

LAKE FRIENDLY

CERTIFICATION PROGRAM

Actions for Schools: Edition 1.0
+ DO WHAT MATTERS



FOREWORD

What has become evident today is that we have begun to undermine the planetary conditions upon which we depend for the stability of the environment and the economy that are the foundation of our prosperity. Nine Earth system boundaries have been identified as critical, in that the extent they are not crossed marks the safe zone.

It has taken us generations to create the sustainability challenges we now face for ourselves in Canada and globally; and it will require generations to solve these problems. We cannot succeed in achieving meaningful levels of sustainability and resilience without education. In education there is hope. As my grade 12 biology teacher, Mr. Berndt, once told me: if you want to solve ecological issues, search for the threads that connect them. Of the nine planetary boundaries that have been identified, water is implicated directly or indirectly in seven. It has become clear that to successfully address sustainability issues in Manitoba - or anywhere else in the world for that matter - a good place to start is with something we all agree none of us can live without: water.

The Lake Friendly for Schools Certification Program will help teachers and students at all levels to understand and passionately share an informed perspective of what we need to learn in order to treat water in ways that will allow us to give sustainability and resilience greater meaning and more enduring value in the context of where and how we live in a changing Canada.

We are asking each student to adopt a perspective of hope and embrace the motivation to apply these principles to whatever personal role they envision for themselves and their future.

I hope that this program will help today's teachers be remembered - as my teachers are - not just for their wisdom, enthusiasm and example - but for the enduring way in which their values continue to positively inform the world view of every student whose lives they touched, now and long into the future.

Bob Sandford, EPCOR Chair, Water Security
United Nations University, Institute for Water,
Environment and Health

“It has become clear that to successfully address sustainability issues in Manitoba – or anywhere else in the world for that matter – a good place to start is with something we all agree none of us can live without: water.”

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INTRODUCTION

EDUCATION TOWARDS ACTION: PROTECTING OUR WATERSHED

As Manitobans, we have a special connection to water. Water provides for our survival: for food and drink, for transportation and recreation, and for our terrestrial ecosystems. Water maintains our ecosystem health, acts as a receiving body for wastewater and surface water, and maintains our economic prosperity.

Unfortunately, many of our activities have a negative effect on water. In Manitoba, as in many other parts of the world, we are experiencing unprecedented water-related challenges and we see these manifest themselves in our water systems in a variety of ways. If we want to protect and restore the health of our rivers, lakes and streams we all need to take responsibility, to understand, to teach and lead by example. To protect water locally and globally, we must all do our part.

Education forms the basis for positive change within our society. Curricula in our school systems enhance awareness of water-related issues and informs to create change in our next generation, affecting parents and society over the long term. One role of education is to incite action from students, teachers, school administrations and governing bodies – the goal of the Lake Friendly for Schools Certification Program is to do just that.

This certification outlines the actions needed across school systems to make a real difference to our waterways. These actions are consistent with the expectations of the [Lake Friendly Accord](#). Schools and school divisions are encouraged to use the Lake Friendly for Schools Certification Program as a guiding document in the commitment to signing the Lake Friendly Accord and to taking action. More information can be found at lakefriendly.ca.

ABOUT THE LAKE FRIENDLY FOR SCHOOLS CERTIFICATION PROGRAM

The Lake Friendly for Schools Certification Program is a form of voluntary compliance to a predefined set of processes, objectives or standards. Many companies, individuals or other entities are motivated to implement a certification program to show their commitment to an issue and enhance the image or profile of their organization and their positive practices. This process of achieving certification for practices that restore and protect our water and ecosystems will enhance our quality of life now and in the future by adding a layer of accountability and integrity to the school's sustainability efforts.

Schools that achieve Lake Friendly Certification will receive a certificate outlining their achievements, as well as the use of the Lake Friendly Certified logos which can be applied and promoted through signage, social media, advertising, on letterhead and other stationery to show certification accomplishment. As the Lake Friendly Program gains momentum and public support, certified organizations can build affinity in their communities for their demonstrated leadership and stewardship of the environment.

HOW THE LAKE FRIENDLY FOR SCHOOLS CERTIFICATION PROGRAM WORKS

This certification program allows individual schools or entire school divisions an opportunity to voluntarily comply with a set of defined actions within seven different categories. Through these actions the applicant will demonstrate their commitment to protecting water, by reducing consumption, protecting ecosystems, reducing greenhouse gas emissions, and building resiliency. The categories are:

1. **Climate Change and the Water Cycle**
2. **Surface Water**
3. **Wastewater**
4. **Water Conservation**
5. **Sustainable School Landscapes**
6. **Sustainable Procurement**
7. **Waste Minimization and Management**

Each of the seven categories are divided into actions that can be taken within each of four different target areas of influence. These target areas are:

1. **SCHOOL BOARDS** who foster inspiration ensuring policies, practices and budgets are in place to save our water for future generations.
2. **ADMINISTRATION** that demonstrate leadership ensuring the staff responsible for the day to day operations and maintenance of the school embrace water programs, policy and procedures that advance efficiency, support student teaching and help achieve Lake Friendly certification.
3. **EDUCATORS** who inspire leadership in action by embracing the potential for change and educating on the local and global water issues facing us today.
4. **STUDENTS** who act upon our collective future by using ecological literacy as a framework for their actions and decisions.

GETTING CERTIFIED

Certification is granted on different levels based on the extent of action taken. The school and/or school division is required to apply and self-report their current and planned actions in each of the seven categories and in each of the target areas. Using a point allocation system, the certifiers will assess the level of commitment and action to provide the School or School Division with a certificate outlining the certification level achieved and instructions on how to use the certification logo on signage, letterhead, etc. Depending on the level of action taken, up to a total of 20 points per category can be achieved for a maximum of 140 points.

+	Entry Blue Ready:	50 - 70 POINTS
+	Standard Blue Certified:	71 - 95 POINTS
+	True Blue Certified:	96 - 110 POINTS
+	Pure Blue Certified:	111 - 140 POINTS

This certification program is based on a continuous improvement model which means that as a School and/or School Division advances their actions within the target areas, they can submit documentation to achieve a higher level of certification.

EDUCATORS MUST COMPLETE THE SELF-CERTIFICATION CHECKLIST A MINIMUM OF EVERY THREE YEARS TO MAINTAIN THEIR CERTIFICATION AND THE USE OF THE CERTIFICATION LOGO. TO GET STARTED ON THIS PROCESS AND GET YOUR COPY OF THE CHECKLIST VISIT [LAKEFRIENDLY.CA](https://lakefriendly.ca).

LAKE FRIENDLY

ENTRY BLUE READY

1

50 - 70 pts.

LAKE FRIENDLY

STANDARD BLUE CERTIFIED

2

71 - 95 pts.

LAKE FRIENDLY

TRUE BLUE CERTIFIED

3

96 - 110 pts.

LAKE FRIENDLY

PURE BLUE CERTIFIED

4

111 - 140 pts.

WHO ARE THE CERTIFIERS?

Lake Friendly formed a working group of experts from across various sectors within Manitoba, including: municipal officials, the International Institute for Sustainable Development, Manitoba Education and Advanced Learning, landscape architects, Conservation Districts, agriculture business and environmental interests to develop the certification process. This multi-faceted working group will collaboratively review the actions identified on the checklist and evaluate applications for certification to determine the level of certification achieved by the applicant.

THE CERTIFICATION CHECKLIST

A certification checklist has been designed to help both educators and certifiers with their evaluation of school actions to determine if actions required for the Lake Friendly for Schools Certification Program have been met. Additional documentation (such as budgets, relevant receipts, pictures, etc.) should be provided to support the application. The Lake Friendly for Schools Certification checklist can be accessed at lakefriendly.ca.

EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD)

Manitoba Education and Advanced Learning is encouraging all schools to have ESD school plans using the whole school approach outlined in the Guide for Sustainable Schools in Manitoba (edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf) A whole school approach refers to the infusion of sustainability across the curriculum (e.g. teaching, learning), through facilities and operations (e.g. reducing its ecological footprint), in its capacity building efforts (e.g. providing training to staff), governance (e.g. sustainable school plans and policies) and through partnerships (e.g. reaching out to the community). A whole-school approach means that the strategy of the school, and ultimately its culture, is oriented towards sustainable development. The format of the Lake Friendly for Schools Certification Program can be embedded in the ESD school plan as it incorporates the consistent overarching goals found in an ESD school plan.

EDUCATION FOR SUSTAINABILITY RELATED LINKS

1. Lake Friendly Priorities for Action Document:

lakefriendly.ca/#!/priorities-for-action/cpsxy

2. Guide for Sustainable Schools in Manitoba:

edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf

3. Transforming Our World: The 2030 Agenda for Sustainable Development

sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

4. Ecological Literacy:

edu.gov.mb.ca/k12/cur/socstud/global_issues/ecological_literacy.pdf

5. Citizenship as a Core Concept:

edu.gov.mb.ca/k12/cur/socstud/global_issues/core_concepts.pdf

6. Take Action – Praxis:

edu.gov.mb.ca/k12/cur/socstud/global_issues/take_action.pdf

7. Incorporate communication through music at:

songsforteaching.com/store/nature-environment-and-ecology-songs-c-398.html

8. UNESCO Learning about Water - Multiple-Perspective Approaches at:

unesco.org/new/en/natural-sciences/environment/water/

9. Manitoba Grants for Education for Sustainable Development at:

edu.gov.mb.ca/k12/esd/grant/

10. Sustainability Policies at the School Division Level in Manitoba at:

iisd.org/pdf/2009/sd_policies_mb_school_division.pdf

11. Education for Sustainable Wellbeing Research Group at:

cmec.ca/Publications/Lists/Publications/Attachments/222/ESD-collaboration-action.pdf

12. Lake Winnipeg Resource Guide for Grade 12 Interdisciplinary Topics in Science:

edu.gov.mb.ca/k12/esd/lake_wpg/full_doc.pdf

13. The Climate Nexus: Water, Food, Energy and Biodiversity in a Changing World by Jon O’Riordan and Robert William Sandford

rmbooks.com/book_details.php?isbn_upc=9781771601429

13. Environment Canada: Teacher’s Corner

ec.gc.ca/meteoaloeil-skywatchers/default.asp?lang=En&n=6441E46B-1

14. UN and Climate Change:

un.org/climatechange/the-science/

15. Assignment: Earth assignmentearth.ca



CLIMATE CHANGE & THE WATER CYCLE

**“Water is the driving
force of all nature.”**

— Leonardo Da Vinci

INTENT

The flow of water through its various phases of the water cycle binds all the elements of our environment – the atmosphere, aquatic, terrestrial and underground. Human activities, including our use of fossil fuels contributing to climate change, are impacting the water cycle. As the atmosphere warms we are witnessing changes to the amount, timing, form, intensity of precipitation, the flow rate and quality of water in our watersheds. The intent of this category is to:

- + **Explore the water cycle and the natural and human activities that impact it.**
- + **Explore the changes to the atmosphere and oceans from carbon concentrations and the interactions this has on food, water and energy security.**
- + **Discuss adaptation strategies being used to manage the changes in the local and global water cycles.**
- + **Implement actions to reduce greenhouse gas emissions.**

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

CLIMATE CHANGE & THE WATER CYCLE RELATED LINKS

1. Climate Change Connection:

climatechangeconnection.org

2. Wetlands and Climate Change:

ducks.ca/our-work/wetlands/

3. International Institute for Sustainable Development & Climate Change:

climate-l.iisd.org

4. Prairie Climate Atlas:

climateatlas.ca

5. Manitoba Hydro Climate Change Report:

hydro.mb.ca/environment/pdf/climate_change_report_2014_15.pdf

6. Lake Friendly H2O IQ: h2oiq.ca

SCHOOL BOARDS - FOSTER INSPIRATION

- + Recognizing the link between the water cycle and climate change, the school division has or should develop a School Division Environmental Policy that outlines the role that both the division and the individual schools play in environmental management and managing water resources including their role in climate change mitigation, adaptation and resiliency building.
- + Allocate resources in the budgeting process to ensure schools operate in a manner that is congruent with the School Division Environmental Policy.
- + Ensure funds are allocated to continually improve school infrastructure, school operations and school ground maintenance to advance policy requirements.
- + Promote systemic environmental management by implementing water and energy audits throughout the division.
- + Ensure annual capital budgets reflect opportunities to advance renewable energy and reduction strategies as well as water management practices such as low flow toilets showers and faucets.
- + Create a master list or inventory of all climate change initiatives and activities taking place across the division.

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Maintain and continually improve programs and infrastructure within the school and school yard to reflect the vision and intent of the School Division Environmental Policy.
- + List climate change initiatives and activities currently in place at your school such as active safe routes to school, anti-idling campaigns, reduced paper consumption, energy conservation practices and water reduction strategies.
- + Monitor and manage building energy use by using Natural Resources, [Canada's Energy Star Portfolio Manager](#).
- + List and communicate upgrades and improvements to the school that are currently in place and are anticipated over the budget process.
- + Conduct and communicate in-house energy audits and determine consumption to identify opportunities to improve efficiencies. Audits should define payback periods for improvements and the ability to use the improvement to enhance classroom water education.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes at: edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf related to sustainability to connect to curriculum regarding:

- + The reduction of carbon output of the school by promoting anti-idling campaigns, active transportation options and assessing your use of consumables such as electricity, heat, paper, etc.
- + Exploring all aspects of the water cycle and the challenges and stresses on the water cycle related to a warming climate in Canada.
- + Understand global water needs related to drinking, sanitation, food production and economic development, and how climate change may affect these global needs.
- + Exploring global water scarcity and the consequences including trans-boundary water issues and gender and equality issues.
- + Highlight and learn about the features of the school that are in place or to be implemented to advance water protection and encourage environmentally-related behavioural changes.
- + Help develop a campaign to encourage environmental stewardship related to climate change across all areas.

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Record evidence that students are displaying the attitudes and values that promote sustainable behaviours and reduce their carbon footprint. Calculate your carbon footprint at: footprint.wwf.org.uk
- + Support and encourage school, home and community activities that shed light on climate change mitigation. More information available at: lakefriendly.ca/#!be-in-the-know/clcvy
- + Organize information sessions and activities on climate change and impacts. More information available at: climatechangeconnection.org/resources/climate-friendly-schools/
- + Make and share a list of all the energy saving strategies such as heating and cooling systems, timers, appliances and lighting to determine what type of energy is used and identify the source.



SURFACE WATER

**“It is life, I think, to watch the water.
A man can learn so many things.”**

— Nicholas Sparks

INTENT

Surface water refers to water that comes from rainfall or melting snow. Surface water that does not penetrate into the ground becomes surface runoff that travels along the land surface in the direction of a downward slope. As surface water runoff travels, it may cause erosion of the soil it passes over, picking up sediment, excess nutrients, and any pollutants that are present washing them into our lakes, rivers and streams. Since many of our lakes in Manitoba including Lake Winnipeg and Lake Manitoba are at the lowest point in a large drainage basin, water entering the lakes can come from Alberta, Saskatchewan, Ontario and four American states – an area of over 1 million square kilometres. The intent of this category is to show the benefits of strategies and practices that reduce the volume of surface runoff and decrease the speed of its flow.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

SURFACE WATER RELATED LINKS

- Lake Friendly: Do What Matters**
lakefriendly.ca/#lbe-in-the-know/clcvy
- Water on the land:**
lakewinnipegfoundation.org/keeping-water-land
- Lake Friendly-Do What Matters:**
lakefriendly.ca/#lbe-in-the-know/clcvy
- Fort Whyte Alive-Yellow Fish Road:**
fortwhyte.org/yellow-fish-road/
- Province of Manitoba Surface Water Management Strategy:**
gov.mb.ca/waterstewardship/questionnaires/surface_water_management/index.html
- Quest for Clean Shorelines:**
resources4rethinking.ca/en/resource/quest-for-clean-shorelines-elementarymiddle
resources4rethinking.ca/en/resource/quest-for-clean-shorelines-secondary
- Red River Basin Commission**
reddriverbasincommission.org
- Fertilizer Canada**
fertilizercanada.ca
- Big Beautiful Planet** [youtube.com/watch?v=Z23KEHEtOdE](https://www.youtube.com/watch?v=Z23KEHEtOdE)
- Lake Friendly H2O IQ:** h2oiq.ca

SCHOOL BOARDS - FOSTER INSPIRATION

- + Ensure the School Division Environmental Policy outlines an understanding of surface water management responsibilities and best practices.
- + Provide incentives, grant applications and funding to schools interested in modifying schoolyard landscapes that reduce surface water flow, reduce the speed of movement and enhance surface water re-use and infiltration. edu.gov.mb.ca/k12/esd/grant/
- + Review opportunities available in Requests for Proposals and Bid Documents for the incorporation and construction of wetlands and green infrastructure on existing school grounds to reduce runoff when planning new and renovating existing school grounds and systems. pembinatrails.ca/stavila/SchoolgroundGreeningProject/index.html

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Conduct an assessment to list improvements already made and determine opportunities to renovate and/or construct school yards to minimize impervious surfaces, capture surface water for re-use, protect catch basins from sediments and pollutants as well as enhance vegetation to reduce volume and flow.
- + Maintain and promote the use of schoolyard landscape features that minimize surface water impact and enhance the ecosystem.
- + Monitor runoff and map storm drains around the school.
- + Ensure manufacturer guidelines are followed for chemical and fertilizer use on sports fields, playgrounds and landscape.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes at: edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf related to sustainability to connect to curriculum regarding:

- + Learning about surface water and the pollution that it carries which harms our fish other aquatic life and the quality of water in our lakes, rivers and streams.
- + Information about point and non-point sources and the pollutants that are carried through our watershed and the consequences of the contaminants, pollutants and excess nutrients.
- + Explore urban and rural surface water management techniques and the impact of human activities.
- + Explore opportunities to connect organizations and departments that manage surface water with student activities and projects.

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Explore and map water movement in and off the schoolyard. Conduct a Yellow Fish Road™ project in your community to remind people and highlight the impacts of what they don't pick up or what they leave on the ground ends up in our surface water.
- + Explore and measure water movement at home and in the community. Work with local authorities to conduct measurements during snow melt events including flow volumes. Review samples and analysis of surface water samples taken within your municipality. Determine flow volumes and potential impacts to ecosystems.
dannyblair.uwinnipeg.ca/mnip/MNIPManualRevisedDecember2003.pdf
- + Take samples of water and look for biota that could be impacted by the pollutants in the water. Report your findings and recommendations to administration and the school board.



WASTEWATER

**“All water has a perfect memory
and is forever trying to get back
to where it was.”**

— Toni Morrison

INTENT

Wastewater is all the water used in our homes, businesses and schools that goes down sinks, toilets and drains and into the sewage collection system. The school's wastewater travels through the sewage collection system and into a wastewater treatment facility where it is treated and returned to the environment through lakes, rivers or streams. The intent of this category is to explore the different strategies used to clean wastewater before it is released back into receiving bodies of water and actions that can be taken to reduce the impact on the environment.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

WASTEWATER RELATED LINKS

1. Lake Friendly: Do What Matters

lakefriendly.ca/#!be-in-the-know/c1cvy

2. Canadian Waste and Wastewater Association:

cwwa.ca/home_e.asp

3. Combined Sewer Overflows:

winnipeg.ca/waterandwaste/sewage/combinedSewerOverflow.stm

4. How Wastewater is Cleaned:

steonline.org/circles/lessons/water/water_stinky-clean.html

5. Province of Manitoba:

gov.mb.ca/conservation/envprograms/wastewater/

6. ECOLOGO:

industries.ul.com/environment/certificationvalidation-marks/ecologo-product-certification

7. Its Easy Being Green:

musick8.com/html/current_tune.php?numbering=86&songorder=2

8. The Clean-up Kids:

youtube.com/watch?v=oY-H2WGThc8

9. Lake Friendly H2O IQ: h2oiq.ca


For more information visit LAKEFRIENDLY.CA



SCHOOL BOARDS - FOSTER INSPIRATION

- + Ensure the School Division Environmental Policy outlines an understanding of wastewater responsibilities and meet all provincial requirements.
- + Provide incentives, grants and budget resources for schools interested in modifying school infrastructure to enhance the management of greywater and wastewater.
- + Review the school and divisional wastewater treatment policies and develop best management practises for wastewater facilities in the division.
- + Visit and research best practices in schools across Canada related to waste treatment and ecosystem enhancement.

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Develop and communicate 'Down The Drain' guidelines to reduce the flow and contaminants from entering the wastewater system.
- + Clearly identify wastewater disposal policies and ensure that students and staff are adhering to them.
- + Conduct an assessment to list improvements already made and to determine opportunities to renovate or construct school infrastructure to manage greywater and reduce the volume and contaminants from entering the wastewater stream.
- + Ensure janitorial chemicals used to clean the schools are UL Ecologo or Green Seal certified. 
- + Ensure cafeteria frying oil is properly collected and recycled.
- + Ensure garburators are not used in school cafeterias.
- + Develop practices and procedures for disposal from lab drains.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf related to sustainability to connect to curriculum regarding:

- + Share information and educate on wastewater in general terms. What is it? How is it transported? How is it treated? Where does it go? What are the impacts?
- + Explore the various ways urban and rural wastewater is treated. Where does it go, and what are the implications of the various treatment methods?
- + Review provincial wastewater quality legislation and the variety of wastewater management practices municipalities follow to meet the legislative objectives including sludge management, nutrient reduction standards and septic field guidelines.
- + Explore how waste can be managed and what practices and problems are being faced in other parts of the world.

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Develop a wastewater “travel log” for all drains in the schools.
- + Take a trip to the local wastewater treatment facility and follow the treatment process out to the receiving stream documenting the ecosystem that may be directly effected.
- + Develop a campaign in the school to support “Down The Drain” guidelines to stop the use of sinks, labs, and toilet bowls as garbage cans. ciese.org/curriculum/drainproj/
- + Debate the pros and cons of the various wastewater treatment systems and practices, including the costs and benefits, health implications of the various practices and systems.
- + Start a composting program in the cafeteria to divert food waste from landfills and garburators.

WATER CONSERVATION

**“If there is magic on this planet,
it is contained in water.”**

— Loren Eiseley

INTENT

Schools use a tremendous amount of water. Water is used in restrooms, drinking fountains, faucets, locker rooms, cafeterias, laboratories, for heating and cooling systems, and for outdoor playing fields and landscapes. The intent of this category is to ensure schools are aware of the importance of water conservation, not only through education and classroom activities but by observing efficient water use practices throughout the school and grounds.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

WATER CONSERVATION RELATED LINKS

1. **Lake Friendly H2O IQ:**

h2oiq.ca

2. **Fort Whyte Alive:**

fortwhyte.org/foreducators/teacherpd/slowtheflow/

3. **Manitoba Hydro power and water saving kits:**

hydro.mb.ca/your_home/water_use/water_energy_saver_program/

4. **United Nations Water for Life:**

un.org/waterforlifedecade/

5. **RBC Blue Water Project:**

rbc.com/community-sustainability/environment/rbc-blue-water/index.html

6. **Manitoba Hydro Power Smart Water & Energy Saver Program**

hydro.mb.ca/your_home/water_use/water_energy_saver_program/

SCHOOL BOARDS - FOSTER INSPIRATION

- + Ensure the Divisional School Environmental Policy outlines an understanding of water conservation responsibilities.
- + Inventory all improvements made to school division offices and schools within the division to conserve water.
- + Conduct building water audits to determine opportunities to achieve significant cost and water savings associated with retrofit programs and new techniques.
- + Ensure capital budget is allocated and directed towards water conservation activities that have a reasonable payback period as identified in the water audits.
- + Ensure building upgrades in the division incorporate best practices in water conservation.
- + Consider hosting an innovative pilot project related to water management within the school division.

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Implement water saving initiatives as outlined through the water audits and as directed by the School Division Environmental Policy.
- + Develop a preventative maintenance program to ensure continual monitoring and repair of water leaks including faucets and toilets.
- + Monitor, manage and communicate water use using [Natural Resources Canada's Energy Star Portfolio Manager Program](#).
- + Explore ways to take advantage of the Manitoba Hydro Water Conservation Program and other related programs. hydro.mb.ca/your_home/water_use/water_energy_saver_program/
- + Reduce outdoor water use by maximizing natural vegetative cover. Maintain playing fields using drought-tolerant grasses.
- + Install rain barrels and other rain capture devices to support irrigation needs and to enhance learning opportunities.
- + Develop and communicate a water conservation program in the school.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the water education curriculum-linked resources related to sustainability including a review of Grade 8 and Current Topics Grade 11 courses connected to Lake Winnipeg to:

- + Explore water scarcity issues and the effects on our economy, our way of life and our ecosystem.
- + Explore trans-boundary water issues and water equality issues in the classroom related to flow and access.
- + Explore the quantity of water used for various aspects of human activity.
- + Assist students with any water measurement activities they would like to undertake and support their recommendations.
- + Review Lake Friendly's H2O IQ for water conservation and additional information.
- + Explore global water scarcity issues.

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Calculate your water footprint. See Water Footprint Network to evaluate water consumption and water used in production and evaluating water consumption. waterfootprint.org/en/resources/interactive-tools/personal-water-footprint-calculator/
- + Participate in a Caring for our Watersheds Program in your school. caringforourwatersheds.com/category/canada/manitoba/
- + Develop a campaign to support the schools' water conservation program.
- + Make a presentation to the school board on water conservation and the programs that need to be implemented across the division.

SUSTAINABLE SCHOOL LANDSCAPES



“We have hummingbirds, tons of bees, and many monarch butterflies. The kids love it! Though we’re very laissez-fair with the garden we never put chemicals on it or even water it much.”

— Katherine Center

INTENT

The intent of this category is to develop sustainable schoolyard landscapes where possible, to enhance ecosystem teachings and show the importance of proper water management and use related to landscape management. A sustainable schoolyard can provide hands-on opportunities to learn about plants and animals, the relationship between seasons, weather, the sun, earth, and the interrelationships between water and living things. A sustainable schoolyard is one that can include varied habitats such as a pond or water feature, a native garden, a food-system garden, solar panels, rainwater cisterns, a variety of accessible paths, a gathering place an outdoor classroom, seating areas for individuals or small groups, shaded areas, composting bins, creative features such as murals or mosaics, paving stones and other ecologically appropriate teaching tools as one or more of its components.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

SUSTAINABLE SCHOOL LANDSCAPES RELATED LINKS

1. Education for Sustainable Development Grants and Information:

edu.gov.mb.ca/k12/esd/grant/

2. Nature Play & Learning Places National Guidelines:

natureplayandlearningplaces.org/wp-content/uploads/2014/09/Nature-Play-Learning-Places_v1.2_Sept22.pdf

3. Naturescape for Educators – helping schools determine what they could incorporate outdoors: fortwhyte.org/foreducators/teacherpd/naturescape-for-educators/

4. Agriculture in the Classroom: aitc.mb.ca

5. Oak Hammock Marsh Caring for our Watersheds

oakhammockmarsh.ca/learn/caring-for-our-watersheds/

6. Rivers West Rain Gardens:

riverswest.ca/media/documents/Brochures/Rain-Garden.pdf

7. Fertilizer Canada: fertilizercanada.ca

SCHOOL BOARDS - FOSTER INSPIRATION

- + Inventory and assess all school landscapes including outdoor greening that is in place and planned in the division in the next five years.
- + Request all schools develop a 5-year sustainable schoolyard plan with emphasis on proper water management.
- + Provide budget for plan development and implementation over the 5-year period.
- + Ensure all new schools built within the division incorporate sustainable schoolyard landscapes as part of the overall Request for Proposals and Bid Documents.
- + Ensure the School Division Environmental Policy outlines the creation, maintenance and management of sustainable landscapes in the division.

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Develop a 5-year sustainable schoolyard plan with specific goals for the school and larger community incorporating installations that teach proper water management and use.
- + Implement and maintain the landscape and installations as they were intended and as per the School Division Environmental Policy.
- + Research and access grants that could be used to support sustainable landscapes from various sources.
- + Contact schools who have already implemented sustainable schoolyards initiatives to provide input and information that can support your project.
- + Ensure staff and contractors are installing sustainable school landscapes as they are designed.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf or specific subject curriculum related to sustainability:

- + Plan a field trip to visit other schools that have implemented a sustainable schoolyard landscapes. pembinatrails.ca/stavila/SchoolgroundGreeningProject/index.html
 - + Initiate art projects that connect nature and habitat creation while exploring learning and traditional gardens and the use of outdoor classrooms.
 - + Review the City of Edmonton's urban storm-water management lessons at Treat it Right! edmonton.ca/programs_services/for_schools_students_teachers/treat-it-right-video.aspx
 - + Invite a landscape architect to your class to explore the importance of landscapes in water management and climate change mitigation strategies.
-

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Research and explore rain gardens and how their construction can alleviate stresses put on the environment by impervious surfaces.
- + Campaign for a sustainable school yard landscape.
- + Work with a landscape architect to explore a project for your school and present plans to an administrator and the school board.



SUSTAINABLE PROCUREMENT

**“No water, no life.
No blue, no green.”**

— Sylvia Earle

INTENT

Purchasing goods and services that reduce negative impacts or create positive impacts can have a profound effect on local and global water resources. This category is intended to highlight the connection between water issues associated with the goods and services we purchase, and opportunities to make better purchasing decisions. Sustainable procurement aims to reduce the adverse environmental, social and economic impacts of products and services throughout a products' life cycle. Examples of environmental, social and economic impacts that will be explored are:

- + The use of natural resources, energy and water in the manufacture, use and disposal of goods and services.
- + Pollution produced from the manufacture, transportation, use, and disposal of goods.
- + Costs of operation and maintenance over the life cycle of products.
- + Labour conditions in the manufacture, use and disposal of goods or delivery of services; and what the consequences of this are and what alternatives exist.
- + Loss of natural habitats flora and fauna resulting from the removal or alteration of natural resources.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

SUSTAINABLE PROCUREMENT RELATED LINKS

1. The Story of Stuff - Bottled Water:

storyofstuff.org/movies/story-of-bottled-water/

2. National Geographic video - How your T-shirt can make a difference:

video.nationalgeographic.com/video/cotton-tshirts

3. "Change the way you think"

youtube.com/watch?v=nDTmjR_GG1w

4. "Ecological Goods and Services: A review in Best Practise, Policy and Programming"

iisd.org/library/ecological-goods-and-services-review-best-practice-policy-and-programing

5. Sustainable Procurement in Manitoba:

manitobasustainableprocurement.com

6. Saving the Planet

earthday.org/take-action/?gclid=CPHt-0LGUh80CFQ2QaQod4DwNlQ

SCHOOL BOARDS - FOSTER INSPIRATION

- + Recognizing that the supply chain of many of the goods procured for school construction, renovations as well as maintenance and operations result in significant environmental and social impacts, develop or review your Sustainable Procurement Policy within the School Division Environmental Policy to ensure the sustainable procurement of goods and services is outlined and understood.
 - + Ensure the School Division Environmental Policy meets the requirements set out in the Provincial Sustainable Development Act and other relevant provincial legislation.
 - + Ensure new buildings and school renovations are in compliance with the Provincial Green Building Policy and other relevant provincial legislation.
 - + Develop documents and evaluate the procurement process based on guidelines within the School Division Environmental Policy.
-

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Ensure, at a minimum, the specifications laid out in the Sustainable Procurement in Manitoba website are met for the following goods and services:
 - Copy paper
 - Janitorial paper
 - Janitorial Cleaners
 - Computers and copiers
 - Landscape services including snow clearing
 - Building maintenance services including painting
 - Coffee, tea and other consumables
- + Ban bottled water, styrofoam and as many single use non recyclable, non-compostable, non-biodegradable items as possible from the school.
- + Ensure all chemical and fertilizers are used according to manufactures recommendation and in accordance with the School Division Environmental Policy.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf or specific subject curriculum related to sustainability:

- + Compile a list and review all items procured by the school the school to identify options for sustainable procurement.
- + Explore how we are connected to the the supply chain and how water is impacted by various commodities and our purchasing decisions.
- + Implement **Food for Thought** where students are introduced to the environmental, social and economic implications of our current global food system. Students are introduced to the concepts of buy local and the Triple Bottom Line Approach. resources4rethinking.ca/en/resource/food-for-thought-elementarymiddle
- + Explore the concept of ecological goods and services to identify the benefit of natural habitats and ecosystems.
- + Explore labour conditions in manufacturing of goods and services currently procured by the school to connect students to the supply chain.

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Discuss opportunities to reduce water needs in manufacturing processes and calculate water savings from various procurement options.
- + Inventory your school supplies including janitorial, office and consumables and determine if they are produced sustainably and if alternative, more sustainable options exist.
- + Explore and map out the supply chain of several items purchased and used in the school.
- + Check out World Wildlife Federation activities that explore the amount of water used to make consumer goods, and identify links to unintended consequences of use.
- + **Discover the Technology Loop** - Develop the knowledge, skills and attitudes necessary to analyze the entire life cycle of electronics (from design, sourcing their materials, manufacturing, distribution, use and end-of-use). For more information please visit, resources4rethinking.ca/en/resource/discover-the-technology-loop-2.

“Anything else you’re interested in is not going to happen if you can’t breathe the air and drink the water. Don’t sit this one out. Do something.”

— Carl Sagan

INTENT

The intent of this category is to implement programs to minimize waste and manage recyclable and compostable materials produced at schools in order to help improve sustainability. Waste disposal is costly, both environmentally and economically. Some landfills are designed to contain and collect leachate (contaminated water from the landfill site) and landfill gases such as methane, a greenhouse gas, these design features reduce their environmental impact, but not all the gases are captured, and the possibility of contaminated water from landfills leaking into our groundwater, remains. Landfill sites also take up space that could be used for food production, wildlife habitat, housing or recreation. The less waste we produce, the less land is used up and this reduces environmental problems arising from landfilling. We can minimize the amount of waste by reducing, reusing, recycling and composting. These activities protect habitats and save energy, water, and resources.

CREDIT – MAXIMUM POINT ALLOCATION

SCHOOL BOARDS	5
SCHOOLS	5
EDUCATORS	5
STUDENTS	5
TOTAL	20

WASTE MINIMIZATION & MANAGEMENT RELATED LINKS

1. Refuse Refuse:

edu.gov.mb.ca/k12/esd/pdfs/refuse_guide.pdf

2. Multimaterial Stewardship Manitoba:

stewardshipmanitoba.org/stewards/rules-regulations/regulation/

3. Recycle Everywhere:

recycleeverywhere.ca/container-recycling-fee/

4. Green Manitoba:

greenbuildingproductsmb.ca/search/

5. Manitoba Green Building Program

gov.mb.ca/mit/greenbuilding/

6. Eco Depots for Waste:

greenmanitoba.ca/your-nearest-depot/

7. Manitoba Environmental Industries Association:

meia.mb.ca

SCHOOL BOARDS - FOSTER INSPIRATION

- + Ensure the School Divisional Environmental Policy outlines an understanding of waste minimization and management in schools.
- + Ensure adequate budget is in place to support a program for the collection, recycling and composting of as many waste items as possible within the school division.
- + Ensure resources offered by Multi-Material Stewardship Manitoba (MMSM) and CBCRA Recycle Everywhere, are evaluated and made available to the schools within the division.
- + Request updates on all the Implement the "Waste Minimization Program" at all schools in the division.
gov.mb.ca/conservation/envprograms/recycling/pdf/mb_recycling_strategy_2014.pdf

ADMINISTRATION - DEMONSTRATE THROUGH LEADERSHIP

- + Implement proper waste management practices at the school. At a minimum, ensure cardboard, paper, plastic containers, aluminum, electronics, batteries, light bulbs, are diverted from the waste stream and recycled, not landfilled.
- + Review and implement a composting program for the school.
- + Assist staff and students with the posting of information in the school to encourage staff and students to adopt waste minimization and management programs including recycling and composting.
- + Assist students with any waste audit activities they would like to undertake.
- + Use nontoxic products whenever possible. Discarding all harmful products, including toner cartridges, correctly.
- + Create a campaign to ban plastic water bottles and support reusable containers for water. Have students evaluate how much energy is consumed by producing bottled water in this activity.

EDUCATORS - INSPIRE LEADERSHIP IN ACTION

Review the Correlation Charts of Student Learning Outcomes edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf or specific subject curriculum related to sustainability:

- + Explore the dangers of methane gas and other greenhouse gases and what landfills are doing to manage theirs through innovation.
- + Implement a waste reduction, Caring for our Watersheds project in your school. Please visit caringforourwatersheds.com/student-actions/ for more information.
- + List ways you or your school reuses, reduces, rethinks, restores and recycles to be more sustainable.
- + Assist in the creation of a Green Team and encourage and invite guest speakers and experts in waste and composting to present to students on management and minimization activities.
- + Help students build a Vermicomposter and other hands-on learning activities to transform organic waste that would normally be sent to the dump, into a natural fertilizer. For more information, please visit: [resources4rethinking.ca/en/resource/building-a-vermicomposter- elementarymiddle](http://resources4rethinking.ca/en/resource/building-a-vermicomposter-elementarymiddle)

STUDENTS - ACT UPON OUR COLLECTIVE FUTURE

- + Do an analysis of how effective the recycling program is in your school by monitoring the recycling containers. Create signage or provide information for students so that recycling is not contaminated and encourage work with the school board and administration to set up a composting program in your school.
- + Map out local landfills, transfer stations, recycling, and composting depots with information from greenmanitoba.ca/your-nearest-depot/ and determine where your school waste is going.
- + Examine, analyze and compare diversion and recycling waste patterns in your community with other communities across Canada and the world.
- + Calculate Greenhouse Gas production associated with daily activities with through a Environment Canada GHG Calculator. ec.gc.ca/financement-funding/default.asp?lang=En&n=2B809ABC-1



LAKE FRIENDLY SCHOOL SELF CERTIFICATION CHECKLIST

This Checklist is designed to help both Certification Requestors (school participants) and Certifiers with their evaluation of school actions to determine if requirements for Lake Friendly for Schools Certification have been met. Please complete the checklist as indicated below. Use the comment section to explain completed actions, actions currently underway and/or proposed actions to be undertaken within the next year. Additional documentation and pictures must be provided as proof of conformance, when requested. Requestors must complete this self-certification checklist at a minimum every three years to maintain their certification. Requestors are urged to resubmit applications sooner, if additional school actions have been undertaken and the requestor would like to determine if they have increased their certification level.

Once the checklist is complete, send to communications@lakefriendly.ca

School: _____

Address: _____


School Division: _____


School Principle: _____

Certification Requestor: _____

Date: _____



CATEGORY	CRITERIA	ACTION	EMERGING <small>This is a limited or rare practice in your school</small>	APPROACHING IMPLEMENTATION <small>Practices are being implemented inconsistently and/or there is not school-wide participation</small>	IMPLEMENTATION <small>Practices are consistent and commonplace throughout your school</small>	COMPREHENSIVE <small>Practices are consistent and include school wide participation of students and staff</small>	COMMENTS	
1 All about Water and Climate Change	Governance							
	In the School							
	Education							
	Student							
	Action							
2 Storm Water	Governance							
	In the School							
	Education							
	Student							
	Action							
3 Wastewater	Governance							
	In the School							
	Education							
	Student							
	Action							
4 Conservation	Governance							
	In the School							
	Education							
	Student							
	Action							

CATEGORY	CRITERIA	ACTION	EMERGING <small>This is a limited or rare practice in your school</small>	APPROACHING IMPLEMENTATION <small>Practices are being implemented inconsistently and/or there is not school-wide participation</small>	IMPLEMENTATION <small>Practices are consistent and commonplace throughout your school</small>	COMPREHENSIVE <small>Practices are consistent and include school wide participation of students and staff</small>	COMMENTS	
5 Sustainable School Landscapes	Governance							
	In the School							
	Education							
	Student							
	Action							
6 Sustainable Procurement	Governance							
	In the School							
	Education							
	Student							
	Action							
7 Waste Minimization and Management	Governance							
	In the School							
	Education							
	Student							
	Action							

Requestor Signature: _____ Date: _____

Principle Signature: _____ Date: _____

WASTE MINIMIZATION - WORKSHEET

The following review provides an example to help you with your own school's review of their Waste Minimization Program. The Comments Section should be used to help set waste minimization targets, determine the need for waste audits and develop the Schools Action Plan etc.

School: _____

Board: _____

Initial Date: _____ Follow-up Date: _____

GUIDELINES	EMERGING <small>This is a limited or rare practice in your school</small>	APPROACHING IMPLEMENTATION <small>Practices are being implemented inconsistently and/or there is not school-wide participation</small>	IMPLEMENTATION <small>Practices are consistent and commonplace throughout your school</small>	COMPREHENSIVE <small>Practices are consistent and include school wide participation of students and staff</small>	COMMENTS
REDUCE					
paper use by photocopying on both sides of paper whenever possible					
paper use by purchasing printers that can print on both sides of the paper:					
electronic methods (email, website) are used when communicating with parents. If printed communication is necessary, a sibling list is used					
Ban - single use bottled water containers - both staff and students					
food-related waste by implementing a waste-free lunch system					
food related waste by implementing waste free events					
REUSE					
paper by organizing a "Re-use Box" for half-used paper that can be used for rough work and art projects					
mugs, glasses, plates and utensils by avoid using disposable dishes as much as possible					
furniture and equipment by advertising unwanted items internally within the Board					

WASTE MINIMIZATION - WORKSHEET

GUIDELINES	EMERGING This is a limited or rare practice in your school	APPROACHING IMPLEMENTATION Practices are being implemented inconsistently and/or there is not school-wide participation	IMPLEMENTATION Practices are consistent and commonplace throughout your school	COMPREHENSIVE Practices are consistent and include school wide participation of students and staff	COMMENTS
RECYCLE					
all paper products using a paper recycling system set up in all offices and classrooms;					
cans and containers using a container recycling system set up in strategic locations throughout the school;					
photocopier toner are put back into the returnable box for exchange <i>(if applicable)</i>					
printer cartridges are collected at a central pickup location.					
electronics collection and recycling program					
light bulb collection and recycling program					
battery collection and recycling program					
COMPOST					
on-site collection and composting of vegetable and fruit scraps					
off-site collection and composting of all food scraps					

Adapted from Ontario Eco-schools program Waste Minimization Guide 2008/09

Once the checklist is complete,
send to communications@lakefriendly.ca
or mail to
Lake Friendly Initiative
1749 Portage Avenue,
Winnipeg, MB
R3J 0E6

Tel: 204.505.0305

LAKE FRIENDLY WOULD LIKE TO THANK ALL OF OUR PARTNERS,
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For more information visit LAKEFRIENDLY.CA



CONTACT:
COLLEEN SKLAR, EXECUTIVE DIRECTOR, LAKE FRIENDLY

P: 204 505 0303 / **E:** contact@lakefriendly.ca

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