



## **“Looking to the Future”**

**Southwest Nova Biosphere Reserve  
Programme Development 2015-2017**

**Prepared by the UNESCO Southwest Nova  
Biosphere Reserve Association  
March 4/15**

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Nine municipal units within the Biosphere Reserve contributed funds for “*Touring Through Time/Une Tournée Dans L’Passé*” Map App project development and ongoing organization initiatives. The Nova Scotia Tourism Agency provided funds for the “Biosphere Reserve Video Vignette” series. Several forestry businesses in the Biosphere Reserve region contributed to forest management strategy development. This support is very much appreciated.

Thank you also to the valiant, enthusiastic volunteer members of the SNBRA Board of Directors, and Advisors who contributed this report and to SNBRA’s ambitious programme.

**1. Introduction:** The following report describes current and planned activities for the Southwest Nova Biosphere Reserve Association (SNBRA) that support the SNBRA mission statement.

The Southwest Nova Biosphere Reserve Association remains an active and dynamic organization due to the enthusiasm and commitment of its volunteer board of directors and advisors. In a circumstance where government funding for organizations has been reduced, association volunteers have overcome significant challenges to raise the UNESCO Southwest Nova Biosphere Reserve profile and utility for communities within its boundaries.

SNBRA is collaborating with educational institutions, municipal governments, NGO`s and communities to protect and promote natural and cultural heritage values in core protected areas and the zone of cooperation.

SNBRA is advancing sustainable resource management while protecting biodiversity and participating as a member of the Government of Nova Scotia Western Crown Lands Advisory Committee and the Nova Forest Alliance.

The association is rebuilding its infrastructure with establishment of a new office in mid 2015 that will provide administrative support for heritage presentation and inter organization coordination activities. It is addressing previous UNESCO/ICC Status Review recommendations to enhance its operations.

SNBRA is contributing to national and international UNESCO/MAB initiatives by participating in development of an internal Canadian Biosphere Reserve Association (CBRA) communication and marketing strategies, and the UNESCO/MAB Branding initiative.

**2. 2015-2017 Management Action Plan:**

The following management action plan has been structured in accordance with principles of performance management planning and on the SNBRA Mission Statement defined in the 2010 Strategic Business Plan:

**SNBRA mission statement:**

- a) For nature, we support conservation efforts and collaboration for success through education and research.
- b) For culture, we help promote the integrity of cultural resources and heritage in the region.
- c) For industry, we promote and encourage traditional and contemporary resource management that identifies opportunities for enhancement and innovation.
- d) For communities, we encourage people to work together for common goals in new and expanded partnerships.

2015-2017 Management Action Plan Strategic Priorities			
Issue	Action	Target	Person Days (p/d)
Maintain sound SNBRA governance and operational effectiveness in a cost efficient manner	<ul style="list-style-type: none"> <li>a) Carry out SNBRA meetings and business in accordance with bylaws and a high standard of professionalism, while rotating meetings throughout the 5 Counties.</li> <li>b) Explore potential to use information technology to facilitate meeting conduct.</li> </ul>	Ongoing Feb –June 2015	80 p/d
SNBR Association Capacity Development	<ul style="list-style-type: none"> <li>a) Define work requiring support by a full time paid employee.</li> <li>b) Develop funding strategies and agreements with governments and businesses to provide financial support for defined staffing needs.</li> <li>c) Develop collaborative approaches with government and community partners to address workload and office infrastructure needs.</li> <li>d) Develop new revenue generation tools.</li> <li>e) Continue to partner with Municipal governments within the Biosphere Reserve</li> <li>f) Implement enhanced recruitment initiative to enlist new board members, advisors and other volunteers.</li> </ul>	Refine Job description 2015 -Ongoing. 2015 Ongoing Spring 2015 Ongoing	2 p/d To be determined To be determined To be determined
Enhance public awareness of the Southwest Nova Biosphere Reserve natural and cultural values including Mi'kmaq, Acadian, and African Canadian themes locally, regionally and internationally.	<ul style="list-style-type: none"> <li>a) Develop and circulate press release.</li> <li>b) Continue to support development of programmes that present Mi'kmaq, Acadian and African Canadian themes, identify and address cultural, sustainable resource management and economic challenges.</li> <li>c) Expand partnerships with public schools and post secondary educational institutions to present and discuss natural and heritage values.</li> </ul>	March 2015 To be determined 2015-2016	2 p/d To be determined
SNBRA Periodic review requirements for UNESCO/MAB.	<ul style="list-style-type: none"> <li>a) Address recommendations from periodic review.</li> <li>b) Update management plan.</li> <li>c) Update zoning map.</li> <li>d) Describe community engagement.</li> </ul>	February 2015	20 p/d

## 2015 Operational Priorities

Develop and enhance natural and cultural heritage presentation.	Implement “ <i>Touring Through Time/Une Tournée Dans L’Passé</i> ” (TTT) Smart Phone and Map App contract with Nova Scotia Community College Applied Geomatics Research Group, including, design meetings, map upgrades, inclusion of additional cultural theme attributes, and press release development.	Jan.-April 2015	15 p/d
Enhance presentation of specific cultural values.	Continue discussion with Mi’kmaq, Acadian and African Canadian representatives for Map App Smartphone/website input.	Feb 2015	4 p/d
Employ project coordinator to support developing natural and natural heritage projects.	Submit student employment application. Determine specific need and acquire office space.	May 2015	80 p/d
Strengthen collaborative relationships with environmental NGO’s in region.	Facilitate discussions with Mersey Tobeatic Research Institute (MTRI), Clean Annapolis River Programme (CARP), Tusket River Environmental Protection Association (TREPA) and other NGO’s to encourage mutually beneficial project support.	Ongoing 2015	7 p/d
Increase communication and marketing effectiveness and sustainability.	a) Develop funding applications and collaboration with municipalities to support brochure update, logo decal production, website hosting. Implement production, distribution. b) Encourage use of UNESCO Biosphere Reserve signage.	Feb 2015	7 p/d
Provision of maintenance for app and website.	Verify content information and SNBRA website status on an annual basis, update attribute spreadsheet and modify in collaboration with programmer as required. Raise required funding.	Annually	5 p/d
Strengthen Nova Scotia.ca website municipal and community heritage information content.	Solicit SNBR heritage information from municipalities, Mi’kmaq, Acadian and African Canadian groups and submit updated text for UNESCO page in Nova Scotia.ca website.	Feb 2015	5 p/d
Enhance financial sustainability of online and hardcopy Biosphere Reserve information.	Develop strategy to incorporate sponsorship/revenue generation for heritage presentation incl. advertising pages in “Map App” and Champions of Biosphere Reserve membership. Participate in “Innoweave” Social enterprise pilot study.	2015-2016 ongoing	15 p/d
Increase awareness of the Southwest Nova Biosphere Reserve across Canada and internationally.	a) Participate in the Canadian Biosphere Reserve Association “Canada’s UNESCO Biosphere Reserves” television series. b) Develop integrated marketing for projects to encourage tourism within the Biosphere to support economic stability of communities and culture.	2015 to be determined  Ongoing	To be determined

Participate on the N.S Government Western Crown Lands Advisory Committee, Nova Forest Alliance, private landholders and industry to advance sustainable resource management.	a) Collaborate and provide science based advice for N.S. Gov't, private landholders and NGO's to facilitate sustainable forest management in southwestern Nova Scotia, improving protection and awareness of biodiversity and recreational values. b) Explore opportunities for revenue generation and branding by providing educational and monitoring services to forestry companies, government and the general public.	2015 ongoing	To be determined
Collaboration with UNESCO/MAB Paris.	Participate in UNESCO/MAB Biosphere Reserve "Branding Initiative" project.	Ongoing 2015	5 p/d
Support enhancement of CBRA and individual Biosphere Reserve's internal and external communications and public profile development.	Coordinate preparation of CBRA strategies for internal communications and integrated biosphere reserve marketing.	March 2015	10 p/d
<b>2016-17 Project Planning</b>			
Transportation.	a) Participate in the Bicycle Nova Scotia "Blue Route" project to encourage use of bicycling within the biosphere reserve. b) Continue to explore partnership opportunities with Hiking Nova Scotia and Canoeing Nova Scotia Assoc.	2016 to be determined  To be determined	
Science and Sustainable Resource Management.	a) Prepare publication to support sustainable forest resource management planning with partner biosphere reserve associations, business, and others. b) Explore opportunities for hosting and presentation of a western NS science conference. c) Strengthen collaborative relationships with Nova Scotia Universities. d) Investigate presentation of Canadian Commission for UNESCO 2016 AGM. e) Address environmental concerns through education and problem solving services. f) Develop a meta-database listing and describing ecological research and monitoring carried out by various agencies, NGO's in SNBR region.	To be determined  To be determined  Ongoing  To be determined  To be determined  To be determined	
Education.	a) Develop coop programming about role of UNESCO Biosphere Reserves, UNESCO Community School. b) Develop student essay, photo, art, and authorship contests concerning Biosphere Reserve values. c) Participate in Queens University "Sustainable Rural Communities Institute" initiative.	To be determined  To be determined	6

### **3. Discussion: Programme development**

The following discussion serves also as an update response to the UNESCO/ICC Southwest Nova Biosphere Reserve Periodic Review conducted in 2011.

A few months after the 2011 Review, SNBRA lost its full time Project Coordinator position due to Federal Government cut backs, and in the following months the association lost office facilities and the executive committee changed. Subsequently a rebuilding process was begun.

The 2015-2017 Management Action Plan presented in the proceeding text of this report reflects the up-to-date function of SNBRA operations, and future direction based on current thinking and practical realities. It reflects a new responsive plan for advancing the function of the Biosphere Reserve Association.

The Southwest Nova Biosphere Reserve region has experienced a significant change in economic status. In June 2012, Bowater Mersey Paper Company closed its newsprint operation. That immediately removed \$100 million in annual local salaries (est. 1500 jobs) and purchases, and collateral financial impact to the support economy. This was followed by the chain reaction loss of other forestry related businesses. Rural regions in Nova Scotia, including municipalities within the Southwest Nova Biosphere Reserve, are exhibiting significant depopulation.

It is apparent that in recent years governments are downsizing and reducing support to non-profit associations. Grant programmes are becoming more highly focussed and require matching funding commitments (up to 50%) from the private sector or other sources.

In this economic reality, SNBRA must seek funds using the innovative approaches including social enterprise strategies, while avoiding duplication with other environmental, heritage and tourism organizations in the Biosphere Reserve region.

**Strengthening strategic participation:** The SNBRA 22 member board has increased its membership to include representation from the Mi'kmaq and Acadian communities, the tourism industry and natural resource management, in addition to municipal governments, non government organizations and community volunteers. SNBRA retains a committee structure established in 2012 including

Heritage/Tourism Presentation, Science and Sustainable Resource Management and Education.  
Fundraising is a collaborative effort based upon local economic realities.

With the support of 9 municipal government units SNBRA has been successful in fundraising for its “*Touring through Time/Une Tournée Dans L ‘ Passé*” smart phone and website “Map App” heritage presentation initiative. ([www.swnovabiosphere.ca](http://www.swnovabiosphere.ca)) This project is being developed in partnership with the N. S, Community College at Middleton. It will be promoted with use of brochure/rack card material, decals displaying a “QR” access code, and other publications. Highway, community and ferry terminal signage will be encouraged to increase Biosphere brand recognition. The smart phone "Map Application" will feature real time user georeferencing, weather and tide times as well as presenting natural and cultural themes and attractions in the Biosphere region.. This will help to encourage visitors to enjoy our cultural and natural assets, rather than remaining on major highways passing through the region. (See SNBRA Heritage Marketing Strategy attached).

A Southwest Nova Biosphere Reserve “Video Vignette” series was completed in 2013 with support of Nova Scotia Tourism Agency funding. The series presented 11 market ready visitor experiences. The Vignettes are currently available on the SNBRA website. They include presentation of Mi’kmaq and Acadian themes, and other outdoor experiences within the Biosphere region.

The “Champions of the Biosphere Reserve” programme has also been developed to raise funds and facilitate Biosphere Reserve marketing once it is fully implemented.

It is imperative that SNBRA matches the number and complexity of projects it undertakes with the person power capacity it has for management and supervision, with the goal of sourcing funding to employ staff.

Social enterprise projects in partnership with the private sector offer the opportunity to address some biosphere reserve association project ‘matched funding’ needs. However business supporters must see corporate recognition of their brand and logos presented with project deliverables including publications, websites etc. It is recommended that UNESCO/MAB address development of adaptive standards and an approval process for branding strategies including use of the paired UNESCO/Biosphere logo in association with proper business sponsorship acknowledgement on project deliverables.



The Southwest Nova Biosphere Reserve Association's participation in the UNESCO/MAB "Branding project" supports this need.

**Defining employee roles:** The Environment Canada funded coordinator position was lost in 2011 due to Federal Government funding cuts. However as the SNBRA programme develops and new funding is secured, appropriate employee roles and associated job descriptions will be developed.

**Defining board member roles:** The board has been structured to incorporate tourism, education and science and resource management issues. In the absence of a paid coordinator, individual board members have taken on a variety of tasks and projects to fulfill SNBRA's mission statement, while raising the public and business profile of the Biosphere Reserve. It must be taken into consideration that volunteers only have so much time to give.

**Office location:** The loss of a full time employee and support funding from Environment Canada affected SNBRA's ability to operate the office at the Nova Scotia Community College (NSCC) in Middleton. Subsequently a new office location in the Liverpool area operated for a brief period, but was unfortunately lost due to a change in directors.

Securing funding support to staff a coordinator position and operate an office at a convenient location has continued to be a priority for SNBRA. Most recently applications for part time staffing of a new SNBRA office in the Caledonia Queens County "Business Hub" are being submitted to government student employment programmes. The Caledonia Business Hub steering committee is supportive of SNBRA Office establishment in their facility.

Over the past 11 years SNBRA has held board meetings in different municipal office facilities on a rotating basis. This appears to have been a generally successful approach that encourages participation by various municipal representatives and organizations throughout the biosphere reserve region.

SNBRA uses conference calls to conduct board level discussions in the event of poor weather conditions. The option of using 'SKYPE' for board meetings in collaboration with Nova Scotia Community College (NSCC) is currently being explored.

**Strategic Management/Action plan development:** The 2010 SNBRA Strategic Plan was a comprehensive, albeit expensive document that featured input from a broad variety of members and

stakeholders. SNBRA continues to operate based on the mission statement and objectives outlined in that document.

It has become clear that a specific “Management Action plan” was necessary to advance SNBRA’s programme. It is important to understand that SNBRA is currently in a significant rebuilding phase.

Broad challenges for SNBRA include raising the Biosphere Reserve’s profile for communities and public within its boundaries. SNBRA must also demonstrate a “track record” of service deliverables in the fields of heritage presentation and sustainable resource management to facilitate future acquisition of finances for SNBRA operations and staffing.

Included in this report is the 2015-2017 Management Action Plan which defines issues actions, targets, time and budget requirements for implementation.

A number of policy guidelines and plans that support SNBRA’s developing programme are also attached to this report including; 1) Signage guidelines, 2) Guidelines for the “Champions of the Biosphere” program, 3) Heritage Presentation Marketing Strategy, 4) Sustainable Working Forest Management Strategy.

**Liaison with government representatives:** In 2014 presentations were made to a variety of Municipal Councils throughout the Biosphere Reserve region to successfully address “*Touring through Time/Une Tournée Dans L ‘ Passé*” smart phone “App” funding requirements.

In 2014, almost 5,000 Tourism Rack Cards were distributed to all visitor information Centers in 5 Biosphere counties promoting the SNBRA web site, the Map App, and the Video Vignettes.

In 2013-14 SNBRA executive and board members participated in a Nova Scotia Department of Natural Resources Crown Land Management public meetings, a Nova Scotia Tourism Association (NSTA) strategic planning workshop, a Nova Scotia Parks and Protected Areas Workshop/Conference, a NSTA south shore tourism planning meeting, an MTRI Annual Research Conference and a Nova Scotia Department of Transportation/Bicycle Nova Scotia public meeting. The SNBRA Chairman serves as a director on the board of the Nova Forest Alliance and contributed to development of a pilot “Community Forest “initiative in southwestern Nova Scotia.

2015 Grant applications for 2015 financial support have recently been sent to 8 Municipal units.

SNBRA is building its capacity to participate in community fairs, farmer`s markets etc. through volunteers and student Grant applications..

**Signage:** As noted previously SNBRA has developed and circulated a sign policy to various government agencies and municipalities to acknowledge the status of the region as a UNESCO Biosphere Reserve. In addition to encouraging appropriate signage, SNBRA is exploring the use of decals including the paired logo to be used in tourist information offices and other locations frequented by residents and visitors. Efforts to increase signage use must continue. A discussion was held with Kejimikujik National Park and Historic Site management regarding the above, but unfortunately erecting a non standard sign was not feasible at that time.

It is apparent that the term “UNESCO Biosphere Reserve” wording on signs tends to cause some confusion and apparent hesitancy for use in the southwest Nova Scotia region.

The word “Reserve” causes some to perceive that the “UNESCO Southwest Nova Biosphere Reserve” is a component of a first nation’s community. The term “Reserve” also suggests to others that the designation applies to a park or protected area where no resource management or harvest is permitted. The “Reserve” word also suggests to some that there are implications for land governance and associated legal regulation.

Offering some flexibility in approved UNESCO Biosphere wording could solve the problem. For example if the term “*UNESCO Southwest Nova Biosphere Region*” and “*UNESCO Biosphere Community*” was also acceptable for use, it is likely the wording would be more readily adopted for costly signage and other media. At a community level identification with the UNESCO Biosphere brand would encourage community ‘pride of place’ and broader support for UNESCO goals and project initiatives.

| It is acknowledged that UNESCO/MAB is exploring this issue as part of its “Branding” initiative.

**Student intern roles:** Summer student programs require significant supervision and financial support. With a lack of paid coordinator funding support from Environment Canada, the program was discontinued in 2011. The above concerns will be addressed with future summer students.

As noted in comments above SNBRA is endeavouring to rebuild the natural and cultural heritage presentation capacity of the organization and will employ student interns as appropriate opportunities arise.

**Coastal Issues:** SNBRA has been engaged with a variety of coastal and inland community issues that impact the region including sea level rise due to climate change, forestry and fisheries management. The organization hopes to increase its capacity to study and educate associated with these issues.

While not acknowledged in the 2011 Periodic Review, SNBRA participated in 3 substantial studies that addressed coastal and inland rural community sustainability, climate change and biodiversity topics over recent years:

In 2008 the topic of climate change in the Southwest Nova Biosphere Reserve was examined and a report was subsequently published internationally (Drysdale et al 2008). With a broad level of expert input the study evaluated community level challenges; preparedness and response associated with this phenomenon.

In 2009 the Nova Forest Alliance, Voluntary Planning Nova Scotia and SNBRA supported a study that analyzed over 700 public input comments associated with challenges for sustaining rural communities in the Biosphere Reserve region. The subsequent report (Drysdale 2009) discussed the implications of the 2008 economic recession including community, forest industry and resource management impacts. A concern for forest sustainability and ‘whole tree harvesting’ practices for ‘green’ electrical power generation was identified in this paper. The resulting report was presented to municipal councils and Integrated Community Sustainability (ICSP) planning teams in the region.

In 2010 a representative of SNBRA participated as expert panel team leader assessing biodiversity protection in Nova Scotia. The subsequent publication “The Foundation for Environmental, Social and Economic Prosperity in Nova Scotia; A Panel of Expertise Report on Biodiversity.” Government of Nova Scotia. 44 pp. (Drysdale C., M. Jones, S. Mockford.) contributed to development of Nova Scotia natural resource management strategy, including the elimination of whole tree harvesting as a general practice across the province.

The SNBRA Chairman is currently participating in discussions associated with the proposed Queens University “Sustainable Rural Communities Institute” initiative with the intent of facilitating workshops and a lecture series in the Southwest Nova Biosphere region.

Preliminary enquiries are being made about the potential for SNBRA participation in the World Network of Island and Coastal Biosphere Reserves that aims to study, implement and disseminate island and coastal strategies to preserve biodiversity and heritage, promote sustainable development, and adapt to and mitigate the effects of climate change.

One section of the SNBRA Smart phone App is dedicated to showcase seacoast locations.

**Partnership development for project implementation:** This process is proceeding as planned. SNBRA is incorporating the input of a broad range of government agencies, communities, businesses, and NGO’s to advance heritage presentation and sustainable resource management as described in the “2015-2016 Management Action Plan”.

SNBRA Board committees are building partnerships to advance collaborative projects. Individual board members also have an important role bringing new issues and opportunities to the table.

SNBRA is participating with UNESCO/MAB to explore this issue as part of its “Branding” initiative.

| (See SNBRA Heritage Marketing Strategy attached)

**Enhancing relationships with environmental NGO’s:** In 2004 members of the current SNBRA Executive and Board of Directors facilitated establishment of the Mersey Tobeatic Research Institute Cooperative (MTRI) as a non-profit association with a mandate to support sustainable use of natural resources and biodiversity conservation in the Southwest Nova Biosphere Reserve through research, education, and the operation of a field station. While it is important for SNBRA to liaise with NGO’s such as MTRI, the Clean Annapolis River Programme Association (CARP), government agencies and universities, the Biosphere Reserve Association should complement, but not duplicate their efforts.

The Mersey Tobeatic Research Institute Cooperative, the Clean Annapolis River Programme, The Tusket River Environment Protection Association, (TREPA), the Queens County Fish and Game Association and COSEWIC Species at Risk recovery teams all have been active in seeking grants and contracts to provide specific environmental study and education initiatives in the Southwest Nova Biosphere Reserve. Additionally provincial and federal government agencies, several Nova Scotia universities, community colleges, carry out research and monitoring in the region.

Appendix 6 provides a description of recent activities provided by Kejimikujik National Park and Historic Site, the Nova Scotia Department of Natural Resources, Environment Nova Scotia and environmental NGO's in the region.

SNBRA is exploring a plan to conduct a regional science conference that would provide a forum for studies presentation, discussion of issues, and identification of subsequent research and monitoring needs. Creation of a SNBRA database that lists all research and monitoring activities in the region would be a valued service to researchers, educational institutions, businesses and the public.

**Development of branding material with tourism organizations:** The Destination Southwest Nova Association became insolvent and was disbanded in 2014. The Nova Scotia Tourism Agency (NSTA) is redefining its approach to tourism project development for the region. SNBRA continues to liaise with NSTA representatives to explore collaborative opportunities.

SNBRA has developed a Heritage Presentation Marketing Plan with the input of a variety of contributors, and implemented projects (e.g. *“Touring Through Time/Une Tournée Dans L'Passé”* smart phone and website “Map App” heritage presentation, rack card/brochure production) in accordance with this plan.

In order to increase public and institutional recognition of the UNESCO Biosphere region concept SNBRA is suggesting the development and application of “Cooperative Integrated Marketing Plans”. For example the Canadian Biosphere Reserve Association would develop media that promotes the Canadian Biosphere region network while acknowledging the international system. In their respective promotional media tools, each Biosphere reserve would allot some content toward acknowledging the national and international network, as well as the institutions associated with their respective core protected areas and other zones. In turn jurisdictions (agencies) associated with core protected areas and other relevant zones would acknowledge their status in their promotional media in context with the Biosphere reserve as a whole.

SNBRA is in discussion with Bicycle Nova Scotia to support development of the “Blue Route” project that will define bike routes and trails in the region. Similarly preliminary meetings are being held with municipal governments to define marketing strategies for enhanced visitor use in the region.

SNBRA is providing additional information to the Nova Scotia Tourism Agency for inclusion on the Nova Scotia.ca website. In 2014 the “UNESCO page” was the 5<sup>th</sup> most visited among the 25 most popular theme pages on this important tourist information tool.

SNBRA supported successful initiatives by Kejimikujik National Park and Historic Site to establish the Dark Sky Designation, and by the Bon Temps Association to establish the Starlight Reserve initiatives within the Biosphere Reserve region.

SNBRA is working with various municipalities to support the “Loop 183” initiative to help visitors extend their visits and enjoy our region using routes # 1, # 8 and # 3 within the Biosphere Region.

**Collaboration with tourism organizations:** SNBRA representatives continue to participate in tourism and heritage presentation workshops/meetings to advance collaboration. (See the “Cooperative Integrated Market Plan” discussion above)

As noted previously in this report the Southwest Nova Biosphere Reserve Association’s participation in the UNESCO/MAB “Branding project” is associated with the need to improve brand recognition and public understanding of the UNESCO/MAB concept.

**Enhancing collaboration with First Nations and Acadian communities:** The SNBRA board of directors has representatives from these two important cultural communities.

The smart phone ‘Map App’ linked to the SNBRA webpage will incorporate Acadian francophone, Mi’kmaq, and African Canadian heritage descriptions and associated web page links.

Kejimikujik National Park and Historic Site, part of the ‘core protected area’ of the Southwest Nova Biosphere Reserve, has developed an excellent Mi’kmaq cultural heritage presentation programme. This programme has been complemented by cultural heritage presentation initiatives from resort businesses within the Biosphere reserve ‘zone of cooperation’.

There are other opportunities in the embryonic stage that are being explored to present western Nova Scotia's rich cultural heritage. Among those include the possibility of hosting the 2016 Canadian Commission for UNESCO Annual General Meeting featuring significant cultural themes.

**Office locations:** Notwithstanding the comments above regarding a new SNBRA office location in Queens County, the concept of developing satellite offices in each of the participating counties of Queens, Shelburne, Yarmouth, Digby and Annapolis is an attractive one.

Such an approach could include a defined partnership with municipal administrations with available office space and personnel who could work cooperatively with SNBRA staff to advance projects of mutual benefit. The concept has recently been presented to various municipal offices within the biosphere reserve region. While responses have been different from various jurisdictions, it does seem there is potential for building on the concept on a project by project basis.

#### References:

Drysdale C., T. Webster, C. McCarthy, D. Ure, D. Kehler, I. Spooner, M. Brylinsky, M. Richard, A. Fenech, A. Liu, K. Milne, M. Murphy, D. Colville, A. Ross. 2008. Climate Change and Adaptive Management in the South West Nova Biosphere Reserve. pp 231-255 In: A. Fenech, D. MacIver, F. Dallmeier. Eds. 2008. Climate Change and Biodiversity in the Americas. Environment Canada. Toronto, Ontario, Canada. 366p. ISBN no.:978-1-100-11627-3.

Drysdale C. 2009. Sustainable Communities and Resource Management in the Southwest Nova Biosphere Reserve; A Discussion Paper. 28 pp. Southwest Nova Biosphere Reserve Association. Nova Scotia Community College. Middleton, Nova Scotia, Canada.

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## Appendix 1:

### Southwest Nova Biosphere Reserve Zoning



SNBRA used a 'core protected areas' designation ( includes Kejimikujik Park and the Tobeatic Wilderness Area) and a 'zone of cooperation' ( includes the 5 Counties of Queens, Shelburne, Yarmouth, Digby, and Annapolis) approach as part of its 2001 nomination application to facilitate protection of biodiversity, heritage and culture as an essential requirement to enlist municipality, Government of Nova Scotia and industry support for Biosphere Reserve establishment at that time.

This broader geographical 'Zone of Cooperation' strategy can better address the habitat protection and connectivity needs of valued terrestrial, wetland and aquatic biodiversity across the biogeographic region, rather than only on unregulated "buffer" areas more closely associated with the core protected area.

The zone of cooperation approach allows adaptive management flexibility as disparate locations continue to be identified and legally designated as protected areas for species at risk and

important habitat, for example. The approach also optimizes recognition of communities as important cultural components of UNESCO Biosphere Reserve designation

The effective protection and conservation of valued natural and cultural values depends on the acquisition of up-to date information subsequent negotiations with private and public land managers. This mandate generally falls within the purview of Government of Nova Scotia agencies.

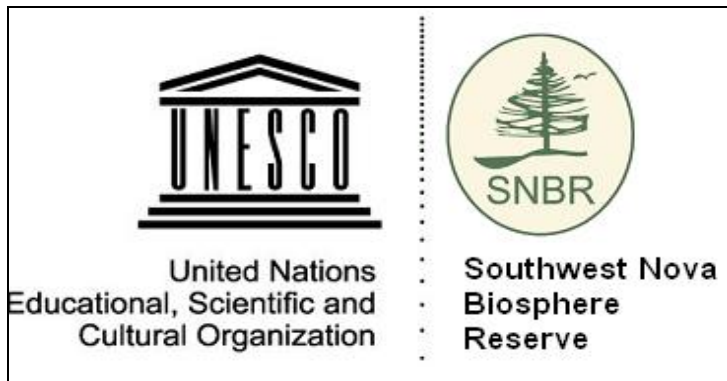
Correspondingly the following websites provide access to Environment Nova Scotia and Department of Natural Resources maps showing protected areas and biodiversity values in the Biosphere Reserve region:

<http://novascotia.ca/parksandprotectedareas/plan/interactive-map/>

<http://novascotia.ca/natr/land/western-land/maps.asp>

## Appendix 2:

### Southwest Nova Biosphere Reserve Heritage Presentation/ Tourism Marketing Strategy



UNESCO Southwest Nova Biosphere Reserve Official Logo

The United Nations Education, Science and Cultural Organization (UNESCO) Southwest Nova Biosphere Reserve was designated in 2001 as a region of important natural and cultural heritage nationally and internationally.

#### **The Southwest Nova Biosphere Reserve Association (SNBRA) mission statement:**

- a) For nature, we support conservation efforts and collaboration for success through education and research.
- b) For culture, we help promote the integrity of cultural resources and heritage in the region.
- c) For industry, we promote and encourage traditional and contemporary resource management that identifies opportunities for enhancement and innovation.
- d) For communities, we encourage people to work together for common goals in new and expanded partnerships.”

#### **Heritage Presentation/Tourism Objectives:**

To fulfill its heritage presentation and associated sustainable tourism role the following objectives have been identified:

1. Promote experiential cultural enrichment, environmental education, outdoor recreation and access to services for tourists and residents.
2. Attract visitors to the region using the UNESCO Biosphere Reserve brand recognized across Canada and internationally.
3. Enhance visitor and resident understanding about unique natural and cultural features in the region.
4. Encourage respect for environmental and cultural integrity.
5. Increase tourist visit duration to support market ready attractions and communities.
6. Encourage cooperation among southwestern Nova Scotia municipalities and communities to enhance the region's profile as a destination area.
7. Enhance opportunities for SNBRA revenue generation through its 'Champions of the Biosphere Reserve' strategy.

### **Tactics to achieve marketing objectives:**

- Advance marketing collaboration with federal and provincial agency representatives, municipalities and cultural interest groups in western Nova Scotia (incl. Mi'kmaq and Acadian communities).

-Use the UNESCO/Southwest Nova Biosphere Reserve logo on highway signs, and “Champions of the Southwest Nova Biosphere Reserve” decals, brochures/rack cards and other promotional items, coupled with ‘QR’ code icons to provide a link with the online “Map Application” and website mobile information source for the region.

- SNBRA is developing brand identification including title and logo standards for signage to be used at province entry points (100 series highways and ferry entrance points) with the cooperation of NS Dept of Highways, marine ferry companies and municipalities.

-SNBRA is encouraging municipalities within the Biosphere Reserve ‘Zone of Cooperation to acknowledge their status as ‘Proud UNESCO Biosphere Reserve communities’ on town signage.

SNBRA will serve as a catalyst for partnership development within and external to the UNESCO Biosphere Reserve Region.

SNBRA will facilitate partnerships with compatible industries, businesses and governments to advance its mission, objectives and strategic marketing plan.

SNBRA is developing a “*Touring Through Time/Une Tournée Dans L'Passé*” marketing initiative to encourage visitors to experience the Biosphere Reserve region as a destination area in its own right.

SNBRA will facilitate the presentation of special events that demonstrate and celebrate the cultural richness, natural environment, and sustainable resource use in the region.

Marketing collaboration will be enhanced with UNESCO World Heritage Sites in western Nova Scotia.

Develop and use state of the art technology to communicate heritage information, access to cultural and natural features, regular community events and programmes.

### **Market targets:**

We believe that the southwestern Nova Scotia region features a unique variety of cultural, natural, and transportation assets that can be promoted to specific ‘market sectors’ within the province, and in a broader national and international context. These markets include:

-Families from Nova Scotia, across Canada and internationally, including those who are aware of the UNESCO brand including Biosphere Reserves and World Heritage sites, National and Provincial Parks.

-Cultural and natural history enthusiasts.

- French population interested in Nova Scotia Acadian Communities

-Native peoples, African-Canadian and American citizens.

-Fine arts and culinary enthusiasts.

-bicycle tour businesses and clients.

-outdoor experience organizations, canoe and kayak enthusiasts, camping and anglers associations, orienteering and hiking clubs with regional, national and international affiliations.

-motor touring enthusiasts (sporting car and motorcycle clubs with national network affiliations.

- long distance sail and motor cruising enthusiasts.

**Advertising in specific target markets.**

-In context with the target audiences listed above SNBRA will work with the Canadian Biosphere Reserves Association (CBRA) and the Canadian Council for UNESCO (CCU) to enhance promotional material associated with other Canadian Biosphere Reserves and the global UNESCO brand.

- SNBRA will work with Parks Canada, Nova Scotia Tourism Agency and the Nova Scotia Department of Environment to support activities and promotional material development.

-SNBRA is exploring opportunities to partner with outdoor experience and transportation related associations, businesses, and industry to develop mutually beneficial marketing/advertising.

**Performance assessment:**

The SNBRA website and “Map App” will have the ability to track ‘hit’ numbers and their origins. Tracking of the SNBRA brochure use and participation in the Biosphere Reserve “Champions” initiative will also be possible.

The Government of Nova Scotia, Parks Canada and marine ferry companies will monitor usage trends, visitor origins, including length of stay in southwestern Nova Scotia and subsequently assess data. Similarly tourism related businesses can track use trends.

In subsequent years it would be desirable to contact a visitor surveys for visitors to the region in collaboration with the Nova Scotia Tourism Agency and other partners.



## Appendix 3:

### Introduction to Biosphere Reserve ‘Champions’ programme



#### *Champion of the Southwest Nova Biosphere Reserve*

A “Champion of the Southwest Nova Biosphere Reserve” is a give and take relationship between you and the Southwest Nova Biosphere Reserve Association. Living in the SNBR we know what beautiful and unique qualities we are surrounded by, and we wish to share this knowledge.

With your help as a Champion we can be active representatives from around all areas of the Southwest Nova Biosphere promoting the good work residents are doing to live in balance with nature within the Southwest boundaries.

The Champion program is for individuals, organizations, businesses or schools that practice the objectives of the SNBRA while supporting or contributing to the Southwest Nova Biosphere Reserve Association.

#### ***Objectives:***

*For nature, we support conservation efforts and collaboration for success through education and research.*

*For culture, we help promote the integrity of cultural resources and heritage in the region.*

*For industry, we promote and encourage traditional and contemporary resource management that identifies opportunities for enhancement and innovation.*

*For communities, we encourage people to work together for common goals in new and expanded partnerships.*

#### **Benefits of being a “Champion of the Southwest Nova Biosphere Reserve”:**

- **SNBRA Social Media**
- **Information and updates on programs and events around, and hosted around the region by SNBRA and SNBR Champions**
- **SNBR Champion Logo usage as governed by SNBRA Policy**
- **Added to SNBRA website and Facebook Site – Champion page**
- **Invitation to SNBRA Annual General meeting as a Champion supporter**
- **Opportunity to participate and contribute in working groups and committees**
- **Inclusion in the SNBRA electronic APP when completed**

To become a “Champion of the Southwest Nova Biosphere Reserve”, please follow the instructions on the SNBRA web site. The collection, use, disclosure, retention, and disposal of information collected via this website are done in compliance with the *Protection of Personal Information Act*.

## Appendix 4:

### UNESCO Southwest Nova Biosphere Reserve Signage Guidelines

SNBRA has encouraged communities in the region to follow current accepted UNESCO standards for signage and paired logo use as per the memo distributed to municipal units below.

However in recent discussions at the international UNESCO level there have been discussions about allowing the use of the term “UNESCO Biosphere Region” on signage and as part of paired logo text. It is felt this would be a positive step. Should this become the case the following guidelines would be modified.

May 1/14

Memo to: Southwest Nova Biosphere Reserve Communities

In 2001, our region was awarded the prestigious, globally recognized title of “UNESCO Southwest Nova Biosphere Reserve” by the United Nations Education, Science and Cultural Organization.

The Southwest Nova Biosphere Reserve Association (SNBRA) is inviting municipal units and communities within the five counties that encompass the biosphere reserve ‘zone of cooperation’ (Yarmouth, Digby, Annapolis, Queens and Shelburne) to display a logo and/or signage that acknowledges this important international designation.

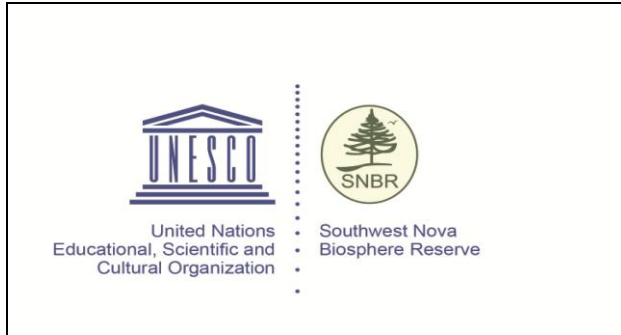
In addition to acknowledging community “pride of place” with UNESCO designation, well placed logo and signage use can complement tourism marketing and local heritage presentation to increase visitor attraction. UNESCO Biosphere Reserves across Canada and around the world are increasingly using this branding approach to support tourism.

Currently SNBRA is developing a “*Touring Through Time/Une Tournée Dans L’Passé*” tourism marketing initiative. This project proposes to use branding signage, travel literature, and a web-based smart phone “Map Application” to encourage visitors to stay and enjoy towns, parks and geographic attractions in our region.

**Signage:** Because the UNESCO Biosphere Reserve title is an international ‘trademark’ standards must be observed when creating signage. If the “UNESCO” acronym is used in sign wording it should be accompanied by the term “Biosphere Reserve”.

The UNESCO/ Southwest Nova Biosphere Reserve paired logo should be used in its entirety. SNBRA encourages use of this paired logo for brand recognition on named community signs, or by itself on stand alone or hanging signage.





**Sign wording:** The following are examples of sign wording that comply with UNESCO guidelines:

“Caledonia, A Proud UNESCO Biosphere Reserve Community”  
--with or without paired logo.

“The Municipality of the District of Digby, Progressive Southwest Nova Biosphere Reserve Communities”--with paired logo.

“Kempton, A Friendly Southwest Nova Biosphere Community”--with paired logo.

“Shelburne, A Historic Biosphere Community”--with paired logo.

“Welcome to the UNESCO Southwest Nova Biosphere Reserve” -- with paired logo.  
(NS Dept of Transport 100 series highway signs at the Biosphere Reserve boundary, and also at Ferry Terminals)

To optimize consistent brand recognition for marketing purposes SNBRA encourages the use of the paired logo whenever possible. The paired logo can also be reproduced in grey scale.

Translations of the paired logo can be made available.

If there is a question about suitable wording combinations please don't hesitate to contact SNBRA for additional information.

## **Appendix 5:**

### **Southwest Nova Biosphere Reserve Sustainable Working Forest Management**

**Sustainable Resource Management Planning:** SNBRA participates in the Nova Forest Alliance and has recently been invited to serve as a member of the N.S. Department of Natural Resources (NSDNR) Western Crown Lands Forestry Advisory Committee. In this capacity SNBRA proposes to collaborate with business, government, educational institutions and NGO's to develop and implement a sustainable harvest performance management plan that features multivariate ecosystem evaluation to ensure forest productivity and biodiversity values are maintained on the working landscape. SNBRA has most recently begun collaboration with the Mount Arrowsmith Biosphere Reserve Association by exchanging information and planning strategies for collaborative sustainable forest management.

**Education:** To advance understanding of sustainable forestry, a publication could be developed by SNBRA for target audiences including forestry workers, students and the public who might not fully understand the importance of environmentally sound forest management for our communities. Contributions would be invited from selected experts.

The publication would discuss the industry's history and importance to our communities, principles of sound forest management, biodiversity, NSDNR Integrated Resource Management (IRM), climate change, soils and environmental acidification and aquatic systems protection, while promoting government and business cooperation.

The following discussion defines proposed sustainable forest management objectives and summarizes implementation in tabular form. This strategy was developed with the cooperation of 7 forestry companies in the region

#### **Sustainable Management Goals:**

1. Maintain and grow the certified land base in Nova Scotia.
2. Ensure the Province's goals of sustainability and its Natural Resources Strategy are met.

3. Allow managed access, in a safe, environmentally conscious manner, for hunting, fishing, ecotourism, and other recreational land uses.
4. Maintain and improve the working forest while cooperating with protected area agencies and special interest groups.
5. Facilitate excellence in forest management and biodiversity protection, as well as development of non-timber values.

**Environmental objectives and benefits:**

-Establish a strong commitment to environmental protection in policy developed by the board of directors and community stakeholders consistent with Government of Nova Scotia policy and legislation.

-Carry out sustainable forest management using multidisciplinary plans with input of forestry professionals, biologists and external specialists.

- Define measurable goals for environmental performance while identifying risks and mitigating impacts using best practices. Progress toward goals will be monitored, with results review and adjustments to policy and practices where appropriate.

-Apply stand harvest and regeneration techniques based on principles of ecosystem management, maintenance of soil integrity, and Acadian Forest characteristics. The Nova Scotia Forest Ecosystem Classification system will be used as a planning tool to maintain the highest level of forest management certification.

-Biodiversity will be protected through coordinated, collaborative inventory and research, habitat protection, maintenance of ecosystem connectivity, restoration, adaptive management and monitoring.

-Employ science based drainage basin resource management techniques, adaptive restoration strategies and habitat protection to maintain and/or improve aquatic systems water quality with

consideration for effects of external stressors such as acid rain, microclimate and regional climate change.

-Support forest monitoring protocols to assess soil, water chemistry and terrain characteristics, tree composition, growth, regeneration, biodiversity and associated performance variables.

Where feasible we will develop opportunities for using students to install forest monitoring plots and collecting data.

-Facilitate development of a public lecture series and prepare staff, contractor and student education packages to increase understanding of the environmental and economic importance of sustainable community forest management that enhances the quality of life in our region that serves as global model for forestry excellence.

<i>Environmental Requirements and Benefits</i>		
<i>Key components</i>	<i>Collaboration and partnerships</i>	<i>Monitoring/performance indicators</i>
<p>Carry out sustainable 'working forest' management using multidisciplinary plans based on ecosystem management principles<sup>1</sup> with the input of professional foresters, forest technicians, biologists and external specialists.</p> <p>Maintain a high level of forest management certification.</p> <p>Apply appropriate site and stand harvest techniques based on maintenance of soil physical and chemical integrity in context with regeneration objectives, maintenance of Acadian Forest characteristics, and with consideration for potential effects of external stressors such as acid rain, microclimate and regional climate change<sup>2</sup>.</p>	<p>-Collaborate with NSDNR Forestry using the Nova Scotia Forest Ecosystem Classification as a planning tool;</p> <p>-Evaluate existing Bowater/ Resolute forest maps, management plans.</p> <p>-Cooperate with universities, NSCC, federal, provincial, international agencies, NGOs (e.g. UNESCO Southwest Nova Biosphere Reserve Association (SNBRA), forestry related associations, MTRI, Species at Risk (SAR) recovery teams, and community volunteers to facilitate research and forums to address</p>	<p>-Establish forest monitoring plots and transect system on representative pre and post harvest sites to document and monitor soil and terrain characteristics, tree composition, growth, regeneration and biodiversity variables.</p> <p>-Monitor landscape level working forest composition dynamics using remote sensing and GIS technology.</p> <p>-Harmonize harvest plans with forest productivity and diversity goals using principles of adaptive management. Publish</p>

	information needs and idea exchange;	results of studies.
Employ science based drainage basin resource management techniques, including adaptive buffering strategies and ephemeral spawning brook protection, to maintain and/or improve aquatic systems water quality and native biodiversity.	-Collaborate with federal and provincial agencies; Environment Canada, NSDNR, NS Fisheries, SAR Recovery teams and NGO's (e.g. SNBRA, Queens County Fish and Game Assoc. MTRI, TREPA, CARP etc. to carry out study and management activities.	-Document hydrological characteristics and dynamics on the working landscape in a GIS environment.  -Establish water quality monitoring sites. Contribute to journal publications.
Protect biodiversity <sup>3</sup> characteristic of southwestern Nova Scotia through inventory and research, habitat protection, maintenance of ecosystem connectivity, restoration, adaptive management and monitoring.	-Collaborate and partner with federal and provincial agencies with biodiversity and species at risk responsibilities (e.g. Environment Canada, Parks Canada, NSDNR Biodiversity/Wildlife office, NS Fisheries), and various non government organizations (e.g. Blanding's turtle and Ribbon Snake Recovery team, Coastal Plain Flora Recovery team, Mi'kmaq community.)	-Incorporate the information provided by SAR recovery teams, NSDNR, NS Environment, Parks Canada within the working forest GIS database while maintaining liaison. -Adjust harvest strategies to facilitate wildlife habitat connectivity, protection of critical habitat. Contribute to journal publications and apply knowledge gained from studies and management initiatives.
Use best environmental practices for working forest management activities including equipment operation and maintenance, harvest, road creation and maintenance by educating/training all workers, including contractors, about the specifics and reasons for high standards.	-Collaborate with NSDNR specialists, forest industry leaders, certification bodies and forestry related associations to document and disseminate best practices.	-Monitor in-field work to ensure standards are met. Explore development of an evaluation and reward/award system that recognizes quality work.
Develop a public lecture series and primary and secondary school student education packages to increase	-Collaborate with Municipalities, communities, boards of	-Document outreach program statistics, publications prepared

<p>understanding of the importance of sustainable forest management and the socioeconomic benefits to our communities<sup>4</sup>.</p> <p>Develop opportunities for using students to install forest monitoring plots and collecting data. Present the Western Nova Scotia Working Community Forest initiative as a global model for forestry excellence.</p>	<p>trade, university, NSCC, public school educators, SNBRA, to advance understanding of methods and socioeconomic benefits of sustainable forest management.</p>	<p>and circulated, media publications and education partnerships established.</p>

References:

1. Nova Scotia Department of Natural Resources (August, 2011). *The Path We Share, A Natural Resource Strategy for Nova Scotia 2011-2020*, Nova Scotia Department of Natural Resources
2. *Climate Change and Adaptive Management in the South West Nova Biosphere Reserve*. pp 231-255 In: A. Fenech, D. MacIver, F. Dallmeier. Eds. 2008. *Climate Change and Biodiversity in the Americas*. Environment Canada. Toronto, Ontario, Canada. 366p. ISBN no.:978-1-100-11627-3. Authors: Drysdale C., T. Webster, C. McCarthy, D. Ure, D. Kehler, I. Spooner, M. Brylinsky, M. Richard, A. Fenech, A. Liu, K. Milne, M. Murphy, D. Colville, A. Ross. 2008.
3. *Biodiversity; The Foundation for Environmental, Social and Economic Prosperity in Nova Scotia; A Panel of Expertise Report on Biodiversity*. Government of Nova Scotia. 44 pp. In: *A Natural Balance; Working Toward Nova Scotia's Natural Resources Strategy*, April 2010. Authors: Drysdale C., M. Jones, S. Mockford. 2010.
4. *Sustainable Communities and Resource Management in the Southwest Nova Biosphere Reserve; A Discussion Paper*. 28 pp. Southwest Nova Biosphere Reserve Association. Nova Scotia Community College. Middleton, Nova Scotia, Canada. Author: Drysdale C. 2009.

## **Appendix 6:**

### **Environmental Study Programmes within the Southwest Nova Biosphere Reserve Region**

#### **A) Parks Canada Scientific and Cultural Resource Management within the Southwest Nova Biosphere Reserve**

##### **Natural Resource Protection:**

Parks Canada ([www.pc.gc.ca](http://www.pc.gc.ca)) continues to meet its legislated responsibilities for species at risk recovery by working with partners and the support of over 300 volunteers committing over 10,000 volunteer hours annually to protect nesting and hatching Blanding's turtles, track Eastern ribbon snakes to understand population dynamics and habitat use. We are also re-inventorying the full suite of Atlantic Coastal Plain Flora to understand changes in distribution and threats, creating nesting habitat for endangered Piping plover, and a host of monitoring and support activities for these and other species at risk. Kejimikujik is working with its partners to assess the success of the release of 250 captive-reared Blanding's turtle juveniles at augmenting population size and enhancing the breeding population.

Parks Canada continues to implement its ecological integrity monitoring program to gauge the health of its primary ecosystems and detect change. Our long term Condition Monitoring program serves to detect ecosystem change which triggers the need for further research to understand these changes and to implement appropriate restoration measures. Management Effectiveness Monitoring measures are in place to assess the level of success of our management actions.

The park continues to work with partners to maintain and restore Kejimikujik's ecosystems with special funding under the Parks Canada Conservation and Restoration Program. We are working with Nova Scotia Inland Fisheries and fishers to protect Kejimikujik's celebrated trout fishing legacy through early detection of invasive fish and effective watershed protection.

Parks Canada is also working on a marine project at Kejimikujik Seaside. A recent assessment through state of the park reporting showed the coastal ecosystem was being impacted by an invasive population of European green crab affecting native biodiversity and processes through cascading effects. Parks Canada has worked with other departments, industry and local communities to gain control of this problem through an effective strategy to cull crabs with minimal impacts to native species, and to foster the development of green crab uses. This is the first time this pan-global species has been controlled in eastern North America, leading to the recovery of native species and processes. In the study area Eelgrass is recovering from a 98% loss in 2010.

Parks Canada has also explored different management tools for landscape level management potential. The park is using prescribed fires and deer exclosures to understand Acadian forest disturbance and regeneration.

**Cultural Resource Protection:**

Cultural resources at Kejimikujik are considered to be in stable condition. Ongoing management practices include mitigating the potential impacts of projects and activities on cultural resources through archaeological assessment and monitoring. In 2014 Parks Canada conservators and archaeologists initiated a project to improve storage of artifacts, the digitization of archaeological records, and the development of electronic databases to inventory resources in order to make information more readily available to guide decision-making. In 2015, Parks Canada will begin drafting a Cultural Resource Management Strategy with input from the Mi'kmaq of Nova Scotia. This document will set the direction for managing cultural resources at Kejimikujik and establish priorities for research, monitoring and protection work.

**B) Environment Nova Scotia Parks and Protected Areas:** 2014 was a busy year for Nova Scotia Protected Areas in the Southwest Nova Biosphere Reserve area. We are working to implement the 2013 Our Parks and Protected Areas: A Plan for Nova Scotia, which includes lands pending designation as protected areas within the Southwest Nova Biosphere Reserve area. More information on our plan may be found at [www.novascotia.ca/parksandprotectedareas](http://www.novascotia.ca/parksandprotectedareas)

In October 2014, Nova Scotia Environment and Department of Natural Resources staff worked with volunteers from the Mersey Tobeatic Research Institute to help restore Cofan Cabin. Cofan Cabin is a well-known former rangers cabin located in the Tobeatic Wilderness area, and is a popular stopping place for backcountry paddlers. More work will be required to finish restoring the cabin in 2015.

In November 2014, the first Starlight tourist destination and reserve status in North America was awarded to lands located within the Tobeatic Wilderness Area. The reserve is known as Acadian Skies and Mi'kmaq Lands.

**B) Clean Annapolis River Project (CARP)**

CARP ([www.annapolisriver.ca](http://www.annapolisriver.ca)) has been engaged in a variety of programs and projects that contribute to their mission of enhancing the ecological health of the Annapolis watershed through science, leadership and community engagement.

CARP has developed a multi-faceted fish habitat restoration and conservation program. Major projects completed include the Clementsport Dam removal, which restored access to 19.1 km of upstream habitat for migrating fish. The aquatic connectivity component of this program has resulted in 1400+ road watercourse crossing site visits, the assessment of 380+ watercourse crossings, and restoration actions completed at 53 sites.

The sub-watershed management planning component of the program has seen the development of plans for the Black, Nictaux, Moose and South River sub-watersheds. These plans will guide future implementation of restoration and habitat enhancement actions. In 2013 in-stream restoration actions on the Nictaux River were initiated, including the restoration of 2 rock weirs, partial restoration of 2 rock weirs, and the placement of boulder clusters and large woody debris to create fish habitat.



CARP's species at risk program includes research and stewardship projects directed at the wood turtle (*Glyptemys insculpta*) and striped bass (*Morone saxatilis*). In order to help fill knowledge gaps CARP has been collecting ecological data on local sub-populations of wood turtles. Stewardship plans are being developed with stakeholders within the watershed to address threats to this species.

CARP has been involved in the delivery of the provincial Environmental Home Assessment Program since 2006, and in the 2012-2014 period, implemented the complementary Rural H<sub>2</sub>O Water Guardian Program that promoted homeowner actions that reduce or mitigate pollution of freshwater resources.

The Annapolis River Guardians citizen science water quality monitoring program completed its 22<sup>nd</sup> season in 2014. Eight sites along the Annapolis River are monitored on a bi-weekly basis for a variety of water quality parameters, and bi-weekly E.coli bacteria results are reported using public signage at sampling sites. The data collected from this program is essential for identifying ecological threats to watershed health and analyzing long-term trends.

Through the Agri-Stewardship project, launched in 2013, CARP has been developing partnerships with agri-cultural landowners and farmers in order to implement actions that will restore or enhance the health of riparian ecosystems found on their land. Actions implemented as a result of this project include the protection of 9300 square feet of riparian area through the installation of live-stock exclusion fencing, the planting of 1000+ native trees, the installation of live sills to control soil erosion, and the development of 6 farm specific stewardship agreements.

As a community leader in local conservation and environmental stewardship, CARP engages with stakeholders and community members on an ongoing basis. Outreach activities include classrooms presentations, field trips with youth organizations and other interested groups, special events, public seminars and workshops, and the publication of a variety of communications materials.

### **C) The Medway Community Forest Co-op – a Brief History**

In December 2012, when the province announced the purchase of the former Abitibi-Bowater land, a small group of individuals worked to make the case that community forestry represented a viable model for an alternative approach to forest management. The government of Nova Scotia subsequently made a clear commitment to establish a community forest pilot. Following this announcement a Medway Community Forest Co-op proposal was developed and included community input from an opinion survey that was circulated to 3000 households in North Queens and South Annapolis, and another public community meeting held in January at the Caledonia Masonic Lodge.

The following January, with the collaboration of the core team working on the Medway Community Forest Co-op and input gathered in public meetings, stakeholder meetings, mass media, and social media, an expression of interest was submitted. By the summer of 2013, the Department of Natural Resources reviewed more detailed proposals through a Request for

Proposals process. The Co-op submitted a full proposal based on the core principles of direct community governance, management for multiple values, economic benefits staying in the local community, and strong environmental stewardship.

In October of 2013, the Medway Community Forest Co-op was selected to be Nova Scotia's first community forestry pilot with an allocation of 15,000 ha of Crown land. Over the past year an interim Board of Directors has been formed and the Co-op has become a legally registered entity. A Crown land license agreement has been negotiated, business plans refined, operational plans developed, governance structures built, all along with continued community engagement. From the outset, the proposal has had much support from a wide range of interest groups, and these stakeholders have been kept informed through the process.

The interim board has been working under a MOU throughout this time, contributing significant volunteer effort to get each of the needed pieces moving. The existing MOU was extended by 4 months to accommodate delays in finalizing the Crown land agreement. At the time of writing, the license agreement is finalized and due to be signed on the 30<sup>th</sup> January, along with the launch of the Co-op website. A General Manager has been hired and will start work in February.

<http://www.medwaycommunityforest.com>

#### **D) The Mersey Tobeatic Research Institute Cooperative:**

MTRI is a non-profit co-operative with a mandate to promote sustainable use of natural resources and biodiversity conservation in the Southwest Nova Biosphere Reserve and beyond through research, education, and the operation of a field station.

MTRI has a diversity of projects on the go simultaneously. From Species at Risk research to aquatic connectivity, old forests, our human dimensions and youth outreach, we conduct a variety of short term projects and continuing programs here in the biosphere. Our researchers are from universities, colleges, government, and community groups, as well as our own staff.

Volunteers, students and staff collaborate to conduct solid science, grounded in community and management needs.

<http://www.merseytobeatic.ca/mtri-products.php>

#### **E) The Tuskent River Environmental Protection Association:**

In 1985, tin-mining operations began at the East Kempt Mine, owned by Rio Algom Limited. The following winter, the tailings pond failed, letting loose a flood of potentially toxic, turbid water into Big Meadow Brook and downstream into the East Tuskent River.

This led to widespread public concern and outrage. Rio Algom staff presented the problem and responded to the concerns of the public at a meeting in the auditorium of Burrige Community College in April, 1986. However, dissatisfaction remained widespread.

On April 29, 1986, Milledge Nickerson organized a meeting of concerned citizens at Lake Vaughn Fire Hall. Fifty-two people participated, and agreed to organize the Tuskent River Environmental Protection.

TREPA's ([www.TREPA.com](http://www.TREPA.com)) draft constitution was presented to the executive committee July 22, 1986 and provisionally accepted. It was formally accepted by the general membership March 30, 1987.

Under our constitution our objectives are defined as follows:

**Immediate:**

- (1) Protecting the Tusket River and surrounding areas from environmental damage due to pollution,
- (2) Maintaining a constant vigil for future environmental hazards
- (3) Working closely with other environmental groups and government agencies to improve legislation so as to better protect the environment.

**Long-term:**

- (1) To respond to all environmental concerns affecting the tri-county area
  - (2) To educate the public to be environmentally conscious
  - (3) To expand membership and increase public support within the community
- In practice, we aim to address, to the best of our capacity, all environmental issues of concern to the Tri-County region, particularly in Yarmouth County and the Tusket catchment. As early as mid-August, 1986, the Association saw the need to take on other causes besides pollution from the tin mine. Over the years, TREPA has become involved in various issues and causes.

Here are a few milestones:

In 1992, the Rio Algom tin mine stopped operations and reclamation efforts began. They are still continuing and TREPA continues to serve on the East Tusket River Monitoring Committee, which follows efforts to return the former mine site to as undisturbed a situation as possible.

In 1995, Bowaters Mersey Paper Company donated 26 acres at the northern end of Gilfillan Lake to TREPA. We have named this area the C.R.K. Allen Nature Reserve. The Reserve has a number of species at risk which belong to the Atlantic Coastal Plains Flora, including the second largest known plantation of Plymouth Gentian.

In 2000, TREPA helped establish the Gulf of Maine Institute, which works with high schools around the Gulf of Maine catchment in two provinces and three states, and encourages relevant environmental studies by interested students. Then, all participants meet and present at an annual conference, whose venue moves from province to state from year to year. This is an excellent opportunity for environmentally concerned young people to meet, exchange ideas and knowledge, and come to the realization that we are all part of one environmental community. In 2004, TREPA expressed concern about construction on Starrs Road and Broad Brook. While the new SuperStore and WalMart were built, the town has now designated the land for 20 meters on each side of the brook as environmentally sensitive, which will protect it from most future development.

Since 2008, TREPA has worked with residents of Carleton and with governments in order to address cyanobacterial blooms in the Carleton River. Pollution from excessive uncontrolled mink farming upstream has been implicated. Currently, TREPA is key to continued water quality monitoring in the catchment, and is working with local municipalities and the provincial

government to establish a steering committee to oversee future monitoring and potentially, future watershed management.

We respond to various complaints as they are drawn to our attention, regularly raise concerns with various levels of government, and work with said levels to address environmental concerns. Fish counts were organized on the Tusket and Carleton in cooperation with Nova Scotia Power and Fisheries and Oceans, and provide considerable employment to various students. TREPA continues to be an active voice on behalf of the environment in South West Nova Scotia.

#### **F) Queens County Fish and Game Association:**

Volunteer members of our long term Association support the conservation of fish, wildlife and habitat in this area of Nova Scotia. Our Association is an affiliate of the Nova Scotia Federation of Anglers and Hunters and the Nova Scotia Salmon Association. We subsequently become an Affiliate of the Canadian Wildlife Federation and the Atlantic Salmon Federation.

Salmon angling season on the LaHave River has been closed since 2012, and Fisheries and Oceans (DFO) also close a number of pools to all angling commencing in June each year. The Medway River has not had a salmon angling season since 1996, and DFO annually closes the river from Ponhook Lake downstream to the # 103 Highway Bridge from mid June, until the middle of August. This is due to a shortage of returning Atlantic salmon. The LaHave River Morgan Falls trap, recorded a 2012 Atlantic salmon count of 67 fish, compared to the 2011 return of 371 fish. The 2012 breakdown being 38 salmon and 29 grilse. The conservation escapement requirement for the LaHave River at Morgan Falls is 1,320 fish. Salmon returns to the Medway have historically mirrored salmon returns to the LaHave. Due to DFO management issues, the downstream smolt migration count was not conducted at Morgan Falls in 2012. This resulted in a major deficiency in salmon scientific data collection. The Morgan Falls trap recorded an Atlantic salmon return of 185 fish in 2013, the 2013 breakdown being 110 grilse and 75 salmon. The trap recorded an Atlantic salmon return of 64 fish (43 grilse 21 salmon) in 2014. Poor returns were experienced in most rivers in 2012, 2013, and 2014.

DFO compiled a Salmon Population Assessment Report for the Southern Uplands in 2012 and 2013, and the Minister is expected to determine in 2015 if our Atlantic salmon will be supported with a Recovery Plan and funding, or allowed to become extinct. If the Minister supports salmon, a Recovery Plan will be developed by DFO over several years. Salmon recovery efforts on South Shore Rivers are not expected to commence by DFO until 2018.

The fully modernized world class Mersey Salmon Bio-diversity Facility, which was improved and enlarged through \$ 1.5 million in previous funding our Association had obtained, was closed in 2013, and demolished by 2014. Despite all attempts by local conservation groups including QCF&GA, DFO refused to allow the Facility to continue to operate, or allow it to be operated by others, to support Endangered Atlantic whitefish and Atlantic salmon. The facility was estimated to have a replacement value of \$ 12 million. The likely result is that DFO will not have a suitable facility to be able to recover salmon in Southwestern Nova Scotia in the future. The problem of ocean mortality research, which is necessary to determine why salmon are in decline, is still not a priority of DFO. We continue to press DFO to provide proper salmon support.

In October 2012, 70 adult salmon and 5,000 fall fingerlings from the Mersey Facility were released into the Medway River, Queens Co., above Albany New, with the help of our members and the Medway River Salmon Association. These fish were raised from eggs spawned during the previous 5 year Live Gene Banking Program. In the spring of 2013, 10,000 smolts were released in the same location, prior to the Mersey facility being closed. Our Association works closely with the N. S. Salmon Association, and we attend their Annual Meetings.

Traditional eel weirs were set locally each fall with varied harvests being reported. Eel parasites were found in Medway River eels in 2013, similar to those found in recent years in other Nova Scotia rivers. Samples have been collected by our members, and were analyzed. A large number of dead adult eels were found in June 2014 in the Medway River below Ponhook Lake. We notified DFO, a number of samples were collected, and DFO is investigating the cause. It is assumed that warm water and crowded conditions may have been the reason for the mortality.

Accurate returns of gaspereau harvests and populations were not available from DFO at Advisory meetings. DFO restricted gaspereau dipping within 75 feet of the Milton Roll Dam in 2013, as it is now classed as an obstruction, basically eliminating recreational gaspereau dipping on the Mersey River. We attempted to obtain permission that DFO allow dipping on the east side of the river, as the fishway is on the west side, but even though it is 100 feet away, DFO would not agree. Returns of gaspereau were improved in 2013, with juvenile downstream migration also increased that fall. Returns in 2014 also appear to be reasonable.

Our long term efforts as a member of the DFO Groundfish Advisory Committee to allow recreational anglers to retain up to one halibut larger than 81 cm per day, as part of the daily limit of 10 groundfish, was being held up by the DFO Review of the Fisheries Act. When the revisions were completed, DFO had not amended the Fisheries Act to allow the size to be varied. Our members were disappointed, but continue to apply pressure upon DFO.

Our membership on the DFO South West Nova Scotia Softshell Clam Advisory Committee since 2000 helps to ensure that a daily recreational limit of 300 clams is set. The limit continues to work well, with no change to the daily Recreational harvest limit being expected in 2015.

We continue to work with Nova Scotia Power to improve recreational access to Mersey River flowages. Boat launch access at Deep Brook flowage was improved in 2012. The McGowan Lake hydro facility has not operated for several years. NSP developed engineering plans for a new fish way at the diversion dam. River run water is being spilled on a continuous basis while the facility is out of service. We assisted in the fish way design development stages, construction of the new fish way was completed in late 2014, and it will operate in the spring of 2015. Concrete dam structures near Jordan Lake were also upgraded in 2012. The continuous flow to the East Branch of the Jordan River which we negotiated continues to provide support for biodiversity and canoeists on that river.

The wooden fish way at Harmony Lake, which had been in a state of dis-repair for many years, has been repaired and put back in service during 2013. This rebuild project was managed by cottage owners and residents from the North Queens area, through funding sources approached by our Association. It is a huge improvement for fish migration to Harmony Lake.

We supported the efforts of Provincial Fisheries staff at McGowan Lake Trout Hatchery who continued to enhance many local angling locations, including the Christopher Lake Trophy Trout fishery. Hidden Hills Lake and Victoria Lake are open to a winter rainbow trout fishery commencing each January. Provincial trout stocking locations are being reduced due to illegal introductions of small mouth bass and pickerel. Regulations to prohibit the live transport of fish species formulated in 2012 are now in effect. Provincial Fisheries commenced a Pickerel Study on the Jordan River in the spring of 2014, with the support of our members. Once one of the best Provincial trout angling rivers, it has recently become 99 % populated with illegally introduced pickerel. In December 2014 the Provincial Aquaculture Committee issued its Report with recommended changes to aquaculture practices. Our members continue to attend meetings of the Provincial Fisheries Recreational Advisory Committee.

The Province renewed the \$ 20 trapping subsidy for coyotes harvested in the 2012 to 2015 season. Deer populations in Queens County appear to be reduced, other than in locations close to residential areas. The rabbit and ruffed grouse populations are also reduced. Coyote populations are down, but still seem to exceed the habitat carrying capacity, at the expense of other wildlife. We continue to provide Resolutions to the N.S. Federation of Anglers and Hunters to improve wildlife populations and allow for sustainable harvest. Additionally, we send Delegates to the Annual Convention, attend Federation Directors meetings, and sell their Lottery Tickets.

The 2012 winter closure of Kejimikujik National Park has negatively impacted recreational activities, as well as Park revenue, and local support businesses. We expressed our displeasure with the reduced access, and the shoulder season for Park access was extended in 2013. Our Association requested early camping be available for anglers in April 2014, and some additional opportunity resulted. Smallmouth bass have recently been found within the Park boundary due to a previous illegal introduction. Our members worked for 3 years to allow Provincial Fisheries staff to actually see that the area had an illegal small mouth bass population. Kejimikujik Park is now attempting to formulate a plan to deal with these illegal fish, before major negative impacts occur to local trout populations.

Bowater Mersey Paper Company ceased operation in June of 2012. The Province of Nova Scotia purchased Company assets and the 550,000 acres of woodland were transferred to the Department of Natural Resources for future management. The Provincial Review of lands to be protected under the 12 % Initiative, included lands near the Tobeatic Wilderness Area boundary. This process gained momentum in 2012, and continued in 2013, with the public release of specific land locations for additional public review and comment. This has been an initiative our Association pursued since the 1980`s. Environmentally sensitive lands, previously owned by Bowater Mersey totaling 50,000 acres, will soon be designated as ecologically significant in 2015 by the Province. Some of the remaining 500,000 acres of the previous Bowater lands have been determined to become new Wilderness Areas, with a large portion of the land holdings to remain available for forestry related support. All Nova Scotian`s should be pleased that these lands will be available for future generations to enjoy. The Province is soon expected to decide which old Bowater gates in the previous Rossignol and Medway Districts will be opened, and which ones will remain closed.

Our 8 year effort to have the black duck hunting season remain open into January, to coincide with the goose season, was accepted by the Canadian Wildlife Service, and included in the 2012 and subsequent waterfowl seasons.

Through our appointed representative, we continue to support the UNESCO Southwest Nova Scotia Biosphere Reserve, which continues to be very active. Ottawa cancelled its Funding Agreement in April 2012, resulting in their employee being terminated. With the support of the Region of Queens, a new Biosphere sign was erected on the # 103 Highway at the Queens/Lunenburg boundary in June 2012. Eleven Biosphere Vignettes were also produced to support tourism in the 5 Counties in Southwestern Nova Scotia in 2013. A new computer web map APP was produced in 2012 and 2013 to support activities, services, and important locations within the Biosphere. A new web site and service provider were commissioned in 2013. In 2014 our representative helped to develop and produce 5,000 Tourism Rack cards, and delivered them to Visitor information Centers in all 5 Counties to support tourism promotion. Work began on fund raising to create a new Smart Phone App in 2014, with design and development continuing into 2015. Sustainable marketing and development to support culture and communities in the Biosphere, is one of the principal goals of the Biosphere, which is volunteer driven. Biosphere work continues towards securing long term funding sources.

After several years of preparations and negotiations, Mersey Tobeatic Research Institute staff tentatively received Provincial approval for a 15,000 hectare Community Forest in Medway District. It will be a separate entity named the Medway Community Forest Co-operative. Our Association has been a long term Partner with MTRI, as well as the Community Forest initiative.

Our Association owns a property in Hibernia Queens Co., N. S containing over 300 acres, situated between two lakes. The Nova Scotia Guides Association continues to lease, and successfully manage our Hibernia property for the benefit of both Associations.

Secretary David Dagley is our representative on the Department of Natural Resources Mersey Woodlands Advisory Committee. At the request of the Province, David and Chairman Gordon Beanlands prepared a Review Report on Provincial forestry harvesting near Panuke Lake in the St. Margaret`s Bay area in 2014. That Report will be submitted to Government by the Advisory Committee in January 2015.

Our Association holds two Executive meetings per year, and also two public meetings per year, where we invite guest speakers when available. Our Annual Report is published in the Liverpool Advance every year to inform the public of local activities. ([www.regionofqueens.com/498-queens-county-fish-and-game...](http://www.regionofqueens.com/498-queens-county-fish-and-game...))

Our members continued to attend various meetings, participated on many Government Advisory Committees, provided public comment on numerous Government initiatives, and assisted Government Departments, as well as our MP and MLA.