

NOAA Education Council Meeting

Date/Time: January 16, 2013 / 1:00–4:00 pm
 Location: SSMC3, Room 14836
 Dial-in: 866.901.0711
 Passcode: 8134683
 Contact: Lisa Iwahara (202) 482-3139, Erin Sams (202) 482-9183

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

****Important Note Regarding Audio:** Unless you have a PC headset with a microphone, please remember to mute or turn off your computer speakers when you call in to avoid sound interference. If you have a PC headset, you will be able to connect directly through your computer and participate in the meeting as normal, without needing to dial the number above through your phone. Detailed instructions on how to set up your audio in Adobe Connects are available here: http://www.oesd.noaa.gov/council/Audio_AdobeConnects.pdf

AGENDA (updated)

- 1:00 Welcome/Opening remarks - Louisa Koch (10 min)
- 1:10 NOAA Education Web Advisory Group Annual Report (*Informational*) – Steve Storck (15 min presentation/15 min discussion)
- 1:40 Communicating ocean acidification: Workshop summary and update (*Informational*) - Paulo Maurin (10 min presentation/10 min discussion)
- 2:00 Update on NGSS internal review and comment period (*Input requested*) – Peg Steffen (10 min)
- 2:10 Break (15 min)
- 2:25 Working Group updates
 - M&E (*Informational*) – John Baek (10 min)
- 2:35 Implementation of the Next Generation Science Standards—Challenges and Opportunities (*Informational*) - Ted Willard/Frank Niepold sponsor (15 min presentation/15 min discussion)
- 3:05 Updates and announcements
- 4:00 Adjourn

Upcoming Council meeting dates:

February 20, 2013
 March 20, 2013
 April 17, 2013

Attendance

In person: Louisa Koch (LK), Christos Michalopoulos (CM), Erin Sams (ES), Lisa Iwahara (LI), John Baek (JB), Marlene Kaplan (MK), John McLaughlin (JMc), Molly Harrison (MH), Bronwen Rice (BR), Sarah Schoedinger (SSc), Sarah Yue (SY), Bruce Moravchik (BM), Stacey Rudolph (SR), Chelsea Berg (CB), Ron Gird (RG), Bree Murphy (BMu), Liz McMahon (LM), Steve Storck (SS), Judy Koepsell (JK), Frank Niepold (FN), Rochelle Plotchak (RP), Peg Steffen (PS), Serenity Purcell (SP), Carrie McDougall (CMc), Paulo Maurin (PM), Dan Pisut (DP), Steve Storck (SS), Osaretin Obaseki (OO)

On the phone/chat: Seaberry Nachbar (SN), Shannon Sprague (SSp), Sarah Yue (SY), Atziri Ibanez (AI), Melissa Ryan (for Paula Keener) (MR), Stephanie Bennet (SB), Stacey Rudolph (SR), Maria Murray (MMu), Eric Hackathorn (EH)

Presenters/guests: Ted Willard (TW), NSTA

Welcome/Opening Remarks (LK)

- Louisa is in New Orleans at an AZA meeting with directors
- Announcements for personnel changes within OEd
 - Erin Sams leaving when Knauss Marine Policy Fellowship concludes on Jan 31st, heading to Boulder, Colorado
 - Sarah Yue leaving OEd (Jan 25th) for Program Officer position with AmeriCorps, working with the state and national arm in their grants programs, hoping to be involved in their Environmental Stewardship focus area

- Chantell Haskins retired as of Jan 3rd, Victoria Dancy has moved up to team lead for our Scholarship programs
- Ellen Gordon has moved from OEd Communications Director position; intern Serenity Purcell moving up to fill this role
- Addition to agenda: After break, hearing from Ted about NGSS, then hear from Peg briefly to talk about internal coordination process to provide comments to NGSS framework

NOAA Education Web Advisory Group Annual Report (*Informational*) – Steve Storck (15 min presentation/15 min discussion)

See PowerPoint.

Looking Forward: We are in need of a new collection authorship review process. The Ed Council Connects WG has served as the educational content review team since the beginning of the site revision. With the sunsetting of this group we no longer have a review committee. The advisory group explored several ideas including an annual review by the Einstein Scholars but no firm direction has been selected. In the meantime review is being conducted by Steve with the assistance of scientists who review the content for technical errors.

Advisory Group rotation: The website advisory group is staffed by representatives nominated by the Ed Council. Four members are present with 2 rotating off the group every 2 years. In March, LuAnn Dahlman and Lisa Ayers-Lawrence will be completing their 2 year term. We will be asking for nominations at that time for their replacement. As Rob Ostheimer and Erik Hakathorn, the other 2 members, are both more technically oriented it would be nice to have nominees with more of a content or educational focus.

- FN: When we do exhibit work at conferences, undergraduates and grad students continually want to go to the Student Opportunities pages. It's clear that the page is being used and that it makes sense to continue to improve it.
- BM: Based on your review of the stats over the past year, how do these categories [topics most searched on noaa.education.gov] relate based on what's been available?
 - SSt: We've have ups and down among topics and with different events, especially with the tsunami and oil spills; Oceans & Coasts has been higher before, before Science Olympiad, but it's still the 2nd most used resource. This is actually a pretty good reflection across the year. Oil spills is still the 4th most used resource on the website.
 - PM: Just wanted to emphasize a point just made about the Student Opportunities page and that we need to work better to make it more representative of all of NOAA. We have a lot of high quality opportunities, but when I direct them here I know they aren't finding all of the available opportunities. I always point students here, although I can't direct them to the CR Fellowship.
 - SSt: Absolutely, Paulo. And if we think about Goal 2 in the Strategic Plan, this page can be used as a tool to represent student development and introducing careers.
- RG: Comment about the NWS; We've been working with an outside contractor for a few years to do customer satisfaction index surveys for targeted populations (aviation, marine, etc.). We just saw last years' results and one topic brought up was a potential survey of the student population to see how NOAA & NWS fares with student interests across the country. We don't know if we will be able to do this, but it's an area being thought about for educators.
- RP: When you do start pushing content, you really start to see different traffic and will have a tremendous audience. I have been using social media and have seen our content shared around so quickly.
- FN: In the original construction of the resource topics, there were some original target collections. Are there goals for filling some of those out over time?
 - SSt: The Advisory group recommended we focus on good content and broadening our content, and more importantly starting to link the content to science standards and seeing where gaps are. They encouraged us to start soliciting ideas from science educators and engage more with our end users. So, we don't have a specific strategy, but we do have a strategy to get topic areas that will be used.
- PM: Great Job! From what we had before, I'm very proud of what we've done with the site.

Communicating ocean acidification: Workshop summary and update (*Informational*) – Paulo Maurin (20 min presentation/10 min discussion)

See PowerPoint.

NOTE: The powerpoint presented summarized information from many NOAA partners who attended the workshop. The content is for internal use only at this time.

- FN: One of the things that's coming out of the climate communication and research world is that if individual people have a role to play, it's too small. The solutions need to be commensurate to the scale of the problem. You have to make the audience aware that each individual is part of a large scale solution, that the aggregation of one's individual efforts along with the efforts of many others is what really makes a difference. I can show you the research literature on that. I would just council you that this is an important piece that's being understood now.

- Second thing, one of the things that Dick Feely said was that the stabilization scenario for CO₂ in the atmosphere for OA is lower than what the climate community is accepting as the target (450 ppm). For OA, this would mean seeding the ocean well beyond what is ecologically sound. This target is not going to help efforts for OA, as we are already at ~392 ppm.
- PM: Erin, is there anything you would like to add?
 - ES: It was fascinating to see how much the scientific community was realizing the importance of getting “ahead of the game” and starting to communicate the science with the understanding that new results will continue to inform our understanding of the issue. The fact that so many people are already on board with the idea that not every area is going to be affected the same way and that we need to communicate this so that people don’t see different results as anomalies in our data is a really good sign for moving forward in this new field of science.
- SS: One of your goals you mentioned was identifying your target audiences. Where are you in that process?
 - PM: The gap analysis and target audience assessment is being called for in the implementation plan. Secondly, I think it is important that the OA office continue to work closely with OEd.
- SS: So that is only at the planning level, you have not started working on the resource gaps or target audience identification yet?
 - PM: Not within the agency yet, but it’s in the implementation plan being created.
- SN: I participated in the workshop as well and wanted to let you know about Upwell’s email newsletter, which comes about once a week. They’ve done a good job of capturing the interactions that are going on in the social media world. You can go to Upwell’s site and subscribe to the newsletter: <http://www.upwell.us/>
 - PM: I agree, their messages are just edgy enough to get your attention and it’s good to see how a small group of people are doing advocacy for the oceans.
- SB: Did anyone suggest a different name for “ocean acidification” that is more layperson friendly?
 - PM: There are some issues being raised about the image people see when thinking about “ocean acidification”. Some people think we should look into something else. My opinion is that the term has already established itself, and just like the problem, is here to stay.
- SN: The workshop attendees definitely hammered in the point that you need to dissociate your conversation about ocean acidification from climate change because once you put climate change into your interpretation or discussion it automatically raises red flags and makes the conversation political for many audiences. It really needs to be presented as a separate issue and not linked with climate change.
- PM: We should be proud of the hard-working West Coast community that is addressing this issue.

Update on NGSS internal review and comment period (*Input Requested*) – Peg Steffen (10 min)

Visit: <http://www.nextgenscience.org>

- A group of us met last week to discuss the NGSS and what we as an education community want to do about it. Given the tight deadline, we decided it would be best for individual programs to submit their specific comments directly, but we would craft a joint letter with higher level points we would like to make from the NOAA education community. There is a signature page going around the room if you would like to sign on.
- This second draft came out Jan 8th; **comments are due January 29th through the website**. They’re hoping to get it printed and out to everyone in March so that there can be announcements and promotion for it at the NSTA meeting in San Antonio in April.
- Accepting comments on the appendices (College & Career Readiness (C), Nature of Science (H), Engineering, Technology, & Applications of Science (I), Model Course Mapping in Middle & High School (J))
- Must sign up to offer input via an online form; it is quite a workload
- **Must provide input to the letter by Jan 25th to Peg Steffen**
- FN: Ted is going to provide more information on this and is willing to talk with you more about this. Take your time with this, and feel welcome to contact him with your questions.
- PS: If there’s a topic that you really care about, you can use the internal search to look for standards based on this topic.
- MK: So Frank, you’re happy with how climate is covered?
 - FN: Ecstatic.
- MK: What about ocean?
 - SSc: They didn’t make the full edits that we requested in the past, and I haven’t had time to delve into this version yet.
 - PS: They take a real “terrestrial” view on things, so if it comes down to them refusing to think of us living on a water planet, that is something that we can suggest in the implementation part of this; that teachers need to look at different ways to view some of these performance expectations.
 - FN: Whoever rules the implementation/PD space is going to be able to take a weak platform and expand it.
- MK: This is our last opportunity to comment and if there are big issues we should make a lot of noise about it. We have the networks to do it and we should consider doing that this time as well particularly if there are some real issues.
- PS: Sarah (Schoedinger), if this is something that the OE community is going to be flagging, then certainly we should be making note of this in bulleted form in the letter as well.
 - SSc: I will look at the letter with that in mind.
- PS: And don’t be afraid to provide positive comments
- MK: They pay attention to our community and they know we’re here.
- FN: One of the things that Ted wanted to emphasize with the Council is that performance expectations are one thing, but the other 3 parts of that equation are important.

Working Group Updates: M & E (*Informational*) – John Baek (10 min)

See PowerPoint.

Scholarships Portfolio Review:

- MK: We need to loop in Sea Grant because they're working on tracking their students as well.
 - JB: Right, and I know that CRCP is interested in Student Opportunities as well.
- PM: Yes, and I have a question at this point. Is this going to be for public viewing once the reviews are completed?
 - JB: I haven't gotten that far yet...
 - PM: We could incorporate information on new student opportunities from the report on the website.
 - JB: Yes, we are considering that but it's way down the road.

Implementation of the Next Generation Science Standards—Challenges and Opportunities (*Informational*) - Ted Willard/Frank Niepold sponsor (15 min presentation/15 min discussion)

See PowerPoint.

- **Public Comment period open through January 29th, 2012**
- Updates available on <http://www.nsta.org/>
- MK: Our organization fully supports this effort and we're happy to see the additions to ocean and climate. We want to be as helpful and resourceful as can be, so what's the best way for us to plug in and help groups like yours as this builds out to make sure this is fully adopted and implemented as broadly as possible?
 - TW: There are elements both controversial and non-controversial that come with NOAA having a group of educators who are trained in the sciences. The number of people who are trained in the NGSS in my organization as well as yours, I presume, is much smaller than it needs to be. The more people from NOAA who are able to look at NGSS and determine alignment between standards, look critically at each topic area, look at the wealth of materials that you have and think about how that will play out the better informed the standards will be.
- FN: The new framework of the standards is just coming out, so the chance of people having good resources at the beginning of their implementation are very low. How quick do we need to have that "new stuff" in order to be ready when this is deployed?
 - TW: Less perfect resources are going to be fine as long as a teacher understands how to use it to provide an explanation in line with the given standard being taught. For example, when trying to help students understand seasonality, looking at a long-term data set to see trends in daily environmental data is a helpful resource that the teacher can provide on his/her own.
 - TW: When teachers have already accepted the Common Core standards, we can expect those teachers to keep working with those standards for the next 2 years. It's most likely that the *earliest* we'll see students working with the NGSS will be September 2014, but realistically 2016/2017.
- MK: I'm wondering about what will happen to the Earth & Space Science standards that exist in a different structure in the NGSS. We hope that this change from Earth System Science doesn't take away from the importance of this topic, especially based on NOAA resources.
 - TW: What happens in terms of assessment is a huge factor in all of this. I'll paint a best and worst-case scenario here: States will adopt this and will in some way have a comprehensive science exam because students aren't required to take Earth Science courses. In some ways it might look great that every state is going to have exams where these standards are going to be plugged into, but if kids only take once subject area course & the accompanying exam, that currently has no negative impact on the school. If a school starts to be assessed based on test scores on a broader range of topics, their view of testing may likely change. This is an example of how federal changes to education standards directly impact how a school performs, whether that is for good or ill.
- SY: Is Achieve working to enforce college credit for Earth Science (ES) labs?
 - TW: Achieve has been promoting the idea that HS need to deal with Earth Science topics. There's also the issue of thinking ES courses are seen as college prep. Often, an ES course is taught as a less-rigorous course in schools and therefore students who are looking for a challenging science course are steered away from them.
- MK: What's the talk about how teachers are going to come up to speed in a lot of these areas in order to teach these new standards?
 - TW: They need professional development and resources (as their top 2 items that they need). Teachers will need to be able to engage in discourse that leads the class to a consensus understanding that is also a grade-level appropriate understanding of the science. This is possible to do, but not usually without someone who is trained in science education.
 - Going to require a tremendous amount of professional development. I'm personally frightened at how difficult these standards are going to be to reach ("ambitious" is the term being used). How much a student is expected to learn is said to have been reduced, but the cognitive expectations for grade levels is greater than the benchmarks for science literacy set out to achieve. We're not just expecting these things to be information that kids ingest and then spit out. We're expecting students to be able to understand these topics and be able to explain the content. These factors create an ambitious document.
- JB: Where are we going to be in 2030? Are we going to see some substantial improvements? Improving the resources is important to help teachers reach the standards, particularly if we have some standardization across the states.

- TW: I'm excited to be able to get at least half of the students in the country focused on the same set of standards, but we need to make the efforts to achieve the goals we're setting out to do, or else we won't reach them. Knowing where your students are right now and where you want to get them is the only way to make progress toward meeting these standards. Getting teachers to appreciate standards as something they base their lesson plans around, as opposed to figuring out what standard matches the lesson that has just been taught, will be an important but huge leap toward making the NGSS effective. The tricky point for you as an organization is being aware of all of this great information and knowing how to use it all effectively. Using current resources will be critical for making their use more accessible.

Updates and Announcements

- Stephanie Bennett: Coastal Services Center FY12 Training Summary
 - *PDF shared with Ed Council community, will be attached to final meeting notes*
 - From Mary Culver with Coastal Learning Services: "...59 trainings to over 1200 people in 37 states and territories - but more than that, over 95% found the training valuable. We added some new courses, got smarter about web-based training and technologies, and are keeping things fresh by addressing new coastal issues, tuning to regional needs, and updating information."

Training Summary – 2012

NOAA Coastal Services Center

Training continues to be one of the cornerstone capabilities at the NOAA Coastal Services Center. A large part of the success is credited to the diverse skill sets at the Center, including subject matter expertise, instructional design experience, and strong facilitation skills. The success of the Center's training efforts is proven again and again through the high approval ratings received from participant surveys.

But a good training curriculum doesn't just happen, nor can we rest on our laurels or the latest evaluation. One of the management goals for 2012 was to provide more opportunities for our training staff to share new skills and learn from each other. A monthly gathering of all the trainers was initiated, with each meeting featuring a hot topic, recent and upcoming training deliveries, and updates on recent work. Each meeting in fiscal year 2012 brought about meaningful discussions and helped propel the program forward. Topics included new technologies and techniques for Web-based learning, enhanced learning retention through activities, and the strategic application of Web-based learning. This effort has improved our training program significantly, and I am proud of the energy all the trainers have put into making this work.

A collection of facts and figures listed below provides additional information about our training efforts in 2012. As always, please contact me at csc.info@noaa.gov should you need additional information.

Sincerely,



Mary Culver, Ph.D
Training Director

About the Training Program

"Helping coastal professionals acquire the information and skills needed to improve coastal management" is the goal of the Center's training efforts. Course topics range from technical skills to project management and coastal issues.

Delivering high-quality training takes a team of great people. The NOAA Coastal Services Center has over 35 staff members dedicated to carrying out instructional design, preparing training materials, tracking courses, and delivering training.

The Training Curriculum

- Instructor-led classroom courses
- Instructor-led Web courses
- Self-guided Web-based courses
- Technical assistance, how-to publications, and webinars

Number of Courses in the Curriculum: 17

- 3 Web-based courses presented 13 times
- 14 instructor-led courses presented 46 times

Continued on reverse



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Number of Trainings in 2012: 59

Number of Participants in 2012: 1,219

Number of Participating States and Territories: 37

Top Three States and Territories for Participation

- Washington: 164
- Maryland: 149
- South Carolina: 110

Top Three Audiences

- Local governments: 21%
- State governments: 16%
- NOAA organizations: 10%

Highlights for 2012

Positive Feedback

- 95% of participants said they achieved their learning objectives.
- 98% said they would recommend the course to another coastal professional.
- 89%, when surveyed 6 months later, reported applying knowledge and skills gained from attending one of these courses.

Most Popular Course

- Public Issues and Conflict Management reached 248 coastal professionals.

New Training Opportunities

- Instructional videos (3) – show how to derive shoreline data from lidar
- New courses:
 - A restoration-focused Project Design and Evaluation course
 - Grants Management Training – piloted and will be translated into an instructor-led, Web-based course in fiscal year 2013
- New publications – *Preparing to Write Your Strategic Plan*

Improved Capabilities

- Web meeting software improves courses from registration to delivery and follow-up, and saves money by eliminating the need for conference lines.
- Internal training sponsored by the Coastal Training Network:
 - Blended learning instructional design
 - Social media to enhance communication and learn in virtual associations

Trends

- **Online vs. Classroom-Based.** Classroom-based training is still the most requested, attracting 1,091 students this year, but the percentage of participants online continues to grow.
- **Partnership-Led Courses.** Research reserves and Sea Grant offices continue to be frequent hosts. In 2012 the Center also partnered with several groups to offer training opportunities, including the American Planning Association, the Ecosystem-Based Management Tools Network, U.S. Fish and Wildlife Service's National Conservation Training Center, Federal Emergency Management Agency's National Disaster Preparedness Training Center, and the National Marine Sanctuaries.

