

Update Report

Period: 2/1/2012 - 1/31/2013

SNOVER, Amy

Project: R/COCC/SS-3 - *Successful Adaptation: Identifying Effective Process and Outcome Characteristics and Practice-Relevant Metrics*

:: STUDENTS SUPPORTED

No Students Reported This Period

:: CONFERENCES / PRESENTATIONS

Event: Successful Adaptation California Practitioners' Workshop sponsored by this project
 Presenters: Project Team (Snover, Moser, Gosnell, Whitely Binder, Abeles, Adams)
 Location: Palo Alto, California, SG-sponsored, 20 attendees, 2013-01-28
 Event: Successful Adaptation Scientists' Workshop sponsored by this project
 Presenters: Project Team (Snover, Moser, Gosnell, Whitely Binder, Abeles, Adams)
 Location: Palo Alto, California, SG-sponsored, 18 attendees, 2012-10-12

:: ADDITIONAL METRICS

K-12 Students Reached:	Acres of degraded ecosystems restored as a result of Sea Grant activities:
Curricula Developed:	Resource Managers who use Ecosystem-Based Approaches to Management:
Volunteer Hours:	HACCP - Number of people with new certifications:
Cumulative Clean Marina Program - certifications:	

:: PATENTS AND ECONOMIC BENEFITS

Description	Patents	Economic Benefit (\$)	Businesses Created	Businesses Retained	Jobs Created	Jobs Retained
None	Actual 0	0	0	0	0	0
(2/1/2012 - 1/31/2013) :						
	Anticipated 0	0	0	0	0	0
(2/1/2013 - 1/31/2014) :						

:: TOOLS, TECH, AND INFORMATION SERVICES

Description	Developed	Used	Names of Managers	Number of Managers
Publications, video/podcasts, presentation	Actual 1	0	Washington,	4

templates to communicate climate change adaptation planning for professional and lay audiences. R/COCC/SS-3	(2/1/2012 - 1/31/2013) : Anticipated 1 (2/1/2013 - 1/31/2014) :	1	Oregon & California Sea Grant Skagit Climate Science Consortium members Skagit Climate Science Consortium members
A set of guiding principles on how to assess traits, desirability, and potential trade-offs of climate adaptation options. R/COCC/SS-3	Actual 0 (2/1/2012 - 1/31/2013) : Anticipated 1 (2/1/2013 - 1/31/2014) :	0 1	Washington Department of Ecology Swinomish Tribal planners Washington Department of Fish and Wildlife Washington Department of Natural Resources

:: HAZARD RESILIENCE IN COASTAL COMMUNITIES

Name of coastal community	County	Number of resiliency trainings / technical assistance services provided	Was community hazard resiliency improved (e.g., via changes in zoning ordinances) ?
The California practitioner workshop brought together federal, tribal, regional, and local practitioners from a variety of coastal communities in the state to discuss how to define and work towards successful adaptation to climate change. Similar workshops are planned for WA & OR.		Actual 1 (2/1/2012 - 1/31/2013) :	No
		Anticipated 2 (2/1/2013 - 1/31/2014) :	No

:: ADDITIONAL MEASURES

<u>Safe and sustainable seafood</u>	
Number of stakeholders modifying practices	Number of fishers using new techniques
Actual (2/1/2012 - 1/31/2013) :	Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :	Anticipated (2/1/2013 - 1/31/2014) :
<u>Sustainable Coastal Development</u>	<u>Coastal Ecosystems</u>

Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

:: PARTNERS

Partner Name: California Sea Grant
Partner Name: Center for Ocean Solutions, type: academic, scale: international
Partner Name: Institute for Sustainable Communities, type: NGO, scale: international
Partner Name: Oregon Sea Grant
Partner Name: Oregon State University (OSU)
Partner Name: Stanford University, type: academic, scale: international

:: IMPACTS AND ACCOMPLISHMENTS

Title: A Washington Sea Grant-funded project brings leading West Coast climate researchers and practitioners together to define successful adaptation to climate change

Type: accomplishment

Description:

Relevance: Climate change will have widespread environmental, economic and social impacts, forcing coastal communities to face difficult choices and trade-offs in the decades ahead. To prepare for a changing climate, resource managers and planners have increasingly asked, "What are the goals of adaptation? What would successful adaptation to climate change look like? How do we know if we're making progress?"

Response: The four West Coast Sea Grant programs are supporting a joint effort to engage scientists and coastal practitioners in answering those questions. The project will develop a deeper understanding of what successful adaptation to climate change would mean in the various physical, ecological, socioeconomic, institutional and cultural contexts that characterize coastal communities. It will also define ways communities can measure their progress toward successful adaptation, both in the near term and as the climate continues to change.

Results: Researchers have synthesized current thinking on successful adaptation in the published literature and are leading workshops with scientists and state coastal practitioners engaged in adaptation. The workshops are examining successful adaptation principles, outcomes and processes, both in theory and in practice, and have initiated a conversation that will continue through the rest of the project.

Recap:

West Coast Sea Grant-funded researchers are engaging leading scientists and practitioners in the development of guidelines and metrics for measuring successful adaptation to climate change.

Comments:

Primary Focus Area: COCC (SCD)

Secondary Focus Area: COCC (HRCC)

Associated Goals: Improve capacity to manage ocean and coastal ecosystems and resources for societal benefit under changing climatic and demographic conditions (SCD, Efficiency).

Improve understanding of coastal hazards and environmental change and develop tools and approaches for observation, prediction, planning and adaptation (HRCC, Capacity).

Related Partners: California Sea Grant

Center for Ocean Solutions (COS)

Institute for Sustainable Communities

Oregon Sea Grant

Oregon State University

Stanford University

University of Washington, Climate Impacts Group, JISAO, College of the Environment (UW)

:: PUBLICATIONS

Title: **None (peer-reviewed journal article in prep)**

Type: Handbooks, Manuals, Guides/Aids Publication Year: 2013

Uploaded File: *none*

URL: *none*

Abstract:

none

Citation:

none

Copyright Restrictions + Other Notes:

Journal Title: *none*

:: OTHER DOCUMENTS

No Documents Reported This Period

:: LEVERAGED FUNDS

Type: influenced Period: 2012-07-01::2013-01-31 Amount: \$3500

Purpose:

Support for scientist and practitioner workshops, including travel support for participants and invited speakers.

Source: Gordon and Betty Moore Foundation

Project title: *Successful Adaptation in Coastal Environments*

Reporting period: 02/01/2012 - 1/31/2013

Project team:

Co-PIs: Dr. Amy Snover (University of Washington), Dr. Susanne Moser (Stanford University) and Dr. Hannah Gosnell (Oregon State University)

Project Staff: Lara Whitely Binder (University of Washington), Adina Abeles (Stanford University, Center for Ocean Solutions), Steve Adams (Institute for Sustainable Communities)

Project Synopsis: The project is focused on coastal adaptation along the US West Coast, aiming to understand key dimensions, develop guidelines and explore the use of metrics to measure effectiveness from both scientific and practitioner perspectives. Our successful adaptation project aims to examine what characterizes “successful” adaptation to climate change – in terms of both process and outcomes – in the West Coast coastal context. We are addressing this issue by engaging scientists and coastal practitioners in an iterative, collaborative exploration of adaptation outcomes, processes and mechanisms, and the metrics with which to measure success in coastal communities in California, Oregon and Washington. Methods of engagement and inquiry include focused workshops with scientists, practitioners and, ultimately, scientists *and* practitioners, practitioner interviews, and literature reviews.

Project Activities and Milestones:

As described below, Year 1 project milestones have all been met, largely due to preparatory work completed prior to CA Sea Grant funding, and no delays are expected in the near-term.

Tri-state project team:

During the performance period, the project team met via phone at least monthly and in-person three times: for a project launch planning meeting (Portland, March 2012) and for project meetings in conjunction with each of the project workshops (Stanford, October 2012 and January 2013).

Successful adaptation literature review:

The first stage of research involved the identification of existing (and missing) dimensions and criteria for successful adaptation to climate change via a review of the relevant scientific and gray literature. Specifically, we have developed a comprehensive literature review of scientific publications since ca. 1995 to early 2013 using Web of Science and Google Scholar search engines for basic search terms such as “adaptation evaluation”, “adaptation success”, “adaptation effectiveness”, “maladaptation”, “adaptation outcomes” (and their derivatives). Syntheses such as prepared by the Intergovernmental Panel on Climate Change and seminal works laying the foundation for much of current adaptation thinking were also included. A complementary search focused on “grey” literature from nongovernmental and development assistance organizations,

and government agencies in the US, Europe, and Australia, using the same terms as well as the common phrase “M&E” (Monitoring and Evaluation). Various syntheses prepared by such organizations also lead to relevant additional documents in a “snowball sampling” manner.

These reviews resulted in a white paper (“Successful Adaptation in Coastal Environments: Project Rationale, Key Issues and Preliminary Literature Review”) that is being used as a briefing paper for the workshops and is currently being reworked by the authors (Moser and Snover) for publication in a peer-reviewed journal (we have an expression of interest from the editor of *Global Environmental Change*). The review shows that researchers and practitioners alike focus on different dimensions of the adaptation process in assessing the “goodness” of what is being done: elements of the adaptation (planning) process, aspects of how a decision or choice was made as to which adaptation option to pursue, and near- and longer-term outcomes of adaptation activities (ranging from the delivery of an adaptation action to longer-term goals).

Scientist workshop:

The first workshop brought together about 20 scientists from a diverse range of fields (including policy sciences, economics, geoenvironment and coastal hazards, conservation) to a conference facility near Stanford on October 15-16, 2012. Participants received (and read!) the white paper in advance and enthusiastically engaged in a day of diverse and highly interactive activities designed to identify desirable outcomes (at different times and different scale) and mechanisms of successful adaptation, including visioning exercises, sequential paired discussions on identifying trade-offs, and a world café-style discussion of mechanisms. Short videos of individual participants commenting on their perceptions of adaptation success were taken that will be used in developing outreach materials for disseminating the output of the project. *See participant list and agenda appended to this report.*

California practitioner workshop and interviews:

Based on feedback received, post-workshop reflections and overarching project goals, three practitioner workshops (one in each state) and pre-workshop interviews with practitioners were planned. The California practitioner workshop, held near Stanford on January 28-29, 2013, brought together about 20 high level practitioners from federal, tribal, state, regional and local government with an objective of grounding abstract conceptualizations of adaptation success in a rich and detailed discussion of effective adaptation processes, pathways and outcomes in specific adaptation contexts. The workshop provided a means for participants to learn from each other about ongoing adaptation efforts across the state. Through a mixture of activities – including presentations, large- and small-group discussions, world café rotations – participants examined what has worked in adaptation in California to-date and what can be learned from these and other examples, including key elements of success (in terms of both process and outcomes), horizontal transferability, and need for vertical integration across scales of governance. The workshop was preceded by short phone interviews with each participant to learn about existing adaptation efforts, successes and challenges, as well as participant’s existing conceptualization of adaptation success, in order to successfully

frame the workshop to meet participants' interests, needs, and experience. Short videos of individual participants commenting on their perceptions of adaptation success were taken that will be used in developing outreach materials for disseminating the output of the project. *See participant list and agenda appended to this report.*

Washington and Oregon practitioner workshops and interviews:

We are currently planning the Washington and Oregon practitioner workshops, using the same model we piloted in California. Each will similarly aim to entrain a diverse cross-section of the leaders in coastal adaptation in each state, with representation across levels of governance and across the geography of the state. Each will be preceded by practitioner interviews. The Washington workshop will be held March 20 at UW. The Oregon workshop is tentatively planned for March 21-22 in Newport, OR.

Capstone workshop with scientists and practitioners:

We are beginning to plan for the capstone workshop that will bring together a selected subset of scientists and practitioners from the first four workshops, along with some key individuals who were unable to attend an earlier workshop, to build bridges between what may be relatively abstract or generic desirable principles and outcomes developed in the science workshop and the more practice-oriented measures of success required or desirable for decision-making developed in the three practitioner workshops. This workshop is tentatively scheduled for July 23 at Stanford.

Successful adaptation at the Inaugural National Adaptation Forum

Snover and Moser will be leading a symposium entitled "Successful Adaptation in the Coastal Context" at the Inaugural National Adaptation Forum, a "convening of adaptation practitioners and experts from around the country focused on moving from adaptation planning to adaptation action" that will be held in Denver, April 4-7, 2013. Preliminary project findings will be presented, including a more robust framing of the question of adaptation success than is commonly found in the literature and empirical findings of how scientists and practitioners in three West coast states define adaptation success. *See www.nationaladaptationforum.org/.*

Successful Adaptation in the Coastal Sector: Scientist Workshop

October 15-16, 2012

Quadrus Center, Menlo Park, CA

<http://www.quadrusconference.com/>

Workshop goals:

- Together, identify desirable outcomes and mechanisms of successful adaptation
- Together, identify key inputs for guidelines, principles, indicators, dimensions, and criteria for successful adaptation

Workshop Agenda – at a glance

Monday, October 15

6PM-9PM Evening Reception, Quadrus Center*
Welcoming remarks at 6:30PM
Dinner at 7PM
Speaker: Will Travis, Senior Advisor, Bay Area Joint Policy Committee

Tuesday, October 16

8:00 – 8:30AM Morning check-in, Quadrus Center**

8:30-10:15AM Morning Session #1: Imagining the Future

10:15 - 10:30AM Break

10:30 – 12:00PM Morning Session #2: Imagining the Future with Climate Change

12:00 – 1:00PM Lunch

1:00 – 3:15PM Afternoon Sessions:
#1: Assessing Tradeoffs
#2: Identifying Mechanisms for Enabling Success

3:15 – 3:45PM Break

3:45 – 5:15PM Discussion: Developing a Working Definition of Success

5:15PM Adjourn

* Quadrus Center is a 10-15 minute walk (0.4 miles) from the Stanford Guest House. There will also be a shuttle available to bring people from the Stanford Guest House to the Quadrus Center at 6:00PM on October 15 and at 8:00AM on October 16.

** The Stanford Guest House includes a daily continental breakfast. For those not staying at the Guest House, we will provide coffee and a light breakfast at the Quadrus Center.

Participants for Scientist workshop				
Name	Title	Affiliation	Location	Expertise
Heather McGray	Adaptation Lead, Climate and Energy Program	WRI	DC	Handbook on evaluating adaptation in development context
Ian Burton	Scientist Emeritus, Adaptation and Impacts Research Group (AIRG), Meteorological Service of Canada; Adjunct Professor, Institute for Environmental Studies, University of Toronto	Toronto	Canada	grandfather in hazards, adaptation, work internationally and in Canada on local adaptation
Jeremy Lowe	Sea Level Rise Program Manager/ Coastal Geomorphologist	ESA PWA (Environmental Hydrology, San Francisco)	CA	coastal geomorphology, process modeling, coastal engineering, governance, does some economics in context of projects, not an economist by training
Joel Smith	Principal	Stratus Consulting	CO	adaptation, various sectors, co-wrote handbook on evaluating adaptation in Climate Strategies Workbook
Kathy Jacobs	Assistant Director for Climate Assessment, White House Office of Science and Technology Policy; Director, National Climate Assessment	USGCRP	DC/NM	water management, cc impacts and adaptation broadly, science-practice interaction, knowledge systems
Ken Shockley	Associate Professor of Philosophy	SUNY-Buffalo	NY	ethics of adaptation, philosopher
Kris Ebi	Executive Director of the Technical Support Unit for Working Group II (Impacts, Adaptation, and Vulnerability) of the Intergovernmental Panel on Climate Change (IPCC)	Stanford	CA	human health, impacts more broadly
Lara Hansen	Executive Director and Chief Scientist	EcoAdapt	WA/CA/DC	climate-smart adaptation, ecosystems, adaptation
Meg Caldwell	Executive Director	Center for Ocean Solutions, Stanford	CA	law, property rights, coastal/marine management
Peter Ruggiero	Associate Professor in the College of Earth, Ocean, and Atmospheric Sciences	Oregon State University	OR	coastal geology
Philip King	Associate Professor in Economics	San Francisco State University	CA	economics, beach valuation, applied work with CA coastal commission
Rebecca Shaw	Associate Vice President	Environmental Defense Fund	CA	ecosystem services, conservation, adaptation
Robert Lempert	Senior Scientist; Director of the Frederick S. Pardee Center for Longer Range Global Policy and the Future Human Condition	RAND Corporation	CA	robust decision making, decision analysis, economics, adaptation, works with water utilities, ports
Ron Brunner	Professor Emeritus	UC Boulder (emeritus)	CO	policy sciences, theory, adaptation case studies
Terry Root	Senior Fellow/Research Faculty	Woods Institute for the Environment, Stanford	CA	species impacts of cc, adaptation, "trriage"

Successful Adaptation in the Coastal Sector: California Practitioners Workshop

January 28-29, 2013
 Quadrus Center, Menlo Park, CA
<http://www.quadrusconference.com/>

Overall Workshop Objective

To ground abstract conceptualizations of adaptation success in a rich and detailed discussion of effective adaptation processes, pathways and outcomes in specific adaptation contexts

Specific Desirable Outcomes

- Participants learn from each other about ongoing adaptation efforts across the state
- Participants have an opportunity to network and exchange views
- Participants and the project team explore the meaning, dimensions, and measures of success by:
 - grounding the discussions in real world examples, opportunities and challenges
 - using a variety of interactive activities to surface points of views and experiences
 - engaging in a nuanced discussion about desired outcomes, processes, opportunities and ways to overcome barriers to adaptation that recognizes the importance of context, scale, points of view/normative judgment, and reasons for defining success
 - understanding the degree to which existing performance measures/expectations and indicators help or hinder successful adaptation
 - understanding what, if anything, is unique about defining and measuring adaptation success

Agenda

MONDAY, JANUARY 28 (Reception)

6:00-9:00 pm	<p>Evening Reception Quadrus Center</p> <p>Reception, dinner and presentation by Mark Hertsgaard, independent journalist</p>
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TUESDAY, JANUARY 29 (Workshop)

8:00-8:30 am	<p>Morning check-in and light continental breakfast (available) Quadrus Center</p>
8:30 – 9:00	<p>Welcome, project overview, purpose, intros, and roadmap for the day</p>
9:00-10:00	<p>Grounding, stage setting and discussion</p>

10:00-10:15	<i>Coffee break</i>
10:15-11:35	Fish bowling three California adaptation examples
11:35-12:30	Group discussion of adaptation cases: what works?
12:30-1:30	<i>Lunch</i>
1:30-2:45	Digging deeper: in-depth exploration of selected process issues
2:45-3:00	<i>Coffee Break</i>
3:00-4:00	Adaptation outcomes: near-, medium- and long-term success
4:00-4:55	Is adaptation really different? – writing, concluding discussion and workshop evaluation
4:55-5:00	<i>Workshop Close</i>

**Successful Adaptation in Coastal California Workshop
January 28-29, 2013**

**List of Confirmed Participants
(in alphabetical order)**

Chan, Ann	Deputy Secretary for Energy and Climate, California Natural Resources Agency Ann.Chan@resources.ca.gov
Clark, Ross	Chief Planner, City of Santa Cruz rclark@cityofsantacruz.com
Curry, Tina	Deputy Secretary for Emergency Preparedness, CalEMA christina.curry@calema.ca.gov
Goldbeck, Steve	Chief Deputy Director, Bay Conservation & Development Commission steveg@bcdc.ca.gov
Goodfriend, Wendy	Senior Planner, Bay Conservation & Development Commission, ART Project wendyg@bcdc.ca.gov
Goodrich, Kristen	Coastal Training Program Coordinator, Tijuana Nat. Estuarine Research Reserve kgoodrich@trnerr.org
Grifman, Phyllis	Director, Sea Grant, University of Southern California grifman@usc.edu
Hansch, Susan	Chief Deputy Director, California Coastal Commission shansch@coastal.ca.gov
Hooven, Cody	Senior Env. Specialist, Env. and Land Use Management, Port of San Diego chooven@portofsandiego.org
Jines, Beth	Director of Sustainability, City of Los Angeles beth.jines@ladwp.com
Liebster, Jack	Principal Planner, Marin County jliebster@co.marin.ca.us
Lunde, Becky	Regional Division Chief, NOAA Coastal Services Center rebecca.lunde@noaa.gov
McCormick, Michael	Senior Planner, Office of Planning and Research Michael.McCormick@OPR.CA.GOV
Meis, Kate	Associate Director, Local Government Commission kmeis@lgc.org
Newton, Alyssa	Planner, Sea Grant, University of Southern California agnewton@usc.edu
Pairis, Amber	Climate Change Advisor, California Department for Fish and Game APAIRIS@dfg.ca.gov
Reed, Brendan	Environmental Resource Manager, City of Chula Vista breed@ci.chula-vista.ca.us
Riordan, Bruce	Consultant, Joint Policy Committee bruce@elmwoodconsulting.com
Rosales, Hawk	Executive Director, InterTribal Sinkyone Wilderness Council director@sinkyone.org
Schaefer, Kathleen	Engineer/Program Specialist, Hazard Mitigation Branch, FEMA, Region 9 kathleen.schaefer@dhs.gov

(cont.)

Small, Mary Deputy Director, California Coastal Conservancy
msmall@scc.ca.gov

Stevenson, Atta President, California Indian Water Commission, member of the Cahto Tribe of Laytonville
wtalker101@yahoo.com

Young, Emily Senior Director, Environmental Analysis & Strategy, San Diego Foundation
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Project Team

California

Moser, Susi Director, Susanne Moser Research & Consulting, Stanford Univ./Woods Institute
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Abeles, Adina Director for Education and Training, Center for Ocean Solutions, Stanford
abeles@stanford.edu

Washington

Snover, Amy Research Scientist, Co-Director, Climate Impacts Group and Center for Science in the Earth System, University of Washington
aksnover@u.washington.edu

Lara Whitley-Binder Public Information Specialist, Climate Impacts Group, University of Washington
lwb123@uw.edu

Oregon

Gosnell, Hannah Associate Professor, Geosciences Department, Oregon State University
gosnellh@geo.oregonstate.edu (unable to attend)

Steve Adams Sen. Program Advisor for Climate Adaptation, Inst. for Sustainable Communities
sadams@iscvt.org

(Updated list will be provided at workshop if there are any further changes.)