

**SOUTHWEST VIRGINIA ENVIRONMENTAL EDUCATION TASK FORCE**  
**ESTONOA LEARNING CENTER**  
**LAKE ESTONOA**  
**ST. PAUL HIGH SCHOOL**  
**November 14, 2006**

**Present**

Amy Cox	Lee County Public Schools
Sarah Cromer	Tazewell County Public Schools
Blaine Delaney	USDA-Natural Resources Conservation Service
Larry Estep	Smyth County Public Schools
Myron Fields	Scott County Public Schools
Karen Hartsock	Black Diamond Resource Conservation & Development Council
Travis Pierson	Norton City Public Schools
Kalena Porter	Daniel Boone Soil & Water Conservation District
Jon Rockett	Powell River Project
Stephanie Smith	Buchanan County Public Schools
Ben Talley	Bristol City Public Schools
Terry Vencil	Wise County Public Schools

**Absent**

Dwayne Edwards	Dickenson County Public Schools
Elizabeth Fairbanks	Washington County Public Schools
Larry Hartsock	Russell County Public Schools
Christine Smith	Virginia Department of Environmental Quality
Diane Tomlinson	Coalfield Rural Systemic Initiative

Karen Hartsock welcomed everyone to this first meeting of the Southwest Virginia Environmental Education Task Force. She asked each member to take some time during the introductions to explain what they do and their personal interest in promoting environmental education.

**Why did the RC&D form this task force?**

Blaine Delaney explained that he is an USDA-Natural Resources Conservation Service employee; he is “loaned” to provide technical assistance to the six-county nonprofit called the Black Diamond Resource Conservation & Development Council, known as the RC&D. He added that the RC&D was formed in 1992 to work regionally to improve water quality, promote environmental education and to foster sustainable development. The RC&D over the years has hosted numerous teacher workshops; two regional environmental education conferences; and assisted about a dozen schools obtain funding for outdoor classrooms, nature trails and water quality monitoring studies. More and more the RC&D realized the best way to utilize limited RC&D staff time and their volunteer board members’ time was to work on regional initiatives, rather than focus the same amount of energy on one or two smaller projects, such as helping a school or two do another outdoor classroom. Blaine said that he is the RC&D’s only full-time staff member; he is assisted by a part-time secretary.

Karen Hartsock and Kalena Porter are the two RC&D Council members who are the most supportive of the RC&D initiating new regional, environmental education projects, such as this 11-school district task force. Fortunately, both of them are members of this task force. Black Diamond RC&D hopes that by bringing representatives from eleven school districts together with a half dozen advisors on this task force that great things will happen in the future because of this task force's work. ***The RC&D hopes that a set of task force recommendations will be published by the fall of 2007; this publication will be distributed to all of the school districts in the region as well as other key elected leaders.*** Blaine added that the RC&D's previous attempt at hosting a similar undertaking, called the Southwest Virginia Litter Task Force (2004-2005), exceeded our expectations in the changes that local governments made during and following their deliberations concerning litter prevention efforts.

Though the RC&D serves six Coalfield counties and the City of Norton, the RC&D felt it was best to open this task force up to include the City of Bristol as well as Smyth, Tazewell and Washington counties, since many of our conservation partners work with those local governments as well. Black Diamond RC&D led efforts to form two river basin coalitions for this same 9-county/2-city region back during 1998-2001; they are called the Big Sandy River Basin Coalition and the Upper Tennessee River Roundtable; both of these regional 501.c.3 nonprofits also stress the importance of environmental education for their efforts.

### **SOL Tour of Estonoa & WATeR Project**

Jon Rockett began this part of the program with a PowerPoint presentation entitled "***Why Outdoor Classrooms?***". Some highlights of his presentation follow. *Note: A copy of this PowerPoint will be provided to each task force member.*

"If we cannot help our children build stronger connections with nature now, it is possible that we will raise a generation with no inclination to enjoy or steward our most precious natural resources."  
Larry Selzer, Conservation Fund President

Former Governor Mark Warner adopted **A Business Plan for Environmental Education in the Commonwealth of Virginia by the Virginia Environmental Education Commission 2004. Key items from this business plan are:**

- The Commonwealth will direct ***new resources toward developing outdoor classrooms*** at schools to facilitate meaningful environmental education.
- Outdoor classrooms encompass a variety of facilities and landscapes that ***enhance instruction*** of natural sciences, social sciences, health, physical education, and arts.
- They enrich instruction by providing opportunities for ***meaningful investigations*** in the out-of-doors.
- ***Several national studies*** by the State Environmental Education Roundtable, the National Environmental Education and Training Foundation and by individual researchers show a ***variety of benefits to student learning.***
- The goal is to have facilities at every school and within the next decade, at a rate of approximately 150 schools per year.

Jon also discussed a new phenomenon called “*Nature Deficit Disorder*”, which is causing serious consequences for our society, such as:

§ Results:

- Childhood obesity
- Childhood diabetes
- Childhood attention disorders

§ Futurist and author Richard Louv’s best-selling book *Last Child in the Woods*

Jon then reviewed the **Science Standards of Learning:**

§ Experimental design in scientific inquiry

§ Language of science

§ Investigate

§ Apply scientific concepts, skills & processes to everyday experiences

§ Experience the richness & excitement of scientific discovery of the natural world

§ Make informed decisions regarding contemporary issues

§ Develop scientific dispositions & habits of mind

§ Explore science-related careers & interests

Terry Vencil and Jon then took turns on explaining how Wetlands Estonia, St. Paul High School’s outdoor classroom, addresses 90% of the Virginia Science SOLs for grades K-12.

Jon said another benefit of outdoor classrooms is to address a critical societal need of “*the ability to be creative on their own*”. He feels that outdoor classrooms help students become more creative in an “unstructured program”.

Terry informed the members about the GLOBE program. St. Paul High School has been a participant in the GLOBE Project (*Global Learning through Observations to Benefit the Environment*) for the past five years. Over 10,000 schools world-wide participate in the project by collecting local environmental data according to GLOBE protocols and posting the information on GLOBE’s website –www.globe.gov. Locally, students and their teachers analyze hydrology and meteorology data and then share/analyze data world-wide with students, educators and scientists.

Terry then shared with the task force a document she and her students have compiled called “*Virginia K-12 Science SOLs Addressed in Outdoor Classrooms*”. She stressed that SOLs can be addressed outside the traditional classroom and students enjoy varied learning venues. She also believes that as teachers and their students venture outside real-life learning will occur and this “new” learning will address SOLs, while fueling the imaginations of teachers and students. Those who missed this meeting and the 11 school superintendents will each get copies mailed to them.

Myron Fields discussed the WATeR project (*Waters of the Appalachians Tested and Reviewed*). This project made possible through a partnership between AMSP (*Appalachian Math Science Partnership*), Powell River Project, Black Diamond RC&D and eight schools representing four counties began GLOBE hydrology in seven new schools. Terry stated that her personal vision for the WATeR project is to one day test the waters of the Clinch River from Tazewell, Virginia to Tazewell, Tennessee. She added that schools outside of the Clinch River have also used the WATeR program to evaluate their streams and rivers. We want to see schools all across far Southwest Virginia utilize this locally developed regional program.

## Potential Outcomes (Brainstorming session)

1. Bunkhouse for Estonsa
2. All science SOL scores for each school meet or exceed state average (*needs to be re-phrased*)
3. How to properly use “Resources” in the science classroom, such as the SmartBoard, Water Quality monitoring kits, etc.
4. Foster effective collaboration among schools on why your school’s science SOLs are “high scores”, etc.
5. Encourage the Virginia Department of Education to create and maintain a statewide environmental education website (*Virginia Naturally site might meet our needs*)
6. Encourage the use of Outdoor Classrooms
7. Identify local/regional resources such as soil & water conservation districts (*work with Christine Smith – Virginia Dept. of Environmental Quality*)
8. Promote a “SHARE PROGRAM” among teachers to teach a program in another school
9. Re-vitalize the Southwest Chapter of the Virginia Association of Science Teachers (VAST) - one benefit is to promote professional development
10. Improve communication about workshops, opportunities, etc, to the teachers
11. Promote the building of small ponds on school grounds, whether 10 square feet in size or a ¼ acre (*Lowe’s & Home Depot can help*)
12. Promote the establishment of “mini-gardens”
13. Promote meaningful watershed experiences to all schools (*Karen will request who is your meaningful watershed coordinator*)
14. Professional development stipends to teachers to go to workshops (*grant \$ could help; clock hours not a good incentive*)
15. Expand WATeR project to all 11 school districts (*grant \$ needed*)
16. Establish a link for Southwest Virginia on the VA Naturally website
17. Assemble list of grant opportunities

The meeting adjourned at 2:00 PM.

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Chair

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Date

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Vice Chair

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Date