

Executive Summary – 2011 Needs Assessment – Lancaster County Conservancy

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Since 1969, the Lancaster County Conservancy has been dedicated to the preservation of Lancaster County's rapidly diminishing supply of natural land. In June of 2011, the Lancaster County Conservancy decided to investigate a possible expanded role in the delivery of environmental education in the county. Before determining the exact pathway for programming, a needs assessment was ordered to determine what environmental education should look like in Lancaster County, what obstacles and realities exist in the county, and to construct recommendations for effective programming. From the outset, the Conservancy was committed to the belief that environmental education must provide consistent opportunities for youth to enjoy personal experiences in nature, address a disconnect between children and nature, and develop an environmental ethic which invokes support from schools, parents, and the community.

Humanity is at an important crossroads and our world is changing quickly. Each passing generation loses a piece of their connection with nature. There are dedicated, knowledgeable, and motivated individuals working to apply environmental education to keep pace with environmental degradation. Educators cannot reverse these trends alone. Families, neighborhoods, and communities must all be part of the remedy. Richard Saylan, *The Failure of Environmental Education*, reminds us "tipping points work both ways, and there is a point out there somewhere where concepts like sustainability and responsible stewardship acquire their own momentum. This momentum or growth can be greatly influenced by the actions of individuals. The Lancaster County Conservancy is in a position to engage youth at an early age to create personal experiences in nature that will have lifelong influences for them and their community.

The Lancaster County Conservancy is prepared to address a void that exists in providing environmental education for our youth. There is a need for organization, consistency, and leadership for environmental education programming throughout the county. At this time environmental education is offered through county schools and providers in the area. Programs and activities center on tested science standards and primarily are one day experiences with a provider, located at the County Park, local conservancy, museum, or area on a school campus. Funding is restrictive which does not allow for extended programs, field trips that would create extended experiences in nature, or general funding that would create enrichment beyond science standard driven content. There are exceptions where environmental education does have a greater role and impact on students. These exceptions are isolated and depend on PTO funding support, administrative commitment and creativity, and excited teachers willing to create hands on interdisciplinary learning.

The Lancaster County Conservancy is prepared to provide environmental education on a scale and at the level currently not experienced by youth in Lancaster County. To create a direct impact programming will be based on personal experiences and that emphasize the great motivators of curiosity, discovery, wonder, celebration, self expression, and hands on experiences. In addition the creation of personal and positive emotional connections between students and the rest of nature will be a priority. A critical component will be to provide a means for assessment by which students demonstrate their understanding and mastery of environmental concepts and grasp of environmental realities that exist locally and globally. County programs will also include placement of youth in a leadership role empowering them to be major stake holders for their future.

Through environmental education programs the Lancaster County Conservancy will also serve as a catalyst. As a result of collaboration and partnerships with schools, educators at all levels, parents, local and state governments, and community members, the responsibility of closing the nature divide can be shared and results more effectively realized. To begin the process of creating a cultural change regarding children's relationship with nature, the Conservancy will look beyond our schools. Collaboration with nontraditional partners such as YM&YWCA, Boys and Girls Club, Scouts, early childhood providers, community action groups, church groups, and local agencies will empower many to impact youth of all ages. An army of volunteers, naturalists, student teachers, interns and concerned citizens will be trained and mobilized. These individuals will serve as mentors, supporters of environmental programming, and role models.

An expanded role for the Lancaster County Conservancy comes at an important time for youth in the county. There exists a need to redefine environmental education to address 21st century realities. Despite good intentions, experience, talent, and passion from the world of environmental education there exists an urgency to make needed changes. According to Richard Louv, "The children and nature movement is fueled by this fundamental idea: the child in nature is an endangered species, and the health of children and the health of the Earth are inseparable." There are immediate needs to be addressed as well as the long term investment of increasing student awareness and action which will lead to adult stewardship.

Recommendations - Year One - Establish of a strong foundation for environmental education in the county. A foundation based on the Lancaster County Conservancy's long history of land preservation and stewardship and the development of effective environmental education for the youth of Lancaster County.

- 1. Develop an action plan based on the collected data, environmental education research, and contacts made through the Lancaster Conservancy needs assessment.**

Output – Develop and communicate an environmental education message for Lancaster County stakeholders.

Outcomes – Collaborate with providers and educators regarding the content and delivery of this message. Connect with schools, parents, and community groups to disseminate the message.

Output - Create an advisory committee and collaboration model.

Outcomes - Meet twice a year with educators from all academic levels to discuss and plan environmental education programs and activities. Invite collaborators to LCC Education Committee meetings.

Output - Develop a list of naturalists, master gardeners, educators, volunteers, interns, and student teachers.

Outcomes – Organize, train, and mobilize individuals ready to serve as mentors and provide support for environmental education programming.

Output - Offer consultation support.

Outcomes - Reconnect with groups identified through the needs assessment in need of collaboration dealing with restoration projects, gardening, and training.

Output - Revisit the public and private schools contacted through the needs assessment.

Outcomes - Present a county map displaying natural areas and school buildings. Introduce the online data resource. Discuss opportunities for mandated high school student community service hours to be obtained through land stewardship in natural areas and preserves. Introduce Project Footprint.

- 2. Expand the Lancaster County Conservancy website to provide environmental education and experience related opportunities for students, parents, and community members.**

Output - Create the opportunity for blogging and communication of experiences in nature on the website.

Outcomes – Provide opportunities for journaling based on experiences in preserves and natural areas. Establish a teaching tool to reinforce creative writing, art, and photography from the website.

Output - Create a list of educational/environmental activities for each preserve in The Lancaster County Conservancy's land holdings.

Outcomes – Engage LCC staff and volunteers with visitors to the natural areas and preserves. Provide personal interaction as well as support on line. Post articles written by LCC staff and individuals involved in environmental education on the website and Landview magazine.

3. Collaborate with county school districts to determine interest in developing an outdoor classroom space.

Output - Select one school building in year one for a partnership.

Outcomes - Focus on a grade level, an excited teacher, or building that has demonstrated involvement with environmental education programming.

Utilize LCC staff, students, teachers, parents, and interested community groups from that district. (Adopt a school district)

Generate an agreement based on location, scope, student success, and teacher training.

Develop detailed plans, activities, and programs for the outdoor space.

Recommendations – Year Two – Review and evaluate accomplishments from year one. Expand the level of communication and contact with our community and potential for extended outside experiences for our youth.

1. Evaluate progress resulting from the efforts and programming of year one.

Output – Create an evaluation system to be completed by environmental education stakeholders.

Outcomes - Engage LCC staff to complete a self evaluation.

Collaborate with the advisory committee, volunteers, and users of the website to evaluate programs, usage, and satisfaction levels. Record the number of individuals impacted by the environmental education programs.

Output –Review and evaluate progress from utilization of the school building outdoor classroom site.

Outcomes – Interview teachers, students, and parents involved in the program.

Report the number of students spending extended time in the space.

Review academic and behavioral impact for those students utilizing the site and compare to those not involved in the activities. Research results of contact with the outdoor classroom on state science testing.

2. Communicate opportunities and responsibilities for parents and the community to model and support an environmental ethic.

Output – Create a speakers group. And identify target audiences.

Outcomes – Organize providers, educators, and volunteers that are passionate and knowledgeable regarding environmental education. Connect youth and community groups with speakers and mentors.

3. Develop an outdoor classroom site at Camp Snyder.

Output – Review and implement the knowledge and experience gained from developing an outside classroom space in year one.

Outcomes – Create a team of students, teachers, and LCC staff to plan and construct the outdoor area. Create the training and programming for the delivery of environmental education.

4. Collaborate with county school districts to determine interest in developing an outdoor classroom space.

Output - Select one school building in year two for a partnership.

Outcomes - Focus on a grade level, an excited teacher, or building that has demonstrated involvement with environmental education programming.

Utilize LCC staff, students, teachers, parents, and interested community groups from that district. (Adopt a school district)

Generate an agreement based on location, scope, student success, and teacher training.

Develop detailed plans, activities, and programs for the outdoor space.

Recommendations - Year Three - Review and evaluate accomplishments from year two. Provide support for existing programs and expand programming and leadership opportunities for our youth.

1. Evaluate progress resulting from the efforts and programming of year two

Output – Create an evaluation system to be completed by environmental education stakeholders.

Outcomes - Engage LCC staff to complete a self evaluation.

Collaborate with the advisory committee, volunteers, and users of the website to evaluate programs and effectiveness. Report the number of individuals impacted by the environmental education programs.

Output –Review and evaluate student progress from contact with school site outdoor classroom. (Year one and two)

Outcomes – Interview teachers, students, and parents involved in the program. Report the number of students spending extended time in the space. Review academic and behavioral impact for those students utilizing the site and compare to those not involved in using the space. Look for patterns after two years.

2. Offer summer programming at Camp Snyder.

Output – Develop programs and activities for various ages, grade levels, and topics.

Outcomes- Target experiences in nature, personal responsibility, and leadership as focus areas for youth. Utilize trained camp councilors, volunteers, providers, and LCC staff in the delivery of programming.

3. Collaborate with school districts to create a Leadership Youth Congress in the county.

Output – Meet with school district personal to select students to participate in a leadership program dealing with the disconnect between children and nature.

Outcomes – Student representatives will discuss the state of the connection between children and the outdoors, participate in leadership development, and generate ideas for getting more youth outside and into nature.

Select a location with overnight sleeping and food service capabilities and located in a natural space. Develop a conference and program where students are the vocal point in the organization and as leaders in the discussion of content. Create youth empowerment.

4. Collaborate with additional county school districts to determine interest in developing an outdoor classroom space.

A needs assessment was conducted to gather data concerning current programming practices in the county and to determine what needs existed for educational environmental consumers in their attempt to create effective programming...

1. Fifty two interviews took place with those individuals providing environmental education services in the county and those entities consuming environmental education.
2. School district contact took the form of one or more of the following: personal interview, phone conversation, panel discussion, and completion of a needs assessment survey.

3. Included in the assessment were superintendents, principals, curriculum coordinators, teachers, and school board members.
4. Each of sixteen public school districts in the county took part in the assessment. Private schools included: Lancaster Country Day, The New School, Lancaster Mennonite, Lancaster Catholic, and Milton Hershey School.
5. The Director of Environmental Education for the Pennsylvania State Department of Education was a major source of information.
6. Childcare providers, youth support agencies, and community groups interested in environmental education participated in the data collection. Interviews were conducted and visits were made to their sites.

The following individuals were interviewed as part of the Lancaster County Conservancy needs assessment.

Lancaster County Providers

Mr. Donald McNutt – Conservation District

Mr. Ted Groff – Senior Naturalist – Lancaster County Park

Mr. Gilbert Meyer – Fish and Game Commission – Middle Creek

Mr. Vic Brutout – Former Education Director – LCC

Ms. Marge Marino – Director – North Museum

Mrs. Lynn Meyers – Millport Conservancy

Mr. Fritz Schroder – Director – Lancaster Live Green

Ms. Chris Smith – Director – YMCA – Camp Shand

Mr. Scott Mailen – Program Director – Camp Shand

Mrs. Mary Lou Barton – Lancaster County Clean Water Consortium

Ms. Sallie Gregory & Mr. Matt Koffroth – Lancaster Conservation District

Mr. Brandon Tennis – Susquehanna Permaculture

Mrs. Michelle March & Mrs. Kathryn Sandoe – Lancaster County Solid Waste Authority

Lancaster County Educators and Environmental Education Resources

Dr. Melvin Rosier – Superintendent – Lampeter-Strasburg School district (retired)

Dr. Kevin Peart – Superintendent – Lampeter-Strasburg School District

Dr. Robert Frick – Superintendent – Lampeter-Strasburg School District

Dr. Kevin Freeman – Superintendent – Manheim Township School District

Mr. Pedro Rivera – Superintendent – School District of Lancaster

Dr. Brenda Becker – Superintendent – Hempfield School District

Mr. Richard Thomas- Superintendent – Lancaster Mennonite School district

Dr. Patrick Hallock – Superintendent – Pequea Valley School District

Mr. Andrew Godfrey – Assistant Superintendent – Lampeter-Strasburg School District

Mr. Steve Lisk – Headmaster – Lancaster Country Day School

Mr. Tony Aldinger – Principal – Bucher Elementary School – Manheim Township School District

Mr. Thomas Fertle – Principal Lancaster Catholic High School

Mrs. Cathy Focht & Mr. Butch Staub - Principals Lampeter-Strasburg School District

Mrs. Laura Troutman – Science Department Chair – Lancaster Country Day

Mrs. Bromley – Green School Coordinator – Lancaster Country Day

Mrs. Joellen Rowe, Mr. Jay Lance, Mr. Ken Neumann – Instructors Martin Myelin Middle School (STEM)

Mr. Michael Simpson – Instructor - Huntington School District

Mrs. Jeanine Garella-Standish – Instructor – The New School – Lancaster. Pa.

Mrs. Hannah Bartges – Naturalist, President Manheim Township Board of Education

Dr. Sarah Dawson – Director of the Wohlsen Center – F&M

Dr. Thomas Simpson – Professor F&M, teacher / Consultant Millport Conservancy

Ms. Patti Vathis – Environmental Education Director –Pennsylvania State Department of Education

Mr. Brian Winslow – Director – Asbury Woods Environmental Center- Erie. Pa.

Ms. Karen Schlore – Interim Chief executive Officer – Boys and Girls Club – Lancaster

Mrs. Linda Younger – Director – Sunshine Corners Day Care – Strasburg, Pa.

Mrs. Allison Troutman – Director – CAP Child Care

Mrs. Patti Sollenberger – President – Learning Matters

Mrs. Susan Martin – Reading Specialist – Millersville University / Lampeter-Strasburg School District

Mr. Joseph Petrick – Educational Program Director – Teton Science School – Jackson Campus

Mr. Josh Kleyman – Educational Program Director – Teton Science School – Kelly Campus

Intermediate Unit 13 Staff

Dr. Cynthia Burkhart – Executive Director

Dr. Brian Barnhart – Assistant director

Mrs. Janice Eastabrook – Gifted Coordinator

Ms. Amanda Paneglio – Project Coordinator – Math & Science

Mrs. Drue Feilmeier – Science Coordinator

Contacted Schools – Needs Assessment

The Schools listed below were contacted during the past 10 weeks. The contact took the form of one or more of the following; personal interview, phone conversation, panel discussion, and completion of a needs assessment survey.

Columbia School District – Jason Shoff – Science Curriculum Leader. Columbia would be interested in the online data resource, field experiences, and support for a high school ecology elective, and exploring a possible partnership with LCC.

Conestoga Valley School District – Dr. Gerald Huskin – Superintendent. C.V. would be interested in discussing collaboration. Mr. Dan Daneker – Science co-coordinator. Interested in online data resource, Keith Hysick – Science Department Curriculum leader – we are in need of a go to list of providers.

Donegal School District –Mr. Seth Dougherty – Science Department Chair. Donegal would be interested in the online data resource, support in dealing with different ecosystems, speakers, and information dealing with local water sheds.

Eastern Lancaster County School District – Jason Shugar – 3rd Grade Teacher – Jason would be interested in support for planning and implementing environmental science lessons, practical examples and activities easily transitioned into a classroom, and looking into building a partnership with LCC.

Hempfield School District – Dr. Brenda Becker – Superintendent – Hempfield would be interested in collaborative efforts dealing with a variety of environmental education programs and topics, the online data resource, and teacher training. Ralph Heister – Supervisor of science safe areas to conduct field studies and people with a specific expertise to support activities. In need of funds to support transportation needs for field trips. Dave Martin – 8th Grade Earth Science – a need to secure local providers, guest speakers, field trip possibilities, support for L.L. Science Fair, and Lancaster County related issues (growth, resources, waste, renewable energy).

Lancaster School District – Mr. Pedro Rivera – Superintendent – Lancaster would be interested in the online data resource, and discussing the potential for partnerships with LCC. Ms. Toni Auen-Kino – 8th Grade Teacher – Career Day speakers, school visits to area natural areas, ground water contamination information.

Lampeter – Strasburg School District – Dr. Kevin Peart – Superintendent – Dr. Peart would be interested in an online data resource, teacher training and professional development in the area of environmental education, and exploring collaborations with LCC. Mr. Andrew Godfrey – Assistant Superintendent – information on possible field trips in the county and support for teacher training and professional development.

Manheim Central – K-12 Science Instructional Facilitator – Manheim Central would be interested the online data resource, guest speakers, hands on activities, field trips.

Manheim Township – Dr. Kevin Freeman – Superintendent – Manheim Township would be interested in the online data resource, and discussing the potential for partnerships with LCC. Mr. Tony Aldinger – Principal Bucher Elementary School – teacher training, professional development, support for on campus study labs.

Pequea Valley School District – Jody Melson – 4th Grade Teacher – Jody would be interested in support for lesson and units dealing with trees, plants, insects, conservation, and watersheds/wetlands.

Penn Manor School District – Mr. Erick Dutches – High School Bio/Environmental Science Teacher - Penn Manor would be interested in the online data resource, field trips in Lancaster

County and Pennsylvania that represent local and regional environmental related issues. Also discussions regarding partnerships with LCC.

Solanco School District – Irene Lefever – Physics Teacher – Solanco would be interested in alternate energy related materials, field trips or school visits for hands on learning experiences, the online data resource. Cindy Kinsey – 7th Grade General Science – Having access to natural areas that are part of the Conservancy, teacher training dealing with water conservation, ephemeral stream hydrology, green building design, and access to the online resource.

Warwick School District – Dr. Keith Floyd – Elementary Curriculum Coordinator – Warwick would be interested in the online data resource, expanding field trips options to Lancaster County natural areas, teacher training and professional development.

Lancaster Mennonite School District – Mr. Richard Thomas – Superintendent - Lancaster Mennonite High School – L.M. would be interested in an online data resource, support for developing lesson plans with environmental education integration, support for campus restoration projects.

Lancaster Country Day School – Mr. Steve Lisk – Headmaster / LCDS – Lancaster Country Day would be interested in the online data resource and collaboration with LCC. Mrs. Barbra Trout Green School Coordinator – LCDS would benefit from support for their garden projects on campus, teacher training, support for their environmental education class. Support in the form of people and ideas.

The New School –Mrs. Jeanine Garella-Standish – Instructor – The New School would be interested in the on line data resource, teacher training, access to environmental education training and programming.

Milton Hershey School – Mr. Nate McKelvie – Director of the Environmental Center – Milton Hershey would be interested in discussing various aspects of environmental education. Also utilize nature areas in the Conservancy. Milton Hershey implements a great tool for evaluation and data collection.

Lancaster Catholic School District – Mr. Thomas Fertal – Principal – Lancaster Catholic High School. Lancaster Catholic would be interested in the on line resource and collaboration with LCC, teacher training, professional development, support in developing higher level environmental education classes, and being used to pilot environmental education programs. We were invited to join their administrator council meetings.

What should environmental education look like in Lancaster County?

Youth should be presented with repeated outdoor experiences, mentors to introduce and reinforce those experiences, and the ability to create and embrace an environmental ethic which promotes awareness and action. According to Richard Louv “The children in nature movement, is fueled by this fundamental idea: the child in nature is an endangered species, and the health of children and the health of the Earth are inseparable.” A high quality environmental education should exist for every student in Lancaster County.

To be Effective, Environmental Education Should,

Inform the mind and personally engage the heart. Emphasize the great motivators of curiosity, discovery, wonder, celebration, self expression, and hands-on experience. Impart the knowledge that humans are part of nature not something separate from Earth. Create personal, positive emotional connections between students and the rest of nature.

Inspire in children a belief that the world can be a better place, that the present can be nourishing and the future a time of fulfillment. Achieve these goals by connecting with nature.

Exist beyond a science curriculum. It must cut across all subject areas, business, economics, language arts, history, social studies, and the humanities. Every teacher can be a teacher of nature and make a positive difference in a child’s life.

Exist beyond school-based programs. Our parents and communities must work to create experiences in nature and an environmental ethic. Adults can make a difference in the lives of children by opening the door of the first classroom, nature. Adults can be role models for children through their actions of spending time in nature and their actions of protecting nature and our environment.

Create a love of nature through awareness, engagement, and knowledge. Take that process to promote individual responsibilities, local action, and world-wide accountability. Environmental education should be education about the environment, education in the environment, education for the environment.

Not attempt to tell individuals to save the world but instead get them into the world that needs to be saved.

Focus on the geographical and environmental realities of our area, woodlands, stream and river conservation, wildlife preservation, the Chesapeake Bay, air quality, environmental issues in an urban setting, etc.

Provide consistent opportunities to evaluate students understanding and mastery of environmental education related concepts and issues.

Reflect the diversity that exists in our school and county. Experiences in nature should exist for all children and not be dependent on the social, economic, or racial standing in our community. All children should have the ability to become lifelong learners, critical thinkers, and develop the ability to acquire information and make sound choices.

Include opportunities for formal education that meets the needs of schools, universities and other educational entities. It would assist these institutions in meeting the educational standards and program goals. It would include inside and outside teaching components that actively engages students in hands-on learning.

Include informal educational opportunities that afford the opportunity for personal discovery and learning. This would be provided by both direct contact instructional programs and opportunities for self directed learning through exhibits and displays, library resources, and self-guided facilities.

A wide variety of service providers would contribute to delivering these programs and activities in accordance with their organizations expertise and mission. Opportunities to collaborate and coordinate services and programs should be encouraged to provide more effective and efficient programming.

Existing conditions in Lancaster County impacting our children’s experiences in nature and environmental education programming:

There exist in Lancaster County many dedicated and experienced providers working to provide services for our youth, community, and school districts.

At this time, there are many options for our schools and community as they plan for and implement environmental education. A conservation district, various foundations, a museum, a county park system, fish, boat, and game commissions, collaborations with local colleges, a sustainability center, two local conservancies, an intermediate unit, and various community initiatives that support our youth and deliver programs. There exists a need for coordination and collaboration by all those involved in the delivery of environmental education to maximize the positive impact on our youth.

Currently local, state, and federal funding dollars are being cut back which support many programs and initiatives. Lawmakers at these levels look carefully at program proposals and warn providers to eliminate overlap and to expect fewer dollars to support programs. These funding cuts have forced local providers and agencies to cut personal and leave some proposals unfunded.

School districts are experiencing funding challenges not experienced in our lifetime and cut backs in staff and programming. At the same time, state standardized testing forces school districts to focus on reading and math programs and curriculums. Other disciplines are tested, science and writing. However, the greatest school district accountability and budgetary funding is centered on reading and math.

Environmental education related programs do exist in our schools. These activities target tested science standards. The activities are one day experiences with a provider, located at a county

park, local conservancy, museum, or area on the school campus. Environmental education is characterized by short bursts of programs and activities. These one day activities are conducted in concert with science standards and receive varying levels of pre-teaching and follow-up after the event. There are isolated examples or coordinated, integrated, and hands-on environmental education programs in Lancaster County. These programs include entire grade level or school populations.

Elementary teachers are generalists in regard to subject area training. Science, in general and specifically environmental science, is an area in need of teacher training and professional development. For many teachers, taking students outside for lessons or activities is a move out of their comfort zone. IU 13 and local providers do work with teachers in curriculum development and workshops impacting environmental education. Additional standards are being added to elementary testing areas.

Middle school teachers have more science training and hours during the school week allotted for lessons. Curriculum alignment is a challenge, however, as teachers at the middle and high school level attempt to “fit in” science standard content. Actual environmental related activities are limited to schools that provide time for science class labs or outdoor school type programs.

High school level environmental education is generally taught in 9th grade earth science. Students receive state science testing in 11th grade and receive little environmental education or related experiences following earth science class.

State test scores are reported in science, writing, math, and reading. Science scores countywide are the lowest of all areas tested. Math and reading programs have included tutoring and remediation for students at risk not proficient in these tested areas. Math, reading, and language arts have been greatly impacted by curriculum alignment and coordination has helped to create higher scores. The same attention, funding, and commitment do not exist for science. Science is the most recent discipline to be included in the state testing program. IU 13 has been working to provide teacher workshops and professional development for teachers in environmental related areas. There are collaborations with local colleges, providers, and the Millport Conservancy in creating meaningful experiences for teachers.

As a result of the funding challenges, school districts have been forced to cut back or eliminate field trips or enrichment activities, which in the past, have taken our children into natural areas, parks, or preserves. These same funding challenges have forced districts to cut back on teacher training and professional development which would support teachers and students having experiences in nature. The funds that are allocated for science are directed to science standard related activities. These activities do not necessarily get students outside or produce personal experience in nature.

To counter the funding challenges and cutbacks, schools have turned to their own schoolyard or destinations within walking distance of their school to provide environmental education

experiences. School gardens, ponds, streams, wetland studies, tree planting, and insect collecting all can be found in our county school campuses. The North Museum and Wolshen Center have provided destinations for city schools. School districts have built outdoor classrooms and teaching areas for elementary, middle, and high school use. Local providers work to provide support for the teachers and students who can benefit from resources on school property.

Community groups are working to create new protected natural areas and provide support to existing areas and school initiatives. Programs in Lancaster are in place to educate, encourage, and motivate individuals and neighborhoods to become active and planet conscious (Live Green). Groups, such as Habitat MT, bring volunteers into play to create and protect areas for youth and community members.

At this time environmental education programs in our schools have a marginal status and not part of the core area of student learning. Due to high stakes testing in math and reading and standards testing in science, funding challenges affecting all areas of school budgets, and a lack of time in the school day to incorporate increased attention to environmental education, both educational content and student experiences in nature are lacking.

Private schools in the county are in a better position to provide environmental education related programs and practices. Free from state testing in reading, math, writing, and science teachers have time to provide experiences and develop curriculum not present in public schools. Lancaster Catholic, Lancaster Mennonite, Lancaster Country Day School, and the New School are providing classes, becoming involved in restoration, maintaining gardens, at this time, and are looking to expand experiences for their students in environmental education.

Discussion Points for Consideration – The Failure of Environmental Education

While our purpose here is not to dwell on the negative, we must look critically at the state of environmental education at a time we are developing, planning, and preparing a course of action.

We have read in Louv’s “Last Child” and Saylan’s “The Failure of Environmental Education” that changes must take place in our schools and our educational programs to meet the dyer needs of our planet. Both authors believe our problems are solvable, but changes must take place. What ideas and realities must we acknowledge if we are going to truly create an environmental ethic of substance and value?

Below are listed some of what we are reading and hearing. Saylan is in bold with my thoughts to follow.

Do not shove environmental curriculum into existing school programs. Do we work with schools of Lancaster County through support of existing programs which are not truly going to create a difference in serving our planet and environment? (standardized science tests) Instead should we look at building a program that revitalizes environmental education with our schools and community?

Create a program based on integration involving multi-disciplines consisting of multi-disciplinary teaching approach incorporating art, music, social studies, math, reading, etc. We have heard this outlined by Patti Vathis and we have seen it in operation at Schaeffer Elementary, Lancaster Country Day, and isolated areas in other school and districts.

Educators (schools) will need to overcome the idea that we can simply opt out if one chooses to not acknowledge that environmental problems exist. LCC is going to have to take a leadership role in this area. Right now EE is not a priority in our schools and curriculum beyond what is mandated through testing.

Environmental education is not an option like choosing ones religion and political affiliation. Here lies a challenge for LCC or anyone interested in changing or forming our environmental ethic. This remains a task for schools, parents, community members, and individuals willing to place pressure on the people making decisions affecting our planet.

Education is not providing the tools and skills necessary to circumvent the grave environmental problems affecting our security. Those skills include; teaching individual responsibility just as traditional education teaches respect for the law, critical thinking, responsiveness, and social engagement, a need for critical and analytical thinking and a heavy dose of creative curiosity. It is interesting that the business world, employers, and authors, have been asking (begging) educators for years to incorporate these skills into students experiences, making students more employable, ready for the work place, and competing in a new world order. These are characteristics necessary for the 21st century.

Time and money spent on environmental education that just informs students about nature is a waste of money if students do not take what they have learned and develop a sense of responsibility and work to protect nature. A challenge and a requirement remains to take students beyond the one day experience or big blast activity with little or no follow up, again, more than just learning enough to show proficient on a test. Environmental awareness does not necessarily lead to environmental action.

What we are noticing, concepts like sustainability and reducing energy usage, are popping up in isolated public schools and classes despite the fact these concepts are not part of the formal standard curriculum. We have seen this scenario played out all over the county. Can LCC build upon these pockets and truly change the way EE is perceived. Take those excited teachers, administrators, community people, and move some mountains.

Place Based Education, authored by David Sobel, was referenced in Louv's and Saylan's books. This creates educational experiences by blending of school, environment, and a community which take the form of local projects, which morph into social actions, and student learning skills. Sobel emphasizes the importance of engaging students in solving real and current problems rather than preparing them for solving the theoretical problems of the future. It is important for youth to see adults collaborating in solving challenges and problems, role models in action. It is also important for youth to discuss and enact critical environmental issues in a school setting. A leadership role in the solving these same challenges and issues. If kids are going to succeed in this venture, they must have the tools necessary and lots of practice. I am not sure kids are even getting the theoretical opportunities. I would like to conduct a survey to determine how many students are aware or even discussing critical environmental issues.

Resources

1. Louv, Richard. The Last Child in the Woods. New York: Workman 2008
2. Saylan, Charles. The Failure of Environmental Education. University of California Press: 2011
3. Sobel, William. Place Based Education Model. Referenced by Louv and Salyan
4. Children and Nature Network Website www.cnn.com
5. Delaware Nature Center Society website www.delawarenature.org
Helen Fischel – Director of Education
Brian Winslow – Executive Director
6. North American Association for Environmental Education Website www.naaee.org
7. Susquehanna Permaculture for Kids. www.susquahannapermaculture.com
8. Teton Science School. Website www.tetonscience.org
Education Director Joseph Petrick
9. The Pennsylvania Department of Education. Ms. Patricia Vathis, Director of Environmental Education www.pde.state.pa.us
10. Urban Environmental Education. www.urbanEE.org
11. Bixler, Robert. Clemson University, "What must happen with a child from a family disinterested in the nature/outdoors/environment such that upon reaching adulthood, he/she has developed a robust interest in nature?"

