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**Envisioning a Resilient Oregon Coast: Co-developing alternative futures for adaptation planning and decision-making**

**Spring 2021 Virtual Advisory Council Meeting**

14 June 2021 (1:00 pm – 3:00 pm)

**Meeting Objectives:**

1. Update the Advisory Council on project progress.
2. Discuss various concepts of ‘islanding’ in the context of CSZ event impacts on travel times to various types of ‘community assets’.
3. Harness the expertise of the Advisory Council to develop actionable knowledge to inform statewide policies and localized decision-making.

**Attendees:**

* Jay Raskin (FAIA architect, Cascadia activist, past OSSPAC chair), Jarod Norton (USACE), Michael Howard (UO Institute for Policy Research and Engagement), Gwen Shaughnessy (NOAA), Meg Reed (DLCD), Jonathan Allan (DOGAMI), Charlie Plybon (Surfrider), Mike Harryman (State Resilience Officer), Felicia Olmeta-Schult (Oregon Sea Grant Resilience Fellow), Patrick Corcoran (retired OSU Sea Grant Extension), Jack Barth (Marine Studies Initiative)

**Welcome, Introductions (lightning round all), Meeting Overview**

* Meeting overview: See meeting objectives on agenda and powerpoint presentation
* This meeting’s focus on is largely on: islanding and community assets

**Perspectives on Community Assets – Overview presentation by Jenna Tilt**

* See powerpoint

**Perspectives on Islanding – Overview presentation by Dylan Sanderson**

* See powerpoint
* Mike H: The state's regional resiliency assessments (RRAP) on our transportation system (airports, seaports, river ports and highway/bridges) has had it final draft review and is back at DC for a final review, it will be a public document and will be released late this summer. Islanding is a key findings and the modeling was done by Argonne National Lab. Exciting to see these two efforts coming together… Pretty cool to see both these projects coming together and just about the same time!
  + Follow up: The data will be accessible, too, and may be useful for us, Mike can help us get the data. The report should be out in August

**Q&A/ Discussion for clarity– Ensure that the AC is clear on our concepts and where we are going**

* Pat: Recovery is defined as being able to access an airport? (Yes)
* Mike H: Are the maintenance facilities on the plot current or projected ones? (The current ODOT-assigned maintenance facilities. The decision to move them to the coast was an exercise we do to see how recovery changes.) Also, last session ODOT got approval to build an additional south central ODOT facilities.
* Pat: Whether the location is subsided under water isn’t part of the time-until-connectivity analysis? (No, not yet, but that would be interesting to incorporate.)

**Presentation of Initial Results – OCF team**

* See powerpoint
* Mike H: Some of the critical facilities like schools and police station have had retrofits. Do we have retrofit information for the community assets? Where could we get this data? (We don’t have a quick answer for this, we’re not sure if there are updated datasets for these buildings.)
* Jon A: DOGAMI may have some datasets that could help us with this.
* Michael: There are ways to find which schools/police/fire have had retrofits. To find out more you will need to talk to Gloria at IFA. Assessors’ records may update the "year built" depending on the percent update. Many of the school updates are only to gymnasiums (to be used post event as an evac site). Feel free to contact me if you want some info on Lincoln Co, and methods to find answers for other counties. (We’ll follow up on this after the meeting)
* Jay: Once that data is incorporated, can we rank which facilities should be upgraded? If we have funds to retrofit, how can we chose which facilities to retrofit? (That’s a great question. We can test the impact of those mitigation options on our results. That’s a next step.)
* Pat: The Census block points are centroids? (Yes)
* Jon A: As part of HAZUS work DOGAMI has been doing, they’ve been able to determine that some of these communities have a large population of people with disabilities. Would encourage us to look into this population, as well.
* Jay: Have we plotted the community asset travel times for different age groups rather than ethnicities? Age may be an important way of analyzing the population because of the distribution of ages on the coast. (We haven’t don’t this yet, but I think we have the ability to do this.)

**Interactive Discussion – All**

* Mike H: In our report to Sea Grant, do we pick a date (time and year) when the Cascadia event happens? Or is it generic? (We’ve talked about this but haven’t made any decisions. The nice thing about this modeling framework is that we can have the event happen at any time. We intend to investigate the impacts of seasonality, e.g., in summer the coast will have more tourists. But we haven’t made a final decision as to the timing of the event.)
* Jay:A lot of our data is coming from Census block groups? Regarding seasonality, how will we deal with visitors? Where’s the data coming from? (Right now we’re thinking more about the physical structure of community assets.One thing we would like to incorporate is the capacity of the community assets. This impacts/will be impacted by the amount of tourists on the coast, for sure.)
* Jon A: DOGAMI attempted to incorporate the visitor population in their modeling of casualties. The number of visitors could be 3-4 times the population of these communities. And these visitors probably have very little understanding of the hazard. The number of visitors could very well exceed the capacity of the community to take care of them. Understanding some of these complexities would go a long way towards helping these communities.
* Pat:Most of our coastal communities have not adopted the hazard maps. This is an issue in the background of what we’re doing.
* Jay: Gearhart has adopted the tsunami hazard zone. So there is some movement in these communities.
* Charlie: Good point and welcome to my world Pat:)
* Peter: How many communities have tried to implement the hazard zone?
* Meg: There are 10 communities (3 counties and 7 cities) that have adopted the hazard zone. A big barrier DLCD has found is that there’s not a lot of capacity in those communities and they will need more funding to make this happen.
* Michael**:** Is there a list of the cities/counties that have the tsunami overlay zones? If so, can you provide a link?
* Meg:DLCD is in the process of updating their website with this information, will be available soon.
* **What types of policies can be targeted to increase community resilience from the perspectives of Damage, Connectivity, and Community Vulnerability?**
* **What types of community vulnerability analyses are highest priority?**
* **What types of recovery resource scenarios should be prioritized or are most likely/salient?**
* Jay: Two other infrastructures to consider are water and utilities.
* Mike H: Consider interdependencies between critical infrastructure, e.g., power and transportation systems. Lincoln County has done remarkable work on their prioritization of their gas and electrical systems. That helps us talk about the identification of the vulnerable populations since they probably use the community assets more than the average Oregonian
* Dan: A couple of folks at OSU are doing a regional assessment of power on the northern region (Brekken?). He will look into where they are in their analysis and if we can use some of their information
* Jay: During Covid we’ve identified who are essential workers. It’s eye-opening that they are under-paid but are doing the work that is high priority. Identifying these people is also important in terms of equity.
* Dan: May be possible to provide water to people on the coast via the transportation network (trucks) rather than through the pipes
* Pat: Maybe also consider the people that are in Coast Range that will be cut off from roads due to landslides?
* Meg: Great new resource now available from DOGAMI and OEM: Earthquake and Tsunami Community Disaster Cache Planning Guide <https://www.oregongeology.org/tsuclearinghouse/resources/pdfs/TsunamiDisasterCachePlanningGuide.pdf> . This is a very thorough resource and will be helpful with the visitor populations. Has information about everything you would need to know about creating a disaster cache. The big question is how to get funding to actually implement them.
* Jack: What about improving resilience via education? For example, of visitors, as mentioned.
* Pat: This model can help with education, showing what happens on the coast after the event.
* Peter: One of our major objectives is to increase disaster literacy on the coast. This has been one of the hardest objectives to meet. We did have a session with about 60-70 folks at the State of the Coast meeting last fall.
* Jack: It might be good to go to the communities with this information, couched maybe with what we learned from Covid.
* Jay: It looks like the Legislature is finally going to fund post-event building damage assessment (ORSAP). Making sure this is available to the coast should be included in the planning.
* Mike H: That bill, HB 2851A is still sitting in W&Ms... This bill has a new piece that requests funding for retrofits. Asking for $50 million from lottery funding.
* Charlie: I think networked people of support will be critical - like “pods” that people created in COVID.
* Mike H: FEMA now has the Building Infrastructure and Communities (BRIC) program for improving resiliency. Provides grants for pre-event mitigation. FEMA BRIC: <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>
* Jack: Yes, neighborhood "pods" ala COVID
* Jenna: It would be interesting to start modeling the funding provided by the bill HB 2851A.
* Peter: It’s good to have a ballpark estimate ($50 million) of what could be available
* Meg: Would also like to see a program focused on relocation of critical and essential facilities out of the tsunami zone, not just seismic retrofits. (Many people agreed)
* Dan: One good exercise to start with is to look at buildings that have already moved – e.g., schools in Seaside – and calculate the benefit of this move.
* Pat: Could even survey parents in Seaside and ask about anxiety levels and how they’ve improved.

**Wrap up/next steps/project timeline/informal discussion of statewide and regional resilience efforts**

* Peter: We’re approaching the end of the 3rd year of the project. Will be working on wrapping up the project in the next year. Discussed next steps.
* Jay: At what point do you think this is going to be an effective tool that we can ask questions of? (Any new question that somebody asks requires some additional modeling behind the scenes? If you have questions you want to ask, ask them soon so that we can incorporate it now. As general as we’re trying to be, every new question requires more modeling, we can’t answer them all.)
* Jon A: Jenna is using the M scenario and Dylan is using the L. Which scenario will you be focusing on? (Jenna: It’s easy for her to move to the L scenario. The plot is from Jenna’s early work. We will work on our internal consistency.)
* Meg: What do you anticipate the final products to be for this project (if known)? A report? An online tool?
* Peter: The Explorer tool on our website will be a way to visualize some of our output. But it’s not an online tool where a user has full control of the inputs. It will answer specific questions. The rest will be packaging the results into a series of posters, presentations, etc. that we could post on our website. We have enough time that we’re open to different types of outputs, but we will have to prioritize.
* Jenna: Has an undergrad working on making story maps. This could be included in our outputs.
* Jay: This would be very useful for education, as well.
* Meg: Thanks! Yes, I think a set of visual maps/figures of the data/results would be helpful. StoryMaps would be great too.
* Jay: I think that a tool would be useful, assuming that communities could find funding (BRIC?)
* Meg: Tsunami Resilience Report by OSSPAC: <https://www.oregon.gov/oem/Documents/OSSPAC_Tsunami_report_2021_final_singlePage_reduced.pdf>
* Peter: We will probably have our next Advisory Council meeting in October. We will try to make this meeting hybrid.
* Mike: we are in the midst of a project with the Lane Regional Resilience Collaborative that will include a storymap and providing a mitigation project "prospectus" it is still under development but when complete I could share it as a potential example of how to create a regional collaborative and demonstrate how to fund and implement actions. Link: <https://lanecounty.org/government/county_departments/lane_county_emergency_management/lane_regional_resiliency_collaborative>