



THE BLUE HERON

The Bras d'Or Stewardship Society

P.O. Box 158, Baddeck, Nova Scotia B0E 1B0

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NO. I

The Blue Wildebeest gives birth to an offspring that can, on average, stand after six minutes. Thirty minutes later, it is able to walk and follow its mother; and before the end of the day, it can outrun a man. Life on our planet is a balance between nature and nurture and humans are sure to be at the top of the list when it comes to nurture.

We see a hint here: our Bras d'Or Stewardship Society (BSS) was nearly dissolved, but among the remaining members we found four new members to revive the society, a rebirth of a sort, and now we must get up and run. It is with the assurance that the old Board Members will "nurture" the new ones with their wisdom and expertise, and that we, in turn, will strive and fill the mandate that the society stands for: to Protect, Conserve, and Restore the Bras d'Or Lakes. Nurturing our Lake will never end.

It has been a worthwhile exercise for me to read previous newsletters and I had to choose among many excellent articles for this newsletter. We can all profit from revisiting them as this simple gesture will remind us that the environmental hurdles are always many and that our resolve must not weaken.

One article is from Rosemary Burns who has been a long time board member and who remains on our present board. The other from Pat Bates, our accomplished past chairman. Without realizing it, both articles, although from different optics, show the necessity of the government at all levels to become a stake holder, as much as the people it represents, but more than that, a stake holder who has the power to effect.

In the news section you will find a Cape Breton Post article that covers the Waycobah trout farming operation. A comment about this venture follows the article.

The last item could be the first one, because it isn't the least. It has to do with the Big Pond's Lochmore Harbour, a large barachois. A barachois is not something to be taken lightly and the Bras d'Or Lake is blessed with many of them. Their nature is synonymous to life generating waters, much like what estuaries accomplish, but on a smaller scale. Most have a river or stream feeding into it.

Both are delicate bodies of

water because that is where the action takes place, it is where juvenile species find nourishment and protection until they can successfully continue their lives in the wider waters. Destroy these and you will soon have a lifeless lake. However that is not the only aspect of the Big Pond Center community. There, a life style is also at risk where it is interwoven with the environment, such as organic farming to name one.

Again the environment is at odds with land development sponsored by business. The CBRM is facing opposition in the form of a sustained appeal to reverse the re-zoning for the Big Pond RV proposal which would allow a gargantuan park to take hold. The residents of Big Pond Center are not ready to be engulfed by the demands of the Sydney region which is desperate for tax revenue. Must we say more? The idea of recreation doesn't need to be bringing the city to the country where people have chosen to live away from the

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"Our goal
is to
protect,
conserve and
restore the
Bras d'Or Lakes"



city and have committed to longer hours of travel time for work and amenities. The RV park can find a place better suited for all, should it not...as Jim Crawford, a past board member said: "we should add to our mandate the word Respect."

P.S. Being a "not-for-profit" society, we were grateful for the use of the Red Islands' Firehall free of charge at our Board meeting this last July 29th.

Diane J. Sober

From My Window 1977-2012

Rosemary Burns

When we arrived in St. George's Channel in 1977 the road was unpaved, power lines ran through the woods and fields behind houses, there weren't any street lights, the Bras d'Or Lakes were crystal clear and boasted magnificent hues of blue and it froze solid every winter. I really laughed when the neighbours told me that, as I couldn't imagine such an expanse of salty water freezing, as I was accustomed to the Atlantic Ocean.

This blanket of ice suppressed mighty wave action whipped up by howling winds and thus helped to protect the shore line for several months of the year.

Slowly this began to change and for the past seven years there is little but slush ice in the St. George's Channel area of the

Bras d'Or Lakes during the winter. No more skidding or crossing to Widow Point (Inverness County) via the ice.

I have watched as the beautiful tree line on our beach (a popular eagle's perch) eroded from the year round wave action. Root systems weakened, the severe winds have upended all but two of twenty five trees.

While I lament the loss of my trees, neighbouring property owners purposely hew their trees for the view. Shades of blue have changed to shades of brown as construction of homes and roads, highway upgrades and shoreline erosion has created sediments which flow into the Bras d'Or Lakes.

We cannot control "Nature" but we can control the indiscriminate removal of trees near the shoreline via Zoning and Land Use By-Laws. Reports, studies and recommendations are not of much use if left to the discretion of the individual.

Regulations empowered with enforcement and consequences would surely bring about some change and help to stop further deterioration of the shoreline of this magnificent body of water, The Bras d'Or Lakes.

Talking Trees

*By Daisy Chung and
Ryan T. Williams*

Beneath a single patch of forest soil lies a vast interconnected web of life. Forest ecologist Suzanne Simard likens it to a kind of hidden intelligence.

By tracking specific chemicals, she and other scientists observed how trees in the Douglas fir forests of Canada "talk," forming underground symbiotic relationships-called mycorrhizae-with fungi to relay stress signals and share resources with one another.

1) Excess Production

Taller, older trees, called hub trees, often have more access to sunlight and produce more sugar through photosynthesis than they need.

2) Exchange of Goods

A mass of fungal threads, or mycelium, envelops the root tips of a hub tree, feeding it nutrients from the soil in exchange for sugar, which the fungus lacks.

3) Deep Connections

Weaker firs in the shaded understory tap into the network as it swells with resources. Firs can also share with other species, such as birch.

Warning Signs

Through the network, trees under stress can transfer resources, such as water, and can send chemical signals that trigger defensive mechanisms in other trees. Threats like insect infestation and drought are expected to increase as the climate changes. Fir trees infected with budworms send stress signals to nearby pines through the symbiotic fungal network.

Seasonal Partners

Deciduous paper birch and evergreen Douglas fir trade resources seasonally. In spring and fall, firs share sugar with leafless birches. In summer, birches return the favour to

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shaded firs.

Understory nursery

Douglas fir trees use the network to identify and nurture related seedlings.

Lost Connections

By sharing resources, networked

forests with healthy hub trees become more resilient. Researchers examined fungal DNA to map connections in a Canadian forest and found that the selective removal of hub trees, by loggers, for example, or from an insect invasion could

cause more connections to be lost than if trees were removed randomly. Clear-cutting would destroy all links...

National Geographic, June 2018, pp. 26,27.

To: NSUARB

From: Don Crosby, Chair, Bras d'Or Stewardship Society

Re: M08591

Date: June 11, 2018

The Bras d'Or Stewardship Society (BOSS) is a non-profit organization, established and incorporated in 1997 under the laws of Nova Scotia. BOSS is comprised of dedicated individuals committed to promoting accountable and responsible stewardship of the Bras d'Or Lake and its watershed. Our goal is to promote appropriate strategies for the conservation, restoration and protection of the lake as a pristine resource for present and future generations.

Our Society has serious concerns regarding the proposed placement of a large RV Park on the shore of Lochmore Harbour. Lochmore Harbour is an essential barachois connected to and feeding into the larger lake system. The Bras d'Or Lake and its watershed is a primary and essential resource for all of Cape Breton and deserves our protection.

The approval of the zoning amendment to permit this type of high-density development along the fragile marine ecosystem of Lochmore Harbour without an environmental impact assessment and associated mitigation measures is very disconcerting.

Cape Breton Regional Municipality (CBRM) is one of the four municipalities that border the Bras d'Or Lake. A planning strategy that does not consider the environmental impact with respect to zoning criteria and future development along the Bras d'Or Lake and its watershed is narrowly focused

on the present, without taking the future into account. Consultation and communication with all three levels of government, First Nations and stakeholders is paramount before making these development decisions. Clear direction and responsibility for enforcement and mitigation measures associated with the Bras d'Or Lake watershed development must also be established.

Environmentally irresponsible development decisions, such as this decision most assuredly is, could threaten the lifestyle and the livelihood of current and future generations. As well, a disregard for the environment will result in development that is not ecologically nor economically sustainable.

The Mayor, Councilors and planning department of CBRM should all consider themselves stewards of the environment when making development decisions along the Bras d'Or

Lake. This deliberation should result in revisions to our municipal planning strategy so that projects such as this would require a less casual process, including for instance, an intensive business plan that takes these and other concerns into consideration.

While the Province of Nova Scotia has primary jurisdictional responsibility for the environment in our province each of us as individuals must take a share in that responsibility. Therefore, the municipalities cannot shirk those responsibilities by hiding behind provincial or federal 'powers'. They, as we, have a critical role to safeguard such a sensitive ecosystem and this is what we are doing. The watershed of the Bras d'Or Lake is too important a resource to have environmental judgements made in municipal planning decisions without open communication between governments. We respectfully ask that you to consider these concerns in your decision.

Three Lakes And Three Lessons

By Pat Bates

The Bras d'Or Stewardship Society has been in business now for thirteen years and in our efforts to encourage protection of the Bras d'Or Lake and its watershed, we find it helpful to compare circumstances regarding the Bras d'Or with Lakes in other geographic regions. Among our principal interests are the state of the ecology of the various lakes and the systems of governance.

For our exercise, we chose Lake Winnipeg in Manitoba and Lake Champlain in New York State. The characteristics of each Lake are quite different but the experiences reflect lessons learned.

As a baseline, some physical characteristics are important. Lake Winnipeg has a watershed of 350,000 square miles, a length of 258 miles, a width variation of 258 miles, surface area of 9,465 miles and maximum depth of 118 feet with an average depth of 39 feet. The Lake drains north into the Nelson River and forms part of the larger Hudson Bay Watershed.

By comparison, Lake Champlain is located mainly in the northern part of New York State but bordering on a portion of the state of Vermont and on the Province of Quebec in Canada. Both Lakes Winnipeg and Champlain are fresh water lakes. The Champlain Basin rests between Canada and the United States. Its watershed or catchment area is 8,234 square miles; surface area is 440 square miles, an

average depth of 64 feet and a maximum depth of 4,000 feet.

The Bras d'Or Lake by comparison has a watershed of 3,589 square kilometers (1,386 square miles) and a total surface area of approximately 2,500 square kilometers (960 square miles). The Lake varies in depth of between 50 and 180 meters (165 and 600 feet). The Bras d'Or has a high level of salinity.

For a quick comparison, Lake Winnipeg is managed for the Manitoba Government by the Lake Winnipeg Stewardship Board. Establishment of the Board took place in 2003 and was one of a number of recommendations arising from the earlier commissioned Lake Winnipeg Action Plan. The principal thrust of the Board is to reduce the levels of phosphorus and nitrogen in the Lake to pre-1970 levels. The Government expanded the terms of reference for the Board in 2007 which has representatives from various interests including fishing, agriculture, urban land use, First Nations, federal and provincial and municipal governments and non-governmental organizations. The Board reports through the chair to the Minister of the Water Stewardship.

By comparison, Lake Champlain is governed and protected by a multi-governmental agency called "The Lake Champlain Basin Program (LCBP)." This program is administered jointly by several agencies: U.S. Environmental Protection Agency (New England and Region 2), New York State Dept. of Environmental Conservation, Vermont Agency of Natural Resources, Quebec Ministry of Environment, and

New England Interstate Water Pollution Control Commission.

Common to the three Lakes is the concern with sewage discharge, the pre-occupation with the run-off of high levels of phosphorus in some instances related to improperly performing sewage treatment plants and in other situations a direct result of run-off both nitrogen, phosphorus and other chemicals connected to the agriculture industry. The Bras d'Or Lake, while not free of total improper discharge of chemicals, is not as severely impacted as the other two. Lake Winnipeg has a high level of contamination which is the cause of dispute between economic sectors. The agriculture industry, featuring a high level of hog raising and grain farming and a contributor to the contamination, is at odds with the highly developed and important fresh water fishery. The value of the fishery is approaching \$30 million and is negatively affected by the significant discharge of chemicals. The Stewardship Board has established a mediation service to find a resolution to the current dispute between competing interests.

On balance, sewage and chemical discharge along with inadequate land development practices are the concern for ecological protection of each of these lakes. Measures to combat these problems are driven by the economic impact of contamination on each area and the commitment of the respective governments to act.

The governing operatives for each of the Lakes have some similar features but appear to

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be arrived at differently. For example, in Lakes Winnipeg and Champlain, it appears that several levels of government established the framework for management and governance and proceeded to invite stakeholders in. In the case of Bras d'Or, it appears that citizens (organizations) created the momentum for a more collaborative form of association and in a manner of speaking, invited governments in. Earlier attempts to have the Provincial Government approve a Bras d'Or Lake Management Commission failed. To state that the system of governance for any one Lake system is superior to the others would be difficult. But it does appear that in both instances, senior governments play a more influential role in setting priorities in Winnipeg and Champlain as opposed to Bras d'Or.

It might be useful to conduct a more comprehensive review of the management or governance arrangements of other Lake ecosystems. With regard to CEPI, the Collaborative Environmental Planning Initiative as applies to the Bras d'Or Lake, this is actually a planning group rather than governance mechanism. Significant information is available by Googling each of the Lakes by name.

Pat Bates. (Chairman 2010)

Waycobah Aquaculture

Waycobah's steelhead trout industry has received \$1 million in funding from the federal Atlantic Canada Opportunities Agency to help expand its operations. The First Nation band will use the money to buy cages, nets, moorings and a work barge, upgrade docks, perform electrical work and add a fish counter.

"We're two-thirds of where we want to be in terms of growing our fish and harvesting," Chief Rod Googoo said Friday. "This money is going to allow us to go to 100 per cent where we want to be."

The funding has been allocated through ACOA's business development program, which supports small and medium-sized business and not-for-profits. Waycobah will also invest \$750,000 of its own operating revenues into the project. As a result, it will be able to grow one million fingerlings per year.

This is the second time in several months that the Waycobah project has received federal dollars. In January, Ottawa delivered \$545,000 in grants to further develop the fish farm and upgrade its processing facility. According to Googoo, the latest funding allocation will create 10 new jobs with wide-reaching economic impacts.

"When you have that many people employed you can imagine the spin-offs to the neighbouring areas," said Googoo. "Everybody is now going out and buying cars or furniture, or stuff for kids. People have money now."

Waycobah and a partner originally launched themselves into the trout fishery in 2012.

Since taking sole ownership of the project three years ago, the band operation has grown from eight employees to 45. Googoo said helping their continued expansion is the recent purchase of a fish hatchery in Wolfville, which will allow it to manage all aspects of raising trout.

The band had considered building its own hatching facility but was concerned with the length of time it would take to get the project off the ground. Googoo said over the course of 2017 the band sold \$2.6 million worth of steelhead trout. That number is expected to increase to \$4 million by the year's end. Projected figures for 2019 show revenues increasing to \$15 million.

Googoo said their story is one of many reasons why Nova Scotia serves as an example of how First Nation communities and government can work together in a spirit of truth and reconciliation. "I think the rest of Canada should come down," he said "They can learn a lot from us."

In terms of selling the fish, Waycobah already has an agreement with Northern Harvest Sea Farm Ltd. for the purchase and marketing of all product harvested at the farm.

MP for Cape Breton-Canso Rodger Cuzner said the trout farm is a true success story. "They've sort of found a real niche," said Cuzner. "They're good at it, they're successful at it and this community has taken a great deal of pride in what they're able to do with the aquaculture sector."

According to government figures, last year there were 27 cages for market fish. That number is expected to increase to 92 cages over the next two years.

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From the *Cape Breton Post*
by Erin Pottie June 4th 2018.

The Economy vs the Environment

Producing food, providing employment, and looking after the environment is a huge task. It would not be so huge if it weren't that the conditions for a healthy environment often interfere with business. Balancing the books in order to make a profit while giving jobs is enough of a challenge and when a success story is the end result, there is reason to cheer.

However, the real cost is not always easy to estimate. That is when pondering about what is really happening to the environment comes to the surface. We cannot claim victory until we are sure that mother nature is satisfied. Neither can we sleep at night as long as there is the thought that some actions might not be reversible and that the real cost shows after the immediate profits.

In a recent article of the Cape Breton Post "Waycobah Trout" there is a concern about possible harm to wild fish passing by the caged fish because of the "occasional sea lice present". Fisheries director Phil Drinnan assures us that the lower than sea water salinity of the bay does not suit the lice to live there. So they drop off. We have to believe that they do completely.

Meanwhile, the accumulation of fecal matter might rather be the problem to worry about.

Drinnan presents the practice of keeping generations separate and allowing following of the local

sites as the way to keep a high quality environment and healthy fish stocks.

Having been a keen gardener all my life, I know that animal fertilizers (manure), and compost are the key to great crops (as long as the pH is right). In fact, if I could just get some of that "good stuff" from the bottom of the bay, it would surely enhance my vegetable patch. I can do crop rotation when my soil becomes depleted because it needs to be restored; but the aquaculture sites are not so easy to restore. In fact the reverse is happening and what is down there does not disappear as fast as it should because the water exchange is so very limited in that bay.

Perhaps the same venture would gain by setting up in a body of water that has more flow. Purchasing a fish hatchery in Wolfville was definitely a good move as the waters of Waycobah Bay might become unhealthy before long. Waycobah Aquaculture is a huge project and the inertia wheel might already have gained too much momentum to stop.

Diane J. Sober

The Bras d'Or Lake Watershed

The watershed of a body of water is perhaps better understood if we provide some visual help in the form of a drawing or a picture. It firms up

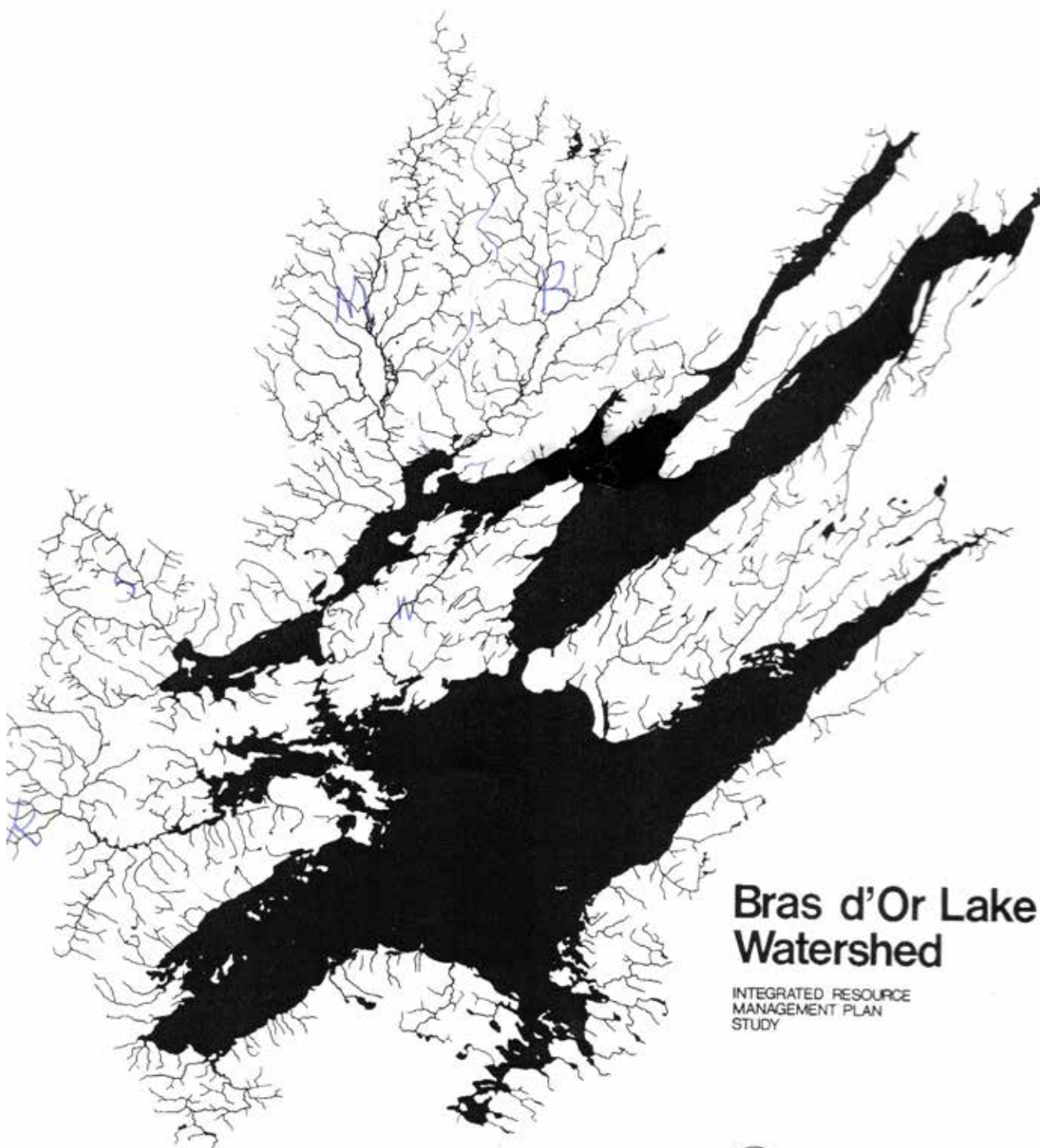
what we already know and surely brings more clarity. A stream's watershed might not be much of a challenge; a lake could require some deeper thinking; but for a body of water as complex as the Bras d'Or Lake, the task will send us seeking information.

Thanks to previous studies, we can usually find something that will satisfy our curiosity. The drawing on the following page stood out for me among many. Its myriad rivulets and rivers feeding bays, estuaries, and coves, are such that our Bras d'Or Lake feels alive and breathing. That mental picture must stay with us as we live our daily lives. Simple but powerful.

The UMA Group of Halifax, Nova Scotia, prepared for the Bras d'Or Institute such a picture in its work *The Bras d'Or Lake Watershed Integrated Resource Management Plan Study*, in 1990.

There it is in black and white! In black and white only...Wherever your home is on the Bras d'Or Lake, or in its watershed, you can study this map and try to place the approximate dot of your home. Likewise, a few important localities and the names of the major rivers could require a little time investment. The interests will be reaped later...

Although maps are more and more a thing of the past, a hard copy of a road map of Cape Breton Island makes a good companion, as one can "travel" between it and the watershed map to compare and ascertain.



Bras d'Or Lake Watershed

INTEGRATED RESOURCE
MANAGEMENT PLAN
STUDY



SCALE



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The Bras d'Or Stewardship Society

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Bras d'Or Watch

to report any observed acts, incidents and violations
that threaten the integrity of Bras d'Or Lakes please call
any of the directors listed above.

Our Email: www.brasdorstewardshipsociety.org

2018

BRAS D'OR STEWARDSHIP SOCIETY

MEMBER ☐ \$15.00
FAMILY ☐ \$25.00
CONTRIBUTOR ☐ \$50.00
SUPPORTER ☐ \$100.00
LIFETIME MEMBER ☐ \$500.00

☐ Yes, I am in favour of conserving and restoring the
Bras d'Or Lake and watershed through
responsible stewardship.

Name

Address

*Mail check or money order along with your name
and address to:*

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