



# YOUR

# BIOSPHERE

# Reserve

## Creating a Sustainable Future

### **A Community Guide to Canada's Biosphere Reserves**

*A breathtaking Rocky Mountain national park surrounded by forest and fertile Alberta ranch lands, where volunteers have been trained in assisting landowners to control non-native plants and ranchers are producing organically grown beef...*

*A large saline lake and migratory bird sanctuary in Saskatchewan, bordered by farmlands tilled by a largely Ukrainian-descended population that is boosting its struggling economy through sustainable agriculture practices...*

*Forested and agricultural lowlands embracing a large lake within the St. Lawrence River downstream from Montréal, where residents are reconciling the often-conflicting activities of agriculture, heavy industry, boating, hunting and fishing...*

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**A**s diverse as these areas and communities are, geographically, economically and culturally, they have one important thing in common: they are all Canadian biosphere reserves.

Biosphere reserves are special places where people and organizations have made a commitment to live and work more in harmony with nature. The people living in these areas are figuring out – and demonstrating – how to achieve a sustainable balance between conserving natural ecosystems and biodiversity and fostering sound economic development.

There are currently 13 biosphere reserves in Canada. Their designation has come after years of commitment and hard work by members of each local community. This brochure gives an overview of biosphere reserves in Canada – their purpose, functions, benefits and operation – and provides a step-by-step process for applying for designation.

# What is the Biosphere?

The biosphere **“sphere of life”** includes all living things on earth, as well as the land, water and atmosphere that sustain them. Human well-being is directly linked to the health of the biosphere.

## What is a biosphere reserve?

A biosphere reserve is an area that has been designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) to demonstrate innovative approaches to living and working in harmony with nature. Designation is considered after the area is selected by a national committee and proposed to UNESCO by a member country. Each reserve is typical of one of the world’s major terrestrial or coastal ecosystems.

The term “reserve” does not mean that these places are set aside from human use and development – human activity and the health of people and communities are, in fact, an integral part of the biosphere reserves program. Nor does the UNESCO label bring with it any new authorities over land, water or resources. The existing powers, rights and responsibilities of governments, businesses and landowners normally remain unchanged. Taken together, then, the words “biosphere reserve” highlight a special area within the biosphere where people have made a commitment to work together for a sustainable future.

The UNESCO initiative had its beginnings in 1968, when scientists and government and non-government representatives from around the world gathered in Paris to discuss ways of protecting the biosphere from the increasing impacts of human activities. At the request of conference participants, UNESCO subsequently set up the Man and the Biosphere (MAB) Program to test innovative solutions to human impact in a variety of ecosystems.

In 1976, participating countries agreed to designate permanent sites for MAB research. These sites became the World Network of Biosphere Reserves, which now represents more than 480 UNESCO-designated biosphere reserves in over 100 countries. The network provides for an exchange of information and ideas among the biosphere reserves, which undertake projects that demonstrate practical approaches to conservation and sustainable development.



Photo: L. Gribinicek

*Wetland research in the Niagara Escarpment Biosphere Reserve, Ontario.*

## What are the components of a biosphere reserve?

The shape and size of a biosphere reserve will depend on the natural and human features it is meant to include. However, all biosphere reserves have three distinct zones:

- **Core Area:** This consists of one or more protected areas, such as a national or provincial park, migratory bird sanctuary or other protected area. The Core Area acts as a reference point on the natural state of the ecosystem(s) that the biosphere reserve represents.
- **Buffer Area:** Surrounding or adjacent to the Core Area, this area is managed in ways that support the conservation objectives of the Core. Examples may include a municipally regulated floodplain, a woodland special management area, or a conservation easement on private land.
- **Area of Cooperation:** Usually the largest part of the biosphere reserve, surrounding the Core and Buffer areas, this is where most of the residents live and work, using natural resources in a sustainable manner.

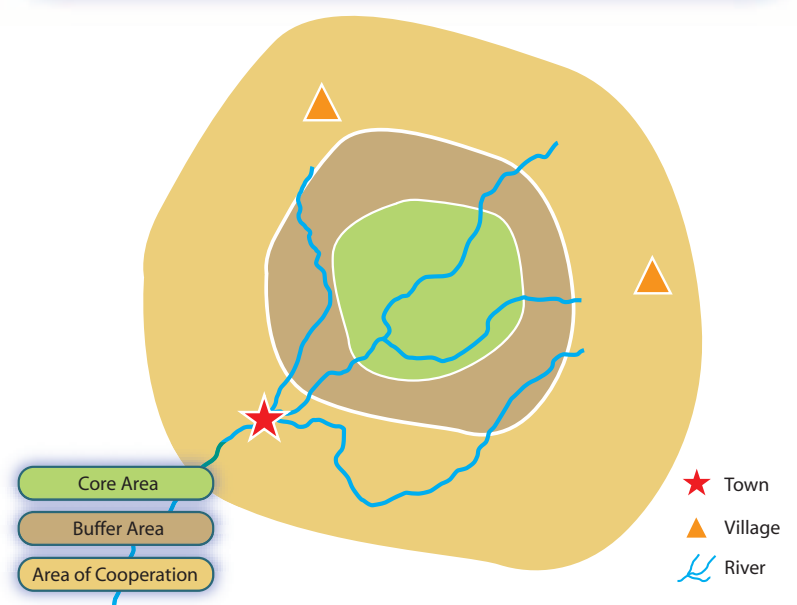
## THE CANADIAN BIOSPHERE RESERVES PROGRAM

Canada’s 13 biosphere reserves are located in seven provinces. (See map on p. 8.) They incorporate a variety of geographical features (mountains, forests, grasslands, marine areas and so on), as well as human activities such as agriculture, forestry, fisheries and recreation. Within them, people live on farms and ranches and in villages, towns and cities.

Unlike many other biosphere reserves around the world, Canada’s biosphere reserves are not managed by a government department but depend for the most part on volunteer efforts and inter-agency cooperation. In this sense they are very much “grass-roots” in their organization. Each is coordinated by a community-based organization, which stimulates the involvement of agencies, businesses, groups and individuals. It is the enthusiasm and dedication of volunteers that have contributed to the success of biosphere reserves in Canada.

Because Canada’s biosphere reserves are a cooperative venture of organizations, individuals and governments, they favour cooperation plans to guide their operation. These plans follow a partnership strategy that relies on the volunteer support of a wide range of stakeholders to work together for the benefit of the biosphere reserve. Canada’s cooperation plan concept is being shared with other countries as a model for biosphere reserve coordination.

### Model Biosphere Reserve



# Step 1

## What are the functions of a biosphere reserve?

Biosphere reserves have three major functions. They:

- contribute to the **conservation** of countrysides, ecosystems, species and genetic variation;
- foster **sustainable development** (development that is socially, culturally, economically and ecologically sustainable), and
- **build local capacity** for research, monitoring, education and training activities related to the promotion of conservation and sustainable development.

Vignettes on pages 7 and 8 in this brochure highlight projects that have been undertaken in Canada's biosphere reserves in relation to these three functions.

## What are the benefits of a biosphere reserve?

Communities that live in biosphere reserves reap myriad benefits. For example, they:

- help to assure the ecological and economic sustainability of their region;
- expand their local capacity to direct their region's future;
- develop a common vision, increasing communication and cooperation among seemingly disparate groups;
- gain access to information, expertise and support through national and international networks, and
- increase national and international recognition of their community as a good place to live, work and visit.

Partners of the biosphere reserve also benefit from participating in and supporting biosphere reserve activities. For example:

- First Nations may address cultural, social and development issues for their peoples;
- businesses can increase the efficiency and sustainability of operations;
- government and non-government organizations may implement pilot projects for rural and economic development and other areas of interest;
- academic institutions may achieve research and teaching goals.

## A network for Canada's biosphere reserves

Canada's biosphere reserves work together through the **Canadian Biosphere Reserves Association (CBRA)**, a national non-profit association that provides coordination, communication and other services for its members.

CBRA also organizes national projects in which several or all of the biosphere reserves participate. The initiatives are supported by governments, corporations, universities and other organizations. National projects have included – among others – monitoring biodiversity, mapping landscape change over time, re-naturalizing and restoring disturbed habitats, and evaluating the social implications of a biosphere reserve.

Biosphere reserves currently represent various ecosystems from the Atlantic to the Pacific. They demonstrate conservation and sustainability in different human and natural situations and share their successes and ideas with the other biosphere reserves, both individually and collectively. They also share lessons they have learned with other regions of Canada. As the network expands to include provinces and territories not yet represented, it will embrace more of Canada's terrestrial and coastal ecosystems.

## Applying for Designation as a Biosphere Reserve

This section explains the process for nominating your area for biosphere reserve designation by UNESCO. It is not easy to create a biosphere reserve. In Canada, it takes an average of eight years for an area to be designated. The process requires a rigorous collection of data and extensive public involvement.

*However:*

- if you are part of a group of individuals that want to conserve your area's natural and cultural features and enhance its quality of life
- if you are willing to dedicate a number of years to the networking and communication that will promote community change and a more embracing view of people and nature
- if the biosphere reserve model fits your vision of the future for your community

*Then:*

- you can help lead the people of your region on a journey toward a sustainable future, in harmony with the natural world.

In this journey, you will first need to determine whether your area has the potential to become a biosphere reserve. The first step, therefore, is to:

### Evaluate the potential of your area

It is important that your evaluation show that appropriate Core and Buffer areas are in place and that the natural qualities of your area are globally important. It is also critical to have strong community support to operate as a biosphere reserve.

Your initial assessment may suggest expanding the proposed area to include more natural or human features. In this case you could extend the area of interest and enlarge the network of people working on the proposal.

If the analysis shows little chance of your region qualifying as a biosphere reserve, don't let that stop you from applying the principles of the program. Even without UNESCO designation, biosphere reserve principles can produce significant benefits and results for conservation and sustainable development.

### Here's what to do:

- Form a team of committed individuals to help gather data.
- Gather data that answer the following questions:
  1. Does your area contain biophysical characteristics that make it globally important?
  2. What cultural elements are present? (e.g., First Nation features, historic settlement patterns, traditional farming or fishing activities)
  3. Which protected or regulated areas might serve as the Core and Buffer areas of the biosphere reserve?
  4. What are the main elements of the regional economy and what potential exists for sustainable development?
  5. Which organizations or networks might contribute to the activities of a biosphere reserve?
- Contact CBRA and Canada MAB (see list of contacts below) to let them know that you are developing a biosphere reserve proposal.
- For the specific questions asked on the UNESCO biosphere reserve nomination form, consult Part I of the form, which can be downloaded from [www.unesco.org/mab/docs/brnomform.htm](http://www.unesco.org/mab/docs/brnomform.htm). In particular, note the seven criteria which will help you assess the likely suitability of your area.



Photo: V. Herman

***If your analysis shows good potential for your area to become a biosphere reserve, carry on with Steps 2-8.***



# Step 2.

## Garner support for your proposal


Major stakeholders of your region, including the general public, must generally agree with the idea of a biosphere reserve before you put forward a nomination to UNESCO. To obtain this support, consult all relevant groups.

Obtaining the support of the managers of the proposed Core and Buffer areas is particularly important, since their signatures will be included on the nomination form.

Note that this consultation process normally takes several years.

### Here's what to do:

- Contact the managers of the proposed Core and Buffer areas to seek their cooperation and agreement.
- Contact other stakeholders to explain the concept and garner their support. These may include municipalities, government agencies, First Nations, non-government organizations, local businesses, community groups, farming or fishing organizations and educational institutions.
- Publish articles in the local press, hold "open houses" and public meetings, and make visits to municipal councils to involve the public in the dialogue.
- Invite representatives of local organizations and members of the public to join your team to develop the proposal.



# Step 4.

## Define boundaries and zones

It is important to know the geographical extent of the area you are proposing for your biosphere reserve, in order to determine what natural and cultural features it contains. The extent of the area will depend on which groups, organizations, landowners and protected areas are committed to the idea. Defining the boundaries and zones may take some time and will involve extensive data gathering and public dialogue.



Canada's first biosphere reserve – Mont Saint-Hilaire, Quebec.



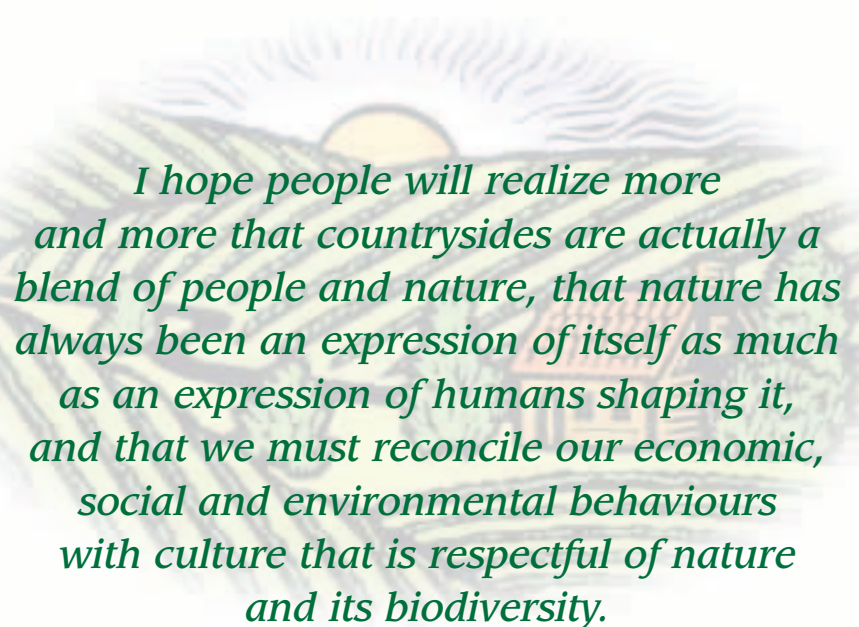
# Step 3.

## Develop a coordinating committee

After stakeholders have given their agreement to seek designation as a biosphere reserve, you should formalize their cooperation by forming a permanent coordinating committee. This group will normally coordinate the biosphere reserve after designation is received. It is therefore important to create a strong committee from the start.

### Here's what to do:

- Consult with stakeholders to determine the composition of the committee.
- Make sure everyone understands that the coordination of biosphere reserve activities does not give an organization any planning or resource management authority – cooperation, not competition, is the key to success.
- Make sure your committee has the following:
  - strong community involvement
  - a local resident (rather than government official) as Chair
  - representation from local municipalities
  - involvement of key stakeholders (including government, First Nations, non-government and business sectors)
  - open communication with communities and stakeholders (through meetings, events, newsletters and articles published in the local press)
  - resources in the form of staff support or financing from government, industry or non-government organizations. (Ideally these will be organizations you have included in initial consultations that may already be part of your team.)



*I hope people will realize more and more that countrysides are actually a blend of people and nature, that nature has always been an expression of itself as much as an expression of humans shaping it, and that we must reconcile our economic, social and environmental behaviours with culture that is respectful of nature and its biodiversity.*

– Dr. Peter Bridgewater, former Director of the Ecological Sciences Directorate, UNESCO



# Step 5.

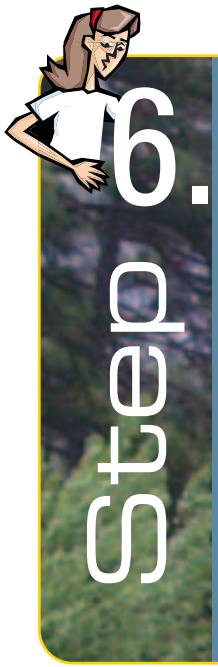
## Develop objectives for your proposed biosphere reserve

In the latter phases of your stakeholder and public consultations, you should discuss what the objectives are for your biosphere reserve. Developing objectives will help you determine your priorities in the areas of conservation, sustainable development and capacity building. These objectives are also required by the Canadian National Committee for MAB (Canada MAB) – the Committee that will be reviewing your nomination and, if approved, sending it to UNESCO.

You should create a cooperation plan to guide your work. Guidelines for creating a cooperation plan can be found on the CBRA Web site at [www.biosphere-canada.ca](http://www.biosphere-canada.ca).

*What I found appealing about the biosphere reserve approach was that local people are finding ways to live in and work with the land. This concept of sustainability does not separate protection of the countryside from its use.*

– Maureen G. Reed, Associate Professor,  
Department of Geography, University of Saskatchewan,  
and biosphere reserve researcher



## Initiate projects in your proposed biosphere reserve

A proposed area must already be carrying out some of the functions of a biosphere reserve before Canada MAB will submit your nomination to UNESCO. This functionality is demonstrated by the implementation of one or more biosphere reserve projects. For examples of projects that have been carried out by existing biosphere reserves, see the vignettes highlighted on pages 7 and 8 in this brochure.

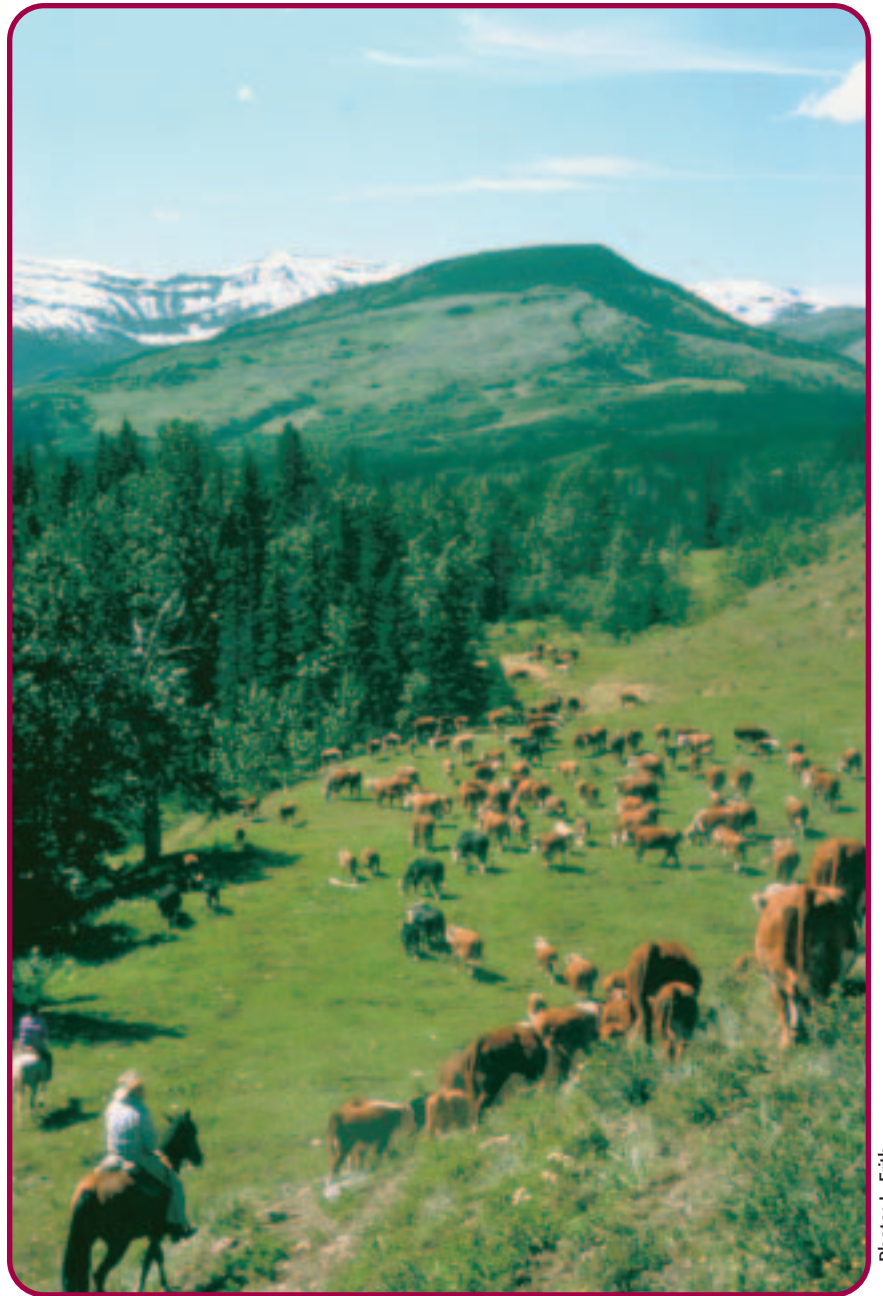
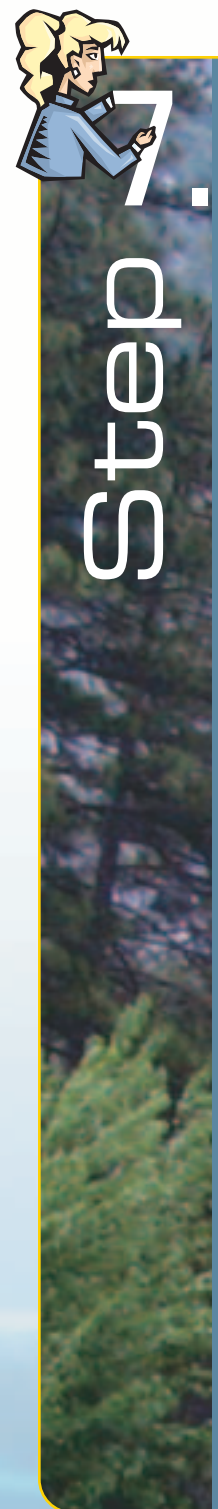


Photo: L. Frith

*Ranching in Waterton Biosphere Reserve, Alberta.*



## Nominate your area

While consultation is still underway, you should continue to gather data to complete the nomination. Note that the process of completing the nomination could take a year or more. During that time, you should continue to build and strengthen public support for the biosphere reserve.

UNESCO makes decisions on designation once a year, usually in late October. The deadline for receipt of nominations by member countries is normally in the spring. You should have a draft nomination ready early in the calendar year and already be in touch with Canada MAB to determine when it requires your submission.

### *Here's what to do:*

- Download and print out the biosphere reserve nomination form from the UNESCO Web site.
- Contact local organizations and government agencies to obtain additional information on your region's natural and human features and on research and other relevant activities.
- Once you have completed a draft nomination, you can send it to the Canadian Biosphere Reserves Association for comments.
- Incorporate any suggestions or revisions from CBRA, and send the complete nomination to Canada MAB for final review.
- Seek letters of support from key stakeholders (such as municipalities) to include with the nomination.
- Once Canada MAB is satisfied that the nomination is in final form, obtain signatures from the senior managers of the proposed Core and Buffer areas to add to the nomination form.
- Send the signed nomination back to Canada MAB, along with the letters of support. Canada MAB will add the final signature and send the nomination to UNESCO.



## Wait for the results of the UNESCO review

The UNESCO review of your proposal involves technical staff from the MAB Secretariat and members of the International Advisory Committee for Biosphere Reserves. The Advisory Committee will then make a recommendation to the Bureau of the MAB International Coordinating Council, which represents member countries.

If the MAB Bureau approves your proposal, UNESCO will send you your biosphere reserve charter through Canada MAB.

### *Here's what to do:*

- Be patient. Waiting for results of the review normally takes about five months.
- When your proposal is approved, choose a time and place for a public ceremony to have your biosphere reserve charter officially presented.

### *Congratulations!*

Your area is now recognized globally for its unique natural and cultural values and as a special place to live, work and visit. (For some examples of biosphere reserves in other parts of the world, see p. 6.)

## Operating a Biosphere Reserve

Once you have been awarded designation as a biosphere reserve, you will be putting your biosphere reserve into full operation. Operation is the responsibility of all partner organizations, particularly those that signed the nomination form. The catalyst for activities is the coordinating committee, which facilitates projects, develops the cooperation plan and maintains strong local networks.

### Promote conservation



Conservation will already be underway in the Core and Buffer areas, but needs to be practised in the Area of Cooperation as well. Conservation work presents an opportunity for government, non-government, academic and corporate organizations to be involved. You can invite them to undertake or sponsor research, training and demonstration activities.

### Promote sustainable development

It is your responsibility to promote sustainable development in your biosphere reserve. You can initiate and encourage projects addressing themes such as the economic needs of residents and the responsible use of natural resources.



In rural areas, for example, you might introduce activities focusing on social and health services or on providing opportunities for young adults to build a life in the area. Such opportunities might involve eco-tourism, marketing of heritage crops, sustainable forestry or responsible mining.

In the urban component of a biosphere reserve, there could be an emphasis on a healthy and productive relationship between city and countryside.

## Build local capacity



While conservation, research, monitoring, education or training projects may already be underway in the Core and Buffer areas, you may wish to expand the scope of these activities in the Area of Cooperation, according to community interests. To do this, look to partners within the biosphere reserve and seek support from government, academic or corporate sources.

Students of all ages are an enthusiastic and valuable resource for research and monitoring projects. As an added bonus, the involvement of young people seems to automatically increase community interest in the biosphere reserve.

College and university students can carry out worthwhile projects in areas such as tourism or community development and ecosystem studies. Through publications, conferences, workshops and other outreach initiatives, these student projects become demonstration activities of the biosphere reserve.

Activities carried out in biosphere reserves draw heavily on volunteers and other members of the community, who may need to receive training to increase their technical and business competencies. You may approach governments, corporations and other agencies to finance such training.



Photo: J. Birch

*Sustainable recreational fishing lake in Riding Mountain Biosphere Reserve, Manitoba.*

### A Comparison of Three International Programs That Focus on Ecosystems

#### Ramsar Sites

- Wetlands of international importance.
- Focus attention on wise use and conservation of wetlands.
- Profile attracts research and monitoring. Stimulates sound management. Assists international cooperation on migrating species.
- 36 sites in Canada.
- The Ramsar Convention is administered by IUCN.

#### Biosphere Reserves

- Ecosystems of international importance.
- Demonstrate sustainable development of settled landscapes and conservation of eco-systems.
- Local networks and forums to address human-environmental issues. Global network to exchange information. Potential for sustainable future of these regions.
- 13 sites in Canada
- A UNESCO Program.

#### World Heritage Sites

- Natural or cultural features of outstanding universal value.
- Recognize and protect natural and cultural features.
- Confers high recognition value. Encourages tourism development. Maintains standards for protection, conservation and presentation.
- 13 sites in Canada.
- A UNESCO Program.

### Here are what a few other biosphere reserves around the world look like...

- Extending over 5,000 kilometres of coastline, the **Mata Atlantica Biosphere Reserve** in **Brazil** includes more than 1,000 municipalities and represents all of the ecosystems of the Mata Atlantica Rainforest – home to myriad plant species and endangered fauna. Priority areas for action include the sustainable management of forestry resources and introduction of eco-tourism.
- The **Rhön Biosphere Reserve**, a low mountain area of small villages and farms in **Germany**, covers 185,000 hectares of cultivated and forest landscapes and includes 136,000 people. Projects undertaken in the region – home to a number of heritage crops and animals – have included the niche marketing of the Rhön sheep and new enterprises for rural women.
- In **China**, the **Yancheng Biosphere Reserve** is a large flat coastal area of 90,000 residents, plus an additional 20,000 tourists annually. The area is known internationally for the endangered red-crowned crane and other wildlife. Monitoring the impacts of reed plantations and aquaculture ponds and providing ecology-based management of tourism are among the projects undertaken.

## Rising to the Challenge

Protecting Canada's ecology is achieved through improving people's relationship to the environment in both protected areas (parks and wilderness reserves) and non-protected areas (the places where we live). Biosphere reserves are a step in this direction. Through cooperation, they provide a forum for the resolution and integration of conflicting interests and pressures. They provide a framework through which we can try to resolve one of our most basic challenges: how to maintain natural ecosystems while at the same time meeting our human material needs and wishes. Biosphere reserves are areas in which we can learn how to live and work sustainably – and share our solutions with people across the country and around the world.



Photo: L. Frith

# Canadian Biosphere Reserves



Photo: E. Malka

### Mont Saint-Hilaire Biosphere Reserve (Quebec)

Demonstrating **urban development** that is in harmony with nature, a citizens committee helped the Town of Mont-Saint-Hilaire secure protective measures for the slopes of the mountain that is the heart of the **Mont Saint-Hilaire Biosphere Reserve (est. 1978)**. The town is providing environmental stewardship by regulating lot size, municipal green spaces, and tree cutting and planting.

### Waterton Biosphere Reserve (Alberta)

In the **Waterton Biosphere Reserve (est. 1979)**, a group of ranchers has eliminated pesticides, herbicides, artificial fertilizers, antibiotics and growth-promoting hormones to produce **organic beef** that it markets internationally.



Photo: L. Frith



Photo: B. Craig

### Long Point Biosphere Reserve (Ontario)

In partnership with Ontario Power Generation, the Long Point Region Conservation Authority and TD Friends of the Environment, residents of the **Long Point Biosphere Reserve (est. 1986)** have planted 250,000 native trees to **establish forest corridors** that will allow the movement of species, help maintain biodiversity and sequester carbon.

### Riding Mountain Biosphere Reserve (Manitoba)

In the **Riding Mountain Biosphere Reserve (est. 1986)**, a **bovine tuberculosis study** was carried out through partnerships with cattle producers, First Nations, and tourism and conservation organizations to prevent transmission of the disease from wild animals to cattle and to ensure input from all perspectives.



Photo: J. Birch

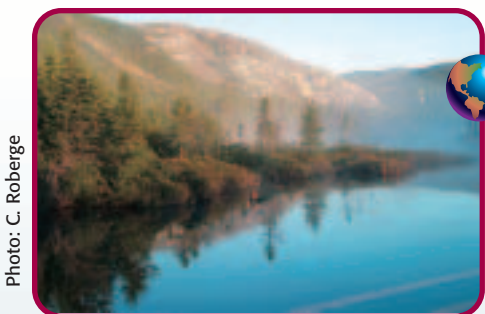


Photo: C. Roberge

### Charlevoix Biosphere Reserve (Quebec)

Discussions over 25 years between citizens, governments and other local groups in the **Charlevoix Biosphere Reserve (est. 1988)** led to the **establishment of the Hautes-Gorges de la Rivière Malbaie Provincial Park**. The park protects a fragile ecology while enhancing tourism and economic benefits for residents of the region.

### Niagara Escarpment Biosphere Reserve (Ontario)

In the **Niagara Escarpment Biosphere Reserve (est. 1990)**, students from the University of Waterloo participate in a credit course on **forest biodiversity monitoring** that includes gathering data on trees, ground cover, lichen and moss. The data are used to assess the ongoing health of the biosphere reserve's natural environment.



Photo: A. Laurence



Photo: S. Boychuk

### Clayoquot Sound Biosphere Reserve (British Columbia)

The **Clayoquot Sound Biosphere Reserve (est. 2000)** is partnering with the First Nation-owned company **Iisaak Forest Resources** to **build capacity** within the Nuu-chah-nulth First Nation communities. The partnership is helping create balance between conservation and sustainability, while adhering to the Nuu-chah-nulth principles of "Iisaak" (respect) and "Hishuk ish ts'awalk" (everything is one).

Photo: J. Birtch



### Redberry Lake Biosphere Reserve (Saskatchewan)

With support from all levels of government, residents of the **Redberry Lake Biosphere Reserve (est. 2000)** participated in a series of workshops that examined social, environmental and economic needs. This **community plan for sustainability** addresses scenarios for transportation, health, research, design, micro-enterprise and other areas, as resources permit.

### Lac Saint-Pierre Biosphere Reserve (Quebec)

Hunting is a traditional activity in the **Lac Saint-Pierre Biosphere Reserve (est. 2000)**. The Lac Saint-Pierre waterfowl hunting association is offering training in waterfowl hunting for young people, who learn about wildlife conservation, hunting ethics, legislation and the importance of investing in wildlife habitats.



Photo: N. Garfépy

Photo: G. Jamieson



### Mount Arrowsmith Biosphere Reserve (British Columbia)

The coordinating committee of the **Mount Arrowsmith Biosphere Reserve (est. 2000)** produced a three-part television series on water conservation called "**Liquid Assets,**" which reaches year-round and winter residents of this popular retirement area, which has seasonal water shortages.

### Southwest Nova Biosphere Reserve (Nova Scotia)

With a building provided by Bowater-Mersey Paper and funding from Parks Canada and others, various organizations have developed a **research centre** in the **Southwest Nova Biosphere Reserve (est. 2001)**. The centre is being used for environmental monitoring, research on rare and endangered species, promotion of habitat connectivity and public education.



Photo: J. McNeil

Photo: B. Morin



### Frontenac Arch Biosphere Reserve (Ontario)

The 70-member Chamber of Conservation & Sustainable Development, which coordinates activities in the **Frontenac Arch Biosphere Reserve (est. 2002)**, is identifying how partnerships, capacity building, program integration and other tools may be used to enhance the **ecological integrity of parks, wetlands and other conservation areas.**

### Georgian Bay Littoral Biosphere Reserve (Ontario)

A study of **citizen participation in landscape management** in the **Georgian Bay Littoral Biosphere Reserve (est. 2004)** is examining how stakeholders (including citizens' groups, government agencies, First Nations communities, business and industry) interact to make collective decisions about sustainable development.



Photo: M. Muter

## Biosphere Reserves of Canada and Terrestrial Ecozones



Map: Wayne Roach

## Contacts

- The **Canadian National Committee for MAB (Canada MAB)** of the Canadian Commission for UNESCO ([www.unesco.ca](http://www.unesco.ca)) links to the international MAB Secretariat of UNESCO and coordinates the biosphere reserve program nationally.
- The **Canadian Biosphere Reserves Association (CBRA)** ([www.biosphere-canada.ca](http://www.biosphere-canada.ca)) provides national coordination, communication and fund-raising and supports international networking and exchanges for its member biosphere reserves.
- The **Canadian Network for Biosphere Reserve Research and Thinking (CanBRAT)** (<http://groups.yahoo.com/group/CanBRAT>) is a network of graduate students, researchers and undergraduates working on or in biosphere reserves in Canada and around the world.

*It is no longer adequate to simply mitigate environmental or social impact for economic benefit. A corporation has to prove it is leaving behind a visible and tangible improvement in the environment and in the social fabric of the community.*

– Alan Kreisberg, President, Western North America Lafarge Construction Materials