The Rural Sustainable School
Education in Support of the Quadruple Bottom Line:

* Powerful Student Learning *

* Environmental Stewardship *

* Community Building *

* Economic Development *

The Community School
1164 Bunker Hill Road
South Tamworth, NH 03883
(603) 323-7000
www.communityschoolnh.org

In collaboration with the Innovation Network for Communities
(www.in4c.net)

**Executive Summary**

This document proposes the development of a new model for rural education transformation: the Sustainable School. The Community School in Tamworth, NH is an early stage prototype for such a school design.¹

This document seeks resources to help the Community School further evolve its educational design; benchmark other models in other parts of the country; and test the viability of the

¹ There are other examples of this scattered in different parts of the country. Part of the work plan for this proposal would be benchmarking against these other schools.
business design with conservationists, philanthropists, educators, and community and economic development organizations. The total budgeted amount for this 29-month project is $257,333.

A Sustainable School does more than just educate students. It also preserves and restores the community’s ecosystems, helps build the social fabric of the community, and contributes to local economic development.

A Sustainable School has the following design characteristics:

• The curriculum is organized around the core themes of sustainability, stewardship, and social justice and based on local and national educational standards or frameworks.

• The learning design emphasizes experiential and service learning which allow students to work on authentic sustainable development projects in their communities. Students perform real work and contribute original research to natural resource management strategies and social justice projects.

• The school is linked to working economic assets that seek to model sustainability principles in their operations. These assets create opportunities for experiential learning; generate income for the school; and create economic development opportunities for the community.

In the most fully developed model of a Sustainable School, a significant portion of the school’s budget would be derived from the earnings of its working assets.

We believe the model developed through this process could be useful to many different rural regions of the country facing a similar set of challenges.

The Challenges Facing Rural Communities

Many rural communities confront a complex set of challenges:

• disintegration of their economic base

• deterioration of their ecological resources and cultural heritage assets

• erosion of social capital due to out-migration to suburban or urban areas

• decline of their education systems due to low tax bases; difficulty attracting and retaining high quality teachers; and decreasing enrollments

Most rural communities do not have the resources to address all of these challenges with separate initiatives. However, what if all could be addressed simultaneously? A Rural Sustainable School could accomplish this.

The Opportunity

We believe it is possible to develop a sustainable, high quality school model for rural areas that is able to increase student achievement and post-secondary success while it also supports the protection, conservation and restoration of natural systems; supports community-building and the creation of social capital; and contributes to sustainable rural economic development. This model

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2 NCES Common Core Data (2003-04) shows that, on average, rural schools have about $10,000 less to spend on each teacher and administrator than non-rural schools, creating teacher recruitment and retention challenges for rural schools.
will also ease local tax burdens by shifting the paradigm for school funding from fee-for-service (currently subsidized in the public sector by taxes and in the private sector by tuition and fundraising) to asset management attained income.

Such a school would integrate innovative aspects of student learning, environmental stewardship, and community development.

**Student Learning**

Powerful student learning derives from:

- A strong sense of identity
- Aspiration towards a positive future
- Authentic engagement with adults
- Learning from real problems and real experiences

The structure and quality of curricula and assessment follow rather than lead these elements of learning.³

A Sustainable School organizes its learning around these pre-requisites of identity, aspiration, engagement, and experiential learning:

- Students are actively encouraged to cultivate their personal identity as global citizens who contribute to a sustainable future.
- There is an emphasis on positive solutions to challenges of sustainability rather than seemingly insolvable dilemmas and looming disasters. Sustainability themes are integrated into core curriculum areas.
- Students are connected with adults who are actively engaged in sustainable development and social justice activities.
- Curriculum is organized around experiential and service learning. Activities like conservation management; organic farming and forestry; social justice efforts, environmental monitoring and mapping; local heritage research, etc. support key curriculum elements.

**Environmental Stewardship**

The Sustainable School is directly engaged in the building of skills for environmental stewardship. This is done first and foremost through ownership by the school of natural resource assets, as well as collaboration with natural resource owners and managers.

In rural communities, this creates a perfect opportunity for connecting the work of the conservation community with the revitalization of rural education. We envision long-term relationships between a rural Sustainable School and conservation organizations. Ideally, the school could actually serve as the steward of conservation resources (acting as a land trust, for

³ Studies by the Gates Foundation and others show a decisive link between the decision to drop out and the lack of challenge and connection to real-life experience faced by youth in the public school system. 81% of survey respondents in the Gates Foundation study said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students' chances of graduating from high school.
instance). In other cases, the school could create partnerships with conservation organizations where students are actively engaged in environmental monitoring, mapping and stewardship. Similar relationships could be developed with working natural resource-based businesses (e.g. sustainable forestry operations) or organic farms. Donors would be encouraged to contribute natural resources as an endowment for the school which would provide both real-world learning opportunities and income to the school.  

Part of environmental stewardship is helping students become eco-entrepreneurs. The evolution of the natural resource and conservation economy creates a huge economic opportunity. Students will learn the skills of entrepreneurship, be encouraged to develop their own intellectual property and business ideas, and actively contribute to the design of a sustainable economy.

**Community Building and Social Justice**

Schools are a key element of a community’s social infrastructure. Unfortunately, the paradigm is usually structured in terms of the community supporting the school rather than the school supporting the community. Schools too often result in the segregation of young people, excluding them from regular contact with the people and organizations outside of the school’s microcosm. We seek to reintroduce students into this mix where they will contribute their talents, expertise and young wisdom to the social fabric of the community.

Many factors affect quality of life in our communities: poverty, education, jobs, availability of healthy food, adequate affordable housing, access to legal aid and healthcare, and lack of supportive social peer groups.

Schools are the ideal incubator for the next generation of problem solvers who will address the inequities faced by hundreds of thousands of people in rural America. In the Sustainable School, we understand that our community’s human resources are as valuable as our environmental assets. Students will connect to local agencies tackling issues of social justice, apprenticing at all levels in the non-profit structure, learning to coordinate programs and fundraising efforts, and working with people of varied socio-economic standing, racial and religious background, gender identity, political affiliation, or education. Partnerships are established which create meaningful and rich relationships between individual students and specific causes or social justice issues. Through these relationships, students will develop a variety of critical skills: leadership, problem solving, critical thinking, collaboration, self-motivation, and creativity. Empathy and understanding are natural by-products of these in-depth associations.

**Business Management**

While students will receive significant exposure to the management structure of the non-profit world, so will they be highly involved in the planning and decision making inherent in the running of a small business. Students will work with professionals to determine the best practices for yield, longevity, and profitability in the management of the school’s working and natural assets. This activity might range from working with foresters to develop and execute the school’s forestry

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4 As part of the final deliverables for this project, models will be created for board structures, committee formats, and links to land trusts or other asset management groups which will clarify the school’s administrative role in resource stewardship.
management plan to being involved with the management of the school’s investments. Students will gain relevant, highly applicable knowledge from this close contact with professionals. They will also achieve a sense of satisfaction and connection to place when entrusted with the responsibility of “running” the various income mechanisms for their school.

**The Community School As Prototype**

The Community School is a fully accredited independent college preparatory day school located in Tamworth, NH. It was founded in 1989 and educates students in grades 7-12. Students come from 17 towns in central New Hampshire, Western Maine, and the White Mountain region. Over 50% of students receive financial aid.

**Community School Mission Statement**

*We believe learning is a rigorous and joyful pursuit that calls on each individual’s talents and interests. In order to build and nurture a healthy and sustainable community, students and teachers collaborate—in the classrooms, at School Meeting, in our gardens and forests, and while exploring the broader world.*

**Core Beliefs of the Community School**

- By interacting with people and places, we develop a sense of responsibility and caring.
- When we discover our aptitudes and interests—and find them valued by others—we become eager learners.
- Cooperation and teamwork are essential to a sustainable society.
- We should be proud to use our bodies to do hard work. There is great satisfaction in sharing in labor for the sake of a community need.
- True learning calls on our mind, heart, and body. It requires hard work.

**Unique Characteristics of the Community School**

**Learning Through Real-World Experiences**  The Community School provides opportunities for students to put their academic learning to practical use. Courses combine the best aspects of classroom study with community interaction and real-world exploration—and students thrive in a holistic environment which challenges not only the intellect but the body and spirit. We believe that cooperation and teamwork are essential to a sustainable society. Individuals become valued members of a society when they come to understand their own potential and what they can bring to their community. At The Community School, young people learn to work non-competitively, building on each team member’s strength, whether in the classroom, in the field, or in the community at large.

**Local/World Community Engagement**  We teach students to be active members in their communities by holding weekly school meetings using a New England town meeting model; decisions affecting the running of the school are made in this forum with every school community member having an opportunity to speak to an issue and, ultimately, one vote. We also encourage students to be not only regional but global stewards by integrating travel into our studies. We travel regularly to the Maine coast and New York City, and fit in trips as far a field as Washington.
D.C, Costa Rica, and the Czech Republic. Students raise money to pay for these educational adventures and donors regularly sponsor students.

**Natural Resource Stewardship** Our school is situated on 310 acres, protected by conservation easement. This former dairy and cattle farm was one of the largest and most prosperous in our region. Years of decline saw the selling off of first the livestock, then the machinery, and finally the topsoil. Once fine pastureland became overgrown with scrub trees and unmanaged forest. The Community School purchased the Perkins Farm from the Perkins family and has, over the past fifteen years, worked to restore the land to a functional state.

Today, the school manages a four-acre certified organic garden which raises flowers and vegetables to sell at our farm stand, to our CSA (community supported agriculture) members, to local restaurants, and at farmers’ markets throughout the summer. Various classes are offered which support the garden, involving students in the process of planting seeds, caring for seedlings, preparing the soil for transplant, weeding, weeding, and weeding. We also teach students how to harvest and preserve foods, plant cover crops, and prepare the gardens for winter. Students work in our certified kitchen to can and freeze foods which are then used for school meals throughout the winter. Work opportunities exist for those students who are interested in spending the summer in our gardens. We have a strong network of volunteers, which includes students and parents as well as community members, who supplement our paid staff.

The Community School has collaborated with the owner of a neighboring gravel pit to reclaim the spent regions with wild cranberry bushes. Students in our stewardship and harvest classes worked in the bog to transplant and help with the annual harvest. Several years of care have resulted in a cranberry bog which yields exceptional cranberry crops, now certified by the state of New Hampshire as organic; the school harvests, uses, and sells this early winter staple to local stores and restaurants. A local creamery uses these cranberries in its cranberry ice cream.

White pine forests account for approximately 260 acres of our farm school. Students work with the state cooperative extension office, local foresters and sawyers, and with local universities to identify species, monitor growth and disease, map and rebuild habitat, and harvest wood for use in various school building projects. We developed an international comparative forestry project in conjunction with the Scholas Humanitas in the Czech Republic and the Monte Verde Friends School in Costa Rica. We have exchanged students as part of this on-going project.

**Phase One: RSSP Pilot**

We will bring our forestry program to a higher level of integrative study. After a summer of curriculum development based on the Rural Sustainable Schools framework, we are working to manage our forested and open lands and waterways for future generations. By learning background information in a classroom setting and then taking this knowledge into the field with professional land management personnel, students immerse themselves in all aspects of land stewardship: from walking the land to figuring the trigonometry of easement boundaries; rebuilding animal habitat for local fauna while inventorying forest species; working with local conservation agencies to draft management plans and helping land owners to implement them.

Phase One of this pilot has several key components:
Stewardship and Sustainability

*Opportunities will be provided to:*

- Teach and model sustainable practices for maintenance of forested and open lands
- Explore impacts of sprawl on natural landscapes and people
- Partner with state and local agencies to study and employ up-to-date conservation practices
- Engage students in the workings of regional and national conservation organizations
- Acquaint young people with their regional, natural and cultural heritage
- Work in The Community School’s certified organic vegetable gardens
- Manage The Community School’s 310-acre farm, including fields, wetlands, and forests
- Understand the complexities surrounding conservation easements, land covenants, and trusts
- Invite community members into an on-going dialogue around the management of local lands

Community Outreach Services

*This initiative will evolve in its second year to benefit the community at large by providing:*

- Land owners with suggestions for land management practices
- Land management plans for private and public land owners
- Habitat surveys
- Management of small wood lots
- Strategies for wildlife habitat improvement
- Soil and water testing services
- Land owners with labor and resources for reforestation projects
- GIS (geographic information systems) mapping services to the public

Public Education and Awareness

*Essential to this pilot is the education of the public at large. The Community School will offer:*

- Seminars, courses, and speakers on current issues of sustainability, local economy, and conservation related topics
- Local foods dinner and lecture series (summer months)
- Public school outreach
- Collaboration with regional conservation groups, e.g. Green Mountain Conservation Group, Chocorua Lake Association, Wonalancet Outdoor Club, Squam Lakes Association, Sustainable Tamworth, and the Margaret and H.A. Rey Center
- A wide range of hands-on practical learning opportunities to residents
Taking the Community School Design to the Next Level

While the Community School has prototyped many different dimensions of a rural Sustainable School model, there is still significant prototyping and design work to create a model that is replicable in multiple rural communities.

This proposal would support the following design and development activities for the Rural Sustainable School model:

• Benchmark other rural schools in the country which are organized around some version of the “quadruple bottom line” (learning, environmental stewardship, community building, economic development).

• Integrate sustainable development principles throughout the curriculum, creating direct links to local, state and national education standards.

• Develop the business designs and financial models for ownership by the school of natural and business assets to support its stewardship, experiential learning, and economic development activities. Some of the questions that need to be explored here include:

  1. What kinds of assets would best support this kind of school design?

  2. What level of assets would be required to substantially contribute to the economic sustainability of the school? How would a school determine its need?

  3. What are some of the business structures that might be considered to hold those assets (for instance, a separate trust, board structures, partnerships)?

  4. How might active working assets (e.g. an ongoing business) be part of this strategy?

  5. Who are the partners a school should be working with on this kind of asset accumulation (e.g. land trusts; national environmental groups; business associations; etc.)?

• Devise additional innovative ways of engaging students in the life of the community and using the school as a way to contribute to community development.

• Create strategies to incorporate entrepreneurship (business and social) into the curriculum and learning experiences so that students can contribute actively to local economic development.

• Explore the overall feasibility of the design with a broad stakeholder group consisting of educators, philanthropists, conservationists, and business owners.

Final Deliverables

The final deliverables for this project will include:

• A concept document describing the overall design for a Rural Sustainable School.
• A benchmarking report of schools across the country which have made sustainable development a core theme.

• Recommended operating systems for the following design elements of a Rural Sustainable School model:
  1. Curriculum design for sustainable communities
  2. Strategies for teaching and practicing natural resource stewardship, including the ownership and management of working natural landscape assets
  3. Strategies for community engagement, education, and awareness
  4. Strategies for school involvement in local economic development
  5. Strategies for linking with local social justice agencies

• Financial plans and business models for such a school (pro-forma budgets; etc.).

• A risk assessment of each element of the Rural Sustainable School model – what can go wrong and how to prevent it.

• A database of reactions, ideas and suggestions for improvement from philanthropists; educators; businesses owners; and conservationists.

• The recommended strategy for exploring the feasibility of such a school in a new location.

**Project Team**
The following individuals and advisors will be involved in this project:

• **Project Coordinator:** Lianne Prentice—Antioch New England Graduate School, MAT critical skills; University of New Hampshire, BA English/political science

• **Project Development/Pilot Teacher:** Claes Thelemarck—Antioch New England Graduate School, MS environmental studies; SUNY, BS environmental and forest biology; Paul Smiths College, AAS ecological and environmental technologies

• **Director, The Community School:** Jenny Rowe—St. Michael’s College, M Ed Education; Yale University, BA German

• **Advisors/collaborators:** John Cleveland, The Innovations Network for Communities; Willard G. Martin, Jr., Judge, Belknap County Supreme Court; Alan Robichaud, Executive Director, Belknap County Citizens Council on Children and Families; John Mersfelder, Tamworth Conservation Commission; Steve Blackmer, Northern Forest Resource Center; C. Scott Aspinall, Forest Land Improvement; Nels Liljedahl, Natural Resource Conservation Service; Tom Thiel, NorthWind ToneWood; Chelsea Cathcart, student at TCS; Jeremy Pyburn, student at TCS; Juliana Beecher, youth member Carroll County Juvenile Justice Project.
**Project Budget**

The estimated budget for this project is $257,333 over a 2.5 year time frame. This reflects a cost neutral staffing budget for The Community School during the two-year research and pilot phase. The summary of the budget is shown below. More budget detail is available upon request.

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**Working Asset**

CEO, Manager or Employees

**Collaboration with management professionals in curriculum development and overseeing of student learning and efforts in the field or workplace**

**Work done on site to hone skills and insights introduced in a classroom setting**

**Interaction between students and employees at all levels of the asset's hierarchical structure**

**The Community School Teaching Faculty**

**Classroom or field instruction, skills building, and content work**

**The Community School Students**

**Working Asset**

(land, small business, stocks, non-profit, etc.)