PROPOSAL TO ESTABLISH

THE PELEE ISLAND

INTERNATIONAL SCHOOL OF ENVIRONMENTAL STUDIES

2nd DRAFT
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Overview

An Educational Facility

This proposal envisions the establishment of the Pelee Island International School of Environmental Studies - an accredited secondary school institution providing enhanced learning opportunities in the areas of ecological studies, conservation, biology, botany, freshwater biology, environmental stewardship and community studies. The facility would serve the needs of secondary school aged pupils who are residents of Pelee Island and students from elsewhere in Canada, along with an initial population of approximately one hundred international students. The school would provide the required secondary school programming leading to an Ontario Secondary School Diploma, along with an enriched array of courses in the sciences and geography whose content matches its enhanced educational focus.

Expanded Community Use

The proposed secondary school would operate between the months of September and April, with an adjusted school day, allowing for the required credit hours to be accomplished in an eight month period. That would have a number of advantages. First and foremost, international and other non-resident pupils could accomplish their schooling and be able to return home for a four month period, rather than the two months standard in most Ontario schools. Resident pupils could engage in extended work experience programs both on and off the island. Finally, this would permit the facility to be utilized for a Conference and Meeting Centre, serving the tourism and economic development needs of Pelee Island, as well as serving as an educational institution.

Purpose of this Document

This document outlines a vision for the establishment of The Pelee Island School of Environmental Studies. It presents a rationale for the proposal, and establishes a case for creating this new institution. The official plan for the Township of Pelee Island clearly states why this proposal is important and why this initiative is critical to the future of the community.

"Pelee needs a permanent population to sustain it as a community and to provide continuity of stewardship. The permanent population of Pelee, and particularly permanent families with children, has experienced a general decline since 1913 and is now at a critical level. The Township needs a reversal in this population trend over the planning period in order to survive and flourish as a community.

To achieve this, significant improvements to the economic base and the supporting servicing infrastructure of the Township are necessary. In turn, these must be achieved in a manner consistent with protecting the natural environment which is the basis for much of the Township’s current and intended future economy.”
This document lays forth a possible scenario for the establishment of an international, residential secondary school on Pelee Island, along with an analysis of the opportunities and challenges.

In order to move forward, the various stakeholders who would need to partner in this endeavour should consider, and hopefully endorse, the vision for this project. Once that has occurred and the necessary funding should be sought and secured to move this proposal to its next phase.

### Visioning/Conceptualizing Document
- sets forth the vision for the project in a way in which potential stakeholders can assess their role and participation; outlines the opportunities and challenges; seeks to have key partners approve the project ‘in principle’

### A Detailed Feasibility Study
- provides a detailed financial and business plan for the project
- engages the partners by defining roles, refining the vision and assesses various sites; identifies the key elements which will need to be addressed in an implementation plan
- identifies opportunities and sources of funding for enhanced community use elements, including a conference centre, gymnasium/fitness centre, replacement for the elementary school, and library resource centre

### An Implementation Plan
- articulates the educational programming/courses to be offered; processes to be followed in establishing a residential service for international students
- identifies the facility design requirements for an international residential school; to support the enhanced environmental education programming as well as for the expanded, community or alternative use
- establishes a process for community members and stakeholders to provide input and advice to the facility design and operation
- sets forth an expected sequence of events, timeline and benchmarks, necessary in accomplishing the project
- staffing issues are identified and potential solutions developed

### Design, Construct and Market
- a site is selected, the facility and site are designed and constructed
- an international and national marketing fills the student placements
- staff are identified; assigned or hired as appropriate
- facility is equipped, school policies established, protocols developed for use of the facilities

### Facility Opens
Background

A Unique Environment

Pelee Island is truly one of Canada’s most unique places. It is the southernmost, inhabited territory in Canada. It is located in the western basin of Lake Erie, lying at the same latitude as northern California, northern Spain, central Italy, and south of almost half of fifty of the American states. Due to its southern location and position in the Great Lakes, Pelee Island is truly one of the most rare natural habitats in Canada. With thousands of species of plants and animals, Pelee Island is home to many creatures not normally associated with Canada, including the Eastern Prickly Pear Cactus, Sassafras Tree, Hop Tree, Smallmouth Salamander, and Blue Racer snake, to name just a few.

Over the years, human activity has changed the face of Pelee Island, however much of it remains in its natural state or has been restored with its natural growth and wildlife. From the shoreline features typically found in large, inland freshwater lakes, to the savannas, meadows, forests, canals and wetlands typically found in Southern Ontario to the rare Carolinian forest environments and unique Chinquapin Oak Alvar Savanna (a habitat composed of thin, poor soils on limestone), Pelee Island offers an incredible variety of natural habitats for its four thousand hectare size.

Pelee Island lies in the path of two of North America’s greatest wildlife migration routes - the Atlantic and the Mississippi flyways. From migrating song birds, hawks, monarch butterflies and dragonflies, Pelee Island provides animals with a resting place in their seasonal journeys north and south. Since their field work began in 2003 the Pelee Island Bird Observatory has identified over two hundred and forty-two species of birds, ranging from barn swallows, an Eastern Screech Owl, Yellow-bellied Flycatcher and Broad-winged Hawk to a Kentucky Warbler and a Cave Swallow. Pelee Island has become a magnet for both researchers and birders seeking to study one of the largest concentrations of species in North America.

Remote and Accessible

While the Township of Pelee Island consists of the Canadian islands found at the western end of Lake Erie, and includes eight smaller islands known as the Out Islands, these areas have no permanent population. While these natural environments may be locations for studies and activities associated with the proposed school in the future, this proposal will focus on the opportunities provided by Pelee Island.

Accessible by boat for most of the year, and by air year-round, Pelee Island is a remote community geographically located near large population centres of millions of people. Situated close to the international boundary separating Canada and the United States of America, Pelee Island is within reach of the large urban areas of Cleveland, Toledo, Detroit and Buffalo (USA) and Toronto (Canada). Unlike many other remote communities in Canada, Pelee Island is easily accessible from these areas with a very short flight to the Pelee Island airport.

However, it is the location of Pelee Island in one of North America’s Great Lakes, that makes it a remote community. This feature has protected the island’s natural heritage since its earliest days of human habitation.
Human Habitation

Evidence found on Pelee Island suggests that it was home to a human population for over 20,000 years. Throughout its earliest and its more recent history, Pelee Island has been inhabited by Native North Americans. Pot shards, arrow heads, tools, and the analysis of evidence found on the island indicate that early Paleo-native populations used the island habitats. Abundant fish in the surrounding waters, wildlife and game to hunt in its forests and wetlands, along with a relatively mild climate caused by the tempering factor of the waters in the lake, gave rise to many subsequent groups of Native inhabitants. A well-known native grinding stone and the documented discovery of a dugout canoe in 1926 provides the suggestion that other evidence of earlier cultures are yet to be found.

The arrival of European explorers and colonists brought changes to Pelee Island. With its location along the pathway inland from Eastern Canada, Pelee Island was a natural stop-over point for travelers. In the same way that the island’s abundance attracted its Native inhabitants, the Europeans soon established trapping, fishing and farming activities.

Situated close to the international boundary, Pelee Island was destined to have a role in both the Rebellion of 1837 and the War of 1812. It was invaded by an American force in 1838, who soon were driven off the island by soldiers from the British garrison at Amherstburg. The Battle of Lake Erie, a significant event in the War of 1812, took place off the shores of nearby South Bass Island, Ohio.

Economy

Economic activities on the island have included forestry, fishing, trapping, and farming. Stone quarrying was started on the island in 1820 and the limestone was used not only in structures on the island but in communities around western Lake Erie.

In 1866, wine production was introduced to the island when ten hectares were cultivated for a vineyard. In the latter part of the 1800’s over forty families were involved in the production of wine on the island. In 1891, the Pelee Island Wine Company constructed a large, three-story building from stone quarried on the island with eighteen, one thousand gallon vats. This rich tradition of wine making was re-established by the creation of the Pelee Island Winery in 1979, which now produces over two dozen different wines and has become the largest VQA wine producer in Ontario.

In addition to the growing of grapes for wine production, Pelee Island’s economy focuses on agriculture and tourism. The cost of transportation of agricultural commodities relative to the cost of the same crops grown in Southern Ontario limits the scale of farming on the island. In the same way, rock quarrying and fishing have also been limited in scale over the past fifty years. The Township of Pelee Island has established the goal of expanding and establishing specialized agriculture initiatives, including expansion of the viticulture, organic farming, seed production, market gardening and native plant nurseries.

“Agriculture on Pelee Island is changing. While some areas of non-prime agricultural lands exist, most of the lands designated “Agricultural” are prime agricultural lands. Pelee’s excellent soils and climate are capable of supporting specialty crops. The Agricultural designation (of the Land Use Plan) seeks to ensure the ability for farming to adapt in order to take advantage of future opportunities.”

Each year, Pelee Island hosts a pheasant hunt, which was started in 1932, and has continued each autumn since. Some estimates of the annual economic activity resulting from the Pelee Island pheasant hunt at one million dollars.
In recent years, Pelee Island’s residents have been working to develop their tourism industry. As part of this endeavour, a number of goals to enhance the cultural and natural heritage of the island have been undertaken. The Township has sought to preserve its built heritage and to protect its archaeological sites.

Perhaps most significant and successful in the Township’s initiatives has been the conservation and restoration of large tracts of natural areas. Fully twenty-five percent of the total land mass of Pelee Island is currently protected. Savanas, forests, wetlands, meadows, regenerating agricultural fields, and the lake shoreline provide habitat for many species of wildlife that have long disappeared from the rest of Ontario. In partnership with organizations such as The Nature Conversancy of Canada, Parks Canada, Ontario Parks, the Essex Region Conservation Authority and Ontario Nature, the residents and Township of Pelee Island have made the preservation and protection of the island’s natural heritage a priority. In 2003 the Pelee Island Bird Observatory was established, with a mandate to collect data on the resident and migratory bird populations, along with supporting the further development of eco-tourism. Last year, in cooperation with the Pelee Island Heritage Centre and Meadowlark Organic Farm, a native tree nursery was established, with a goal of restoring and enhancing both private and public properties. A proposed Eco-trail system will establish a comprehensive network of trails, furthering the direction of making Pelee Island’s rich natural heritage more accessible to foot and bicycle traffic, and reducing the dependency on vehicular travel.

The challenge facing Pelee Island’s residents and future hinges on two factors. First, is to further develop an economic base which preserves the island’s natural heritage and uniqueness. The second, and one which is very critical to the economic survival of the island, is the ability to attract and sustain a permanent population. For this to happen, the necessary amenities to sustain a community must be in place. Principle among these for families with young children, is the availability of schooling.
Education on the Island

Early settlers on Pelee Island recognized that if their community was to survive, they had to establish a school for the young children. In the 1870’s two school houses were erected and a Public School Board was elected to administer them. In 1889 four new school buildings, each serving one of four wards on the island, were constructed and by 1900 approximately two hundred and eighty-five children attended them. At this time, Pelee Island’s population was around six hundred people. According to school board records, the current North End School (Pelee Island Public School) was constructed in 1918. Gradually, the four ward system and separate buildings were consolidated in 1944 and from 1958 to the present time, high school pupils have been transported and boarded on the mainland during the school year.

In recent years the population of Pelee Island Public School has steadily declined. Currently providing schooling for pupils from age four to thirteen (grades JK-8) and with the addition in 2008 of a distance-learning option for students in grade nine, the severe drop in the numbers of children on the island has given rise to increasing concern from community leaders.

Population of Pelee Island Public School (FTE*)

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* FTE refers to full time equivalent as JK/SK pupils are only counted as .5 for their half-time school program

** the 2008/09 numbers are ‘projected’ from registrations held in the spring of 2008

What is troubling about the student population trend at Pelee Island Public School is that the number enrolled for 2008/09 consists of only one pupil in Senior Kindergarten and a total of two in grades one through three, and the remaining seven in grades four through eight.

Since the late 1950’s, permanent residents of Pelee Island who are the parents of secondary school-aged students have faced a very difficult situation. In order to receive an education, the students had to leave home at age fourteen and board with other families on the mainland during the school year. The local school district provides a small stipend to compensate families who board students from Pelee Island and transports them to and from the island, when possible, on Friday and Sunday nights. During the fall and spring the students are transported by ferry/boat to the dock at Kingsville and, from there, by taxicab. During the winter months and when ice conditions on the lake take the ferry out-of-service for the season, the students are transported by small aircraft operating out of Windsor airport. Students are transported the forty-eight kilometers to and from the airport in Windsor to Kingsville each week. Quite naturally, this situation has placed a great deal of stress on some parents and young people, as they are separated for long periods of time during the school year.
Recently, the advent of distance learning options at the local school district have opened up the opportunity for students to take grade nine credits at the elementary school on the island, however this has its own set of challenges as the social aspect of the secondary school experience is not available for the young people.

In the 2007/08 school year, there were eight secondary school-aged students from Pelee Island being transported to and from the island for their education.

With an increasingly shrinking population of children on the island, the provision of educational programs becomes difficult. As mentioned, the North End School (Pelee Island Public School) was built in the early part of the last century and, as such, was built for a different era in education. The building is not accessible to persons with mobility challenges. A single story brick structure, the original building consisting of 413 square metres, was constructed, according to school board records, in 1918. An addition of 109 square metres was added in 1954. The most recent analysis of needed repairs and renovations to the building indicates that a total of $757,421.00 in work is recommended by the year 2013. With an enrollment of less than ten pupils, the school district will have difficulty in securing Ministry of Education funding or support for large expenditures to maintain the current building.
The Proposal

A Public Infrastructure Project

The most effective community infrastructure projects possess a number of features:

- they meet a number of public service needs in a single initiative
- they are able to be developed in a cost-effective manner
- they are able to be sustained through an ongoing revenue flow that doesn’t rely solely on the further expenditure of tax dollars
- they are supported by an overwhelming majority of the members of the community

The implementation of this proposal meets each and every one of these criteria.

The Pelee Island International School of Environmental Studies

The establishment of a unique public education facility on Pelee Island holds the promise of becoming a key initiative to revitalize and sustain a permanent resident population. In today’s global economy, parents from many areas of the world are seeking to have their young people attend high quality, residential schools in North America.

Canadian schools, and the Ontario curriculum in particular, are viewed as exemplary in many regions of the world. Increasingly, students in the Far East, the Indian subcontinent, and the Middle East are seeking entrance to Canadian universities to pursue their post secondary school education. A growing proficiency in English, a familiarity with North American culture and traditions, and the high quality programming, are all cited as reasons why parents choose to send their young people to Canadian institutions.

This has also resulted in a growing trend in the number of parents seeking an international, residential, secondary school experience for their children.

Understanding the Market

First and foremost, parents seeking an international residential school program are looking for quality. While some will select a private school program, the opportunity to choose an accredited secondary school diploma program with a focus on a fast-growing area of research and economic development - namely environmental studies - will have great appeal.

Secondly, and quite understandably, parents are concerned for the safety and security of their children. They worry about the social environment and the dangers associated with life in large urban areas. Pelee Island offers the perfect location to assuage these concerns. It is a safe environment, with very limited risk to the young people who might attend a residential school on the island.
Building a Sustainable Model

This proposal suggests the establishment of a specialized secondary school designed, in the beginning, for a student population of one hundred residential/international pupils and upwards of twenty resident pupils. Attracting one hundred pupils is a modest and reasonable expectation, given the nature of the programming, the quality of the facility and the effectiveness of the marketing activities.

Currently, residential secondary school programs offered in Canada are priced at an average of $40 000.00 per annum, for the program and residential services. Provincial education grants generated by each resident secondary school pupil are $7 254.00 (additional $22.00 for pupils in grades eleven and twelve).

The annual revenues provided by the international student fees pay for the instructors, staff associated with the residential services, program resources and activities and establish a fund which provides funding to offset the initial facility design and construction costs. Over a period of time it would be expected that the residential school component would pay the debenture costs of the project.

This would, of course, require further analysis and confirmation in a follow up feasibility study.

Capitalizing on the Island’s Unique Characteristics

Pelee Island offers the opportunity to design and implement a unique environmental education program of study which capitalizes on the island’s natural heritage in a way that is complementary to the three fundamental goals in the Township of Pelee Island’s Official Plan - a sustainable community, a sustainable natural environment and a sustainable economy.

With its diverse ecological zones, temperate climate, abundant wildlife and lack of industrial development, Pelee Island has become of focal point of scientific, environmental and conservationist activity. The students attending the Pelee Island International School of Environmental Studies would be able to engage with these researchers in a number of ways. The school could establish a ‘guest lecturer’ series, inviting these professionals to share their research and insights with students as part of their ongoing classroom program. As well, students could assist with many of the actual research projects - learning about and participating in the annual migratory bird counts and banding activities, monitoring water quality levels in the lake and canals, tracking wildlife populations on the island, or investigating ways to deal with invasive species. As well, the recent establishment of an organic agricultural initiative and native plant project would offer the students with an opportunity to participate in activities which seek to preserve the natural plant heritage of the island.

Pelee Island is home to one of Canada’s most successful viticulture or wine-making industries. Although the processing facility for the Pelee Island Winery is located on the mainland of Essex County, the Pelee vineyards comprise the largest private estate in Canada - at over 220 hectares. The vineyard operates according to the strict “Sustainable Vineyard Practices” prescribed by the World Wildlife Fund.
The proximity of such a world-class viticulture industry presents the opportunity for a locally developed course to be planned and implemented for senior level students. Cooperative Education placements could provide students with work experience and an indepth knowledge of this rapidly expanding industry.

Pelee Island is the perfect location to study freshwater biology and the complex relationships of a lake ecosystem, water quality, the impact of invasive species and limnology. The waters surrounding Pelee Island have been the subject of numerous international studies, including those conducted by The Great Lakes Institute at the University of Windsor, the Canadian Wildlife Service and Stone Laboratory at Ohio State University.

In recent years, the community leadership and residents of Pelee Island have worked hard to expand their tourism industry - in particular, the eco-tourism opportunities for visitors. This presents a very important and relevant learning opportunity for students who might attend the international school. With a growing public concern about issues of climate change and environmental stewardship, participating in community activities and initiatives which focus on green technologies and the growth of a local economy that preserves and protects the environment is a tremendous opportunity for students and staff at the school.

Finally, the community of Pelee Island itself presents an excellent learning for students in human geography and community study courses. The challenges facing small, rural and remote communities can be examined first hand as students explore how island residents and local government has met the challenge of ensuring public safety, emergency medical service, and other elements essential to the life of a community.

Planning the Curriculum

The identification of the specific curriculum and courses which would comprise the program of the Pelee Island International School of Environmental Studies would be part of a subsequent implementation plan. However, an examination of the program options available with the Ontario Secondary School Curriculum provides some insight into what might be expected.

The Ontario curriculum is held in high regard in many places around the world. Canada consistently scores very well on international assessments in math and science, and our literacy rates are among the best in the world. The Ontario curriculum is utilized by many international schools operating in foreign countries and is the choice of schools operated by the Canadian Department of Defense.

In order to graduate with an Ontario Secondary School Diploma, students must earn a total of thirty credits, eighteen of which are compulsory, engage in forty hours of documented community involvement, and meet the provincial literacy requirement. Each course is 110 hours long.

It would be advisable that the curriculum offered by the international school on Pelee Island focus on environmental science, biology, botany, chemistry and resource management. The Ontario Curriculum offers a number of credit courses which can be taken as optional credits. The following charts outlines courses which may comprise such a focus. If numbers of students do not warrant or support the offering of a particular course credit, however, it can still be taken by students through the Ministry of Education’s e-Learning initiative.
The planning of the curriculum would also need to take into consideration whether courses intended to strengthen English language proficiency would be needed. Often, parents who send their young people to international schools in North America have the goal of having them become highly skilled in the English language. It would be possible to offer a number of language courses to small groups of students, in an independent learning model.

### Compulsory Credits

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<td>Science</td>
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<tr>
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<td>Arts</td>
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<td>Health &amp; Physical Education</td>
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<td>French as a Second Language</td>
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<td>Civics</td>
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<td>additional English, FSL, Native Language, Social Studies/World Studies, Guidance, Career Education or Cooperative Education</td>
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<td>additional Science, Technological Studies or Cooperative Education</td>
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### Optional Credits

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<td>Canadian and World Issues: A Regional Analysis</td>
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<td>gr. 11</td>
<td>Regional Geography: Travel and Tourism</td>
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<td>The Environment and Resource Management</td>
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<td>gr. 12</td>
<td>Geomatics: Geotechnologies in Action</td>
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<td>Science (social and environmental issues)</td>
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* one of the optional credits would likely be the additional credit already counted in the compulsory table, therefore three further credits could be identified and offered in other subject areas (English, the Arts, etc.)

As well, there is the ability to offer a ‘locally developed course’ which must be approved by the Ministry of Education prior to it being offered.
A Concentrated Program

For many parents, the decision to send their children away from home for their education is a difficult one. Residents of Pelee Island know that all too well. Many international residential schools provide a concentrated program, whereby the traditional ten month, 194 school days, are compressed into an eight month school year with longer days. It is possible to schedule 164 school days between the beginning of September and the end of May, allowing for a four week break over the Christmas holidays. This is accomplished by planning a six hour school day rather than the five hour one currently in operation in many secondary schools. The need for staff Professional Development Days could be managed by a stipend whereby the teachers may attend conferences and workshops off of the island outside of the academic year. An alternative school year calendar is quite workable, with Ministry of Education support and approval.

Partnerships with Post Secondary School Institutions

Numerous Universities have carried out research and field study projects on Pelee Island and the waters that surround it. As well, a number of government agencies, wildlife organizations and conservation groups, have also conducted studies on and around Pelee Island. As a result, there is a large repository of research on topics ranging from bird migration, wildlife habitat, micro-climates, invasive freshwater species, and many more. This work provides the students at the Pelee Island International School for Environmental Studies with an excellent resource, and presents the opportunity for these young people to work alongside University graduate students, scientists and researchers on future studies.

Short-term Studies and Field Trips

The facilities in and around a specialized school for environmental studies would provide an excellent learning laboratory for visiting staff and students from Universities, secondary schools and elementary schools around the region. With planning and coordination, school areas can be utilized by visiting groups to enhance their experience on Pelee Island. This is particularly true in the months of May and June when many teachers plan field trips as culminating events to topics studied throughout the school year. With a planned academic year of September through to April, the facilities at the Pelee Island International School for Environmental Studies would be available to be utilized by students at many levels.
Building a Multi-Use Facility

It would be very important that the facility design of a new Pelee Island International School for Environmental Studies incorporate elements and features that would permit its use as a community resource beyond the school day. Modern school design demands flexible learning spaces, rather than the subject-specific classrooms and laboratories of the past. This trend in design is complementary to the need that this school facility be built to serve many purposes.

Design Features of the School

The school needs to be designed to meet the instructional needs for one hundred and twenty students. This number assumes one hundred students in the residential program and up to twenty pupils from families on Pelee Island. Of course this is an initial design proposal, and if the project moves to the next phase - a feasibility study - student enrollment projections and a detailed financial model will be required to inform the architectural design.

The Ministry of Education guidelines for building secondary schools currently recommends 130 square feet per pupil. This area incorporates all spaces, including a gymnasium, classrooms, specialty rooms, offices, custodial areas, mechanical service areas, and meeting rooms. These calculations from the Ministry of Education are based on a ‘standard-sized’ secondary school and do not take into account the challenges of building a facility to meet the needs of a smaller population. As well, the Ministry of Education does not provide direction around building housing and service space for students. This is a ‘one-of-a-kind’ project, and as such, would require the Ministry of Education staff to view it this way. The standard processes for reviewing and approving new school construction projects would simply not apply.

The building could be designed around a large, central area - a learning commons. This learning commons would consist of a cafe area for food service, an open library resource centre and a large group meeting/instructional space.

Radiating from this central commons would be six, smaller, classroom spaces. Each of the areas would be open designs whereby the arrangement of the furniture would facilitate the mode of instruction, rather than the fixed space. In the language of school design, these areas are called ‘learning studios’ and they are characterized by irregular space, rather than a traditional ‘box’ classroom, and are built with the idea that teachers do their instructing in small group settings and students spend most of their time in activities whereby they apply and refine their learning. One or two classrooms are designated as ‘studios’ or ‘messy areas’ where science and art projects which need water, sinks and large work areas can be facilitated.

from The Language of School Design: Design Patterns for 21st Century Schools by Nair and Fielding
Often school fitness facilities are focused on sports, which don’t necessarily encourage all to participate. For a small student body, a large gymnasium is not necessary for an appropriate health and fitness program. A large room with a resilient wood or synthetic sports flooring and high ceilings would be suitable for locating exercise equipment, yoga, dance, aerobics and other fitness activities. Natural light and ventilation are important considerations in active spaces. Outdoor areas with basketball hoops and a field for soccer can be developed in partnership with the community.

Other design features must be considered:

- A dormitory or residence area for international students which is designed to meet the needs of the population being served. Two wings (one for female students, and the other for male students) constructed as part of the school design so that the central learning commons, library area and cafe can service both the day and after-school needs. Most modern school residences design areas with two person bedrooms and a number of smaller washroom facilities, rather than two large ones.

- Cave spaces, or areas where students can work quietly. Often adults think of this as desks and learning carrels in libraries, whereas most young people prefer small niches and seating placed throughout a building.

- Strong connections with the outdoor spaces. Pelee Island has beautiful natural settings, and the building should be designed so that it is complementary to the natural environment, with large windows which bring the outdoors inside.

- Small, informal and casual social spaces. Young people need places to hang out and socialize with peers. Small tables and soft furniture provide opportunities for students to get together with friends.

- Natural ventilation and full spectrum lighting. A large body of research confirms that both of these factors are critically important in designing both learning and living spaces.

- Dispersed technology. The days of fixed computer stations are rapidly disappearing from classrooms. Today, students carry laptop computers and buildings have wireless networks, enabling students to access the internet, communicate with peers and develop projects anywhere and anytime.
A Flexible Building Design that Meets Community Needs

With a school program that operates from September to the end of April - coinciding with the College and University schedule, the facility designed and constructed to house the Pelee Island International School of Environmental Studies would be available for community uses.

Designing the building with a large, open learning commons, with a stage/presentation at one end and a cafe area at the other, would make it a perfect facility to house conferences and retreats. The food service area which normally provides meals for the international students would be able to provide meals and snacks to conference participants. The large presentation area, the smaller classroom spaces and the open, casual library area are ideal to host groups of up to a hundred or so participants. The dormitory rooms could provide housing for up to a hundred people as well. Pelee Island does not, at this point, have a facility designed to meet this need. This is a challenge for a community intent on developing its tourist and visitor economy. A conference centre, available for the four months that school is not in session, is well positioned to take advantage of the busiest time of year for visitors to the island.

The conference centre would have the ability to attract conferences with an environmental theme, among others. The school facilities would serve visiting groups of educators, scientists and environmental advocacy groups well.

When not hosting a scheduled conference, this facility can serve as a youth hostel or emergency accommodation centre. On occasion, when the lake conditions do not permit the ferry to return to the mainland, visitors are unable to leave the island. This facility would provide a resolution to this problem.

Finally, when designing this building it is important to determine other ways in which it can provide other much-needed services to the community. A well equipped fitness centre can provide an alternative social gathering space which promotes a healthy lifestyle to island residents. A library resource centre designed with the community in mind can provide a place where residents can easily access information and borrow reading materials.

A design charrette, held with the community of permanent Pelee Island residents would allow the identification of these and other opportunities, and permit the prioritization of features.
Designing and Building a ‘High Performance’ Facility

The term ‘high performance’ is used to describe a building with a sustainable design - where the engineering, construction, architecture, materials and operation of the building all work in harmony with its natural setting.

This would be particularly important with the construction of a building on Pelee Island, and critical for a school building with a curriculum focus on environmental studies. All possible options to maximize the energy and environmental efficiency and minimizing the environmental impact or carbon footprint of the structure must be taken. From grey water recovery systems and cisterns to collect and utilize roof stored rainwater, to solar and wind energy generating systems, to the use of geo-thermal heat and cooling recovery systems, and the use of engineered wetlands to manage the waste water from the building, this structure can and should be a demonstration of how school buildings can be designed to minimize their environmental impact.

It is recommended that a target be established to design and build this educational facility with a LEED certified target of Gold, although a Platinum designation is possible with careful planning and an initial investment payback over the lifetime of the building.

Choosing the Site

The site for the Pelee Island International School for Environmental Studies needs to be carefully chosen. Electrical and water service needs must be considered. Waste water management can be handled through a combination of technologies such as the Waterloo Biofilter combined with an engineered wetland, in place of a septic system. It would be important to situate the school adjacent to natural areas which can become part of a living, learning laboratory. It would be advisable to consider the solar load and prevailing wind effects on the building. This facility has the potential for becoming a signature architectural design - one that blends into the natural environment of Pelee Island.

A Further Opportunity

Built in 1918 and facing upward of $750,000.00 in recommended upgrades and repairs, the September 2008 enrollment of Pelee Island Public School is 9.5 pupils. If the Pelee Island International School for Environmental Studies becomes a reality, it would be advisable to examine the feasibility of incorporating learning spaces appropriate to accommodate elementary students, permitting the closure of the existing building.
Strategic Partnerships

Key Partners

For this proposal to move to further stages will require the engagement and support of key partners. As with any project, it is important to clearly define the rationale for each partner’s role.

The Municipality of Pelee Island
- the principle proponent for the project
- coordinating the various partners and their roles

The Province of Ontario
- the funding of the project
- coordinates the roles of the Ministries whose approvals are needed or policies are relevant to various aspects of the project

The Greater Essex County District School Board
- approves the project ‘in principle’
- provides input and expertise in designing the facility and structuring the school program
- operates the school once the building is constructed and open

Other Potential Partners

A number of groups and organizations have a possible role in the project and may choose to participate by offering their expertise, endorsement or financial contribution for specific elements or programs.

Nature Conservency of Canada
- protected a large percentage of habitat on Pelee Island through strategic land purchases

The Ontario Ministry of Natural Resources
- a key contributor to the NCC’s work on Pelee Island through its Greenlands and Legacy 2000 Ontario Parks Programs

Ontario Nature
- acquired the Stone Road Alvar nature reserve for which the Essex County Field Naturalists’ Club are the official stewards

Owen Sound Transportation Company
- operates the MV Jiimann and MV Pelee Islander ferry services to Pelee Island

Pelee Island Winery
- a significant economic and environmental partner

The Essex Regional Conservation Authority
- a partner in habitat management and conservation activities
Considerations

A Critical Issue for the Community of Pelee Island

This proposal is very important to the long term viability of the permanent population of Pelee Island. The island has experienced a steady decline in its numbers of permanent residents over the past two decades. This is reflected in the rapid decrease in numbers of students attending the North End School (Pelee Island Public School) and Kingsville District Secondary School. The fact that there are only three children in the JK-3 grade range registered to attend the elementary school for the 2008/09 school year does not bode well for the future. In order for a community to thrive and survive, certain key public services must be in place. The availability of high quality educational services is one of the most frequently cited reasons that families choose to remain or leave a particular community. The quality of the educational programming and services at the elementary and secondary school serving the residents of Pelee Island remain quite high. The Greater Essex County District School Board has not provided any indication that they are not willing to continue to support the current model of educational services. Parents and elementary-aged students are quite accustomed to individualized teaching and learning approaches which are the norm in very small schools. However, the social learning environment becomes increasingly challenging when the numbers of students is so small that play options and social networks become severely limited. With the projected further decline in the population of students attending school on Pelee Island, there can’t help but be a point in time when the infrastructure, staffing and programming costs of schooling will need to be examined by the local school board.

This proposal is important to the non-resident cottage owners and seasonal visitors to Pelee Island. A viable resident population is necessary for the establishment and provision of public services, transportation, water management, medical care and the other requirements of even short term visitors. While the non-resident property owners and seasonal visitors to Pelee Island may not immediately recognize it, a plan to ensure a viable resident population is in everyone’s interests.

The Role of the Greater Essex County District School Board

The students of Pelee Island come under the jurisdiction of The Greater Essex County District School Board, who owns and operates the elementary school on the island and manages the transportation, housing and education of high school students offered on the mainland. The school board receives all of its funding from Ministry of Education grants which are principally based upon student enrollment. The grant per elementary aged pupil in grades JK-3 is currently (as of August 2008 at the time of this report) $6 851.00 and the grant per elementary aged pupil in grades 4 to 8 is $6 175.00. The 9.5 pupils currently enrolled at the elementary school would generate ‘foundation’ grants of approximately $60 352.00. This amount of money is identified in the grant to pay such costs as staff salaries, school operations, utilities, maintenance, and building renewal. Of course, the grant total for such a small number of pupils is insufficient to cover even staff costs to operate the school. Recognizing this issue as it relates to remote and small
school communities, the Ministry of Education provides additional funding totaling an additional $6,214.00 beyond the foundation grant, generating another $59,033.00, to reduce the financial impact on school districts operating remote and/or small community schools. This grant (outlying school grant) is specifically designed to pay for the cost of extra teachers which a small, remote school would not qualify for under the regular teacher grants. It is important to note that without this recognition by the Provincial government and the Ministry of Education, the 2008/09 enrollment at the elementary school on Pelee Island would not generate enough funding to pay for even half a teacher. Finally, as part of the special ‘outlying school grant’ the school board receives additional funding of approximately $84,486.00 which is designed to pay for building costs (utilities, cleaning, repairs), infrastructure costs (computer accessibility) and other expenditures such as learning resources and staff development. This grant is also used to mitigate the difference between the staff salaries and the per pupil grant provided to the Board.

With consideration of costs estimated to be over seven hundred thousand dollars in building improvements and maintenance needed for the existing school building over the next five years, it is in both the community’s and the school board’s interests to examine ways in which the infrastructure needed for establishing the Pelee Island International School of Environmental Studies could be designed to accommodate the replacement of the existing elementary school building. It needs to be recognized, however, that under the current Capital Grant structure of the Ministry of Education, such a project would never receive approval to accommodate such a small number of pupils.

As mentioned previously, high school pupils attend school in Kingsville, Ontario, are boarded with local families on the mainland and transported to and from Pelee Island each Friday and Sunday nights. Ministry of Education foundation grants for pupils in grades nine and ten are $7,254.00 and for students in grades eleven and twelve are $7,276.00. The cost of transportation and lodging alone for secondary school pupils from the island is approximately $9,060.00 per year. In the 2007/08 school year there were eight students from Pelee Island in the secondary school program.

A secondary school program available on Pelee Island would alleviate the additional costs and have the potential to build a larger resident pupil base. More importantly, having a high school program available on Pelee Island would end the need for ‘commuting’ students.

The support and participation of the Greater Essex County District School Board is critical to the success the proposed Pelee Island International School for Environmental Studies. The local school board brings with it the infrastructure and expertise in operating its schools. Without the engagement of an existing school district, the establishment of a new school on Pelee Island would require a duplication of many services (purchasing, administrative, business, facility, staff development, design, construction) which are already in place - at a much greater cost. Details of the role of the Greater Essex County District School Board should emerge from discussions with them and become part of both the feasibility study and resulting implementation plan.
One key element in the school board’s willingness to participate and, in the end, operate the Pelee Island International School for Environmental Studies is the full engagement of the Ministry of Education and their ability to facilitate policy considerations which may be needed. For example, the current Regulation (O/Reg 151/07) under the Education Act for the Calculation of Fees for Pupils permits a PAC or Pupil Accommodation Charge which applies to non resident pupils. For the local school board, this amount is $8,973.55. A fee structure which includes housing, meals and other fees (commonly around $40,000.00 to $50,000.00 for other residential education programs in Canada), would need to be viewed as ‘special consideration’ which is permitted by the Regulation, but with the approval of the Ministry of Education.

The other critical element which will govern the school board’s enthusiasm about this proposed project, is that it be revenue neutral for them. The business model emerging from the feasibility study should assume that the school board will neither earn nor lose financial resources in the operation of the school.

The Provincial Government’s Participation

The Government for the Province of Ontario plays a crucial role in this project. The potential involvement of many branches of government is both an opportunity and a challenge. While the principle role for this project would lie with the Ministry of Education, however the Ministry of Natural Resources, Ministry of Agriculture, Food and Rural Affairs, Ministry of Transportation, Ministry of the Environment, Ministry of Finance and the Ministry of Tourism have important contributions to make to the overall success of this initiative.

As well, Member of Provincial Parliament for the riding of Essex, Bruce Crozier, would be invaluable in providing much needed coordination and facilitation between the various government departments. It is the diversity of government agencies and departments working together on such an initiative that presents some of the challenges. In projects of this nature, it is helpful to have an identified representative from each of the various partners and stakeholders to serve on a steering committee, to address the challenges of communication and coordination.

This project presents the Government of Ontario with an opportunity to implement a innovative solution for a unique, remote community. In and of itself, this project is not going to address all of the issues facing the declining population trend of Pelee Island’s permanent residents. But it does present the opportunity to solve one of them. And, at the same time, this project provides the chance to utilize the most valuable assets of the community of Pelee Island in a way which enhances the quality of life for residents, expands the potential for economic development and does so in a way that is complementary to the goal of preserving the islands natural environment.
Next Steps

Informing the Community

An important step in proceeding with a proposal such as this is to engage the interest and address the questions of the community of Pelee Island, neighbouring communities and the broader public. A communications plan serves to minimize misconceptions and the inevitable mythologies that often are associated with innovative project proposals. However, given the importance of engaging the support and interest of the Provincial Government and the Greater Essex County District School Board, Township officials may wish to determine a timeline and process for informing the various groups and constituencies about the many aspects of this proposal. At some point early on in the process, however, it is important to build awareness in the local community about an initiative with such broad implications for island residents.

Engaging the Participation of the Partners

While the Greater Essex County District School Board will be cautious about financial commitments, they can ‘approve in principle’ the project proposal with the caveats previously outlined concerning a cost neutral condition. Their willingness to support this proposal will answer the question “Who will provide the operational expertise for this school if it is established?”

It is important to meet with and engage the local MPP, key Ministers in the Ontario Government, and their officials before there is a public discussion of the proposal. In that way, the government has an opportunity consider its response when asked about their opinion and support of the proposal.

This document proposes a unique and innovative solution to a problem being faced by the community of Pelee Island. It does so in a cost effective, forward thinking and creative way - utilizing one of its most important features, the beautiful and unspoiled natural environment to address the needs of its other most important feature - its people.