

# Coastal Resilience Workshop Report

A summary of the workshop *Exploring Coastal Community Resilience in Oregon* hosted by Oregon Sea Grant on December 11, 2014, in Corvallis, Oregon

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ORES-U-14-002

The concept of resilience continues to present itself in both academic and professional settings as a way to address myriad, complex, social and ecological issues. Coastal areas are of particular interest to those studying and working in the realm of resilience. Oregon Sea Grant recognizes the growing interest and work being done in this area, and seeks to identify ways in which it can best focus its work to support coastal resilience efforts in the State of Oregon.

Oregon Sea Grant (OSG) is invested in resilience and adaptation research and thinking in nearly all aspects of its program, and it is committed to strengthening interactions among these elements, with an aim toward successful and integrated resilience programming. Over the past decade, OSG has funded research projects and supported staff participation in work that brings together scientists and other state, regional, and national partners who are exploring resilience topics. Additionally, OSG has supported and conducted substantial research and public outreach around resilience in the face of climate change and other coastal hazards. Indeed, resilience thinking encompasses both scientific and social realms, and successful understanding is likely best achieved when insights from research and community implementation can align.

As part of this effort, OSG decided to hold a workshop to bring together the array of constituents from around the state interested in coastal resilience issues. Earthquakes and tsunamis, sea-level rise, ocean acidification, population changes, and economic fluctuations are just a few issues Oregon coastal communities face. This project sought to answer some questions important for determining the direction of our organizational efforts moving forward, given these risks. What current coastal resilience efforts exist? What can we do to support existing coastal resilience work? And, should we pursue a more formal or informal organizational structure to support such efforts? To address these questions, OSG conducted a daylong workshop with academics/researchers and practitioners/decision-makers. The goals of the workshop were as follows.

### Coastal Resilience Workshop goals

**Goal 1:** Identify the most important coastal-resilience interests among academics/coastal practitioners.

**Goal 2:** Identify needs among parties in terms of how to investigate/research and make decisions about coastal-resilience issues; identify barriers or issues in addressing coastal resilience.

**Goal 3:** Get researchers and coastal practitioners to think more broadly about the coastal-resilience issues we face in Oregon; identify areas of complexity and overlap.

**Goal 4:** Get academics and coastal practitioners communicating with one another, to foster collaboration among parties who may not have interacted with one another otherwise, but have an interest in doing so.

**Goal 5:** Identify incentives or motivations to collaborate and engage in broader research or decision-making projects on coastal resilience.

**Goal 6:** Identify a role for Oregon Sea Grant going forward, whatever it may be.

## Prior to the event

### *Generating the possible list of participants*

In Oregon, resilience projects are being done and research conducted; however, it can be difficult to identify those involved and/or the specific goal of the project. To better understand what is happening in our state, OSG reviewed NSF-funded proposals through Oregon State University, Portland State University, and the University of Oregon. This investigation yielded a list of names, which were then added to an Excel file of possible workshop participants.

OSG has ongoing relationships with state agencies, and we used these connections to gather names of state and local decision makers interested in coastal community resilience work. Contacts at the Department of Land Conservation and Development (DLCD), as well as the Department of Geology and Mineral Industries (DOGAMI), helped us identify other interested and relevant parties.

Previous work by OSG also supported the generation of our list. A number of contacts were identified by way of their previous participation or interaction with OSG. We asked the people we did identify to refer us to others who may be interested, and several referrals were also made.

Although we tried to identify everyone who would be relevant to our inquiry (coastal decision-makers, opinion leaders, and researchers/academics), we were unable to create an exhaustive list. The list we have generated is a living document. Other individuals and groups will be added as we identify those with interest in the area of coastal community resilience.

### *Convening the advisory committee*

Early on in the project, we recognized that our coastal-community-resilience knowledge base could be expanded by including others from Oregon State University who were tied into the resilience communities around the state and who were also affiliated, in some capacity, with OSG. We decided to develop a steering committee to help us expand the list of possible participants as well as provide guidance and advice on how best to conduct our inquiry and fulfill our needs. Sally Duncan, John Stevenson, Court Smith, and Flaxen Conway joined Dave Hansen, Joe Cone, Sarah Kolesar, and myself on this committee.

The advisory committee contributed by

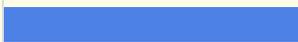
- developing workshop goals
- reviewing, adding to, and honing the list of invitees
- providing guidance on how the workshop should be structured
- providing insight on the nature of coastal community resilience issues in Oregon



social and economic pressures; maintaining critical infrastructure and food/energy supply chains during and after disaster; education about what to do in a disaster; the economics of fisheries; local land-use planning; ecosystem health; human behavior related to adapting and coping with change; collaborative planning; integrating social and ecological issues with each other; coordination of community resilience at a larger landscape scale; local planning and decision-making, and loss of cultural heritage.

3. We asked respondents to indicate their interest in building relationships with others doing coastal resilience work and with whom they would like to build such relationships.

Answer		Response	%
Not interested		0	0%
Somewhat interested		10	31%
Very interested		22	69%
Total		32	100%

Answer		Response	%
Municipal officials		26	81%
Biophysical scientists		15	47%
Social scientists		25	78%
State agency officials		25	78%
Non-profit organizations		22	69%
Communication, outreach, and engagement specialists		21	66%
Local land owners		13	41%
Local business owners		16	50%
Private industries		17	53%
Other		5	16%

*“Other” responses included: Federal scientists and managers; ocean users; local government and community development staff; and local communities.*

4. Participants were asked to report what coastal resilience needs exist here in Oregon. Needs include: Universal definition and understanding of resilience; more relationships between the coast and valley; education and training; implementation of the state resilience plan; economic improvement and diversity; development and coordination of coastal food supply-chain management and energy generation during acute events; better ocean and fisheries data in the context of ocean acidification and climate change;

community leadership/political will; improvements to local community capacity; coordinated attention to both chronic and acute hazards; financial and other resources to address climatic changes; tsunami preparedness; move from knowledge to action; vulnerability assessments; and coordinated effort to identify threats and ways to address them.

5. Participants were asked what they could contribute to coastal community resilience planning here in Oregon. Participants feel they can contribute: Different perspectives and unique viewpoints; support for interaction and collaboration; knowledge related to planning and decision-making to improve social and economic resilience; connections between scientists and decision makers; new and unique ideas/ways to “think outside the box”; research and recommendations based on findings; scientific and technical expertise; access to large, professional networks; connection to local communities; and successful approaches to implementing goals and objectives.

6. Participants were asked what barriers they face. The barriers they mentioned include the following: Funding; lack of a common/shared understanding of resilience in general and needs related to resilience; lack of local community capacity; regulatory and policy barriers; need to manage coastwide issues rather than managing at more-local levels; lack of a coordinated network of colleagues interested in resilience issues; lack of time; acute hazards (e.g., earthquakes) taking precedence over chronic hazards (e.g., climate change); lack of local community and decision-makers interest and participation; insufficient



understanding of implications of climate change as well as what to do about it; lack of awareness of governance potential and limitations; parties being “territorial” over information and resources rather than being cooperative or collaborative; lack of coordination and collaboration between agencies and academics

and local communities; lack of outreach and engagement; lack of a systems-based understanding of land-sea interactions; and lack of knowledge and understanding of mutually beneficial management options.

### **Discussion**

Going in to the event, we recognized that we were convening a diverse group of people and that a variety of perceptions and opinions would be represented. The diverse array of responses we received in the initial questionnaire solidified the fact that there are a number of issues of interest and barriers of concern to our coastal communities. Primarily, participants would like to have more interaction with municipal officials (81%), social

scientists (78%) and state agency officials (78%), although they would also like more interaction with non-profits (69%) and outreach and engagement specialists (66%). We invited participants from all these areas to begin fostering desired interaction and dialogue, and we structured the agenda to allow for the array of issues to be openly expressed and discussed by participants.

We noted respondents' interests in connecting more with end users. There seems to be a disconnect between academics—and the science they produce—and decision-makers, who would like to make informed decisions based on scientific and technical information. Given this finding, we attempted to reach out to a broader selection of end-user groups such as local land-use planners and emergency managers; however, we were unable to enlist the participation of these groups. We hope to engage with them and meaningfully involve them in future work of this kind.

There is a lot this group can contribute to conducting resilience-based work here in Oregon, although many lack the means to contribute their resources. Additionally, participants see a need for further education and interaction around resilience issues. There are many barriers to overcome in pursuing resilience work along our coasts, but many of the barriers cited can be overcome through the application of existing tools and the cultivation of new resources.



### During the event

We reviewed initial responses to the questions above in planning the workshop. Given these findings, we made a few decisions about how the day would be structured and organized. We noted the vast array of resilience definitions presented by respondents and made a decision to note the differences, identify a broad definition, and avoid an in-depth discussion of the definition. The focus of the event was to identify issues and ways to address resilience issues, rather than come to a unanimous definition of what resilience means. We wanted participants to hear from one another about what issues are important to them, as well as vocalize the different ways to address such issues. We also wanted to give participants ample opportunity to get to know one another and begin to build relationships.

Of the 35 registration questionnaire respondents, 32 participated in the event: 9 OSG staff; 12 academics, from Oregon State University (7), University of Oregon (3), and Portland State University (2); and 11 practitioners, from state agencies (5), tribal and county governments (3), and non-profit and private organizations (3).

The workshop agenda was divided into three parts (Appendix E). The event was then structured around first identifying the coastal resilience issues of interest and identifying the challenges associated with the interests. Second, the afternoon focused on identifying ways to address the issues listed in the morning session. Lastly, the day ended with a discussion about where we go from here. Responses were recorded by note takers throughout the day. Part one findings are presented here as a list of issues and barriers, followed by a synthesis. Part two findings detail ways to address key issues and contain a synthesis of these findings. Part three discusses next steps and moving forward.

## **Part one findings: Issues and challenges**

*The four main Issues (each with various sub-bullets) are:*

### **Communication, interaction, and information sharing**

- Need for interdisciplinary and transdisciplinary approach
- Cross-scale coordination among jurisdictions
- Difficulty of integrating scientists and decision makers

### **Local communities, capacity, and decision-making**

- Local capacity to address resilience planning
- Vulnerability to various disruptions associated with climate change (e.g., transportation)
- Understanding of community values—what do we want to avoid losing; what are the priorities that they (the community) want to be resilient
- Lots of ideas, and lack of funding to implement them
- Path dependence—the patterns of development and the impact of past decisions on our options for resilience activity
- Permanent loss of cultural resources
- Quality-of-life and expectations of quality-of-life in coastal communities
- Disparities in the opportunities and capabilities of communities to respond to change
- Prioritizing what to address is overwhelming
- Limitations on government to influence decisions on private property/individuals
- Ability to discern scientific information as valid or invalid as it applies to making decisions

### **Risk and uncertainty**

- Perceptions of risk
- Ability to predict risk given uncertainty

### **The concept of resilience and complex systems**

- Problems associated with dealing with an inherently abstract issue/difficulty to plan around that abstraction
- Sense that the problems are too big to actually address

- When people talk about climate change, they think about sea level and storms but not fire, because it hasn't happened in the past 100 years
- Lack of fit between structure of governance and resilience as an integrated framework
- Ability within human planning to incorporate natural resilience issues/ecosystems
- Perception that humans are separate from natural ecosystem
- Difficulty of integrating social and ecological (biophysical) sciences
- Perception of humans being integrated with ecosystem and perception that we can actually manage the ecosystem
- Set of problems that are complex and structure that isn't robust to deal with complexity
- Scale—spatial and temporal

***The four general challenges/barriers (each with several sub-bullets) are:***

### **Communication and education**

- Focus on biophysical sciences and we aren't talking to each other
- Looking at technology to always fix things—communication in particular
- Lack of acknowledging the knowledge, skill, and talents of those affected
- Distances and differences between people addressing resilience academically or professionally vs. those who address it because it impacts them directly
- Communication is a real issue, and what kinds of information are perceived as valuable by researchers, decision-makers and residents
- We need to communicate and work together with all groups that are interested and affected
- Engagement rather than a directional sense of knowledge transference from us to them
- Lack of attention by legislative decision-makers after years of effort on planning and research
- Boiling recommendations down to the point where people can absorb them

### **The concept of resilience**

- Challenge of measuring resilience in a diverse set of communities
- Resilience is not a significantly high priority across levels, legislature, state government, and citizens
- Resilience as a word causes difficulty and resistance due to lack of understanding
- The issues of resilience are viewed as externalities until we frame them in terms of economics
- Tendency to view “resilience” as another thing to do, rather than as a different way to do what we are already doing
- Lack of comfort with uncertainty; expect science to teach us what to do, and that is unrealistic

### Capacity and resources

- Changing environment of funding, NSF, USGS, federal government seems to be tapped out, so shifting to private industry and non-profits, which we aren't as skilled at accessing
- Oregon is a different place, and it's hard to compete with places like California
- Community capacity is lacking when young people leave and don't come back (due to economic conditions)
- One constraint is private property rights, which limits implementation
- Generational and economic differences in the makeup of our communities

### Short-term vs. long-term hazards—temporal and spatial scale

- Level of crisis awareness and human nature of looking at short-term vs. long-term
- Need to be resilient to both chronic hazards and acute/catastrophic hazards
- Challenge of science/policy nexus; those who are in the world look at local or state, and are less focused on county level

### *Part one synthesis*

Participants want to see more action and coordination around coastal community resilience. Social (including economic) and ecological issues are of concern, and a lack of interaction seems to exist between these two realms of interest. Also apparent in this thread is a lack of interaction among those working in the realm of long-term, chronic coastal issues (climate change and ocean acidification); those working on short-term, acute hazard issues (e.g., earthquakes and tsunami); and those more concerned with social well-being (e.g., economic sustainability).

Participants feel there is a lack of knowledge and understanding of risk and how to communicate and address risk, primarily at the local scale, and especially given the notion of uncertainty. Without knowledge and understanding of risk, it is difficult to prioritize actions and make informed decisions.

Participants identified the importance of addressing coastal community resilience at different spatial scales. Local community issues are notably different from statewide issues. Each scale—local, county, regional, state—has a different system. A holistic, more systems-based view of resilience can incorporate multiple scales. The resilience of each component, or layer, in the system can be uniquely considered, in context.



Participants acknowledge that a wealth of knowledge and interest exists but that the combined power of this knowledge is lacking, due to a void in coordination of efforts and insufficient communication. Participants would like a more integrated, engagement-based approach to working in the realm of coastal resilience, one that values local knowledge and fosters interest and learning around the issues of interest to communities. This requires user-driven data

collection and improved communication of scientific and technical findings. Participants would like to see more interaction, cooperation, and collaboration between the array of scientists, professionals, decision-makers, local citizens, etc.

Participants, not surprisingly, indicate a lack of resources dedicated to addressing issues related to coastal community “resilience.” The lack of resources affects the capacity of a community to be resilient. Though the concept of resilience has become more popular in its usage over the past few years, there has been a lack of resources and funding to carry out the work needed to become more “resilient.” There is clearly a need for action in addition to planning, but without resources it is difficult to implement projects and make decisions.

Additionally, the concept of resilience, for some, is too abstract and intangible. Rather than focus on resilience as a concept, some feel that a narrower focus on specific issues related to resilience is necessary. If not this, then a more concrete definition of resilience may be necessary to engage local communities and get people involved in becoming more resilient.

### **Part two findings: What to do about the issues**

Participants were asked to identify which three issues are of most importance to them. The issues that garnered the most votes then became the issues discussed in part two of the workshop. Individuals were separated into groups and asked to discuss what to do about the issue they chose. Five groups reported the following issues, followed by potential solutions:

#### **Group 1—Ways to convey values of planning and adaption to all people**

- Acknowledge that we don’t know everything about what communities should do to move forward
- Acknowledge that some communities don’t want to do anything, and focus on communities that do
- Identify group decision-makers/thought leaders
- Meet communities where they are
- Effective communication is integral to any work with resilience. It needs to be part of the process, not just as end result
- Engage in co-learning

#### **Group 2—How to move from science to policy**

- Identify key issues
- Understand decision-making context, who makes decisions
- Identify issues/barriers to making decisions
- Connect scientists with people on the ground (e.g., local decision-makers)
- Provide examples of success (e.g., Peter Ruggiero’s work on the north coast)
- Customize information for policy- and decision-makers
- Identify priority issues and synthesize information
- Foster co-learning about impacts
- Start with less-controversial topics and move toward more-controversial ones

**Group 3**—How to sound-bite complex issues

- Develop one set of criteria for communicating (based on the audience)
- Try to avoid major controversy
- Better understand what constituents care about
- Limit to a single page
- Consider values and beliefs (e.g., political views)
- Timing is critical
- Recognize time limits and be concise
- Talk about solutions, not just problems

**Group 4**—How to address and facilitate change?

- Identify the needs that exist
- Create effective messages
- Determine whether the community has the capacity to change
- Determine the costs and benefits
- Identify local advocates for issues
- Be knowledgeable of, and try to work with, governmental policies
- Build a charismatic core group to implement the change
- Analyze capacity
- Determine whether the community views the risk as salient; determine local perception
- Be concrete and avoid abstraction
- Need to institutionalize a process and build a coalition (broad-based community coalition)

**Group 5**—Issue of local capacity and funding

- Local capacity is down and doesn't seem to be coming back
- Need to find alternative ways to build capacity
- Work with the community and K-12 students and/or teachers
- Put on workshops to develop leadership and champions to spearhead the work
- Work with federal, local, and state government to get seed funding to bring the business community on board and ask them to serve as champions
- Focus on the problems at a regional scale—there are more resources at the regional scale.
- Share positive experiences and strategies with other communities
- Build a community of information resources at all levels
- Create a coalition that spans the Pacific Northwest

**Group 6**—Common understanding of what we're working toward

- Don't overthink it
- Use principles of redundancy and diversity
- Work with everyone individually about goals rather than problems
- Develop a census of goals and find areas of convergence
- Find a common language; this becomes important to articulate the common vision

- Need to be more specific than “resilience” and have achievable goals that people can understand
- Find ways to work within the “issue du jour”
- Find common principles that can be applied differently to different locations and issues

### ***Part two synthesis***

This section helps us better understand what is needed to help Oregon’s coastal communities become more resilient. Findings from this section can inform our organizational path moving forward. OSG may be able to address some or all of these needs through a structured, more institutionalized approach to its resilience work. Participants identify a need for improved collaboration and interaction, effective communication, specialized data sources, and a more regional network. These needs align with OSG’s organizational resources and its goals. Fulfilling these needs likely will improve community capacity for becoming more resilient.

### **Part three findings: Moving forward**

Building on the previous two sections, this piece specifically focuses on what resilience researchers and practitioners can and should do moving forward, and it specifically asks what OSG can do to help:

- Set up a system for finding out what is going on around the state and country
- Help us (practitioners and decision-makers) be more effective at connecting with researchers
- We need someone to compile all of the information and be the “go to”
- Develop a mental model of resilience
- Figure out a way to fit work into larger resilience frame
- Improved communication
- More collaboration. Work together on complimentary issues
- Show up and listen, and ask, “How can we help?”
- Take a more statewide approach
- Communication and engagement from the start
- Educate audiences about resilience as a solution
- More focus on economic development
- Relentless engagement—keep bringing up issues of concern
- Set up an exchange-of-information portal, so people can find out who is doing what and where
- Help information flow in all directions
- Help support interaction between scientists and people on the ground

\* The day’s schedule was also built in a way that allowed participants ample time to interact and network. Throughout the day, we witnessed the exchange of business cards and contact information as well as discussions of future interactions among participants. It is clear that participants would like support for continued interaction and that there is a value to having time dedicated to informal interaction.

### ***Part three synthesis***

In the end, OSG can fulfill identified resilience needs in four areas: Communication, Collaboration, Education, and Engagement. Also, OSG should focus on addressing environmental- and social-sector needs simultaneously and foster work that addresses both sectors and their intersections. As a boundary organization, OSG has the unique capacity to broker information between scientists and end users. We are skilled in communicating and engaging with, as well as educating, state and local decision-makers and scientists doing research that may be of interest, or in some cases, have an effect on those communities.

There are a number of ways we can use our resources to help build the resilience of our coastal communities. By developing a collaborative network of providers and users of scientific and technical information, we can support the need for interaction between these groups. OSG is currently working to develop a community of practice around coastal

resilience issues in Oregon. We can build this effort further by drawing in the array of interested parties through events that foster collaboration and through the use of Internet technology that allows parties to easily identify and interact with those interested in similar coastal resilience issues. We can use our educational resource (i.e., Hatfield Marine Science Center) as a location for learning about the complexity of the issues coastal communities face, and to teach people about how a resilience approach helps communities address those issues in a practical way. We can ask groups we work with who are already involved in coastal resilience planning, especially that related to climate-adaptation planning, to share their experience with others along the coast. This can be done by publishing reports, producing videos, and using other social-media technology. Lastly, OSG houses a skilled group of communicators with the capacity to facilitate dialogue and foster collaboration through regular meetings with diverse groups interested in coastal resilience issues.



### **After the event**

Following the event, we distributed a list of names and contact information for all participants. Participants were also asked to complete a brief questionnaire (Appendix E) about the event. Sixteen participants opted to complete the questions. Their responses are described below.

***What did you get out of the day?***

Responses to this question were twofold: “meaningful interaction” and “substantive information.”

**Meaningful interaction:**

- I found hearing the perspectives of participants very interesting and useful. I learned a lot from the general and small group sessions.
- Meeting partners and potential contacts for collaboration as well as sitting down to talk about a universal issue from multiple stakeholder viewpoints was most beneficial.
- Listening to and hearing from others about their perceptions of this important topic to the Oregon Coast.
- I learned that there are lots of great/smart people working on this issue.
- Great to see a diversity of researchers from a variety of disciplines at the same table as practitioners.
- Lots of good folks working on similar issues with marginal collaboration/coordination. Amount of resilience research is potentially overwhelming to locals, particularly when the threads are not being connected. Even so, there is a tremendous amount of research need and interesting topics to work on. Hard to know how best to balance that.
- The interaction with professionals with similar interests and agendas.
- The most beneficial aspect was in networking with practitioners.
- As is typical with an event like this, some of the most useful things I learned came from side conversations at breaks and at the closing reception.
- Connections with other individuals working on resilience issues.
- Networking and importance of issue to a wide range of people.

**Substantive information:**

- Key priorities and challenges to focus coastal resilience planning efforts.
- That the general topic of “resilience” is such a broad abstraction that it is very easy to talk past each other when discussing community resilience. While “resilience” may be a useful frame for thinking about a community, the idea needs to be deconstructed and laid out in concrete terms—“mapped”—to clearly show what's involved in planning for resilience. What I took away was the intent to do just that.
- No one big takeaway that I didn't already know—heard from a lot of people in a lot of ways how critical education is and how hard it is to educate people about resilience issues, but especially about long-term climate change issues.
- I did come away with more hope that we can pull together a synergistic effort at public education with better coordination among numerous entities, and some ideas about how to do this. Lots of specific ideas that I will be pulling from my notes over time.
- The considerable interest in the topic and engagement of participants was most striking

**Synthesis**

Participants learned from one another about what is going on in realms of resilience research and practice. Participants appreciated getting to know one another and “networking” beyond people they already know. Participants were exposed to a broad range of issues and challenges, ultimately giving participants insight into the various perspectives that exist. The concept of resilience is based on taking a broad, systems-based approach to addressing coastal community issues. Some participants expressed a concern about the overwhelming number of issues that fall under the umbrella of “resilience,” while others feel that resilience can be used to develop collaboration and interaction around a range of issues.

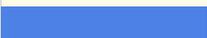
When asked if they would like to participate in events like this in the future, all respondents indicated that they would or may be interested, with the majority (88%) indicating a “yes” response. Events like this one would support addressing the needs expressed by participants.

#	Answer	Response	%
1	Yes	14	88%
2	Maybe	2	13%
3	No	0	0%
	Total	16	100%

When asked what types of actions\* they would like to see going forward, participants indicated a preference for “developing a community of practice” (81%) and a “coastal community resilience information/resource hub” (63%). There is also some interest in creating “knowledge-to-action networks” (50%) holding “workshop series” (44%), and “periodic forums/meetings” (44%), as well as developing a “regional planning network” (44%). There is little interest in “community engagement training workshops” (25%).

(\*Note: “Actions” were generated based on notes recorded during the event.)

#	Answer	Response	%
1	Workshop series—regular meetings of this group and other interested participants	7	44%
2	Community of practice—a community of academics/researchers, practitioners/decision-makers, and others interested in working together and learning from one another	13	81%

3	Community engagement training workshops—discover and learn ways to engage and involve the community more in coastal resilience issues		4	25%
4	Periodic forums—regular meetings featuring guest speakers who are experts on coastal resilience topics		7	44%
5	Coastal resilience information/resource hub—a place where information about coastal resilience work is housed		10	63%
6	Knowledge to action networks—a community of academics/researchers, practitioners/decision makers, and others working collaboratively for the purpose of improved decision making.		8	50%
7	Regional planning network—a team of people focused on working at a larger scale in an effort to access and share resources (statewide or between OR, WA, and BC)		7	44%
8	Other		1	6%

### Conclusion

The workshop helped answer Oregon Sea Grant’s questions about what current coastal resilience efforts exist, what we can do to support existing coastal resilience work, and whether we should pursue a more formal or less formal organizational structure to support such efforts. Additionally, all our goals were achieved, at least in part, through the planning, implementation, and follow-up review of the workshop.

**Goal 1:** Identify the most important coastal-resilience interests among academics/coastal practitioners

- We were able to identify the key issues of importance to those involved in the workshop. Other interests and issues may arise as we hear from others who were unable to participate in the event.

**Goal 2:** Identify needs among parties in terms of how to investigate/research and make decisions about coastal resilience issues; identify barriers or issues in addressing coastal resilience.

- Through the pre-event registration questionnaire, we were able to create a list of needs and barriers to conducting resilience work along the coast. Knowing this can help us support people in achieving their needs and overcome these barriers.

**Goal 3:** Get researchers and coastal practitioners to think more broadly about the coastal resilience issues we face in Oregon; identify areas of complexity and overlap.

- Participants who responded to the post-workshop survey indicated that one thing they got out of the day was a broader understanding of what others are doing.

**Goal 4:** Get academics and coastal practitioners communicating with one another; foster collaboration among parties who may not have interacted with one another otherwise, but have an interest in doing so.

- Participants who responded to the post-workshop survey indicated that another benefit of the workshop was the opportunity to meet and talk with other participants whom they have never met, or likely would not have met if it weren't for the event.

**Goal 5:** Identify incentives or motivations to collaborate and engage in broader research or decision-making projects on coastal resilience.

- This goal was reached, in part, and only through indirect interpretations of what was heard throughout the event. Participants told us what they wanted moving forward, and by evaluating those responses we can glean what would motivate them to engage in future work in this area.

**Goal 6:** Identify a role for Oregon Sea Grant going forward, whatever it may be.

- The question about what kind of organizational structure OSG needs going forward is still under consideration. We have, however, identified ways in which we can enhance coastal-resilience efforts by applying current resources; for example, continued development of a community of practice around coastal-resilience issues. Additionally, we now know what specific needs exist as we pursue future resources to support this work.

The workshop helped us get an initial, cursory understanding of the issues of most interest, what people are doing to address coastal resilience issues throughout the state, what needs to be done, and what OSG and others can do to support meaningful coastal resilience planning. It is important to note that this work is ongoing. We will continue to identify

other researcher and practitioner networks and build a broad portfolio of individuals and organizations focused on coastal-resilience issues. Through this process, we learned that the area of coastal community resilience is complex and requires careful consideration about where OSG's efforts might be most beneficial.



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This report was prepared by Oregon Sea Grant under award number NA14OAR4170064 (project number M/A-21) from the National Oceanic and Atmospheric Administration's National Sea Grant College Program, U.S. Department of Commerce, and by appropriations made by the Oregon State Legislature. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of these funders.

ORES-U-14-002