

AIS WORKING GROUP BACKGROUNDER:



KEY INFORMATION ABOUT AQUATIC INVASIVE SPECIES (AIS) AND SPECIFICALLY MUSSELS

- These invasive species will certainly arrive in Saskatchewan if we don't stop them.
- If they become established in our waterways, the cost to our economy through interference with infrastructure will be very high. The province of Alberta estimates a potential \$75 million cost annually in its lakes and rivers.
- The cost to the ecosystem of affected lakes and rivers, and by extension to the tourism, fishing and recreational industries through lost and degraded habitat, will far exceed that.
- The cross-border transport of contaminated recreational boats (and industrial equipment) presents the most immediate risk.
- We don't need research and strategies at this point; there are a lot of data available and some tried-and-true strategies in other jurisdictions. We must understand that the research is conclusive, borrow strategies and working techniques from other parts of North America, and take action – now!
- Our province's recreational boaters and fishers, and the industries which support them, attach great value to our lakes and rivers. It is they who will be our front-line allies to stop zebra and quagga mussels before they ever get into our waterways.

WHY IS A BIOSPHERE RESERVE TAKING THE LEAD ON THIS INITIATIVE?

Expectations of biosphere reserves in Canada and throughout the world include striving for ecological, cultural and economic sustainability, and participating in research and education. Working with government and non-government organizations, including other biosphere reserves in the network, is what they do, especially when they identify threats to the ecosystem and to society.

The Redberry Lake Biosphere Reserve (RLBR) is one of 16 BRs in Canada and the only one in Saskatchewan. In Redberry's case, our core area is well-known as a saline lake – no game fish and therefore few boaters or cottagers. And, interestingly, there is no threat of zebra or quagga mussels to Redberry Lake itself because they do not survive in salt water. However, the RLBR has some freshwater fishing lakes within its zone of cooperation, and even at Redberry Lake itself there is a mandate to prevent the casual introduction of exotic species which may negatively impact the ecosystem. So there's more to Aquatic Invasive Species than mussels!

The two other biosphere reserves on the prairies also have large lakes – and very popular ones for boaters (Waterton Lake southwest of Calgary, and Clear Lake in Riding Mountain National Park). In Saskatchewan, Waskesiu Lake in Prince Albert National Park and Lake Diefenbaker southeast of Saskatoon are major destinations for visiting (and returning) boaters. And of course, it doesn't stop there; cross-border transport of these species put many of our otherwise pristine lakes at risk.

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WHAT ARE GOVERNMENT AND OTHER AGENCIES DOING?

The Federal Government:

The following is stated in *A Canadian Action Plan to Address the Threat of Aquatic Invasive Species*. Note that this statement refers broadly to AIS (Aquatic Invasive Species) because there are, indeed, other threats, such as Asian carp, snakeheads and of course a variety of invasive aquatic vegetation species. The federal document sets out a useful framework for dealing with invasive species from the federal perspective, examines legislation and regulation that is applicable to a variety of situations, and identifies that all levels of government and a variety of stakeholders will ultimately need to take responsibility within their jurisdictions:

“Not every part of the country experiences the same risk from AIS. The effects of specific pathways, and their associated risks, are greater in some regions than others. For example, the shipping pathway has resulted in the greatest number of established AIS in coastal provinces and those bordering the Great Lakes. The shipping pathway and ballast water management is the highest national priority for preventing new species from being introduced.

“Although the risk of introduction from the shipping pathway is less direct for Alberta and Saskatchewan, the spread of invasive species through recreational and commercial boating, inter- and intra-basin water transfers from neighbouring jurisdictions, and introductions from the aquarium trade are of greater concern. The flexibility to allow for regional and jurisdictional differences in priorities is an integral component of a Canadian AIS plan... in many cases, broad regulatory mechanisms already exist to control the intentional and unintentional introduction of AIS but where resources will come from and who will bear enforcement responsibility needs to be addressed. In order to be effective, legislation and regulations must be coordinated within and between governments.”

The Canadian Action Plan was prepared by the Canadian Council of Fisheries and Aquaculture Ministers Aquatic Invasive Species Task Group and published on the Fisheries and Oceans Canada website at (<http://www.dfo-mpo.gc.ca/science/enviro/ais-eae/plan/plan-eng.htm>).

The Saskatchewan Water Security Agency:

The Water Security Agency (WSA) website states that it is the provincial organization responsible for reviewing aquatic habitat alterations for the protection of aquatic ecosystems and human health in a way that balances social and economic development interests.

The Environmental Management and Protection Act (EMPA) and The Water Regulations define WSA's provincial authority for aquatic ecosystem protection and the broader aquatic habitat protection objectives that stem from it, such as protection of the bed, bank and boundary of Crown surface waters and the values entailed such as aquatic habitat, aquatic organisms, the water cycle, and shoreline stability.

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The Saskatchewan Ministry of Environment:

The Saskatchewan Ministry of Environment website clearly identifies the importance of stopping a number of invasive species on its website at:

<http://www.environment.gov.sk.ca/Default.aspx?DN=f261b408-d5e3-4a45-831a-c81e5d33a636>

The website does refer to zebra mussels, which are currently a potential threat from Manitoba, but does not at the moment address the issue of quagga mussels, which currently pose the greatest threat crossing our southern border. Saskatchewan government fisheries biologists, aquatic ecologists, and conservation officers are well positioned to be the front line of defense from a research and enforcement perspective.

The Saskatchewan Invasive Species Council:

According to its website, the Saskatchewan Invasive Species Council (SISC) is a not-for-profit association of professionals from federal, provincial, municipal governments, industry and non-government organizations. Council members are knowledgeable on invasive species or their management. The SISC was formed in 2008 to address the lack of coordination and understanding associated with invasive species within the province of Saskatchewan and across Canada.

This organization appears to be in its formative stage, but should be nonetheless in a position to provide technical advice and support to the AIS Working Group moving forward.

The AIS Working Group:

The AIS Working Group (AWG) has a limited mandate. It is neither a regulator nor an enforcer, and does not desire to be either. AWG's primary role is that of a communicator and coordinator, reaching out to engage the public, business, and non-government agencies to develop AIS action plans and to carry out appropriate solutions. We expect that this first initiative – engaging the boating and fishing public in a timely manner this summer (2014) – may well be followed by working to develop a more sophisticated action plan in cooperation with all stakeholder groups, which could include the agencies above as well as waterway research and management proponents, such as our colleagues at the Riding Mountain (Manitoba) and Waterton (Alberta) Biosphere Reserves, Prince Albert National Park, South Saskatchewan River Stewards, and the North Saskatchewan River Basin Council. Other organizations which might be involved include the Saskatchewan Conservation Data Centre and advocacy groups like Partners FOR the Saskatchewan River Basin and the Saskatchewan Wildlife Federation.

PLAN “A”

Immediately produce a simple hand-out for distribution to border crossing points, fishing outfitters and retail stores, boat dealers, parks and marinas. An initial distribution will be completed before the May long weekend (May 16, 2014).

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