These successful collaborative techniques engaged the diverse expertise of stakeholders, revealed conflicting mental and cultural models, developed a shared language around commonly held values and facilitated solutions-based science that respected local knowledge, and the concerns of vulnerable communities. As a result of this transfer project, these practices for managing conflict are easily accessible for collaborative teams working to build ecological and community resilience.

**Narrative**

The practice of collaborative science has evolved in the National Estuarine Research Reserve System (NERRS) through two iterations of the NERRS Science Collaborative (NSC) managed by the University of New Hampshire and the University of Michigan. The 2017 NSC focus areas broadly included impacts of climate change, use of ecosystem valuation, shoreline stabilization, mitigation of contamination and habitat restoration. These focus areas align generally with those of the previous NSC as well as with priorities identified in the NERRS Strategic Plan (NOAA, 2017). These focus areas aim to foster the resilience of estuaries and coastal watersheds and the communities that depend upon them.

Since 2009, the NSC Requests for Proposals (RFPs) have created and refined a road map for the practice of collaborative science and the effective engagement of science end users in all aspects of research (NERRS Science Collaborative, 2020). The Collaborative Learning Approach (Daniels and Walker, 2001) is one method that has been used to foster stakeholder engagement and support the “co-creation of knowledge” goals of collaborative science. Conflict management is a core principle and practice of Collaborative Learning, addressing three types of conflict that can affect the progress made in a collaborative science project. Conflict can arise over the process used in the collaboration, the relationships among members of a collaboration and the substance or content that the collaboration is focusing on. Collaborative Learning stresses conflict management addressing all three elements in order to make progress on a situation.

This project combined the Collaborative Learning approach and training needs assessment methods (Watkins et al., 2012) to engage the project team and the CTP community. The principles and practices of Collaborative Learning come from a synthesis of three broad theoretical foundations: systems thinking, conflict resolution and adult learning. The design of this transfer project, engagement with team/end users and outreach to the larger NERRS community followed methods and best practices associated with Collaborative Learning. (See *References used for project approach* in References Section of this report).

NERRS professionals and their colleagues have confronted and managed conflict situations during the course of collaborative science projects. These teams have creatively honed the emerging practice of collaborative science on a variety of research topics, using interdisciplinary methods and working with a broad range of coastal management stakeholders. The lessons learned have been essential to the effectiveness of the individual projects and have value to the system as a whole. The Resilience Dialogues Transfer Project synthesized lessons learned about managing conflict in collaborative science to create a curriculum, resources and training to share this knowledge and best practices. The outputs of this project are designed for all sectors within the NERRS, their “state partner agencies” and their external partners engaged in collaborative science in coastal regions. The outcomes of this project will increase awareness and knowledge about 1) the kinds of conflict that arise during the course of a collaborative science project, 2) the causes and consequences of conflict that arises during a collaborative science project, and 3)the times or phases of a collaborative science project when conflict is more likely. This project is designed to increase the capacity for applying conflict management strategies in NERRS collaborative science projects as a result of best practices shared through curriculum, resources and peer to peer training.

The Resilience Dialogues products transfers lessons learned about conflict related to the practice of collaborative science in each of the NERRS Science Collaborative focus areas. Examples of conflicts that the reserves included on the team for this project have experienced in each of the focus areas are summarized in the table below.

|  |  |
| --- | --- |
| Focus Areas from  2017 NERRS Science Collaborative RFP | Example Conflicts  Identified During Needs Assessment |
| Biophysical and socio-demographic impacts of climate change on estuarine systems, including, but not limited to, sea level rise, marsh sustainability, and estimating community risk to climate change | Restrictions on use of terminology or concepts fundamental to the science of climate change. Public acceptance of climate science. Scientific disagreement and uncertainty regarding causes/impacts/approaches |
| How to utilize ecosystem valuation to characterize the benefits and tradeoffs of preserving estuarine ecosystems | Disciplinary conflicts over the gap that emerges from the results of valuation studies and the application of those results to a decision-making context. Distrust of any attempt to put a dollar value on nature. |
| The impacts and tradeoffs of shoreline stabilization, and which factors communities need to consider when adopting such measures | Property rights and property owner responsibilities. Negative public response to shoreline stabilization techniques. Will retreat ever be a viable option? |
| How to mitigate the impacts of land use change and estuarine eutrophication and contamination in estuarine ecosystems | Property rights and property owner responsibilities. Conflicting policy impact assessments. Conflicting judgements on sources of contamination. |
| How to restore estuarine habitat once it has been degraded or lost | Prioritizing restoration projects. Should areas that will be inundated be ineligible? |

The needs assessment for the project began during the proposal writing phase in 2017. The project team identified the types of conflict exemplified in the table above, and shared experiences of conflict management and the need to learn from each other about best practices. Following the award of the grant, experienced CTP Coordinators were interviewed to assess types and sources of conflict in collaborative science projects. Less experienced CTP Coordinators were interviewed to assess their needs for skills and training to assume the role of Collaborative Lead.

During the pilot training at the Wells NERR in October 2018, the peer to peer learning approach of Collaborative Learning provided opportunities for participants to discuss preliminary findings from the needs assessment and relate them to their work experiences with conflict management in collaborative science projects. Participants drew from their experiences to evaluate and add to the framework for understanding and managing conflict developed from the needs assessment. A role play activity developed by Drs. Stephen Yaffee and Julia Wondolleck of the University of Michigan introduced participants to the practice of interest-based negotiation using an example scenario about Arcadia Bay, patterned after the NERRS. Through this activity participants learned principles of integrative and distributive bargaining, and the processes that enable negotiators to achieve mutual gains in natural resources management. Participants evaluated both challenges and benefits to applying an interest- based negotiation framework in their work with collaboration and collaborative science.

A second training and short workshop were presented at the November 2018 NERRS Annual Meeting. Evaluations from the October training provided valuable input for adapting the pilot training for a broader audience at the annual meeting. The short workshop engaged representatives from all sectors of the Reserve system in a 1.5-hour orientation to the Resilience Dialogues project, presenting preliminary findings for conflict management and soliciting additional information for the needs assessment to expand the training to address the needs of the system. Interest in Crucial Conversations, a communication training developed by Vital Smarts, emerged from this meeting and a four-part web based “Conflict Club” book group was organized for spring 2019. As a result of this web-based book discussion, the P.I. on the project became a certified trainer for the course in 2019. Team member Jen West, CTP Coordinator for the Narragansett Bay NERR was trained in 2020 and formal web-based Crucial Conversations training began in summer 2020. These trainings were very well received and will continue to be offered within the NERRS and to our coastal management partners.

The final training for the project was hosted by Grand Bay and Weeks Bay Reserves in October of 2019. Twenty-four participants from the Gulf Coast coastal management community and eleven Coastal Training Program Coordinators participated in the final training. This mix of participants was exactly the target audience for the project. The four case studies, exemplifying the four best practices for conflict management in collaborative science were part of this training. Participants practiced skills for Collaborative Learning and assessment of mental and cultural models.

The final Resilience Dialogues materials were shared during the 2019 NERRS Annual meeting, and a project web page containing all products is maintained by the Wells NERR at <https://www.wellsreserve.org/project/the-resilience-dialogues> and by the NERRS Science Collaborative at <http://www.nerrssciencecollaborative.org/project/Feurt18>

**Outputs**

1. **NERRS Resilience Dialogues Best Practices for** **a Boundary Spanning Scientific Method for Collaborative Science**

The Resilience Dialogues project identified four best practices for a *boundary spanning scientific method* for stakeholder engagement, collaboration and conflict management in collaborative science. These practices evolved among a number of NERRS Science Collaborative projects over the past decade and are extracted here in four case studies and a training curriculum. At their core, these practices depend upon and enhance the shared motivation of the stakeholders involved in collaborative science to take actions that build ecological and community resilience.

The four best practices presented in the curriculum, training and resources emerged from the Needs Assessment process; during trainings and workshops, and from discussions among team members on the project. The impact of collaborative science depends upon the application of successful boundary spanning practices like those synthesized in this project. These practices characterize and integrate the social and ecological systems within which the research is conducted and are as methodologically rigorous as the more familiar *scientific method*. The Collaborative Learning approach is a well-documented *scientific method* for stakeholder engagement (Daniels and Walker, 2001). The four best practices that emerged from this project address the process, relationship and substance aspects of conflict that occurs during collaborative science projects. Applying these practices, stakeholders can build shared meaning and motivation and plan for the types of conflict experienced in collaborative science projects in the NERRS.

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

Case Study Wells NERR Maine: Protecting Our Children’s Water & Chesapeake Bay Maryland NERR: Deal Island Peninsula Project.

1. Assess the social-ecological system where the project is embedded.Conduct a stakeholder assessment beginning during the proposal writing phase and continuing throughout the project to monitor progress and manage conflict.

Case Study Great Bay NERR, New Hampshire: Buffers on the Bay

1. Develop a common language among interdisciplinary teams that includes local and indigenous knowledge.

Case Study Hudson River NERR New York: Sustainable Shorelines

1. Reveal and use knowledge of mental and cultural models to develop shared meaning, spark innovation, manage conflict and track progress.

Case Study Wells NERR, Maine: Protecting Our Children’s Water & Chesapeake Bay Maryland NERR: Deal Island Peninsula Project

1. **Resilience Dialogues Training Curriculum including workbook, handouts, agendas, power points and conflict management activities**

The primary audience for outputs is Coastal Training Program Coordinators (CTPCs) and other coastal management professionals who are engaged or plan to be engaged in collaborative science projects as the collaborative lead or as a team member. This project synthesized lessons learned and best practices from a cohort of CTPCs with experience filling this boundary spanning role in projects during the first decade of NERRS Science Collaborative projects from 2009-2019. Any coastal management researcher, planner, policy maker, resource manager or educator playing a boundary spanning role in a resilience dialogue as defined by this project can adapt and apply these outputs to their situation. All outputs are available in the Final Products Inventory that follows in this report and on the Wells NERR website at <https://www.wellsreserve.org/project/the-resilience-dialogues> and the NERRS Science Collaborative webpage at <http://www.nerrssciencecollaborative.org/project/Feurt18>.

1. **Continued delivery of Resilience Dialogues training and technical assistance through the Wells NERR Coastal Training Program**

Trainings developed for this project are available on demand and can be delivered as separate modules virtually and in person. On-going technical assistance with Resilience Dialogues outputs is available by contacting the Project Lead at the Wells NERR.

1. **Summary of needs assessment findings about conflict in collaborative science**

One output of the Needs Assessment process, is a more nuanced understanding of the nature of conflict that arises during collaborative science projects from the perspective of the collaborative lead, especially when the collaborative lead is the CTP Coordinator. This output, summarized below, guided the development of all of the project outputs.

The needs assessment process for this project included interviews with CTP Coordinators experienced with collaborative science and with less experienced Coordinators desiring to improve their competency. Additional input was captured during trainings designed as peer to peer exchanges. Training activities and final evaluations captured examples of best practices and challenges from all participants. Notes from the pilot training at Wells NERR in October 2018 enriched the initial understanding of conflict management in collaborative science projects gained from interviews and contributed to the final training and resources.

Conflict arises during all phases of a collaborative science project. Examples identified during the needs assessment included the proposal writing phase, implementation of the project, during stakeholder engagement, and in the final stages of the project when dissemination to end users is critical. Three kinds of conflict occur: within team conflict; conflict related to stakeholders/end users, and project management conflict. Examples of *Within Team Conflict* include: language barriers and differences in perspective; perceptions of the importance of sustained two-way communication from end users to researchers were viewed as less important by researchers than by the collaborative lead; and instances where team members failed to meet project management expectations, deliverables, timeliness. *End User/Stakeholder Conflict* examples include: conflict between goals and motivations of academic researchers and collaborative lead concerns for end user or stakeholder readiness, involvement and expectations; over-promising what can be realistically achieved; and concern for Reserve’s reputation when a project does not meet objectives and end users are disappointed. Finally the *Project Management Conflict* was characterized as: the traditional Role of “P.I” is not the same as Collaborative Project Management; conflict arising from the nature and scope of the collaborative lead role on a project including budgeting, knowledge, commitment; and mismatch in timing between a university research calendar and the realities of time commitment required for stakeholder engagement.

These findings were used as part of the design for Resilience Dialogues curriculum, trainings, resources and case studies to sensitize members of collaborative science teams to the kinds of conflicts they might encounter and to share the strategies used by experienced CTP coordinators to identify and manage the sources of these conflicts. The four best practices developed for the training specifically address the types of conflict identified in the Needs Assessment.

1. Sharing with the NERRS is described in the Final Product Inventory including numbers for each output. Representatives from all 29 Reserves participated in some aspect of the project.

Number of individuals engaged

(Note: all people engaged in the project were members of our identified end user group.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project team** | **Users engaged** | **Attendees of project workshops or other presentations** | **Volunteers** | **K-12 Students** | **Teachers** |
| 21 | 417 | (417) | 0 | 0 | 0 |

1. Leveraging

This transfer project was inspired by events encountered during the Wells NERR involvement in the formation of the Saco Watershed Collaborative. Wells NERR, in partnership with a diverse group of watershed stakeholders, experienced conflict about the formation and governance structure of the Collaborative. This conflict was unlike anything experienced in over 15 years of work in southern Maine watersheds in its intensity and potential to derail a project to which many stakeholders were committed. Events on the Saco fostered a desire to learn more about the nature of conflict in collaborative processes and ways to management conflict to achieve results. The Resilience Dialogues project was one effort to accomplish this goal.

A second successful effort addressed this same goal specifically focused on the Saco Watershed Collaborative. A team of University of Michigan graduate students in the School for Environment and Sustainability, working under the guidance of Dr. Julia Wondolleck chose to focus attention on the role and potential for collaboration in the Saco Watershed. Their two-year effort leveraged an additional $10,000 of work related to understanding conflict and collaboration in a coastal watershed and provided an additional resource for the project. The abstract for their project is excerpted below.

**Possibilities for Collaboration in the Saco River Watershed: An Assessment**

Alice Elliott • Sophia K. Paul • J. Garrett Powers • Kaitlyn Pritchard

University of Michigan School for Environment and Sustainability

Prepared for the Wells National Estuarine Research Reserve

and residents of the Saco River watershed

March 2018

The Saco River watershed, spanning two states and more than 23 municipalities, is home to a complex political and social fabric. A range of governments, economies, and activities exist in different sections of the watershed. To explore the possibilities for creating a Saco River watershed collaborative, this nonpartisan, independent assessment of current values, aspirations, and issues in the watershed and perceptions of collaboration was conducted. It is intended to inform and advise anyone living and/or working in the Saco River watershed who aspires to greater collaboration. It is also intended to provide insights to the existing Saco Watershed Collaborative that has taken shape over the same time period as this project. The research team utilized three methods in this assessment: a literature review of elements of successful collaboration in natural resource management, semi-structured interviews with 52 individuals representing 30 organizations in the watershed, and case profiles of nine existing watershed collaboratives in New England and elsewhere that face analogous issues or arose in similar contexts.

Full report available from: <https://www.wellsreserve.org/writable/files/Possibilities-for-Collaboration-in-the-Saco-River-Watershed-An-Assessment-by-the-University-of-Michigan.pdf>

**Outcomes**

**Project Outcomes excerpted from Proposal (2017) and status (2020)**

1. Increased awareness and knowledge across NERRS sectors, based upon NERRS examples of the following:

* Kinds of conflict that arise during the course of a collaborative science project
* Causes and consequences of conflict that arises during a collaborative science project
* Times or phases of a collaborative science project when conflict is more likely
* Best practices for managing conflict in collaborative science

Status: See **Summary of needs assessment findings about conflict in collaborative science**, above. Transfer projects are not designed to conduct research. The needs assessment process collected information needed to develop training and resources to address a need for skill building and transfer of lessons learned and best practices. The findings about conflict in collaborative science were shared with all NERRS sectors during trainings and in session at Annual Meetings in 2018 and 2019 as well as through professional conferences throughout the project reaching over 400 end users within and outside of the NERRS.

2. Recognition among NERRS researchers engaged in collaborative science that the role of process/legitimacy and relationships/trust in conflict management is as important as the substance/science.

Status: Transfer was focused on the CTP community and others who assume the boundary spanning role in collaborative science projects. To a degree, this audience already realizes that the role of process/legitimacy and relationships/trust in conflict management is as important as the substance/science. While NERRS researchers may agree that process and relationship aspects of a project are important, acknowledging that they are *as important* as the substance/science may not be as widely accepted. This is an outcome that warrants continued research and discussion as the work of the NERRS and Science Collaborative continue, perhaps during the strategic planning process for the NERRS.

3. Documentation (through the outputs) that the evolving NERRS model of collaborative science is demonstrating innovation and leadership with outcomes for coastal resilience. Identifying the challenges that remain.

Status: This was achieved in a variety of ways as documented in the Final Product Inventory. The themes of innovation and leadership were incorporated into trainings and presentations to coastal researchers, managers and educators both within and outside of the NERRS. Participants in the project provided input into the challenges that remain, most notably sharing the project results beyond the term of the grant. The Wells Reserve is committed to continuing to offer Resilience Dialogues outputs to the end users of this project.

4. Increased capacity for applying conflict management strategies in NERRS collaborative science projects as a result of best practices shared through curriculum, resources and peer to peer training, with special emphasis given to CTP Coordinators as neutral facilitators of collaborative science.

Status: One indicator of this outcome is the CTP Evaluation questions used for each of the trainings identified in the Final Product Inventory. The qualitative portions of these evaluations were used as part of the needs assessment and formative evaluation to adapt the trainings to our increasing knowledge about our end user audience and to improve each training. Analyzing these evaluations using a research lens was beyond the scope of this transfer project. There may be additional value in mining these evaluations with specific research questions in mind.

5. An enhanced NSC model for collaborative science using the lens of conflict management.

Status: For the past three years the focus has been on documenting and synthesizing the knowledge within the NERRS CTP community about managing conflict in collaborative science and transferring that to CTP Coordinators and our coastal management colleagues working as boundary spanners. Determining how the results of this transfer project enhance the NERRS Science Collaborative model for collaborative science is a logic next step. A proposal for the 2020 Annual meeting has been submitted and the Project Lead is participating in the Strategic Planning process for the NERRS. An abstract will be submitted to the 2021 CERF conference to continue dialogue with the larger research community. There is also the possibility for interactions with the current Margaret Davidson Fellows cohort during the next two years. The project lead and other team members would welcome the opportunity to work with the NERRS Science Collaborative leadership and Advisory Committee to explore the contributions of this project to the evolving NSC model for collaborative science.

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**2b) Final Product Inventory**

**Project title: Resilience Dialogues: Strategies for Conflict Management in Collaborative Science**

**Project lead: Christine Feurt Ph. D**

**Reserve(s): All 29 Reserves were engaged in this project**

**Date of report: August 2020**

**Directions:**

The purpose of this inventory is to inform Science Collaborative efforts to catalog and promote access and use of project products. Please use the table below to list all completed or pending products associated with your project. Each row should provide an overview of a product, including its type, status, current or future location, and citation information. Details about audience(s) should be provided in the report narrative. Please add additional rows as necessary.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Product name** | **Type** | **Status** | **Location for access (URL; otherwise, indicate M-Box folder)** | **Appropriate citation (title, authors, date)** |
| Resilience Dialogues: Conflict and Negotiation in Collaborative Science | Training | October 15, 2018  Wells NERR  20 Participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| What is a Resilience Dialogue? Building CTP Skills to Manage Conflict | Training | November 8, 2018  NERRS Annual Mtg.  Lake Superior NERR  27 Participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| Resilience Dialogues:  Managing Conflict and Negotiating for Successful Outcomes in Collaborative Science | Training | November 9, 2018  NERRS Annual Mtg.  Lake Superior NERR  Superior, WI  28 participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| *Resilience Dialogues*  Advanced Skills for Planning and Facilitating Collaborative Meetings | Training | October 10, 2019  Grand Bay NERR  Mississippi  35 participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| Resilience Dialogues Webinar Series for the Crucial Conversations “Conflict Club” for CTP | Training | Virtual Training  April 5, May 3, and June 7, 2019  3 – 4:30 pm  17 Participants |  |  |
| Hands-on Methods for Using Mental Models in Training | Training | November, 2019  NERRS Annual Mtg.  Charleston, SC  CTP Sector  27 Participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| Resilience Dialogues:  Building skills for designing and facilitating collaborative processes | Training | February 3, 2020  Social Coast Forum  Charleston, SC  30 Participants | <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| Resilience Dialogues:  Strategies for Conflict Management in Collaborative Science | Webinar | Collaborative Science for Estuaries Webinar  Feb 28 2020  94 participants | <https://www.wellsreserve.org/writable/files/Resilience-Dialogues-webinar-brief-FINAL.pdf> |  |
| Crucial Conversations for Resilience Dialogues | Training | Virtual Training  July 23,24,27-29 2020  17 Participants |  |  |
| Crucial Conversations for Resilience Dialogues | Training | Virtual Training  August 3-7, 2020  17 Participants |  |  |
| Resilience Dialogues Collaborative Learning Resources | Workbook for training. Includes all resources for Resilience Dialogues: stakeholder assessment, conflict assessment, mental & cultural models, activity sheets and references | Complete | <https://www.wellsreserve.org/writable/files/Resilience-Dialogues-Collaborative-Learning-Training-Workbook-FINAL-202006121.pdf>  All materials are on Wells NERR website:  <https://www.wellsreserve.org/project/the-resilience-dialogues> | Feurt, C. 2020. Resilience Dialogues Collaborative Learning Resources. Wells National Estuarine Research Reserve. Wells, Maine. |
| Resilience Dialogues Worksheet for Assessing the Collaborative Potential of a Situation | Assessment of Collaborative Potential Worksheet | Complete | <https://www.wellsreserve.org/project/the-resilience-dialogues>  Includes editable copy that can be adapted to any project |  |
| Resilience Dialogues Tools and Resources for Implementation of a Collaborative Process | Step by step Process worksheets for conducting a collaborative process | Complete | <https://www.wellsreserve.org/project/the-resilience-dialogues>  Includes editable copy that can be adapted to any project |  |
| Resilience Dialogues Situation Map Activity: Revealing Mental and Cultural Models to Find and Describe Common Ground | Activity for training to reveal mental and cultural models | Complete | <https://www.wellsreserve.org/project/the-resilience-dialogues>  Includes editable copy that can be adapted to any project |  |
| Resilience Dialogues Conflict Assessment Worksheet | Conflict Assessment Worksheet | Complete | <https://www.wellsreserve.org/project/the-resilience-dialogues>  Includes editable copy that can be adapted to any project |  |
| Resilience Dialogues Stakeholder Assessment Worksheet: Finding the Right People for your Process | Stakeholder Assessment Worksheet | Complete | <https://www.wellsreserve.org/project/the-resilience-dialogues>  Includes editable copy that can be adapted to any project |  |
| Common Language for the Hudson River Sustainable Shoreline Project by Emilie Hauser,  CTP Coordinator Hudson River NERR New York | Case Study | Complete  Presentation at Grand Bay NERR Resilience Dialogues Training  October 10, 2019 | Video of Emilie Hauser’s presentation  <https://www.wellsreserve.org/writable/files/Resilience-Dialogs-Presentations_Emilie2_0.mp4>  Project website for Sustainable Shorelines Project  <https://www.hrnerr.org/hudson-river-sustainable-shorelines>  Terminology document developed by Emilie Hauser to facilitate trans-disciplinary conversations during the project  <https://www.hrnerr.org/wp-content/uploads/sites/9/2018/08/shorelineterminology.pdf> | Hauser, E. (2012) Terminology for the Hudson River Sustainable Shorelines Project. In association with and published by the Hudson River Sustainable Shorelines Project, Staatsburg, NY 12580, http://hrnerr.org |
| Buffer Options for the Bay Project by Steve Miller, CTP Coordinator Great Bay NERR New Hampshire | Case Study | Complete  Presentation at Grand Bay NERR Resilience Dialogues Training  October 10, 2019 | Video of Steve Miller’s presentation  <https://www.wellsreserve.org/writable/files/Resilience-Dialogs-Presentations_Steve2_0.mp4>  Buffer Options for the Bay Project Website  <https://www.bufferoptionsnh.org/>  Community Assessment  available from <https://www.bufferoptionsnh.org/wp-content/uploads/2017/12/BOB_Community_Assessment_12.21_use-me.docx.pdf> | Community Assessment:  Graichen, L., S. Miller, J. Houle, M. Holt-Shannon, C. Riley and C. Tsiamis, 2018. Buffer Options for the Bay: Exploring the Trends, Science and Options for Buffer Management in the Great Bay Watershed. Great Bay NERR, New Hampshire. 97 pages. |
| Using Collaborative Learning for Enhanced Climate Change Resilience through the  Deal Island Peninsula Project by  Elizabeth Van Dolah, PhD  University of Maryland Dept. of Anthropology/ Chesapeake Bay NERR-MD  Deal Island Peninsula Partnership Coordinator | Case Study | Complete  Presentation at Grand Bay NERR Resilience Dialogues Training  October 10, 2019 | Summary of peer reviewed literature, dissertations and book chapters about this project:  <https://www.dealislandpeninsulapartners.org/articles-book-chapters>  The Deal Island Peninsula Partnership Website  <https://www.dealislandpeninsulapartners.org/>  [Using Collaborative Learning to Engage Rural Communities in Climate Change Adaptation Planning: Lessons from the Deal Island Peninsula Partnership](https://131e3fed-b610-0dce-d1f6-5ed577b033a0.filesusr.com/ugd/7ab413_0d966b849dc94987b1c54eb600093886.pdf" \t "_blank)  Elizabeth Van Dolah, DIPP Coordinator (November 2019)  <https://131e3fed-b610-0dce-d1f6-5ed577b033a0.filesusr.com/ugd/7ab413_0d966b849dc94987b1c54eb600093886.pdf>  This guide summarizes DIPP's approach to Collaborative Learning and provides tips for how to implement similar collaborative approaches in other projects.  Copy of Dr. Elizabeth Van Dolah’s power point presentation from the Grand Bay NERR training  <https://www.wellsreserve.org/project/the-resilience-dialogues> |  |
| “Protecting Our Children’s Water” Using Collaborative Learning and Cultural Models to Frame and Implement Ecosystem Management By Chris Feurt | Case Study | Complete  Presentation at Grand Bay NERR Resilience Dialogues Training  October 10, 2019 | Feurt, C. 2008. Collaborative Learning Guide for Ecosystem Management. Wells NERR. 20 pages available from  <https://www.wellsreserve.org/writable/files/Collaborative-Learning-Guide-for-Ecosystem-Management-by-Dr.-Christine-Feurt.pdf> |  |
| The Saco Watershed Collaborative: Working to Sustain the Saco | Conference Presentation | Canadian Assoc. of Geographers Conf.  Session: Participation, Discourse and Politics within the Watershed Approach. Developing Stakeholders’ Agreement and Partnerships  May 2019  20 participants |  |  |
| Interdisciplinary lessons from a decade of solutions-based science in the NERRS. | Conference Presentation | CERF Conference  Mobile, AL  November 11, 2019  40 participants |  |  |
| How Resilience Dialogues Contributed to a New Paradigm for Collaborative Research in the NERRS | Conference Presentation | Social Coast  Charleston, SC  February 5, 2020  45 participants |  | Hauser, E. (2012) Terminology for the Hudson River Sustainable Shorelines Project. In association with and published by the Hudson River Sustainable Shorelines Project, Staatsburg, NY 12580, http://hrnerr.org |
| Revealing Cultural and Mental Models to Improve  Stakeholder Engagement in Resilience Dialogues | Scheduled training | Pending  Virtual Training  Rookery Bay NERR  September 24, 2020 |  |  |
| Crucial Conversations | Scheduled training | Pending  Virtual Training October 5-9 |  |  |
| Resilience Dialogues Toolkit | Scheduled Presentation | Pending  Gulf of Mexico Virtual Tools Café  November 17, 2020 |  |  |
| Resilience Dialogues, Revealing a NERRS Secret Super Power | Abstract submitted | Proposal to NERRS Annual Meeting Cross Sector Sharing |  |  |
| Arcadia Case Study by Drs Julia Wondolleck and Stephen Yaffee | Developed for Resilience Dialogues Training at Wells NERR in 2018 and Lake Superior NERR in 2018 | Materials may be available through University of Michigan in another format |  |  |