The winter VRUEC business meeting was held at the Claytor Nature Study Center. Thank you to Greg Eaton and his staff for hosting our meeting.

**VRUEC members & guests**

*Members present:* Sheila Barnett (DEQ), Denny Casey (VA Museum of Natural History), Greg Eaton (Claytor Nature Study Center), Tamsey Ellis (Eastern Shore Soil & Water Conservation District), Suzie Gilley (DGIF), Beth Hawse (Dept. of Conservation & Recreation), Carol Hopper Brill (VA Institute of Marine Science), Page Hutchinson (DEQ), Andrew W. Larkin (NOAA B-WET), Candace Lutzow-Felling (State Arboretum of Virginia), Bill Portlock (Chesapeake Bay Foundation), Ellen Powell (VA DOF), Michelle Prysby (Virginia Master Naturalists), Katie Register (Longwood College), Ann Regn (DEQ), David Ruble (DEQ), Tim Taglauer (Shenandoah National Park), Tamra Willis (Mary Baldwin College), Sonya Wolen (Science Museum of Virginia), Barbara Young (VDOE), Carol Zokaites (VA DCR)

*Guests:* Anne Armstrong (Marine Science Consortium), Emily Beck (Green Adventure Project), Dan Cohen (Claytor Nature Study Center), Alix Fink (Longwood University), Betty Gatewood (Mary Baldwin College), Robin Jensen (VA Museum of Natural History), Sarah McGuire (VA Institute of Marine Science), Elaine Tholen (Fairfax County Public Schools), Mary-Stuart Tobeck (DEQ)

I. Reports & Organization Business

1. **Introductory remarks & roll call (Barbara Young, Interim Chair)**

2. **Review of Minutes, submitted by Candace Lutzow-Felling**
   Minutes for the May 17, 2011 meeting were reviewed and accepted as submitted.

3. **Treasurer’s Report, submitted by Ann Regn & Denny Casey**
   Income: $87,000  
   Expenditures: $66,900  
   Carry forward balance:  
   - 2012 Bay Academy: $60,000 (balance $5,000 from 2011)  
   - MWEE $14,000  
   - VRUEC Budget $94,000  
   The Treasurer’s Report was reviewed and accepted as submitted.

   - Let Ann or Suzie know by **March 30** if you are interested in serving as a VRUEC officer.  
   - Thirty days is needed for the slate to be reviewed by members before the elections.  
   - Elections will occur at the May meeting.
5. Recognition Committee/Otter Award (Dave Ruble) -

**Nominations are due by March 1.**

- The “Otter Award” for outstanding service to EE is given when there is a suitable candidate.
- This is not a formal application process.
- To nominate a candidate for this award, send a name and the reasons why the person should receive the award to David Ruble.
- We would like to give an award at the spring VRUEC meeting.

6. Spring VRUEC Meeting Planning Committee (Barbara Young) –

**The tentative date is May 30 or 31.**

- Folks are needed to help with the planning for the meeting.
- Sheila Barnett will chair the committee.
- We plan to invite heads of various state offices and universities for this meeting. Therefore, we would like the meeting to be special.
- Please contact Sheila if you would like to serve on this planning committee.

7. By-Laws & Membership Policy (Suzie Gilley)

**Motion:** Amend the Membership Policy to add representatives from Environmental Education (EE) regional teams to become Associate Members of VRUEC.

**Justification:** We would like representatives from the EE network to contribute to the discussion of environmental education in Virginia. Associate Members do not have voting privileges nor do they have attendance requirements.

**Discussion:**

- Each EE team could appoint a representative to serve as a VRUEC Associate Member.
- One reason to amend the policy is to be a more inclusive organization.
- This is an opportunity to build capacity.
- One suggestion is to invite representatives from VMN chapters. This suggestion was tabled for discussion at a future date.
- Each regular member is welcome to bring a guest to any VRUEC meeting. That is part of our membership policy.
- To become a regular (voting) member of VRUEC, one must be a member of a state, academic, or non-governmental environmental organization or agency. No more than 20% of VRUEC members can be non-governmental agency representatives.
- If we become too large, it will become difficult to manage projects.

**Action:** This motion passed.

8. NAAEE Conference: Affiliates Workshop Report (Greg Eaton)

- NAAEE held its annual environmental education meeting in Raleigh-Durham, NC in October, 2011. Greg Eaton participated and gave a summary of the meeting.
- Approximately 45 NAAEE affiliate representatives attended a workshop for the NAAEE Affiliate groups. The objective of the workshop was to convene state environmental education representatives to discuss increasing diversity and
inclusivity in EE organizations. Diversity includes socio-economic, age, gender, and ethnicity.

- NAAEE desires to be more diverse and inclusive nationally and is reaching out to state groups.
- Virginia doesn’t have a state-wide EE organization although VRUEC functions as such.

9. NAAEE Environmental Literacy Framework (Ann Regn)

Priority: defining environmental literacy
- The Environmental Literacy Framework for PISA 2015 was unveiled at the National Press Club on December 1, 2011.
- The Framework "presents a new, comprehensive, research-based description of environmental literacy and applies that work to the creation of a framework for an assessment of environmental literacy that is proposed as an optional component in the Organisation for Economic Co-operation and Development’s (OECD) Programme for International Student Assessment (PISA) 2015." (Developing a Framework for Assessing Environmental Literacy: Executive Summary; December 2011).
- Development of the Framework was lead by NAAEE and was funded by NSF.
- The Framework will be useful for developing our Virginia Environmental Literacy Plan.

10. No Child Left Inside (NCLI) (Ann Regn)

- NAAEE Affiliates often discuss NCLI.
- Please go to the NCLI web site to learn about environmental education initiatives around the nation. http://NCLICoalition.org.
- Regional teams or individual organizations can join the NCLI network. There is no charge to join.
- Senator Rick Reed and Representative Sarbanes, a bipartisan team, introduced the NCLI Act in both houses of Congress in 2011.
- NCLI relates going outside and environmental education (EE) with other issues that people value as a strategy to increase effectiveness of schools and EE education.
- States should be active in promoting outdoor education (NCLI) even if this initiative is lagging at the federal level. 45 states are currently developing Environmental Literacy plans.
- VRUEC can advocate for outdoor education with business leaders and politicians (state employees cannot do this as representatives of their state agencies).

Motion: Establish an affiliate committee or group composed of representatives from the regional EE teams to discuss & advocate for environmental education in Virginia.

Discussion:
- Affiliate group should work closely with the state conservation committees and other national groups.
- The purpose of this affiliate subcommittee would be advocacy for the VRUEC. The group should work with VSELA, NAAEE and other organizations to move EE and outdoor education policy forward.
• The VRUEC should be involved in advocacy because we are the leaders for EE in Virginia. We are not allowed to have a paid lobbyist, but we can and should take a position on outdoor education, environmental literacy and related EE topics.
• Position or policy statements cannot come from a singular state agency. Therefore, someone who is not affiliated with a state agency needs to lead this effort.

**Motion Amendment:** Establish a VRUEC policy committee to address EE issues in Virginia. The first task of this committee will be to write a white paper statement on the importance of outdoor-based environmental education.

**Action:** This motion was approved as amended.
One of the charges of the committee is to explore ways to support NCLI principles at the state level.

A signup sheet was passed around for VRUEC members to join this committee.

**Members who signed up to serve on the VRUEC Policy Committee:**
- Bill Portlock, *Chair*
- Greg Eaton
- Page Hutchinson
- Andrew Larkin
- Elaine Tholen
- Tamra Willis

• There were 6 2011 Bay Academies with 55 graduates. An on-line survey was sent to all of the graduates to evaluate their understanding of what constitutes a MWEE. 33% responded (18). 28% of teachers thought MWEE should be enrichment activities.
• Page presented at 4 Academies; she reported that all teachers were engaged, learning and networking.
• VRUEC needs a new committee chair to work with NOAA. The Bay Academy Committee Chair will coordinate development of the B-WET proposal for 2013 and will work closely with DEQ staff (especially Ann Regn), Barbara Young (VDOE) and Suzie Gilley (DGIF) to help write it.
• There are lots of details that need to be tracked, such as the VDOE Superintendent Memo and the registration process.
• For the new B-WET proposal, there must be other sources of funding secured besides NOAA, (as per Andrew Larkin).

**Action:** Candace Lutzow-Felling will chair this effort.

12. **VA Naturally Projects Report (Sheila Barnett)**
• Sheila passed around the January-November 2011 report for folks to review.
• Please go on-line to the home VA Naturally web page to read highlights from the VA Naturally Report for 2011. [www.vanaturally.com](http://www.vanaturally.com)
• VA Naturally was established in 2000 and serves as a gateway for EE in VA.
• Business action plan for VA Naturally is to increase the number of partners and other outreach efforts.
• There are over 900 registered VA Naturally partners. 31 organizations are new for 2011. 355,977 hits to web site in 2011. 828 community educators were trained this year.

Examples of 2011 Initiatives:
• VAST 2011 conference schedule booklet contains an advertisement from VA Naturally on the inside back cover.
• New method to find information about VA Naturally partners. Instead of a database list of partners one consults an interactive Google map of VA Naturally partners. Click on partners to find information about them. Can search for organization types using a search box, too.
• Newsletter has a new format. The newsletter highlights what is happening specifically in VA that pertains to the environmental community and environmental education or in the Commonwealth (not national).
• Any VA Naturally partner can add information to the web site. Contact Jennifer Underwood or Sheila Barnett to add your information and/or announcements. They will set up a Google account so that we can add our events to the web site.

Motion: Accept the VA Naturally Report. Action: Motion passed.

13. Leaders' Summit & EE Conference Proposal, 2012 (David Ruble)
• The 2011 conference was co-sponsored with MAMEA (Mid-Atlantic Marine Education Association).
• David Ruble has developed proposals for 5 potential 2012 conference locations. The conference will be two days with Day 1 as a Leadership Summit. Day 2, will be the traditional conference with break-out sessions.
• Average attendance at our EE conferences is ~180/year.
• Volunteers are needed to help organize the conference.

Venue options presented: (1) Hemlock Haven at Hungry Mother State Park (Sept or Nov.), (2) Wytheville Meeting Center (Fall), (3) Lynchburg College (Summer), (4) The Homestead in Warm Springs (Winter: Dec-March), (5) Combine with Virginia Association of Science Teachers PDI for 2012 at Williamsburg Marriott (Nov)

Discussion:
• Conference costs over $300 is difficult.
• Place a signup sheet in the room for folks to vote for 1 or 2 conference locations from the 5 proposed (or to suggest an alternate location).
• Fall is not a good time to meet if we want to get classroom teachers to attend.
• Combining with VAST would make for a long week (5-6 days).
• We would try to get an EE track at VAST. VAST already is a venue for EE PD.
• We should invite VSELA to attend a VRUEC meeting.
• This year (2011) our EE conference was Friday and Saturday (normally we meet Wed and Thursday); was this a problem for members?
• It is important to try to get formal teachers to attend our EE conference.
• If we have projects that include teachers, it would be good to co-present with a teacher.
• We need a planning committee to decide location, audience recruitment, days of week for the conference. Then, can send out options for the EE community to vote via Survey Monkey.
• One suggestion was to hold the EE conference in March rather than the fall.

**Action:** David placed a signup sheet at the front of the meeting room for VRUEC meeting participants to vote on venues and sign up to be part of the planning committee.

**Results:** Hemlock Haven at Hungry Mother State Park received the most votes (13). All other venue options received 2 or fewer votes. A Friday/Saturday conference schedule received the most votes (6); second choice was a Wednesday/Thursday conference (3 votes).

14. Regional Team Reports (various; during lunch)
Tamra Willis, Shenandoah Valley EE (SVEE). JMU & Mary Baldwin partnering to provide an Education for Sustainable Development presentation. The meeting scheduled for fall had to be cancelled due to an illness by the speaker; Will be rescheduled at a later date.
Greg Eaton, Central Virginia. (CVEEA). Claytor Center and Lynchburg College with GLEN partner. Electronic network mainly, Has been inactive for the past 2 years. Recently, GLEN has become active: posting events. ~2/3 of members are VMN
Emily Beck, Charlottesville Regional EE Coalition. Recently revitalized. They focus on watershed education. A recent service learning project with a boys and girls club was a big success. The youth constructed a trail in a trailer park that is owned by Habitat for Humanity. ~60% or more of the residents are latino.
Elaine Tholen, Northern Virginia Outside (NoVA). In February, the group brought together environmental educators to brainstorm ways to collaborate. Local politicians were brought in for lunch to learn what is happening in the region relating to EE. Bill Portlock was a speaker. A new web site will be active soon! In July, NoVA hosted Sharon Dank, the author of Asphalt to Ecosystems, a guide for turning the traditional school ground asphalt areas into edible gardens, wildlife habitats, and creative spaces. Interest in EE professional development in their region is high. An early childhood education professional development is being planned for April 2012. The Green Schools Expo is scheduled for Saturday, March 3 at the GMU Fairfax campus. NoVA is aiming for 100 schools to participate. Teachers, administrators and students will be invited to participate; political officials, too.
Tamsey Ellis, Eastern Shore EE. The Marine Science Consortium is active in EE. The Eastern Shore EE has written several articles explaining the TMDL in layman's language. They hosted two, two-week long summer camps--one for elementary and one for middle school.
Tamsey is retiring at the end of this year. Her replacement will take over for the regional EE.

15. NOAA B-WET Update (Andrew Larkin, NOAA Chesapeake Bay Office)
FY 2011 B-WET funding was reduced. New Virginia B-WET grants could not be funded. Continuing grants, however, were funded. FY 2012 B-WET has been funded but the amount is uncertain. Continuing grants will be funded & some FY 2011 grants will be funded. There will be no RFP for 2012.
The FY 2013 budget will be released in 2012. The amount of funding for the B-WET Program will determine whether there will be a 2013 RFP, or not.

The VA Naturally MWEE Classroom Mini-Grant Program will probably be funded in 2012, as well.

16. VRUEC & VAST Collaboration Idea (Barbara Young)

How do we promote EE in Virginia?
- VDOE has 8 superintendent regions with 14-15 School divisions in each.
- VAST has divided their regions based on the 8 superintendent regions. There are VAST regional directors for each region; each director has responsibility to provide programs and information for teachers in their regions.

How can we reach the teachers? What can we do for the teachers?
- VRUEC can go to VAST and conduct a mini-conference or meeting to coordinate regional efforts. Meetings can be regionally located to reduce driving time and funding to increase attendance.
- Regional conferences based on EE; we can partner with the VAST regional directors and share with teachers the regional resources available (materials, people, education centers, etc).
- We could give presentations and/or set up an information booth. VAST board members are excited about this possibility because it would increase effectiveness in their organization. Barbara suggests that VRUEC step forward as the leader in this partnership to stress environmental literacy as a focus in VA.
- VAST has some funds to provide lunch for participants of regional meetings.
- Inform teachers of our resources, etc.
- VRUEC has a VAST Board representative.
- Denny Casey and Sonya Wolen are members of the VAST Board.
- We need someone to converse with the VAST Board and begin the conversation. It is important to have a voice present at these meetings.
- The NSTA eastern regional meeting will be in Richmond in 2014. We could partner with NSTA to present an EE strand.

17. Green Ribbon Schools Award (U. S. Dept. of Education) & Framework for K-12 Science Education (Barbara Young)

A. Green Ribbon Schools Recognition Award.

School Submission Deadline is February 21, 2012. March 22 is the deadline for Virginia Finalists to be submitted to the US Department of Education.
- The project started this summer (2011).
- Purpose is to recognize the highest performing green schools in the nation.
- Many VA schools are interested in applying for this award.
- 33 states participating this year.
- Recognition will be given to public and private schools: with separate categories for Elementary, Middle, and High Schools
- The award will recognize achievement in saving energy, reducing energy costs, protecting the health of students and faculty (facility conditions), sustainable learning spaces, & fostering wellness (physical education & nutrition).
Three pillars or goals a school must meet:
(1) School facility has a net zero environmental impact,
(2) School environment has a net positive impact on the health and performance of students and staff members, and
(3) School’s graduates are environmentally literate.

- VDOE is encouraging schools to submit applications.
- No funding is associated with this award. The award will be a prestigious award with state and federal recognition.
- Several VA schools are planning to apply.

For applications, information and support materials go to: http://www.doe.virginia.gov/ and click on the link for the Green Ribbon School application.

B. A Framework for K-12 Science Education.
- VA did not adopt the federal mathematics and literacy common core standards. However, our standards align with these common core national standards.
- The new national science standards, now in development, will be called the Next Generation Science Standards.
- The National Research Council developed a conceptual framework describing what science knowledge and skills all U.S. children should have by the end of high school.
- The Framework contains practices, cross-cutting concepts, and core ideas and defines what science education in U.S. should look like. The Framework recommends a focus on core ideas over multiple years (learning progression).

Framework purpose:
(1) Clarity in the vision of science education,
(2) Cohesive vision of science education, and
(3) Guide development of standards.


II. Announcements

- There are no funds remaining for the MWEE Partner projects.
- Only $5K is left for MWEE Classroom Grants.
- Check the website at: http://www.vanaturally.com/grants.html.

2. **Project WET (Page Hutchinson)**
- A new Project WET manual is out.
- A new Project WET facilitators training is scheduled for February and registration is full.
- There are 11 Project WET host organizations: Claytor Nature Study Center, Danville Science Center, Douthat State Park, Matthews State Forest, New
Kent Forestry Center, Friends of the Rappahannock, State Arboretum of Virginia, VA Museum of Natural History, VA Living Museum, Marine Science Consortium, and VA Aquarium.

- There are funds to purchase the books for at least one workshop per host site.
- For additional training sessions, the book will cost $25; this includes shipping.
- Go to the Project WET web site to indicate interest in attending a workshop at one of these host sites: http://www.deq.state.va.us/education/wet.html

3. **PLT Anniversary (Ann Regn for Lisa Deaton).**
   - A series of PLT anniversary meetings are being planned at various locations around the state;
   - If you would like to co-host a meeting with Lisa, let her know.

4. **DEQ Office of Environmental Education (Ann Regn).**
   - There is a proposal from the Governor's office to move the DEQ Office of EE to the Department of Conservation & Recreation. Expect to see this in the budget (March) and legislative agenda packet (February).

5. **EE Week (Ann Regn).**
   - National Environmental Education Week is **April 15-21, 2012**.
   - EE Week's 2012 theme is *Greening STEM: The Environment as Inspiration for 21st Century Learning*.
   - The environment as a portal for STEM learning will be the focus.
   - The sponsor of EE Week is the National Environmental Education Foundation.
   - Go to www.eeweek.org for more information.

6. **EPA Funding (Ann Regn) EPA Environmental Education Sub-Grants Program**
   - The sub-grants program awards approximately $150,000 to an organization to serve as the administrator responsible for awarding mini-grants (no more than $5,000 each) to agencies or organizations for environmental education and stewardship projects.
   - We need a Virginia organization to manage these mini-grants.
   - The grant funds are being equally divided among the eight EPA regions ($9 million total).
   - "This RFP solicits grant proposals to support EPA’s mission to promote environmental stewardship and help develop knowledgeable and responsible students, teachers, and citizens." (from the EPA web site: www.epa.gov/enviroed/grants.html).
   - Community education, K-12 grants, will be offered through NSF.
   - Contact Ann Regn if your agency or organization is interested in serving as the host to administer this grant program.

7. **Cave & Karst Opportunities (Carol Zokaites).**
   - A Project Underground facilitator training is scheduled for **March 2012** at Douthat State Park. Contact Carol for details.
   - The National Speleological Society Convention will be in Lewisburg WV in **June 2012**. This is a great opportunity to meet with cave scientists and federal land agency folks.
   - Go to www.caves.org for more information or talk with Carol.

8. **Marine Science Consortium (Ann Armstrong).**
- Hosting the Association of Nature Center Administrator’s (ANCA) annual summit at Wallops Island **August 22 – 28, 2012**.

9. **New Resources from DGIF (Suzie Gilley).**
- The toolkit contains the Field Investigation Guide and other documents.
- Here is some information about this excellent, free resource from the DGIF web site:

  **The North American Conservation Education Strategy: A Tool Kit for Achieving Excellence** The award-winning *North American Conservation Education Strategy* (CE Strategy) delivers unified, research-based core concepts and messages about fish and wildlife conservation, translated into **K-12 academic standards** to shape students' environmental literacy, stewardship and outdoor skills. The *Tool Kit for Achieving Excellence* includes the many resources developed by AFWA as part of the CE Strategy, including the following publications:
  - Field Investigation Guide
  - Schoolyard Biodiversity Guide
  - Landscape Investigation Guidelines
  - Fostering Outdoor Observation Skills
  - System Thinking Guidebook
  - Project Based Learning Model
  - Outdoor Skills Education Handbook

**III. Environmental Literacy Planning (Presidential Executive Order 13508)**
(Ann Regn and David Ruble)
In preparation for this portion of the meeting, participants were asked to read two documents prior to the meeting:
(1) Mid-Atlantic Elementary and Secondary Environmental Literacy Strategy, and
(2) Draft for Comment: Mid-Atlantic Affiliates Elementary and Secondary Environmental Literacy Goals, Outcomes, & Strategies.

1. **Overview of the Mid-Atlantic Environmental Literacy Plan**
Chesapeake Bay Program Education Workgroup.
4 sections:

    1. students
    2. schools
    3. educators
    4. education community

Break out group discussion questions:
- How can VRUEC support that goal?
- What needs to be done or bolstered if funding were available?
- Who can take the lead?
Discussions were based on two documents: the draft of the federal plan which has been released for comment & NAAEE regional affiliates plan. Both have the same goals and outcomes: What can VA do? What is a priority for our state?

2. Discussion Groups (break-out discussions) (Dave Ruble)
There were four discussion groups, each discussing one of the four goals and draft comments from the Mid-Atlantic draft literacy plan:
Goal 1: students,
Goal 2: teachers,
Goal 3: schools, and
Goal 4: education community.
Ann Regn is compiling the notes from the four break out groups.

One sentence summarizing the highlights from each group is given below.

STUDENTS (Page Hutchinson)
• We need a comprehensive list of EE careers and jobs that school counselors can refer to and share with students.

EDUCATORS (Barbara Young)
• In addition to formal educators, informal educators and pre-service students also need to be provided with good EE content and pedagogy.

SCHOOLS (Suzie Gilley)
• Need professional development for more than teachers. For example; buildings and grounds workers also need professional training.

EDUCATION COMMUNITY (Ann Regn)
• Regional meetings idea: invite students to attend so that we have inter-generational events.

Closing Announcements:
This is an exciting time for science education as there is a lot of state, regional, and national focus on EE. We have the opportunity to participate as leaders in these efforts.

VRUEC members were invited to tour the Claytor Nature Study Center at the end of the meeting.

The next VRUEC meeting is being planned for May 30 or 31, 2012. Members will receive email notification of the next meeting place, time, and date.

Respectfully submitted,

Candace Lutzow-Felling
VRUEC Secretary