Coastal Hazards Resilience Network Kickoff
LOTT Clean Water Center, October 29, 2013

Welcome and Introductions
Introductions from Brian Lynn, Ecology (ECY), and Jamie Mooney, Washington Sea Grant (WSG)

NOAA and Coastal Hazards and Resilience
Becky Smyth, National Oceanic and Atmospheric Administration (NOAA):
NOAA touches hazards and climate in a lot of places. NOAA needs to provide an opportunity for the people in the regions/communities to have a say, "closing the circle" on land use planning and making long-term decisions as a group. Pacific Risk Management 'Ohana (PRiMO) in Hawaii has been doing this for ten years. This grew out of a need for NOAA/US Geological Service (USGS)/Army Corps of Engineers (ACOE) consistency. The Pacific Risk management 'Ohana was the predecessor for the West Coast and Gulf of Mexico projects.
In Hawaii, PRiMO integrates traditional knowledge with planning. They have also developed college and high school programs on historic hazards. In the Gulf, the resilience group is trying to integrate industry. Oregon is doing community coastal resilience, which could serve as a template for future groups.
Looking forward, federal funding is uncertain. NOAA wants to help combine stand alone programs and help them communicate and is a committed partner to a future resiliency network in Washington.

FEMA and Coastal Hazards
Kristen Meyers, FEMA
FEMA has a Washington State Hazard Mitigation Plan, and most counties and cities in Washington have a FEMA-approved hazard mitigation plan. Approximately hald the Tribes in Washington have FEMA-approved mitigation plans. FEMA has a three-pronged grant program for Hazard Mitigation Assistance that is managed by WA Emergency Management Division (EMD). Risk Mapping, Assessment, and Planning (Risk MAP) is an ongoing process subcontracted to STARR. For more details, see handout.

Discussion
State Parks noted that FEMA grants are hard to get, and wondered if application workshops were possible. Ms. Meyers welcomed the suggestion.
Ecology asked how much focus at FEMA is on flooding. Ms. Meyers responded that on the outer coast, it may be the most important hazard, but in Puget Sound other hazards are more of a threat.
WSG asked about the state of collaboration between FEMA and NOAA. Ms. Meyers noted that FEMA and NOAA are starting to build more coordination at the regional level. Becky Smyth of NOAA added that in some regions that is going better than others. There is some coordination already around sea level rise, flooding, and hazard mitigation planning.

The Climate Impacts Group wondered if FEMA explicitly requires communities to address climate change. Ms. Meyers explained that FEMA does not require communities to label their planning as climate change adaptation, but gives them many venues to plan for climate change.

Someone asked Ms. Meyers what FEMA's wish list for state agencies would be. She listed collaboration, planning to be a resource for local communities, and finding new ways to use local-level data to understand risk.

State Parks pointed out that because of the Growth Management Act, cities and counties must use the "best available science" to designate critical areas for fish and wildlife. Is there a federal effort to provide the best available science to local elected officials? Ms. Meyer suggested that the RiskMAP process is the best way to get scientific data from FEMA.

FEMA and RiskMAP
Kelly Stone, FEMA

FEMA is responsible for producing flood insurance rate maps. Property owners with a federally backed mortgage within the 100-year flood plain must have flood insurance. RiskMAP, which is both a remapping and a support process for communities, is the successor to MapMod, which was the digitization of paper maps. RiskMAP includes: new maps, a multihazard risk report, a 1% chance annual depth grid, and a BFE+ grid, a rough guide to possible future sea level rise. RiskMAP does not include predictions of future hazards. When new maps are published, FEMA tries to work with local communities, including through open house meetings. Given the funding and work needed for the RiskMAP effort, it may not happen again for another 20 or 30 years.

FEMA's Washington partners include STARR (their national contractor), WA-ECY (Jerry Franklin), WA-DNR (Tim Walsh and Stephen Slaughter), WA-EMD, and local communities.

Discussion

Bob Freitag wondered if RiskMAP included LiDAR mapping. Ms. Stone pointed out that FEMA can provide LiDAR and other services if communities ask for it. For example, LiDAR was included in the maps for the Hoh tribe.

Audience members asked how much of an impact new maps and the Biggert-Waters Act (BW12) are having on communities. Ms. Stone noted that the more visceral reactions to BW12, which mandates actuarially sound map insurance among other things, are happening on the east coast. FEMA's pre-existing community rating system is a way to offset a rise in insurance rates. The Pacific and Grays Harbor RiskMAP meetings are still coming up, but community staffers seem happy because of the multihazard benefits that the RiskMAP process offers.

An NGO perspective on Coastal Hazards
Julie Morse, TNC

The state received 50 million dollars to integrate flood control and salmon recovery through multiple benefit projects. 30 million are earmarked for specific

projects through Floodplains by Design (FbD). 11 million are reserved for a competitive program, with an RFP coming this winter.

FbD is focused on riverine flooding, and has only a few projects on the non-Sound coast (Stillaguamish, Dungeness). Paul Dye noted that the criteria of projects for FbD were both science and politics, looking for communities that demanded a multiple benefits approach to flood control. If FbD was to move seaward, it would need the same demand and embrace of multiple benefits from coastal communities.

TNC also presented maps.coastalresilience.org as an international tool to help "catalyze conversations" around coastal resilience.

Discussion

Ecology wondered, how accurate is your flood model? Do you face the same scrutiny as the state on modeling? Ms. Morse replied that, yes, TNC does, but it approaches maps as a conversation and not only a product. Eric Grossman from USGS added that map models can be verified in a number of ways.

Coastal change and the Large River Deltas Project
Eric Grossman, USGS:

USGS predicts several changes coming on the coast of Washington. Sediment transport is changing over time. When sediment is accreting on the coast, it can counter sea level rise. When the coast is eroding, among other things, shellfish harvesting areas decrease. Human behavior on the coast will change as the geological features change.

Winds are also getting windier over time. This changes wave height.

Ecology on the Coast
Bobbak Talebi and Hugh Shipman

The state has jurisdiction 200' landward of the ordinary high water mark (OHWM). Historically, hazards has not been a major focus for ECY. Training, public education and technical assistance are all part of what ECY offers, but it is still a very ad hoc program. Ecology policy on the coast includes the sea level rise appendix of the Shoreline Master Program handbook and the West Coast Governor's Agreement on Ocean Health and Pacific Coast Action Plan on Climate and Energy. The Puget Sound Nearshore Restoration Program and the Estuary and Salmon Restoration Program try to restore natural coastal/nearshore processes including erosion and flooding. In addition, the Coastal Training Program, a collaboration between ECY and NOAA, offers local planners training on bluffs and landslides, coastal flooding, sea level rise, and earthquake and tsunami hazards. Witness King Tides is a public outreach program around sea level rise.

Coastal data that ECY offers includes the Coastal Atlas. Some of the data is old but still relevant to local code.

Discussion

The Climate Impacts Group asked if new landslide maps were coming from ECY. Mr. Shipman noted that ECY's current maps could be made better through more precision and incorporation of more recent slides, but that no new maps are

forthcoming. Stephen Slaughter, of DNR, added that accurate landslide mapping requires extensive fieldwork to verify that something that looks like a landslide is indeed a slide.

ECY provides expertise to local and state agencies
George Kaminsky, Ecology
Ecology's client-supported projects include beach mapping. For state parks, ECY did a projection of erosion to tell them where to put new infrastructure. Pacific county used the erosion projection data for setting out a building moratorium near Washaway Beach/Cape Shoalwater. Mr. Kaminsky also presented a coastal vulnerability framework.

Discussion
The Climate Impacts Group queried Mr. Kaminsky on his map of Long Beach, WA erosion. The predictions for this map were based on sediment supply. The total amount of erosion is likely, but the timing of the erosion is harder to predict.

National Tsunami Hazard Mitigation team
Tim Walsh, DNR
The goal of the team is to protect the West Coast from locally generated tsunamis. Most of the resident population of the WA outer coast lives in the inundation zone of a magnitude 9 earthquake and tsunami. The state's recommended evacuation routes also take into account post-earthquake liquefaction and landslides.
Vertical evacuation is a developing area, especially for communities with low ground and few routes out. The vertical evacuation idea is based on research on the characteristics of buildings that survived tsunamis when everything else around them did not.

Tsunami Team
John Schelling, EMD
One goal of the Tsunami Workgroup is that there be no surprises for local elected officials about their community's earthquake and tsunami risks.

Discussion
The audience inquired if the Tsunami Workgroup has ever done a "real" tsunami evacuation test. Mr. Schelling said that indeed they have, and that they encourage people to practice evacuation on foot.

Floodplains
Bob Freitag, UW
Mr. Freitag framed floods not as a hazard, but as an environmental change. People benefit from flooding. Risk is not the chance of a flood, but the chance of a detrimental impact from flooding. Resiliency, in this framework, should evolve from self-organization at the community level.

He teaches Floodplain Masters Program online/summer degree program as well as a floodplain management course. The courses cover case studies like flood-friendly farming, railroad hardening between Everett and Seattle. He also teaches a one-day Coastal Resilience Course through the NDPTC.

Mr. Freitag reviewed the emergence of Project Safe Haven (which can be foundon Facebook). There is no chance of survival on Ocean Shores without vertical evacuation. In Ocean Shores, a series of workshops were held to characterize the current sense of place, quality of life, and goods and services in the community. Then participants asked if reconstruction after a disaster could create a better community. Multiuse structures could meet green goals, raise property values, and also save lives.

Washington Sea Grant: connecting communities to academia
Ian Miller, WSG

Mr. Miller presented a hazard mitigation framRisk ID: Risk Acceptance: Planning and Prep: Implementation

Network valuable for communities getting the whole route of resilience.

WSG is good at targeted communications/trainings, social (really???), "cross-cut" reports (easy to get, scientifically sound), public programs.
Network benefits: variety of different hazards. Identifying tools, improving assessment, what does it mean to be effective? Easy point of contact, avoid duplication of efforts where appropriate

Networks
Gretchen Glaub, Ecology

Explaining the rationale behind a network, the evolution of a network, and suggesting a core-periphery network for tackling wicked problems.

Small group discussions and report-out

Group 1

What role do you see for this network?
1. Wealth of mapping data
    a. Portal for distributing mapping information
    b. Educating and catering to their needs
    c. Teaching them how to use the data so they can use it to their best interests
    d. Current and historic information housed at DNR
2. How realistic is it to have this data hosted and whet liability is there with folks using the data?
    a. FEMA portal
    b. ECY MSP data portal
    c. How do we get the information to the public on how to use the data?
        i. Difficult enough to get the information in one spot, but how then do we make it useable for the public and how do we get the information to those folks
        ii. Public/Private Partnership potential
    d. George
        i. Erosion hazards risk mapping efforts
3. FEMA build capacity and information sharing between agencies

a. If you don't have the information, knowing who to go to is a very valuable public service
4. Coordination group that explains where and who to go to for information and data
    a. One agency to network or build the links

What role do you see for local communities in this network
1. Take advantage of current resources and planning mechanisms to insert appropriate information at appropriate times
    a. Use the APA as a resource to communicate with planners
        i. Accreditation is a good incentive for planners

Should the network work or include locals?
1. Associations of Washington are a very good resource and
2. Representatives from those associations to be a part of the network
3. Chris from state parks willing to go to them as a representative of this group
4. Presentation of the message is very important and be clear about your needs before you go to them.

Tim Walsh: What is your scope of work from Sea Grant on this? BL: A network that makes sense from the community

Question 1:
    Data and data management, do we have one source or many? Portal, one source and people know where to go from there.
    Having a proponent in the community to get it started
    One geo area as a launching point
    "road show": bring the network as an informative, technical assistance to community players.

BF: what about a wiki?
BL: what's the problem that we are trying to solve? What are the values and opportunities of a strong network?
PD: a community of practice can deliver the network to the ground. Outcomes-driven network.
JM: Sometimes products need training associated with them.
KM: the network could be a resource of any one agency when they get questions from the public about things that are not their specialty
LWB: Training that is rooted to a specific reason. Smaller communities write competitive grants.
BL: How do you move forward? What does it take to make this happen?
BF: Can't just put all the data in a box.
RF: "hotshot team" : aka this room, going to a community that wants them there and have this kind of a day tailored to them and their desired outcomes.
BL: so a more direct, supportive way of getting information to localities.

JS: integration. We need to know more explicitly what needs are at the local level. Needs assessment!

EG: Inventorying what we're doing [oh boy that's a lot though]

BL: is a hotshot team an authorized funded thing? Or more organic?

BF: mentoring opportunity. Communities could have a mentor.

Group 2

Question 1
1. Data sharing/data portal
   a. One resource = 1 point of potential failure
   b. Technology limitations
   c. Redundant systems are important
   d. Multiple portals is better
   e. Data sources are not accessible to all because of limited technology and we need to make sure we have ways to share it for everyone not just the technologically advanced
   f. Data mediator of information to user
   g. Relationships are important to data translators to user
        i. locals need someone they can trust for information
        ii. Tim- media guidebook was helpful
        iii. Coordinating a message very important
        iv. We can do a better job consolidating information and use training to create or communicate
   h. We have to be careful not to saturate the market
2. Assessments should be more comprehensive and integrated between the agencies
   a. Building capacity and expertise for hazard assessments
3. When and where does this interagency expert team fit into the local process?
   a. Use floodplains by design as a example: criteria
   b. Bring all of it to a geographic area
        i. Go fix a place

*just tying into efforts together is a tremendous resource
* local proponent is important in a community

Topic two:
JS: Consensus is: no consensus.

BF: Risks to what? Ecosystem services, self-organize, social capitol, built capitol
PD: I felt as though an idea bubbled up but it didn't quite gel. We could make a competitive process: it's a grant but with access to the hotshot team. You've got momentum on the integrated floodplains ideas. Deliver what we can deliver to pacific and grays harbor.

Group 3

1. USGA and ralph as a housing of the data and potential funding as a resource
   a. Digital elevation model
2. Important to build on existing data sources/portals
3. Do locals know what questions they want to answer and where to get the information to answer those questions
   a. Defining the question is very important and helping communities refine questions and find the right information to answer those questions
4. Big training gap in teaching folks how to use the data and information
5. The role of this group should be to show synergies between SMP and Hazard plans and other players
   a. Network as a forum to bring local players to talk together and did a comprehensive plan
      i. Use the network as the resources or technical experts to support that effort
   b. Network finds pieces and brings them together
6. Opportunity to bring flood maps and planners with SMP together
   a. Eric used example from Hawaii
   b. Hazard handbook
   c. Can we use the CTP as that training tool?
7. Network traveling road show to get all players in one community together and use it as a source to update and incorporate hazards into their community
   a. You have all the resources and players in the room at once so you know the conversation goes beyond the training or workshop

       b. Depending on where the community is in the process; needs to be in the context of the program

Topic three:
BL: There's no table now.
JW: I don't think a state network delivers capacity to the local level. The two networks might not fit together. A cross silo network might be great and valuable.
BL: we could definitely work on coordinating our efforts.
IM: is there agreement on the coastal part of this?
PD: the resilience is the thing.

Topic three:
Scales and timelines of information
Tools and interpreters of the tool
On a state level, sharing might be enough
Permanent home, overall facilitator
Asking the public what they need
[me: permanent "home", some kind of broadcast function, and an obvious way to access it]
BF: Models of data don't discuss thresholds or limitations.
PD: Picking something to do and doing it together instead of separately.
EG: objective inform and educate or influence policy and decisions?
LWB: Database for resilience people. Who what where when why
PDa: NEMO on the east coast. Nonpoint education for municipal officials.
PD: florida bay interagency team. Letters of support for grants.
BS: so what brought you together and kept you together?
PD: Feds found that the biggest problem in research was coordination

Follow-up and legwork, that's me!
Tool for letting everybody know what's going on: yes [but DOESN'T THAT EXIST ALREADY perhaps we can build on some other things.]
JS: MAC, multiagency coordination group.
Google maps? Website?

Working locally: how do you facilitate that happening?
They need to lean forward and meet us partway.
Mapping out where we are now and match that to places with momentum. Looks for alignment and don't start from scratch. Don't snap it to just ECY's projects. Meet up with association of communities and counties and such?
We don't have the capacity to "wait for a match" as a group

Follow up Qs: how could the network help locals, help ourselves?

We know we can only do so much today. Survey or followup email. It will happen! Further meeting? We will ask.

PD: Convening organization should move ahead! Proposal for moving on.
JM: I want a specific task.
JS: survey among local partners. Maybe that could galvanize us around a particular thing.
HS: we must do that CAREFULLY
PDa: it's month one!
HS: I'm confused about whether we're creating a product for locals or just talking.

Group 1
- Data and data management
- One source or multiple sources
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  - Agreement/disagreement

Group 2
- Communicating data
- Local proponent as a way to start
- Network focus on geographic area as pilot
- There is a need for training in addition to just providing information

Group 3
- Using the network as a resource for a traveling road show; bringing all players in one community together to plan and having all the network resources in the room to support their efforts.
- When information should be used and how they can use it

Lara - Training developed for competitive grants rather us just assuming what they need and providing training for what we think they need
    -Will make it more competitive and focused

Bob – data for what? We need to be clear about what data we are talking about and you need some driver or clear goal. We need to define what "data" we need and why its needed.

Jamie – every agency has the data, rather than all in one spot, how do we direct folks to the right folks? Its crazy to put it all in one spot, a formal "how to guide" would be more beneficial.

Roger – hotshot team of experts to go to a community with information and tailor it to that community and tell them how to use it and what it can be used for.

EMD Guy – MSP could be an existing process that could help or tool to make this similar effort move forward. May help to more fully integrate. We need to know more explicitly what community needs are, application or grant might be the way to go.

Eric – inventory this group and get that out there on the web, then sort and build the basic structure of the hot shot approach.

Bob – building on the hot shots, there could be a mentoring team or someone the community could turn to.

Question 2: What coastal hazard issues(s) or geographic areas should a WA network focus on? Why?

- Try to build on networks that already exist. Be able to know who is doing what.
- Better discussion when talking risk-specific vs. hazard-specific.
- Freitag: Risks to what? To ecosystem services? To ability for a community to self-organize?
- Paul Dye: make our attention a competitive process. Let communities self-select.
- What are the needs of the particular area? Meet that need.
- What is the connection for the different projects and groups to participate in this? People are driven by soft money and funding sources. What is the connection back into this group? If there are opportunities for people to plug in locally, how would that look.
- Could get behind integrated floodplain ideas. Deliver all of what we can deliver in Pacific and Greys Harbor Counties because of all of the projects going on there.

- What value can we get from a networks vs. having the capacity to make different decisions? Does a state network deliver capacity to the local level? Or does it allow the local level have more capacity to make decisions? Brian offered example of EMD and ECY collaborating.

Question 3: What kind of network, structure, function, or outcomes would you like to see in WA to address coastal activities?
- Someone to interpret and use the tools. (If I have a leak, I don't grab a wrench, I call a plumber).
- Coordinate the coordinators. Need an overall facilitator.
- Maybe it is a progression. Start with information sharing. Know who is working on what. Starting there and evolving from there.
- Models don't talk about other models and benefits and limitations. Takes and expert to do that. Need someone to do that.
- Power from this comes from deciding to do something together and doing that vs. doing it separately. It matters less what we do but more so just that something is done.
- Is the objective to inform and educate or is it to influence policy?
- One option might be to have a database for CHRN people – 2 min update- says what the project is, geographic domain, data products, POC, timeframe. Only successful if people do it. Not a case study, more speed dating. Could help capture a sense on what is going on where. Organization reminds people to add to this.
- NEMO model from east coast – allows community to come to a larger group to put together a team of people. Core group from the State agencies and could help identify skill sets.
- One other really effective model: FL Bay in S. FL. Interagency multi-organization team that was trying to get a handle on multi-hazard and interdisciplinary team. Became defacto for letters of support for grants. No authoritative power. Federal agencies that were dealing with ecosystem restoration- concluded that research wasn't sufficient and coordination was the problem. Formed a panel.

Next Steps: Specific advice.
- A tool that let's people know what is going on? This is important. Who is the customer? Broad. Locals. Step one: Ourselves first. Multi-agency coordination group. Mac-G.
- Website?
- Site-specific projects. Google maps, put a pin on where the project is. Who is in charge?
- Then programmatic things. Communities in RiskMAP, comp plans, etc.

- Working locally. How is that facilitated?
- Building a network within a community…. Vs. building networks that connect multiple communities.

- What can we do to establish priorities for agencies to reduce risk from climate change? Need a question to catalyze the discussion.
- Neighborhood Net – National Hazard Mitigation Association
- Jeff's questions:
  - What are the priorities that state agencies would address to reduce risk from climate change?
  - Jeff had three quick questions to send out to the larger group.
- Follow up: survey, email, follow-up gathering, or what works.
- Paul: Fully willing to continue participating. Come back with further thinking. Come back with a proposal.
- Julie: More willing if more focused.
- Jon: Brief survey conducted to local partners as a launching point. Needs assessment, galvanizing point.
- SLR workshops from November? Did they identify something?
- Hugh: hesitant to ask locals- if we rely on that, we need to do that very carefully. Lots of people have seen this not work.
- Becky: NOAA has survey experts if we need that.
- Bob: all groups go through storming, norming, forming, etc. A focal group quickly will be worthwhile, could be something to hone our skills.