

## NOAA Education Council Meeting

Date/Time: March 20, 2013 / 1:00–4:00 pm  
Location: SSMC3, Room 14836  
Dial-in: 866.901.0711  
Passcode: 8134683  
Contact: Lisa Iwahara (202) 482-3139, Sepp Haukebo (202) 482-9183

Adobe Connects Link to Meeting: <http://connectpro46305642.adobeconnect.com/edcouncil/>

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### AGENDA

- 1:00 Welcome/Opening remarks - Louisa Koch (10 min)
- 1:10 America and the Ocean: Research to Implementation (*Input Requested*) – Bill Mott and Douglas Meyer/sponsor Frank Niepold (15 min presentation/ 15 min discussion)
- 1:40 Update on OCRM/CSC Integration (*Input Requested*) – Jeff Payne and Laurie McGilvray/ sponsor Atziri Ibanez (15 min presentation/ 15 min discussion)
- 2:10 Break (10 min)
- 2:20 Working Group updates (*Input Requested*)
  - Regional Education Policy – Shannon Sprague (20 min)
    - Members: Solicit and confirm
    - Initial Charge and report back: WG will come back to the Council in March with milestones and recommend at what points will they report back to the Council through the year
  - Distance Learning – Peg Steffen, Bruce Moravchik (10 min)
    - Members: Solicit and confirm
    - Initial Charge and report back: WG will come back to the Council in February and recommend a timeline to include modified vision, scope, process, and when they will report back progress to the Council
- 2:50 Updates and announcements
- 3:10 Adjourn

### Upcoming Council Meetings:

#### April 17, 2013 (Tentative)

- Strategic Planning/Concept Mapping Update (*Input Requested*) – Steve Storck
- Distance Learning (*Informational*) – Kate Thompson (15 min presentation/15 min discussion)
  - Oceans Live
- NWS provide a presentation on NWS Outreach and Education Events System (NOEES) – Chris Maier/ sponsor Ron Gird (15 min presentation/ 10 min discussion)
- Discussion of NOAA Citizen Science Efforts (*Input requested*) – John McLaughlin/Christos sponsor (15 min presentation / 10 min discussion)

#### May 15, 2013

- NGSS WG: Progress report on NGSS guide for NOAA, demo projects, and training (May or June)

June 19, 2013

July 17, 2013

- M&E: Approve new outcome and output measures (July or August)

August 21, 2013

- NGSS: Progress report on NGSS guide for NOAA, demo projects, and training (Aug or Sept)

September 18, 2013

October 16, 2013

November 20, 2013

- NGSS: Progress report on training and any remaining business

December 18, 2013

- M&E: Present data summary

## **Attendance**

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**In person:** Louisa Koch (LK), Atziri Ibanez (AI), Bronwen Rice (BR), Bruce Moravchik (BM), Chelsea Berg (CB), Christos Michalopoulos (CM), Jennifer Phillips (JP), Kate Thompson (KT), Lisa Iwahara (LI), Marlene Kaplan (MK), Osaretin Obaseki (OO), Paulo Maurin (PM), Rochelle Plutchak (RP), Ron Gird (RG), Sepp Haukebo (SHa), Serenity Purcell (SP), Steve Storck (SSt), Will Tyburczy (WT)

**On the phone/chat:** Bree Murphy (Bmu), Carla Wallace (CW), Frank Niepold (FN), Jeff Payne (JP), John McLaughlin (JMc), Maria Murray (MMu), Molly Harrison (MH), Nina Jackson (NJ), Paula Keener-Chavis (PKC), Seaberry Nachbar (SN), Shannon Sprague (SS), Stephanie Bennett (SB)

**Presenters/guests:** Laurie McGilvray (Laurie) and Jeff Payne (Jeff) with OCRM and CSC integration; Bill Mott (Bill) and Douglas Meyer (Doug) with The Ocean Project

## **Welcome/Opening Remarks (LK)**

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- I want to introduce Douglas Meyer and Bill Mott with the Ocean Project. Many of us just heard an excellent presentation by Doug in the NOAA Library's Brown Bag seminar series, that slideshow will be shared through the Brown Bag website.
- I also want to introduce Jenn Phillips; she is one of the many Knauss fellows that are strengthening our ranks. She is our key to leadership. She is the one that reaches out to education, coordinates leadership interaction with education events and creates education talking points. We're delighted that she has joined us. Jenn, this presentation is just one of many things that we will be trying to get into leadership presentations. They definitely have good information for us to be drawing on.
- With that, over to you all.

## **America and the Ocean: Research to Implementation (Input Requested) – Bill Mott and Douglas Meyer/sponsor Frank Niepold (15 min presentation/ 15 min discussion)**

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Accompanying powerpoint

- Bill – Thank you all for having us today. It's been a couple years since we have presented and a lot has been accomplished thanks to your support over the last few years. Douglas is going to go over some of the major findings he presented in the Brown Bag and then we'll have some follow up discussion.
- Doug – For those that couldn't make the Brown Bag I'll give a quick recap. We've been asking, thanks to the support from NOAA, about 220 questions of the public. Here we present the "tip top" of those findings, so there's a lot more underneath. All results available for download at no cost, something our partners truly appreciate.  
<http://TheOceanProject.org/reports/>
  - We really wanted to focus here on the discussion and frame this as a request for input from the council. On 3 key questions that we get asked by our network of partners. By partners we mean primarily zoos, aquariums and science museums.

See powerpoint

- Our 1<sup>st</sup> issue we want to discuss with you is that if there is one thing that people take from these activation points of museums and aquariums, what would it be? Ideally we want this to sit within existing efforts, something that doesn't require an entire new program. A lot can be learned from a little tweak here and a little tweak there. (Slide 5)
- The 2<sup>nd</sup> issue is: what are appropriate Asks to give the public? As aquariums, they don't feel like they have the credibility to ask people to support policy such as a carbon tax, but maybe they can ask the public to perform minor but impactful changes in their daily life. Our visitors are beyond the "101" asks, such as 101 ways to be green, they want the next level of actions to take that their friends have not heard about. Things like washing clothes in cold water and purchasing green power. (Slide 6)
- The 3<sup>rd</sup> issue is opportunities to work together. Institutions want these kinds of cake mixes where the exhibits are partially home-made. They don't want completely ready exhibits given to them, but they don't want to create them completely from scratch either. Within the monitoring efforts we see a real role, especially within the quick change tests. One example is the Virginia Aquarium where they base lined then put in new recycling. Then they adjusted it slightly with signage and tested again. Really low cost but you learn a lot of lessons along the way as opposed to a big program with a big evaluation at the end. (Slide 7)
- We really look for a discussion with you all on these 3 points and any others possibly. Thank you.
- LK – Questions?
- PM – Here at NOAA we don't operate any aquariums, only through partners, but we do have natural sites in the forms of National Estuarine Research Reserves and National Marine Sanctuaries where the setting is somewhat different but there are some similarities to the experience at institutions. In your study did you look exclusively at aquariums and zoos?
  - Doug – We didn't look at it in this project but I was involved in a similar NSF project looking at the way in which visitors react to climate change information at national parks and wildlife refuges. And that data is publicly accessible. The idea there is that those are also activation points. Places where people walk into the natural places, these environmental concerns go from underlying concerns to top of mind.
  - PM – Basically in your experience how is this research you present here applicable to these nature centers?
  - Doug – Highly.
  - Bill – Especially the fact that these locations relate specifically to those specific places and species we discussed in slide 3. People more directly relate to specifics than broad issues like the ocean or climate change. We have some data on Sanctuaries and MPAs a few years ago just to get a baseline, because there is basically no awareness out there at all about Sanctuaries among Americans. That information is public and we are monitoring it over time.
  - Doug – The “expect, trust, appreciate” that we see in visitors to zoos and museums we also saw in those natural places. Do they trust the information they receive? Yes, especially when it pertains to personal actions. Again they're not looking for policy recommendations. Do they appreciate it? Does it make for a better visit? And we find that although we are a public that doesn't want to be educated, but we want to learn. People don't want to be told what to do, but they would like to know what they can do to help out. It's the same thing but presented in a different fashion.
- FN – The question I have is in your model where you flip the “awareness leads to concern which leads to action.” Is there a concrete location, that we could reference, where you have written up that model and why that needs to be updated? I like it a lot and I've never heard anyone put it as well as you did today.
  - Doug – We've done special reports on things like ocean acidification issue or the importance of engaging youth, but I don't think we've done anything that is specific to the change in paradigm. One of the problems we faced in doing that is that we DO find that education is important but equally important is engaging a public that believes itself to be very busy.
  - LK – I definitely second Frank in that you should present evidence for this shift in paradigm and put it up on your website and even broader audiences. Even publish an article especially if you feel like you have supportive evidence.
  - Doug – We can certainly do that. What we're hoping with our cake-mixes is to really test this in zoos and aquariums, such as in this “green power Ask,” especially to see if that paradigm does hold. We want to get people to obtain the information but also see if they will do something.
  - LK – Most importantly, if you have evidence that supports that knowing more doesn't mean doing more. It's a very important causality to break.
  - Bill – One of the most interesting things to come up in the research is that the most knowledgeable people about climate change are the deniers.
  - Doug – The folks with the Six Americas study found that on a science knowledge level, the deniers do better than the alarmed.

- Bill – The plan for the next year is to do actual implementation on the ground at several key aquariums around the country in different regions: coastal, inland, small, large, and try to get stronger case studies showing what you’re talking about and show that the paradigm change actually makes a difference.
- FN – The Ask is incredibly important here because the solutions phase is really quite hard. Accepting a problem is one thing but once you become concerned, you don’t put the same amount of time into finding the big 200 – 300 levels dues without saying that we’re behind this and get money out of this. People will appreciate that.
- AI – I have a question and a suggestion. Did you test some of the solutions, how to word them and which ones work the best? And my suggestion: in augmenting your national research did you consider focusing on decision makers specifically near the coast?
  - Doug – On the first part we are 100% with you. We’re shifting our efforts from national findings to determining which Asks resonate and can we connect that to a specific place or animal by changing small variables. We want to try an on-site action, and then change another variable. That’s where we are right now. Our task to date has been on the national picture and we’ve been moving that more to working with partners to develop specific efforts. Now, where you mentioned going is where we want to go. To look at actions, is someone signing up for “one click” power at their house, is that feasible? Is that something someone would do during an aquarium visit? Or would they text for more information? How far can we push without affecting their experience at the institution, same thing with a Sanctuary?
  - Bill – We have a guarantee from our research firm that they will continue the national research with the surveys. We are going to try and augment that research with more specific regional research and within those regions specific metros. We already have sampling from 10 metro markets across the country and within those regions and metro areas we’ll try to get some specifics from different stake holder groups, like decision makers. I can’t promise anything now because we need to talk to the research firm that does this pro bono for us. But that would be beneficial
    - AI – We’d be happy to help out.
  - Doug – There are two levels of opinion leaders. There are the people that hold office and there are the influential concepts that come from commercial marketing. We are more accessible to the latter group and where those influencers stand on issues.
- CM – I was intrigued by your point that measures increasing knowledge vs. actually inspiring taking action. Several of our programs have an ultimate outcome as stewardship. In many cases we fall into the assumption that between investing a dollar and promoting action, increasing knowledge is within that path. Because measuring action or stewardship is often difficult, we rely on measuring increase of knowledge. Do you have any suggestions of how to decouple the two and at the same time better measure action or stewardship?
  - Doug – One of the questions with the seafood cards is if people actually use those or just throw them in the trash. It’s difficult to follow action. Is there a way we can obtain information with these Asks that indicates action. A visitor signing up for green energy is highly measurable and high impact, but is it too much to ask of a visitor. Or Ask may become, text your zip code to gain information about green power, we want to make it as simple as possible. We want to test all of these nationally and on the ground.
- MK – We leave the Asks greatly to you. Obviously the issues will change greatly depending on regional issues, such as ocean acidification.
  - Bill – It would be great to determine the regional priorities of you all, for instance in the Gulf, and tie in with regional goals of your organization.
  - Doug – There’s been a recent online push where we can target people based on their Facebook or Google.
- AI – I was wondering if you have any coordination with Coastal America.
  - Bill – We coordinate with Centers for Ocean Sciences Education Excellence (COSEE), Coastal America, Ecosystem Learning Centers, Association for Zoos and Aquariums (AZA), and Association for Science Technology Centers (ASTC). We are a network but we work within other networks to make synergies happen.
- Doug – We appreciate and request your input on shaping these 3 big things. We’re happy to move to the next level.

**ACTION – OEd will share contact information for Bill Mott.**

If you have any feedback, please provide comments to Bill Mott on these 3 items:

- 1) Establishing issue priorities (e.g. Climate change and ocean acidification, marine debris, overfishing). – Slide 5
- 2) Deciding an appropriate message based on an “ask” (e.g. Climate change and OA asks – wash in cold water, purchase green power, conduct an energy audit). – Slide 6

- 3) Ways to work together (i.e. augmenting national research, creating pre-made “cake mixes,” monitoring efforts, sharing experiences). - Slide 7

### **Update on OCRM/CSC Integration (Input Requested) - Jeff Payne and Laurie McGilvray/ sponsor Atziri Ibanez (15 min presentation/ 15 min discussion)**

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Accompanying powerpoint

- AI – As I have mentioned in past meetings, CSC and OCRM have been working for over a year now on an integration process to bring our offices together. I want to make you aware that this is still an ongoing process and it is not final. The OCRM basically integrates the Coral Reef Conservation Program (CRCP), NERRs, and the Coastal Services Center (CSC), so it would be all of us working together under the OCRM umbrella. Welcome Laurie and Jeff.

See powerpoint

- Laurie
  - Slide 3 - We are now at the stage where we have a draft of the strategic plan which has been shared with all of you, please keep that internal as it is not yet a fully public document.
  - Slide 12 – In looking at the Ed Council’s strategic plan there is a nice fit with that environmental literacy goal within the strategic plan especially in that Sign of Success where citizens value and take action.
  - Slide 13 – These outcomes relate more to the broader mission of NOAA but also the Ed Council mission around environmental literacy leading to informed decision making.
  - Slide 15 – I’m going to pause for questions before we go into discussion.
- LK – Do you have an example of your last bullet, “Regional Teams have helped to drive the education agenda (e.g. Gulf and Pacific), steering from the front and the back”?
  - Jeff – I think Stephanie (Bennett) could comment on this as well. This is really linked to the qualification steering from the front and back. BWET is one example of regional coordination; the marine science curriculum out in Hawaii is another good example. It is really the collaborative effort where we have staff working regionally. They may be focused on a specific region requirement or initiative but from a national perspective, such as BWET; this coordination is a national asset. I believe there is a great benefit using the regional assets within our offices, not just OCRM and CSC but others, and working also with Regional Collaboration Teams. We have seen some real benefit of having that marriage to advance those initiatives within NOAA.
  - LK – Thanks Jeff, good example.
- Laurie – Any questions on the overview before our discussion? We can share the organizational pieces later in the year where the mechanics packages are submitted.
- FN – Quick question? There are 3 of the 4 NOAA goals that are connected in the piece but the climate goal is not connected advertently, is there some background there?
  - Laurie – Within the strategic plan the things that relate to climate are contained within the ecosystem goal. There is also the ecosystem and resilience outcome.
  - Jeff – I would say that is within all three and it’s a good question Frank. We clearly are not going at this from the perspective of trying to line up 100% with NOAA’s Next Generation Strategic Plan (NGSP). But starting from a fresh piece of paper we wanted to make sure that the things we’re focusing on at the outcome level were discrete and clear. And Climate and Weather Ready Nation, the pieces of those goals are infused – maybe a bad choice of words - throughout the strategic plan. Actually Climate is resonant within all three of these outcomes because if we look at vibrant and sustainable coastal economies then we are talking about recognition of the importance of proactive planning for the consideration of climate change. The strategies we have identified, as far as what are you shooting for, really do speak to these issues that are important within the NOAA strategic plan.
  - FN – I got you.
  - Laurie – I may have done a disservice because we only highlight a few strategies in the strategic plan, if you look at page 14 under the resilience outcome; it definitely refers to fostering user-driven science and assessment efforts to enhance understanding of natural, social economic impacts of coastal hazards and climate change. So, it is definitely woven in there.
  - FN – I see it now, thank you very much.

- Jeff – Laurie makes a good point, these points are illustrative and they are a part of our plan. They have been outlined here in this case to show where there is some relevance to the interests of the Ed council. So the strategies are illustrated here, as well as the signs of success, try to speak to those kinds of intersections.
- Laurie – If there aren't any further questions I'll tee up the discussion pieces. (Slide 16). The first one: How and where can the Education Council and the coastal office best connect to meet NOAA's national education *and* coastal priorities?
- CM – Thank you for the presentation, we have been eagerly waiting to hear where you guys are at for many reasons. The obvious one is that within the current Education program, you guys represent a significant portion of NOAA education capability, both in terms of resources in SS and the field, and equally important in terms of brain power and leadership within the Ed Council. A lot of your folks, Atziri, Paulo, and Stephanie, are right now playing significant leadership roles in the Ed Council especially in some of our working groups like the Monitoring and Evaluation framework, Use of Data in the Classroom, Partners, and on and on and on. I'm very interested in answering this first question but we still have questions we need to explore. For example how does the new structure vary from the status quo in terms of implementing some of your education mandates? Do you still see benefits in having your educators maintain that leadership role that they are currently exhibiting in our community? We also have a very robust strategic planning effort that began about a year ago, and we're nowhere near there yet, but we are trying to better map what the education community is doing to NOAA's goals and we have engaged very intimately with all our programs in order to ensure that the programmatic mandates and priorities are reflected. We have done this very gingerly with CSC, Corals, and NERRS. We are waiting for your green light to further engage to ensure that the goals and priorities of your new entity will be reflected in our new education strategic plan. In order to answer your first question we need a few more answers from you guys.
  - Laurie – Education, very broadly, is still very much an important function of the new organization. Anything to add Jeff?
  - Jeff – I appreciate what you are offering here Christos. I think that as you continue your efforts and as we continue ours, we should be upping the ante on our ability to integrate strategic thinking. To the extent that you are moving gingerly, if we can expand that conversation and put it into the context that we are in now right now, we would like to do the same in a reciprocal way. We could have a good following dialogue; I would also affirm what Laurie just said as far as the continuing commitment to, and hopefully investment in, teaching and education. We do have a solid baseline for that. There is nothing about what we have proposed so far, nor with the structural approach that we are envisioning for this, that will compromise that. If anything it will serve to enhance and strengthen it. One of the points we wanted to make with the regional slide is that by virtue of having people in the regions that are fully vested, aware of and understanding of the regional needs, concerns, priorities, and drivers, we are that much closer to making better decisions and thus better investments and strategic decisions in what we pursue and how fast and how hard we pursue those. So the functions within the organization need to respond accordingly, working closely with the regional counterpart. We need to have strong, sustained dialogue amongst all the players. The education council is one of those that will help us understand how that can be more of a reality in the future in which we strengthen and help float more boasts.
  - LK – I want to weigh in here a little bit. Jeff, those comments are definitely helpful. Two things here: I think the Ed council has done a good job at creating education metrics that are very real and significant and show NOAA capability. I think what we're trying to do next is show how those are actually helping accomplish NOAA's mission and it's a really big step so we can talk about the millions of people that go to aquariums and zoos and museums and see NOAA related exhibits and participate in NOAA related programs. Now we would like to take that a step further and say what is the impact? It's a lot of what the previous presentation talked about. How do we get to the actions? Your priorities in the strategic plan require the citizenry to act and so we are very interested in figuring out how to partner with you. In our current strategic plan are the goals of environmental literacy and the future workforce. What we're actively exploring in the NGSS plan in the Education Council, what Christos was talking about, is trying to connect specifically to the NOAA mission. This gets to your first question, we would like to figure out how to align our national education and but our regionals ones as well. We formed working groups last fall and we're doing a much better job getting people from the regions involved in those and we have a specific WG focusing on education in the regions. We're evolving and putting an emphasis on many of the areas that you are. I just want to go back and repeat what Christos said. The 3 members we have that are part of the conglomerate that you are integrating are a critical part. I know it's premature to see how the Ed council will evolve, but we are eager to have that conversation before any decisions are made because they are part of our well-being. Stephanie, Paulo and Atziri have helped move us in the direction that you're moving. More focus on the region, more focus on the direct connection to accomplishing NOAA mission and being able to demonstrate that with quantitative data. In short, we are very interested in continuing this conversation.

- Jeff – That’s helpful Louisa and encouraging as well. One of the things Atziri gave us a heads-up on, is in the signs of success in which citizens are built into both of these. I think NOAA shouldn’t be shy about expressing such things. However I realize that being able to put your money where your mouth is and really measure such things is a huge challenge. At the same time if you’re thinking about risk wise communication, working at the community level and municipal level too. These help people become more aware and potentially modify or change behaviors in a positive way for say risk and vulnerability, understanding and building better community resilience to hazards. You have to think about it that way, there are the influencers and there are the networks and they provide a huge role, they provide a support system here. I don’t think it’s a bad thing to expect that we can define how the citizenry itself can be influenced in a positive way. I do realize that it is a huge challenge.
- Laurie – Following up on your point of trying to connect to NOAA’s mission or connect more to regions, I’m wondering about the second question on the slide: How would the Education Council view the role of the coastal office in assisting with identifying regional drivers and priority constituent needs that require a cross-NOAA response?
  - KT – I’m curious how your regional structures going to work? Will you have regional directors with offices like we have with Sanctuaries? Are estuaries going to be working with local science centers?
  - Laurie – How they are set up is still in the developmental stage. All of the functions that are housed within the two offices will have reflected face in one form or another in the regions.
  - Jeff – We are getting close to locking this down and submitting a reorganization package to send it through NOAA, OMB and the Hill. We envision that we will build on our existing capacities and capabilities. For example in the Pacific where Stephanie is, we have a robust capacity. I wouldn’t call it necessarily wholly capable on its own, it’s not and nor is it expected to be. Nonetheless a strong capacity to integrate and engage, not only within our two offices but by virtue of co-location, extending those benefits to NOS offices, good integration with NMFS, good integration with OAR. That is just one model. On the other end of the spectrum you may have one or two people where stakeholder and constituent engagement is their primary responsibility. More to the point, we expect that within the regional service centers, don’t hold me to that terminology, we will have people at a senior level - for the number that we are expecting to start with, at a small number say 5 - they will be responsible for coordinating the activities and making the execution happen at that level. The regional groups and centers need to interface seamlessly with our functional units because a lot of the support, technical and otherwise, will be coming from those functional units. They each have a respective responsibility and swimming lanes, but at the same time we’re anticipating that there is good cross-talk which is constantly happening.
- CM – Just a clarifying question, the region we’re talking about is the official NOAA definition of regions?
  - Laurie – No, it is more locationally opportunistic in terms of geography and how it then interfaces with the NOAA regions.
  - Jeff - Yes and we already have people within our two offices that are sitting on nearly all of the Regional Collaboration Teams. I’m not sure about the Central Region but in any case we’ll have a strong integration with NOAA teams at the regional level but we have not patterned our proposed structure after that. It is more reflective right now of where we have existing capability and capacity. We’re also looking at the national level how we expect to chunk things up in a responsible way so that we do not extend our capacity beyond what we can deliver on.
  - Laurie – In terms of physical location of people, that will be a work in progress. As you can imagine moving workforce around is a big deal. That will not happen right away.
- SS – I work out of the Chesapeake Bay office and leading the regional working group for the Ed Council. I’m extremely excited about the new model and I think it offers a whole host of opportunities, both in education and more broadly. Do you anticipate at some point having a full suite of educational capacities around the country or is it going to be more opportunistic, delving into the areas like the Gulf and Pacific where you have initiatives already going?
  - Laurie – TBD. Spanning the gap between vision and resources will be TBD.
  - SS – I think the regional model we are setting up here is to fill in the gap where NMFS has more power vs. where this new enterprise may have more presence in Sanctuaries. I look forward to conversations in the areas where you don’t have that formal education presence, talking about leveraging other resources. And where you have a good presence how we may be able to work with you in a leadership way. That is where we are with the regional effort right now, trying to put together the matrix of where everything is happening, both NOAA assets and the Next Generation Science Standards implementation and environmental literacy planning and try to come up with regional strategies.
  - Laurie – It is my personal hope Shannon, that we can view the existing partnerships as capabilities that are delivering education training capabilities. Not to lead NERRs or Coral partners out of the equation. While

we may not have NOAA staff in all these locations it's my personal hope that we can continue to use the partner capabilities.

- SS – That is key to what we're trying to accomplish as well though NERRs and Sea Grant. It is very central to what we're thinking.
- LI – I had a more basic question as far as the education definition. There's education, training, outreach and all of these are part of the whole. In your strategic plan what do you mean by education?
  - Laurie – Looking here at the plan we are inclusive of professional training for local decision makers, K-12, teachers, the public. We have identified some of those audiences. We haven't teased apart a definition of education but we do include the audiences we will be engaging.
  - LI – Often you see a focus on education, specifically using that term, but for example CSC does a lot of training. You also have the extension and training portion of NERRS. So right now it seems like education and training are a large group.
  - Laurie – It is a combined function, yes.
  - LK – Do you see it remaining a combined function? My worry is that if the two are combined it may end up being training more so than training and education.
  - Jeff – This is a good question. The way we have things aligned in the strategic plan right now is the combination of the two. We definitely need to be sensitive to this, I agree with you Louisa. While they do have a relationship to one another they don't marry up one for one and one can consume the other if we're not careful. Training without a doubt is one of the highest capabilities and capacities that our two offices offer. Education, as we said earlier, will continue to be a committed part of our strategy and we need to handle these two appropriately to make sure we are clear in definitions, approach, and why we do what we do.
  - LK – We are happy to work on this with you. The data show that youth, the 13 – 25 year range, are the most likely to be taking environmental action, most likely to be concerned and feel like they can make a difference by changing behavior. Youth in that range are opinion makers, where adults are usually the decision makers, especially on environmental issues. The youth are the ones encouraging their parents to buy hybrids. These are arguments in favor of including education and not just a pure focus on training. There is a lot of data that says education in the classroom can have a big impact in the home.
  - Laurie – I think you raise a good point Louisa and thank you.
  - CM – Just a suggestion, understanding our definition of education (in NOAA's Education Strategic Plan) will go a long way in avoiding misconceptions with other offices in the agency. We have defined it in a very deliberate way and it does not include training and extension, although we may be revisiting that line.
  - Jeff – One of the overarching pieces of this strategy, and it's not unique to this strategy, is Coastal America. Margaret Davidson and Mark Cantrell are working right now with the other agencies in that grouping to re-envision Coastal America and its role. It can serve as a platform for an enhanced coastal dialogue. Looking specifically at its assets, like coastal Ecosystem Learning Centers, and thinking about the integration of our two offices and where it is that we have not just capability but also "touch" in these regional based entities. We can envision greater opportunities, much more of a dedicated, tactical presence, with the ELCs. There has been a lot of hanging the shingle outside of the door and federal agencies provide gifts without a lot of follow up, so some of the related institutions are a little skeptical. What is it that we envision doing with these groups and in what fashion? Gerry Shubel is a great encourager of this and has some wisdom on this as well. Collectively across the 20+ ELCs, what do we think is possible?
  - PKC – Louisa and I were at the Coastal America, annual Student Summit and the student presentations were amazing. We had the conversation asking, how do we help the student teams and work through that network, it's an amazing network like you said. How do we help catalyze the group once they get back to their sites and move that effort forward? That is a very powerful network and can be energized and sustained with very little effort. The only need is some creative thinking on our part on how to do that.
  - LK – This goes back to the presentation we just heard, aquariums have high credibility. When people go to the aquariums they are activated for learning, they care more about ocean issues; they're interested in what actions to take. Aquariums have come a long way from being entertainment places to wanting to help address community driven conservation. This is one of many areas. One of the most important things we offer to aquariums is our ability to present data and visualize it in compelling ways. That is one of the real strengths of this coastal organization. I really hope that is one of the clear connections we can make in this new organization is making that visualization capability available for education products because we need so much to be able to display things to people in ways that are meaningful and we have tremendous capability there.
  - PKC – The other amazing things we saw there was the diversity of those students groups. We are always clamoring to reach a diverse audience within this agency and through this network it is handed to us on a silver platter. The other issue which has been revealed though the Ocean Project is that adults will listen to

younger generations, including students and their children, pertaining to environmental issues and they won't necessarily listen to other adults. Here we have this perfect venue to go back and talk with other adults and students through ELCs. One other question: for this program will the HQs be based out of Charleston or SS?

- Jeff – We can't answer that right now without approval of the package but the thinking is that the single program will have a Single Executive Service head. We're envisioning two deputies because of the span of the requirements we'll have. It will be the largest office within NOS in terms of personnel and budget. When you add in the regional configuration you'll have a whole other dynamic. In order to honor the fact that we have people concentrated in areas like Charleston and SS and the rest of the nation, I expect the chief will be in SS or Charleston and at least one of the deputies, if we have two, will be in another place compared to the director. Don't hold me to this though.
- LK – Since these discussions raise such important issues, should we provide written comments on the strategic plan at this point?
  - Laurie – The strategic plan is pretty much final. We're looking for conversation on how to engage other parts of NOAA offices and council within the implementation plan. There are a number of great points that have been raised here today. Both Jeff and I and our Ed council members would like to bring back to the organization. There may be some rich follow up discussion with your office or the council, on ensuring that the new office is doing its upmost to help NOAA achieve its education mission.
  - LK – Well, for example all of our B-WET programs have a regional focus and it is very much tied to the specific issues faced by the region. There are a set of regional priorities that get laid in with the national program. Figuring out how to align our drivers and priorities is worth some time and will take some time to put together.
- Jeff – In closing I would like to say thank you to the council. Great questions great discussion, I think we need to sustain this discussion and we're looking forward to engaging with you all as you finalize your plan. Looking in particular at the last bullet (Slide 16) that you the council may see as near term or long term opportunities for collaboration, it's really about that engagement. What do you see about the plan right now that says yes, we would like to have a continuing conversation about that? As Laurie mentioned we're close to finalizing the plan so we're not able to include major changes or editorial items. But if there is something about the vision or strategy or signs of success, especially in the outcomes part of the plan, which you think could resonate with just a little tailoring, then we very much welcome that.
- LK - Thank you Jeff. That last bullet is what I was looking at when I thought we may need to put pen to paper.
- Laurie – It would be necessary to do this, to stick within our time frame, it would be nice to do this in the next 2-4 weeks.

**ACTION – Ed Council members: Contact Atziri if you would like to make comments or very minor edits on the outcomes and strategies in the integration/strategic plan.**

**Due Date – April 17**

Break

Working Group updates (*Input Requested*)

**Regional Education Policy – Shannon Sprague (20 min)**

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Accompanying powerpoint

- SS – We wanted to give you all an update and hear some feedback if you have any.

See powerpoint

- SS – Not mentioned on the slides, I spoke with Christos recently and we discussed an approach to this lack of education policy expertise as a barrier. One solution is to look across the regions, and determine rubric then identify

the locations that are most ready or less ready and advance our conversation with them as needed. This is still in the brainstorming. This rubric style will help organize the large amount of information that is coming in.

- CM – You did a great job of describing this. We used the term “national dashboard” to see where we are in certain regions. Clearly Chesapeake Bay has been extremely successful. If we use this as a model and break it down to the key components of success, that will be helpful. That will also help the regions beef up in areas where they may be the weakest and learn from other areas that may have that particular expertise.
- SS – Any questions?
- FN – How do we explicitly talk about the informal educators? You mentioned NERRS and Science on a Sphere (SOS), but there are other networks in that area. 2<sup>nd</sup> question: In climate there are some efforts underway to address those aspects. I want to make sure we are coordinated to ensure there is no duplication of work, especially if some of that work is already underway.
  - SS – Absolutely. I work primarily in the informal education realm so my examples reflect that more than what the end product will look like. I did not mention working with the climate team, but I recognize that you are in that stage where we intersect with that working group and that would be a WG to speak to before we roll out the plans.
  - FN – I sent you a resource that will match well with what you are looking for.
  - SS – Thank you.
- LK – Great job to you. I think that the idea of assessing the ripeness /potential of each region to move forward makes sense and not necessarily committing to move forward in all regions. My observation in the Ed Council is that the projects moving forward are the ones that individuals see benefiting their own programs, not necessarily the efforts of the overall group. Where you can help make the case that the united effort will have programmatic benefits. The inventory of who has access to what networks will help assess the potential of moving forward in a region. The training will help but the network of people that are already in position and have the know-how will be very valuable to you moving forward.
- AI – In regards to the priority setting, just a note of caution in avoiding duplication with the efforts of the WGs. We will definitely need strong coordination between your efforts and those of the WGs. Secondly, what do you envision with this? What would be a success for you?
  - SS – For the first comment, I entirely agree. To the second, I see the Regional WG as a “how.” Most of the other WGs are a “what.” You know, what are we working on? NGSS. How is that implemented? Through regional work. We’re making sure that we can identify people to serve on other WGs with their regional strengths. I think NOAA is well positioned to shape education policy at the state level. To me success is seeing regional implementation of NOAA tools and personnel to reinforce environmental education. I’ve seen that we can have a very powerful voice if we chose to use it.
- LK – That’s quite a vision Shannon.

### **Distance Learning – Peg Steffen, Bruce Moravchik (10 min)**

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Accompanying powerpoint

- BM – We’ve since had one formal meeting where we’ve begun to address the initial goals. With our committee members we have a good snapshot of education efforts across NOAA.

See powerpoint

- BM – Any questions?
- LI – While you’re looking at this snapshot, have you found any illustrative examples that provide an optimal vision for what can be done with distance learning?
  - BM – That’s the goal right now. We may not have a cohesive plan or cohesive vision of distance learning across education programs. We’re looking to come up with something to that effect. First we’re asking, what do we have available and is it meeting our needs? Our next step will be for the committee members within their various offices to see where we can go from there in a coordinated effort.
  - AI – I completely agree and this relates to what Lisa asked. Seeing what is going on with the NERRS program, there is a lot of testing and a lot of learning. And so saying that one approach or methodology is the perfect way to do something cannot be determined right now. Many of us are still in that learning phase and we all need to tweak things to our respective audiences. I would like to plant the seed to the NOAA Education Council that we are also responsible for conducting research. And we’re trying to figure out in education what works and what doesn’t.

- BM – I agree. When I mentioned the development of a coordinated approach was not referring to a specific approach but rather understand best practices of distance education tools based on audiences that we focus on. This will be an ongoing process as our goals evolve and our technologies evolve.
- FN – As the travel restrictions continue, there is an unchecked assumption that you can do things cheaper and more effectively via remote interaction that you can face to face. Some of these efforts have to be done via distance learning. But some things are being seen as a replacement for face to face and in my experience actually end up becoming more expensive and harder. Bringing a scientist to NSTA in two weeks via distance learning will actually be more expensive and more difficult than it would have been face to face. Is this part of the scope of your needs assessment?
  - BM – I understand and think that is something we need to bring forward. What is the efficacy of 1-2 hour distance learning experiences vs. holding a single or multiple day workshops with other professionals?
  - FN – I'm talking more about CFO's saying you can do these things remotely. There is some internal NOAA educating that needs to happen here with those best practices.
  - KT – That's where we are going with this. The point is that NOAA is so far behind other agencies in how we use distance technology because we are stuck in the past. This snapshot is to take a look at who is doing what with what technology. We need to know this first. Then we can determine where to go from there. We need to know how we can make more of an impact with things other than just a teacher workshop. That's the only way we will be able to function in the coming years. We had better get on board with the technology otherwise we're going to get shut down. We need to figure out how to step out of the box and do education programming in different ways.
  - BM – This is not meant to be a single solution. But we need to understand what we can do.
  - AI – If we can identify those needs in order to leverage our equipment needs. Just last week we learned a lot when we completed a virtual meeting with all of our 28 education coordination leaders.
  - RG – The key is balance, as you said Bruce. Not everything is translated to technology. For example, try to establish a scientist student mentorship online, I don't think that would work. Having said that, the president of AMS, Marshall Shepard, has just weighed in on his blog. I'll share it with the group. It discusses the pros and cons of distance learning.

**ACTION: Ron will send out a link to Marshall Shepard's blog discussing the pros and cons of distance learning efforts.** Action completed.

<http://blog.ametsoc.org/columnists/for-science-and-discovery-videoconferencing-wont-get-it/>

## Updates and announcements

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- LK – Quickly I would like to mention NSTA. We are in a time where there is tremendous sensitivity about travel. It was painful to cut the numbers back and thank you for finding people to cover presentations, that doesn't mean other things won't be lost.
- Update on the 2013 appropriation. I understand the conference mark released by the Senate last week will be our final mark, minus the 5% sequester and a 1.877% rescission. The rescission comes first. Lisa will send the link out to everyone.

**ACTION: Lisa will send out the link to the CJS conference mark.**  
Action completed.

<http://www.appropriations.senate.gov/news.cfm?method=news.view&id=0f7f2ddc-d4b2-4991-9417-0169643aabf1>

- LK - It still has to pass the Senate and House but gives us important information for future planning.
- On the OMB pass back, the CoSTEM recommendations from the draft strategic plan have not been taken up. The cuts across the agencies have gone forward. I was pleased that in the House Science hearings last week there were several educators that spoke. One in particular said that in the end Congress will have the last say on what role the agencies have in STEM education.
- RP – OAR table at Vienna Choral Society's "Concert For A Cause: Music Of The Storms, Science Education, And Disaster Relief" was a success, 250+ people attended.

- RG – Marshall Shepard with AMS is encouraging a week-long education in-reach to the schools for next year's AMS meeting in place of the usual community outreach event.
- BM – New Journeys workshop on April 19<sup>th</sup>-20<sup>th</sup> at the Museum of the American Indian, a formal invitation will go out soon.
- KT – Michiko will be on a detail with EPA until May.
- PM – I'm headed to NSTA and I've picked up a couple presentations, glad to step up there.
- AI – We had our virtual meeting with educator's network. We had some good conversation about evaluation and found that there are a lot of evaluation efforts going on out there.
- CB – April 26<sup>th</sup> all of our Sea Grants Academy participants will be engaging in the Smithsonian's "Scientist is In" during the afternoon, everyone is encouraged to attend. Also, on a sad note Jeannete Bousard, NMEA's only full time employee, has passed away unexpectedly.
- BR – Our Pacific NW B-WET competition opened as of this morning and will close April 23<sup>rd</sup>, available at [grants.gov](http://grants.gov) and on our website.
- FN – The new Climate Portal will be released before our next meeting.
- PKC – The Okeanos Explorer is doing a shakedown cruise and you can see live videos if you go to their website.