

## NOAA Education Council Meeting

Date/Time: July 22, 2009 (1:00–4:00 pm)  
 Location: SSMC3, Room 14836  
 Dial-in: 866.901.0711  
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### AGENDA

- 1:00 Welcome/Opening Remarks
- 1:10 Implementation Plan Introduction – Christos Michalopoulos (*informational*)  
(5 minutes introduction)
- 1:15 Implementation plan work group leads report to Council (*input request*)  
(40 minutes total – 10 min per group lead)
- 1:55 Implementation Plan outline approved by Steering Committee – Steve Storck (*input request*)  
(20 min discussion)
- 2:15 Council input on NOAA's Next Generation Strategic Plan – Marlene Kaplan (*input request*)  
(10 min presentation/15 min discussion)
- 2:40 B-WET Conference debrief – Bronwen Rice (*input requested*)  
(20 min informal discussion – around the room)
- 3:00 Updates & Announcements

### Upcoming Council Meetings:

**August 19, 2009**  
**September 16, 2009**

### Attendance

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**In person:** Louisa Koch (Chair – LK), Thanh Vo Dinh (TVD), Karen Eason (KE), Ron Gird (RG), Ann Garrett (AG), Jennifer Hammond (JH), Bob Hansen (BH), Molly Harrison (MH), Nina Jackson (NJ), Marlene Kaplan (MK), Judy Koepsell (JK), Luis Leandro (LL), Paulo Maurin (PM), Carrie McDougall (CMc), Christos Michalopoulos (CM), Bruce Moravchik (BMo), Dan Pisuit (DP), Bronwen Rice (BR), Irelene Ricks (IR), Steve Roda (SR), Peg Steffen (PS), Steve Storck (SS), Kate Thompson (KT), Carla Wallace (CW)

**On the phone:** No participants

### Announcements

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- Steve Roda Intro: Introduce and welcome Steve Roda as our new PA&E representative to the Education Council. Look forward to bringing you up to speed on education and what we all are doing as a Council.
- Meeting between Dr. Lubchenco and leadership team. The purpose was to build a connection between NOAA staff and the new team. Good news is that education was on the radar and was mentioned by Dr. Lubchenco and Margaret Spring as an important piece for NOAA.
- Thank everyone for input and assistance with the NEP brief. Brief was well received. Ed Council viewed well as an operational council. Lots of relevant questions asked by Mary and others in the room.
- A few of us met with NSF and created a 2-pager on collaboration between NOAA and NSF on Climate. The 2-pager will be posted on the Council website and Luis will make an announcement about this.
- Met with House Natural Resources staff to talk about the B-WET authorization bill. Representative Capps (CA) wants to be a sponsor. The committee likes the approach we are taking with B-WET of having someone in the field run each regional program.
- Introduce Bronwen Rice as our time keeper for today's meeting. As a reminder, this is one of the new recommendations put forth by the presentation criteria working group that was endorsed by the Council.

### Implementation Plan Introduction – Christos Michalopoulos (*informational*)

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Introduction (CM): Very successful retreat. Working hard on implementation plan draft. Target deadline is August 14th. This deadline is driven by the last writing meeting that the NAS review committee for NOAA Education is holding. We

proposed to the NAS review team to see the draft implementation plan and provide informal feedback. Steve is taking the lead on writing the plan. We are on target and the plan is to have the final document written by end of the calendar year. I think we should be able to meet the deadline. We have four working groups that represent the four strategic directions that were identified during the retreat. These groups have identified specific milestones, deliverables, timetables and persons responsible for each milestone. We have asked those groups to review and refine those work plans. These work plans will be part of the official document. We are going to hear from the leads of each working group on the status of their plans.

### **Implementation plan work group leads report to Council (*input request*)**

#### **PK-20 workgroup**

- CM: Are you planning on focusing on pre-K through third grade teachers? PS: Yes, we are interested in looking at this. Elementary teachers often do not have an adequate science background. Science tends to be intimidating to many elementary school teachers. So, we need to think about how we can help them help students.
- MK: How intimidating can it be to teach science to first graders? PS: Clearly it is, because they are not doing anything about this.
- CM: For the GLOBE program we did a lot of teacher professional development. Consistently elementary teachers had this phobia dealing with science. Having said that, if you spend the time to help them overcome that fear, we found consistently that they were amongst the most creative people. You cannot teach science the traditional way to kids of that age. You have to use music, art, painting, etc. The teachers came up with innovative ways of teaching science to their audience in an effective way. So, the key is to overcome that initial phobia and build enough confidence in teachers that they can do this.
- JM: It is also important to put things into perspective that they are teaching multiple subjects in a 6-hr day. As a result, the tendency is to gravitate toward what you are most comfortable with. We need to help teachers understand that science is something that can teach multiple subjects.
- KT: Elementary teachers have to take a test for every single subject. So, they have taken the science test and take at least two science courses in college to get that science certification. So, they should be knowledgeable. Problem is that government agencies that do education focus on 4-7 grade level more than any other level. So, we never take our concepts down to K to 3<sup>rd</sup> grade level.
- PS: To wrap this up. We want to get over the phobia of teachers teaching science and also focus on younger students.
- SS: Is your group getting comfortable with the language in your tasks such that we can include these in the plan? PS: No, not really. We are using primarily the matrix connection between the tasks and how these are aligned with the strategies in the strategic plan.
- CM: We need to take this offline, since we want to make sure we have one format for consistency.
- PS: I am proposing that all groups stick to this format.
- KT: But this document does not provide enough information. When you put boxes with just X, you lose accountability. I think we may need to have more detail in the actual plan.
- PS: We did not feel comfortable with specific names associated with milestones in the actual implementation plan.  
SS: Peg, I will meet with your group to discuss this and come up with a format that you are happy with.

#### **BEC workgroup**

- CM: We are planning to give you the proposed evaluation framework for NOAA that Atziri is working on in September. We want to take this for a vote in September, but if more discussion time is needed, we can vote at the October Council meeting.

#### **Engaging Leadership workgroup**

- BH: This group is about engaging leadership and congress and making a case for why NOAA Education is important.
- PS: What portion of this document is going to be in the implementation plan? SS: The internal document would have the details of these discussions and milestones here presented. The actual official document would have objectives and sub-objectives, but not necessarily have people's names associated with specific tasks.
- KT: What is the primary audience for this plan?
- CM: During the last steering committee meeting, it was clear that folks felt strongly that the primary audience for this plan was us, the education community and the Ed Council.
- LK: Most of this information presented here, with milestones and people's names, is not going to be included in the actual implementation plan. This is just for our own information and so that we can keep track of progress.
- CM: We will only have very generic objectives and sub-objectives (without names) on the plan. The more detailed information is just for us and not to be shared with the outside community.

#### **Connects:**

- PS: We go to the national educational computing conference every year. I thought that the conference was useful and the key is that the teachers bring the students to the conference to participate and use of technology in the classroom.
- NJ: One of the things that I think NOAA could do is contribute for the content more so that NOAA data can be incorporated into the technology applications.
- SS: Based on input received from some of you, we should consider having a booth at the conference next year. We should discuss this further.

### **Implementation Plan outline approved by Steering Committee – Steve Storck (*input request*)**

Introduction (SSt): The overall objective of this presentation was to initiate Council engagement and feedback on the next steps of the implementation plan.

- SSt: Please look through your group's milestones and plans and let me know within the next two weeks if you would like to see any changes there.
- SSt: The document I am passing out is the retreat report that we got from Jonathan, our facilitator. We will post this report in the Ed Council website.
- KT: It would be really interested to see how many resources are going to education from each line office.
- CM: This is a really good idea Kate. We will work on adding this information there.
- SSt: Please check my work to make sure that the information I am presenting here (referring to matrix slide aligning strategic plan strategies to each group) is accurate.
- LK: There needs to be a decision made if we should take the step of including what all the programs are already doing into the plan.
- PS: We already provided a lot of this information in the matrix. Could we pull out this data from the matrix and include it in the plan?
- CM: Perhaps we could even include the matrix as an appendix.
- SSt: We can show emphasis and alignment between the strategic directions with what we are currently doing. I will draft something and share with the council.

### **Council input on NOAA's Next Generation Strategic Plan – Marlene Kaplan (*input request*)**

Introduction (LK): If you remember, Paul Doremus presented to the Council and asked us to provide official input on the Next Generation Strategic Plan (NGSP) process. Paul has sent us specific questions for us to answer as a Council.

Marlene has taken the lead on coordinating input on behalf of the Council. Thank you Marlene for your help with this.

- MK: What I am presenting here are just a few ideas. This is supposed to be a brainstorming session and we would like to receive input from you all.
- SSt: If you want to show an environmental literacy trend against in the U.S. vs. other countries I can send you some data. MK: This would be great, please send them to me.
- JK: Is there anything we could include on social trends or interest in science?
- PS: I would mention other technology trends as well. I can send you some data on this. PEW research has a lot of stuff on this.
- RG: There is one study that AMS published this month about public weather forecasting and how the public gets their weather data. Overwhelmingly the answer is from media sources such as TV. The surprising part is that the internet access, PDAs and technology is less than 1%. I can send you this report Marlene. I think that this is misleading. The internet is a source of information for sure, but how the public gets that information is a very different question.
- PS: Information access is almost a separate issue. This is a trend that we, as a science providing agency, should understand and be aware of.
- TVD: Please keep in mind that for the purpose of this exercise, this trend needs to project 25 years into the future for NOAA's strategic plan.
- LK: One of the most impressive NSTA statistics is the low number of science teachers that have taken a science course.
- JH: Fisheries had a web 2.0 conference. Kate Thompson can probably send you some of the data from that conference.
- MK: So, here is what I am hearing. We need something on access to information and social trends. We need something about future workforce stating that there is a demand in the science fields and a decline in enrollment in areas of need. We will keep the one on demographics, one on teaching that has to do with the declining in field teaching as well as trend data.
- LL: Another approach would be to look into having someone from the Ed Council represent the education community in the Next Generation Strategic Plan steering group. I have hear that education has been mentioned at a recent meeting of this group, so it would be appropriate to have someone represent the Council there to speak on behalf of NOAA Education.
- TVD: So, there is no one from the council in that group?
- LK: We have not been asked to represent.
- TVD: Ok, I will talk to Paul Doremus about this and ask him.
- PM: On the "what should NOAA strive to achieve" question. In answering this question we need to think about what we are trying to achieve. What is the end goal?
- SR: I can tell you from a PA&E initiative that environmental literacy and workforce development and diversity is what we are looking to fund. So, I would suggest you focus on this for your answers.
- MK: Ok, we will focus on the two goals (environmental literacy and workforce) as an answer to this question.

### **B-WET Conference debrief – Bronwen Rice (*input request*)**

- Conference great success, collaborative effort, thanks to all the Ed Council members who participated and supported the participation of their staff.
- Conference details

- 130 grantees, over 150 participants including NOAA and external invitees, including the President of the National Environmental Education Foundation (Diane Wood), the Executive Director of the North American Association for Environmental Education (Brian Day), and Dr. Lubchenco.
- Primarily an opportunity for grantees from around the country to meet and learn from each other/develop a community. First ever national conference. Future years: national every two years, regional/local events in the interim years.
- Of particular interest to the Council (and to B-WET for feedback): Thursday morning science sessions
  - Concurrent sessions on science topics, including Climate change and ocean acidification, marine debris, HABs, habitat restoration, MPAs, and more. Focus not necessarily on educational resources, but 'state-of-the-science' professional development.
  - Overwhelmingly positive feedback on this activity. Participants wanted more time/opportunity for questions/discussion.
  - Suggests we have an-undercapitalized connection in B-WET regions in terms of an active and enthusiastic community of grantees: both in terms of NOAA scientists getting the word out about funding opportunities/getting connected to potential partnerships, and B-WET educators as a conduit for transmitting current NOAA science to their audiences.
- Heard that NWS has some programs that could be aligned (Ron Gird), would like to open the floor to other suggestions from council members on how we can build on this/feedback on conference and opportunities to connect/leverage efforts.
- RG: Thank you again for the invitation. I thought this was a very useful conference. I enjoyed Jack Dunnigan's talk. The Weather Service has education modules. One is on watershed. These are available free. These are professional development modules for teachers that we could share. The Weather Service also has a service coordination hydrologist. There are 13 river forecast centers around the country. We can provide you with the name of the service hydrologist for each region. There are also other connections that I can see within Weather Service and I will look further into this. In October the National Weather Association poses their annual meeting and there will be a series of TV broadcasters. There is a teacher workshop as well that is part of that meeting. I can give you all this information. Our annual meeting is in Atlanta next year.
- BR: We will be updating the website with materials from the conference.
- KT: The ocean acidification presentation was very good! For the first time, we were connecting to the public in terms of ocean acidification and what people can do at the individual level. It was excellent.
- JK: Could I have access to some of these presentations?
- BR: Yes, we will post these presentations on the B-Wet website.
- CM: As a suggestion, the NOAA regional B-WET coordinators should consider reaching out to their NOAA regional leads in an attempt to connect with them with the ultimate goal to make NOAA science, products and services widely available to their constituents.
- NJ: We use blogs to interact with people at conferences as well.
- PS: games.noaa.gov, NSTA EPD site. Few items on EPD site that are not free, but these are free on the NOS site. There is professional development information on these sites.
- KT: Something to think about is to include guidance on how to partner with NOAA.

#### **Updates and Announcements**

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- NJ: We have hosted 2 teacher conferences. Ron participated. Went well. Had 29 teachers. NESDIS will sponsor the conference again. We organized a second conference for high school students from Victoria and Cape Town, South Africa on climate, ocean sciences and biology. Students had MS and PhD's from the U.S. We are working on developing new education materials. Developing a new science dictionary (250 words) in English, Spanish and Sign language.
- KT: Ocean for life program has kicked off. Audience is Middle East. We are working with the Globe program, National Geographic and DOD. This week is in the FI keys, next week will be in DC. There will be a barbecue and formal reception in the Senate. They will be going also to the White House. The First Lady will be there and maybe even the President. All will be documented in a blog site. Update on Ocean Literacy summit that is happening at the Oregon Coast Aquarium the day before the AZA conference in Portland. The Summit is at Newport at the aquarium. They are our official sponsors. So far only Peg has expressed interest. The evites are going out soon. Please let me know if you are going to AZA and will be in the area for this event.
- BMo: Next week (July 29) we will be hosting a focus group for elementary through high school educators. Will be getting their perspective on use of technology and online resources in the classroom. Will also have focus group for students in August 17. PS: If you have grades 3-8 kids that would like to participate let us know.
- RG: 2010 AMS Weather Fest in Atlanta on January 17. We will have a teacher workshop as part of the fest. NOAA is a sponsor of this even. Carla Wallace and I will start working on this. We met with Dave Jones and he is moving his storm communication team to the University of Maryland in Baltimore. They will have a video studio capability. We have been invited to look at his new facility. I am convinced this will be one of the companies we will put in the implementation plan as a ways to connect with the public through technology. For

the first time a climate change educator workshop at the Aquarium of The Pacific, November 15 this year. NOAA is a sponsor and this is being conducted through Sea Grant.

- PM: I am writing the report to congress on corals, which is taking most of my time. Went to NMEA conference in Monterey, CA. We did a couple of sessions in coral bleaching and ocean acidification. Were very well received and attended. Good interaction with teachers. Beginning to draft strategic plan for coral education and outreach components. Expect to be done by end of October. Seeking to align with NOAA Strategic Plan. We will be sending our education coordinator to AZA conference.
- PS: I mentioned the climate stewards' concept paper is coming out. We have a meeting with NSTA about the professional development section of that. Will send concept paper out to you all. Meeting is Friday with NSTA to continue planning the symposia on Climate. It will happen starting this fall electronically through web seminars. Will follow through in the spring with symposia. Dr. Lubchenco has been invited by NSTA to come to the Philadelphia Conference. Games web continues to grow. We have lots of new partners. We are expanding to iTunes University. We are working on this agreement to have a NOAA channel on the iTunes page.
- JK: A new effort in NWS for El Nino campaign. The possibility of El Nino this year is being looked at. We are looking for expert speakers. Trying to get input on speakers.
- DP: Trying to develop a climate and weather teacher's workshop with the University of Wisconsin sometime in Nov-Dec. We are looking for venues. It will probably be a weekend workshop. We would like to do this here in DC. If anyone has ideas, please let me know. Small group of people, about 30 educators.
- CM: PPBES is in full force. Luis sent out an email about the Education Survey in CasaNOSA. The new deadline is now August 21, so the survey will close COB on the 21<sup>st</sup>. Please work with your program managers on this. We are putting a request for B-WET and EPP in this year's POP. PS: We need to do better in terms of web design. KT: I would like to see us succeed in education through PPBES. Every year we put requests for education and we never see anything going through. CM: Yes, I understand your frustration Kate. There were a few success examples last year. We received funding increase for Competitive Grants (\$3M) and Teacher@NOAA (\$1M). These request made it into NOAA's FY11 budget submission to DOC. Let's talk more about this offline.
- SR: Just by me sitting here, you guys are players automatically in the process. With regard to the website that Peg mentioned, we are interested in an initiative like this across NOAA. It's being addressed at a higher level. There is a scalability issue with PPBES. Cross connections in a priority. CM: maybe we can set up a session with Steve Roda and discuss some of the issues we have as a council and what we can do about this.
- BR: As a reminder, all 6 B-WET regions have a funding opportunity open. I will send out the info to the Council and we would appreciate your help with distributing this information widely.
- LL: On behalf of Lexie, please complete the Matrix Survey by the end of this week if you haven't already done so.
- IR: EPP Hollings final presentation week is next week. We are looking for judges. Please help out! Let me know if you want to volunteer.