



Manitoba Eco-Network Water Caucus Submission to Manitoba's Green Plan – Tomorrow Now – Section: Safeguarding our Water, Air and Land

We would like to thank Manitoba Conservation and Water Stewardship for the opportunity to provide input into the vital consultation process for Manitoba's new green plan Tomorrow Now.

LAKE WINNIPEG ACCORD

Manitoba will work to co-ordinate efforts and promote leadership to ensure the protection of Lake Winnipeg by establishing an accord to encourage co-operation on Lake Winnipeg and surrounding lake area. This will require a co-ordinated effort among the entire network of stakeholders including the general public and non-governmental organizations. Manitoba will explore and develop new mechanisms and tools for co-ordinating these helpful activities for everyone's benefit and ensure we are working in unison.

There is definitely need for coordination and timely, effective sharing of information. The massive challenges we face in turning around the growing problem of toxic algae blooms in Manitoba lakes calls for a new way of doing business together. One basic practice could be to have annual multi-stakeholder meetings to share data collected on water quality, information about any new regulatory developments and any new projects or initiatives being undertaken by ENGOs and government.

NEW PROTECTION FOR WETLANDS AND RIPARIAN AREAS

Wetlands are often referred to as “nature’s kidneys” because of their ability to filter pollutants and sediment out of water. They are also critical in flood control and act as carbon sinks in the fight against climate change, and as habitat for fish and wildlife. The province will develop a wetland strategy to protect prairie pothole wetlands and coastal marshes along Manitoba’s large lakes, as well as areas of marine coastline that provide important habitat for polar bears, caribou herds and beluga whales.

Manitoba will achieve the substantial restoration of the Delta and Netley-Libau marshes by 2020, and move ahead with the protection of significant wetlands under new powers in The Save Lake Winnipeg Act.

Wetlands on agricultural land have been drained largely because there are financial disincentives for landowners to maintain these lands in their natural state. Wetlands are taxed as part of the overall land holding and many producers see they need to gain revenue from wetlands by draining and cropping them. The current regulatory instruments and other non-regulatory programs do not appear to be adequately protecting wetland areas. The cost of preserving these wetlands needs to be shared more broadly throughout society as a whole. Wetlands serve important ecological functions, and more needs to be done to provide incentives to landowners and municipalities to preserve and protect wetlands from drainage. The Manitoba Government Wetland Restoration Incentive Programs has to go beyond restoration and include protection of wetlands. The Manitoba Eco-Network Water Caucus supports an ecological goods and service program that provides financial incentives to farmers and landowners to conserve wetlands on their land. The economic costs of wetland loss in south-west Manitoba in 2005 was valued at \$15 million per year and is increasing annually.

INTEGRATED WATERSHED MANAGEMENT PLANNING

Manitoba will work with conservation districts to emphasize public outreach and education, provide incentives to help reach their environmental priorities and develop and implement community-led plans for the future of land and water use at the local level. The implementation of integrated watershed management plans in all watersheds across agro-Manitoba will ensure co-ordinated action for reducing nutrient inputs to Lake Winnipeg, ensuring our water security for the future and providing ecosystem and community resilience to support climate change adaptation.

Integrated watershed management planning is critical to the protection of water quality and quantity, and the sustainable management of the many activities that occur on the landscape. It will be necessary for watershed management plans to reflect regional differences throughout Manitoba. However, policy direction from the Province must be clearly defined. Manitoba's Water Protection Act is intended to enable comprehensive watershed planning and ensure integration of the planning and regulatory framework within Manitoba. The Act states that the province of Manitoba is committed to watershed planning as an effective means of addressing risk to water resources and aquatic ecosystems, and believes that watershed residents should be consulted when watershed plans are being developed. Watershed management plans should be developed in concert with local people for all sub-watersheds within the Manitoba, and should address all water management issues within these watersheds. Progress is being made in planning in Manitoba, as many conservation districts are in the process of developing integrated watershed management plans for their districts. It is important for the Province to provide clear guidance with respect to water quality objectives for the watersheds to reach nutrient reduction targets. It is important that planning under both the Planning Act and integrated watershed planning under the Water Protection Act be harmonized across the province.

Manitoba Water Stewardship is working with local communities to establish watershed management districts within Manitoba. Those jurisdictions outside of Manitoba who share our watershed should be encouraged to participate in the development of watershed management plans. Watershed management districts should be established based on natural watershed boundaries rather than municipal boundaries. Watershed management districts should be responsible for managing all drainage issues within their jurisdictions, including in-field drainage activities and the drainage of natural wetlands. The Province of Manitoba should retain responsibility for issuing and enforcing permits for these projects. Watershed management plans need to be consistent with provincial water quality objectives.

NEW REGULATORY APPROACH TO DRAINAGE AND WATER RETENTION LICENSING

A new regulatory system will be developed so that several classes of drainage and water retention projects can be established through a regulation-based approach under The Water Rights Act, each with ascending requirements based on impact. The concept will include environmentally friendly design, construction and maintenance of drains, protection of wetlands, and development of conservation district-based surface water management or drainage plans.

Due to the relatively flat nature of much of the agricultural landscape in Manitoba, extensive drainage networks have been developed over the decades to enhance agricultural productivity by removing excess amounts of water from spring snowmelt and heavy rains.

Strategies must be developed to ensure that water drained from agricultural land does not flow at rates which impose environmental risks to downstream waterways, while allowing the system to continue serving agricultural needs. Research has shown that allowing water to slow down by using retention basins means that substantial amounts of nutrients can be removed before reaching lakes or rivers. The review of agricultural drainage networks should explore the feasibility of reducing the velocity of flow in agricultural drains through nutrient traps or settling basins along the drains. Consideration should be given to retention basins along surface drains, particularly where irrigation is important.

LAKE FRIENDLY CAMPAIGN

The Lake Friendly products campaign was started in 2009 by the South Basin mayors and reeves with the support of the Manitoba government, and has since achieved broad-based success in the public and private sectors, and the community at large. The province will expand the adoption of lake-friendly products to additional government buildings and the provincial park system, as well as, enhance efforts to foster lake-friendly cities and towns by working with the Association of Manitoba Municipalities and the Lake Friendly campaign, to promote innovative approaches to reducing the impact of urban centres on our lakes and rivers.

We support the expansion of the Lake Friendly Program. It is an excellent tool to educate the public about how our actions can change to decrease water quality problems. It provides easy to understand information to the public about how our daily choices can make a difference.

AGRICULTURAL INDUSTRY-LED SOLUTIONS

The province will work with the agricultural industry to further foster green leadership in the industry by incenting the acquisition of new technologies to manage manure responsibly through the new Nutrient Management Tax Credit, and by building lake-friendly practices such as reduced animal contact with waterways into farm practice guidelines for different commodity groups.

Allowing livestock direct access to streams and other water bodies results in the direct deposition of manure and related nutrients into the water. Moreover, when shoreline vegetation is trampled, slumping of banks is increased, and erosion of nutrients from the shoreline into the watercourse occurs. Controlled livestock access to riparian zones allows the natural vegetation to stabilize the shoreline and reduce erosion. Financial and educational programs are available to producers to provide alternatives for livestock using streams, rivers, lakes, and potholes as watering sources. Livestock producers should be encouraged

through enhanced incentives, education, and when required, regulations to implement measures to protect riparian areas and waterways, such as managing livestock access in riparian areas and providing off-site watering structures. Although there are a variety of funding programs available, compared to the cost of implementation of best management practices, the financial incentives to do so are often small. Where excess nutrients are being generated, the Province of Manitoba should work with private industry to develop practical options for treating manure. Drainage from confined livestock areas should be directed to retention basins, grassed buffer strips, or constructed wetlands, or other generally recommended nutrient reduction practices should be employed.

URBAN SOLUTIONS TO WASTEWATER EFFLUENT IMPROVEMENTS

Working with major towns and cities, the province will facilitate the development of implementation strategies to upgrade infrastructure to meet newly enacted water quality legislation. Along with other initiatives, this will ensure Manitoba remains a leader in protecting the valuable Lake Winnipeg resource.

NORTHERN WATER INFRASTRUCTURE

The province will work with the federal government to ensure wastewater funding, a municipal priority, is a focus of federal infrastructure funding. Manitoba will place a heavy focus on nutrient reduction in the funding of wastewater plant upgrades and encourage regional planning and co-operation in wastewater management. Manitoba Aboriginal and Northern Affairs will work with Northern Affairs communities to ensure that substantial infrastructure renewal is achieved by 2020.

Water conservation and waste water treatment should be encouraged by employing the principles of user-pay and true-cost accounting. In this manner, the actual cost of providing water and wastewater treatment services may be recovered. The Province of Manitoba should ensure that all Manitobans are served by wastewater treatment that safeguard human health and water quality. Manitobans should pay the true cost of the operation and maintenance of the systems required to provide the water they consume, and the true cost of the services required to adequately treat wastewater. The Province of Manitoba should negotiate predictable funding agreements with municipal and federal governments for wastewater treatment infrastructure, for municipalities to undertake the necessary work to ensure adequate nutrient removal. Over the long-term, utilities need to implement full-cost recovery funding models that cover complete life cycle costs. The Province of Manitoba should continue to require that nutrient reductions be implemented as quickly as possible at the large municipal and industrial wastewater treatment facilities in the cities of Winnipeg, Portage la Prairie, and Brandon. Nutrient reduction strategies for large facilities, such as

biological nutrient removal, chemical treatment, effluent irrigation, constructed wetlands, and other proven technologies, need to be evaluated for their effectiveness and practicality given Manitoba conditions and economic circumstances. Small municipal and smaller industrial facilities should meet the same standard of phosphorus removal as large municipal and industrial facilities. Reducing nitrogen discharges from these facilities may also receive consideration should it be determined that further nitrogen removal is necessary for the health of our watersheds and lakes. Source control pollution prevention plans should also be implemented as measures to reduce nutrient input. The Province of Manitoba must finalize its Nutrient Management Strategy, developing a comprehensive prioritized plan for nutrient abatement for all wastewater treatment facilities in Manitoba watersheds.

New subdivisions, including new provincial cottage lots, need to have the costs of infrastructure considered in the lot costs. Regionalization of wastewater treatment provides opportunities for communities to implement more advanced technologies at lower costs relative to meeting more advanced technologies at lower costs relative to meeting these needs on an individual basis. The Province of Manitoba should do more to curb suburban expansion and to promote and facilitate regionalization of wastewater treatment systems.

Given the federal government's clearly defined responsibility to address issues of concern for the country's First Nations peoples, the federal government must immediately address water quality crises in these communities. Ensuring safe drinking water in rural areas falls under provincial jurisdiction. Provinces should provide funding and technical resources for oversight of water and wastewater treatment facilities, surface and groundwater monitoring of drinking water quality and public reporting of testing results.

MINING AND PETROLEUM GREEN SOLUTIONS

Manitoba's legislative framework for mining and petroleum development is designed to protect surface and groundwater sources and promote sustainable development. Within this framework the province will support Manitoba's mining and petroleum industries which are developing green solutions for mine tailings and water management, recycling processed water, reducing water consumption, energy usage and greenhouse gas emissions.

As for peat mining on the shores of Lake Winnipeg, the Manitoba government passed the Save Lake Winnipeg Act in June 2011. We support the phasing out of peat mining in Manitoba, given that Peatlands cannot be restored for hundreds, even thousands of years. Instead of peat mining, we support the development of alternative industries which use renewable resources like compost and manure to develop products to replace peat. If we are serious in Manitoba about decreasing our GHG and about restoring the health of Lake Winnipeg, we need to develop alternatives to peat mining.

The Province of Manitoba should prohibit mining companies from dumping toxins into natural bodies of fresh water. The practice of dumping toxic mining waste into a lake effectively kills the body of water and all living things in it. The lake cannot be reclaimed 10 or 15 years later after the mining company has packed up and left; it will stay contaminated for decades. The contamination cannot be isolated and contained. Lakes and rivers are part of a larger watershed and are connected through groundwater and a network of tributaries. What affects one body of water threatens all other bodies of water within the larger system. There are alternatives for mining companies to dispose their waste. These alternatives may cost mining corporations more money, but the environmental cost of permanently destroying healthy freshwater lakes across Manitoba would be much higher.

DROUGHT MANAGEMENT PLAN FOR MANITOBA

Droughts can occur over the short-, medium- and long-term on a local or regional basis and can significantly affect the economy, people and the environment. Recent climate change work predicts that droughts will occur more frequently and could contribute to water shortages on the prairies. Manitoba is committed to the development of a comprehensive, science-based drought management plan for the province. The plan will include Manitoba-based drought indicators and regular watershed-based reporting and apportionment.

Wetlands such as marshes, bogs, swamps and fens are essential for a number of environmental services including: flood and drought prevention, storing carbon to prevent global climate change, water purification, protection for lakes and rivers from contamination by excess nutrients, and helping to replace groundwater. Wetlands are also important as habitat for countless species. Wetlands keep water on the land for longer periods of time, keeping drought at bay and floodwaters out of the main stream and river channels of watersheds. Manitobans know well the difficulty and costs of flood control. Wetlands provide this important service free of charge, at a scale that no human-made infrastructure could match. Without wetlands, southern Manitoba's costly floods of 1997, and 2009, and 2011 would have been much worse. Indeed, the loss of our wetlands in recent decades is a contributing factor to many large flood events in this province. Hundreds of billions of tonnes of carbon are also stored in wetlands, slowing the effects of global warming. Over the centuries, as plant matter has decayed, it has accumulated in swamps, marshes, fens and bogs. The high water table prevents oxidation, so instead of being released as carbon dioxide, it is stored as peat or soil. Globally, there is as much carbon dioxide held in wetlands as there is in the atmosphere. When a wetland is drained, much of the stored carbon is released, accelerating climate change. For the Prairies, global warming will mean increased severity of drought and flood events, so wetland protection is key to adaptation. We recommend that Province of Manitoba implements a wetland preservation incentive which reflects the true value of ecological services. Furthermore, significant water savings can be achieved by

maximizing the productivity of existing infrastructure and water takings through integrating water efficient technologies, conservation-oriented water fees, and public education. For example, in key industries such as the agricultural sector and hydro, funding currently directed at expanding infrastructure such as drainage, dams and pipelines should be shifted. The Province could instead finance studies and implementation of innovative demand management techniques such as energy conservation, water scheduling, efficient end-use technologies, public education, reducing losses in conveyance systems, water reuse and recycling and exploring into the limited and carefully planned use of off-stream storage.

NEW WATER CONSERVATION STRATEGY

Manitoba's WaterSmart initiative has significantly reduced water consumption by getting low-flow fixtures such as toilets and showerheads into Manitoba homes, and the Water Soft Path work is an innovative approach to community demand side-water management. The province, as a WaterSense partner, supports testing and labelling of products so consumers can make informed decisions about an appliance's water consumption and their water cost savings. Manitoba will build on this momentum and launch a strong and proactive water conservation plan that includes conservation targets, public education, building code changes encouraging grey water systems, and best land use practices, as well as, the potential for further regulatory steps to support individual and local action on water efficiency.

Reducing and better managing demand is widely recognized as the best means of finding 'new' water for community and economic development. Not only are comprehensive and long-term water conservation and efficiency strategies often cheaper than developing new sources of supply, but such strategies can be implemented quickly and incrementally as a response to changing water availability and with far less damage to aquatic ecosystems. A new water conservation strategy needs to integrate 'full-cost accounting' in our water use. We need to holistically integrate water use accounting and policies. True water conservation must unify thinking about the water we see in our houses and the water we do not see. Only then can we really get control of per-house/per-capita water use. Fees for water services in Canada are among the lowest in the industrialized world. The OECD (1999) has gone so far as to call Canadian water "cheaper as dirt." Typically, our fees do not reflect environmental costs and, in many cases, do not even cover the full financial costs associated with developing, treating and distributing water and administering water management programs. Although "full costs" are ultimately paid one way or another (generally through the tax system), shifting more of the costs into water fees encourages conservation by revealing the cost to users. The problem is not only fees, but also with rate structures. Under flat-rate structures, it has been identified that users consume significantly more than if they pay by the volume they use. Block rate structures where consumers are metered for water use and

charged at an exponentially increasing rate as consumption increases foster conservation habits.

The provincial government must make the shift toward demand management, improve efficiency of water use and conserving scarce supplies – rather than on expanding supply-side infrastructure to increase water use. By simply reducing water demand by implementing currently available and affordable technologies, it has been estimated that total urban water use could be reduced by as much as thirty percent. Current building code standards often deter a water conservation agenda instead of promoting best practices. Building codes should be altered to reflect the best new technologies in water conservation, including the encouragement of water re-use technology and rainwater recycling for yard maintenance. Further, policy-makers should legislate water use standards in dishwashers, washing machines, hot-water heaters, faucets and toilets.

Municipal, agricultural and industrial operations should be required to create and implement comprehensive water efficiency plans that include hard targets reflecting best practices for their sector and clear timelines for implementation. The provincial government should enforce such requirements by making infrastructure grants and applications for water licenses contingent on the preparation and implementation of these plans.

A shift from large, centralized treatment and distribution systems needs further exploration, emphasizing local place-based water systems that use technology appropriate to the local land and water carrying capacity. Research on solid waste management strategies that do not require water is necessary.

IMPROVED DRINKING WATER SAFETY

Access to safe, quality drinking water is something every Manitoban deserves. The Office of Drinking Water will be expanded to regulate semi-public systems across the province. Ensuring safe drinking water for Manitobans also requires integrated watershed management planning, and this will be an important element of the province's broad Surface Water Management Strategy. Manitoba will work with system owners on compliance with stronger standards while continuing to lobby the federal government for national recognition of the right to clean drinking water. Manitoba will also work with the federal government on national water and wastewater standards.

The Province of Manitoba must strengthen and build on existing efforts to secure safe drinking water by addressing gaps and making improvements in order to fully implement multi-barrier approaches to safe drinking water. Experts universally agree that a multi-barrier approach is necessary for comprehensive drinking water protection. Manitoba is making progress, however, some important gaps remain, including treatment standards,

contaminant standards and testing. A multi-barrier approach addresses threats to water quality all the way from source to tap and back to source. It is necessary to secure safe, reliable drinking water. A multi-barrier approach can be thought of as having three main components. 1. Keeping water sources clean – protecting watersheds, rivers, and aquifers that are the source of our water. 2. Effective water treatment – robust water treatment to remove pathogens, 3. Ensuring it's clean- continual testing and monitoring.

Local enforcement of standards should be encouraged with adequate resourcing to ensure adequate monitoring and reporting to residents, provinces and federal government. In addition to municipal drinking water standards, the Province of Manitoba should roll out safe drinking water education programs for rural and remote communities to inform on the risks and uncertainties that exist in many rural and groundwater drinking water supplies. Sufficient training of water management staff is necessary, especially in these areas. Well-monitoring and reporting programs ensure safety for residents who rely on well water.

CLEAN AND SAFER BEACHES

Manitoba has successfully launched a clean beach program to monitor beach quality, and a beach safety program to provide safety information to the thousands of families who enjoy Manitoba's beaches every year. As proof of our vigilance on beach health and safety, the province received Blue Flag recognition for Grand Beach, a world-class beach, that has met international standards for water quality, education, safety and environmental management. Manitoba will further pursue such recognition.

The Manitoba Eco-Network Water Caucus supports the Blue Flag program for beaches and marinas as an indication of their high environmental and quality standards. We encourage the Province of Manitoba to keep working towards sustainable development of beaches and marinas through strict criteria dealing with water quality, environmental education and information, environmental management, and safety and other services.

Thank you.
Sincerely,

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