

MVLWB

Water and Effluent Quality Management Policy

March 31, 2011



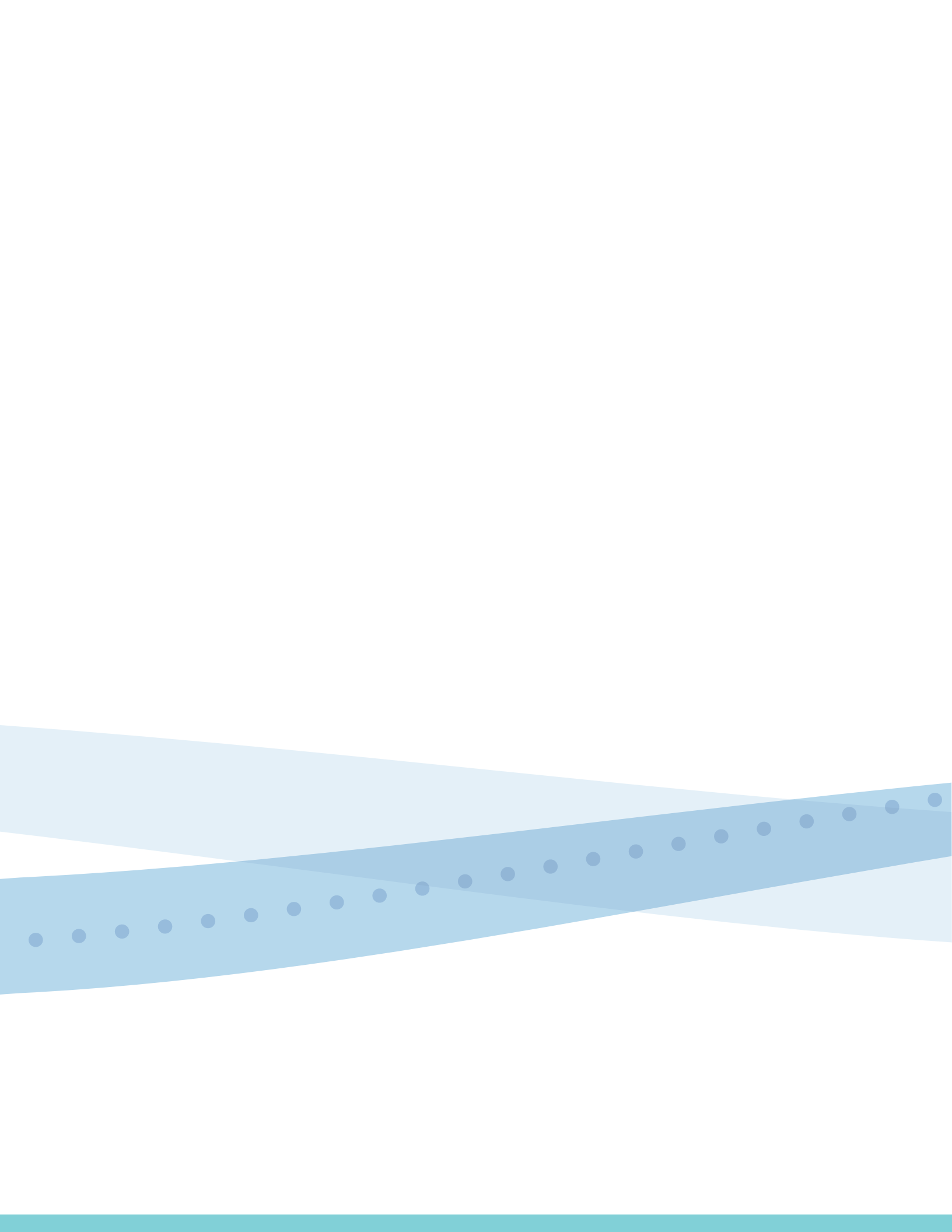
Mackenzie Valley Land and Water Board



MVLWB



“Sharing responsibility—working together to make the best decisions for the land, water, and people.”



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Definitions and Acronyms

TERM	DEFINITION
AEMP	aquatic effects monitoring program
Boards	Land and Water Boards of the Mackenzie Valley, as mandated by the MVRMA
CCME	Canadian Council of Ministers of the Environment
effluent quality criteria (EQC)	Numerical or narrative limits on the quality or quantity of the waste deposited to the receiving environment
GLWB	Gwich'in Land and Water Board
mixing zone	An area adjacent to the effluent outfall within which waste is deposited and first mixes with water in the receiving environment.
Mackenzie Valley	That part of the Northwest Territories bounded on the south by the 60th parallel of latitude, on the west by the Yukon Territory, on the north by the Inuvialuit Settlement Region as defined in the Agreement given effect by the <i>Western Arctic (Inuvialuit) Claims Settlement Act</i> , and on the east by the Nunavut Settlement Area as defined in the <i>Nunavut Land Claims Agreement Act</i> , but does not include Wood Buffalo National Park.
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	<i>Mackenzie Valley Resource Management Act</i>
NWT	Northwest Territories
project	Any activity that requires a water licence

proponent	Applicants for water licences
receiving environment	The natural environment that, directly or indirectly, receives any deposit of waste (as defined in the <i>NWT Waters Act</i>) from a project
SLWB	Sahtu Land and Water Board
SNP	Surveillance network program
stakeholders	Term includes industry, federal agencies, the territorial government, Aboriginal governments, and organizations, communities, and other interested parties.
type A water licence	A water licence required as per Column IV of Schedules IV to VIII of the Northwest Territories Waters Regulations SOR/92/203
type B water licence	A water licence required as per Column III of Schedules IV to VIII of the Northwest Territories Waters Regulations SOR/92/203
waste	As defined in section 2 of the <i>NWT Waters Act</i> ¹
WLWB	Wek'èezhii Land and Water Board

¹"waste" is defined, in section 2 of the *Northwest Territories Waters Act*, as:

- (a) any substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by any animal, fish or plant, or
- (b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a), and, without limiting the generality of the foregoing, includes
- (c) any substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste,
- (d) any substance or class of substances prescribed by regulations made under subparagraph 33(1)(b)(i),
- (e) water that contains any substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 33(1)(b)(ii), and
- (f) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 33(1)(b)(iii)."

1.0 Purpose of This Policy

The Land and Water Boards of the Mackenzie Valley regulate the use of water and the deposit of waste into water through the issuance of water licences.

The purpose of the Water and Effluent Quality Management Policy (the Policy) is to describe the Boards' approach to managing the deposit of waste to the receiving environment through enforceable terms and conditions set in water licences. Such terms and conditions include ², but are not limited to, effluent quality criteria (EQC), activities related to waste management, monitoring programs, adaptive management planning, and/or other management plans.

The Boards have set out this Policy in order to ensure that Board licensing decisions are clear, timely, consistent, and transparent. By referencing this Policy, proponents, stakeholders, and other interested parties will be able to make more informed submissions to the Boards which will, in turn, lead to more efficient and effective Board processes and decisions.

The Boards recognize that this Policy will need to be supported by more detailed guidelines and specific procedures including, but not limited to, setting site-specific water quality standards, collecting baseline information, establishing mixing zones, and developing plans for monitoring and waste management. A complete list of items currently identified as requiring more guidance is noted in the text of the Policy and itemized in Appendix A. These guidelines and procedures will further address the level to which the Policy will apply to different projects and authorizations (e.g., type A or type B water licence applications, etc.).

2.0 Authority

The Boards' authority to develop and implement this Policy is granted under sections 65, 102, and 106 of the MVRMA.

The authority to set limits on the amount of waste discharged from a project is given to the Boards under paragraph 14(4)(c) of the **Northwest Territories Waters Act**, which states that any waste produced by an undertaking "will be treated and disposed of in a manner that is appropriate for the maintenance of:

- (i) water quality standards prescribed by regulations made under paragraph 33(1)(h) or, in the absence of such regulations, such water quality standards as the Board considers acceptable, and
- (ii) effluent standards prescribed by regulations made under paragraph 33(1)(i) or, in the absence of such regulations, such effluent standards as the Board considers acceptable."

No regulations for water quality or effluent standards have been prescribed by the Governor in Council under paragraphs 33(1)(h) or 33(1)(i) of the **Northwest Territories Waters Act**. This Policy outlines the process for setting water quality and effluent standards during water licencing.

3.0 How These Policy Was Developed

This Policy was developed by the Water/Effluent Quality Guidelines Working Group, one of the Standard Procedures and Consistency Working Groups established by the Boards in 2008.

This Policy is based on input from Board staff, consultants, and numerous publically available documents and is consistent with past and present practices of the Boards. During the development of the Policy and prior to public distribution, members of the Boards reviewed the draft Policy and provided input on the document and, in particular, on the "Guiding Principles" (section 5, below). On April 29, 2010, a draft of this Policy was distributed to all organizations that regularly participate in the proceedings of the Gwich'in, Sahtu, Wek'èezhii and/or Mackenzie Valley Land and Water Boards as a licensee, a reviewer,

² see section 15 of the **Northwest Territories Waters Act** for terms and conditions that may be set in a water licence

or other interested party. The comment deadline for this review was July 5, 2010. The Policy was revised by the Water/Effluent Quality Guidelines Working Group with consideration of all the comments received. The revised Policy was put before the Boards on December 8, 2010 and approved. The Policy is effective starting March 31, 2011.

4.0 Application of This Policy

This Policy will be applied by all the Land and Water Boards (Boards) operating under the **Mackenzie Valley Resource Management Act** (MVRMA) including the:

- Mackenzie Valley Land and Water Board
- Gwich'in Land and Water Board
- Sahtu Land and Water Board
- Wek'èezhìi Land and Water Board.

This Policy applies to all projects that require a water licence. Specifically, this Policy applies to the terms and conditions of a water licence as set by the Boards to manage the deposit of waste to the receiving environment.

This Policy outlines the types of information that a proponent must submit to a Board as part of the process of setting water licence terms and conditions to manage the deposit of waste. In all cases, the Boards will set the terms and conditions of a water licence based on the evidence presented during the water licensing process. Although the same types of information will be required from each proponent, the amount of detail required will vary depending on the size, type, stage, and duration of the project under consideration. The appropriate level of information required from the proponent will be described in relevant guideline documents (see Appendix A).

This Policy will be applied to all new or renewal water licence applications received after the effective date of the Policy. In the case of existing water licences, this Policy may be applied if there is a proposal to

amend any terms and conditions of the water licence, including EQC. Amendments to water licences are considered ³ upon request of the proponent or by a Board's own motion (if the amendment appears to be in the public interest).

5.0 Guiding Principles

The following principles have been adopted by the Boards and will guide the Boards' decisions on any matter related to the deposit of waste from a project to the receiving environment. The principles are not listed in any order of priority.

1. Sustainable Development: Meeting the needs of the present without compromising the ability of future generations to meet their own needs.
2. Pollution Prevention: The use of processes, practices, materials, products, or energy that avoid or minimize the creation of pollutants and waste and reduce overall risk to human health and the environment.
3. Precaution: Where there are threats of serious or irreversible damage, the lack of full scientific certainty should not be used as a reason for postponing cost effective measures to prevent environmental degradation.
4. Polluter Pays: The polluting party should pay for the restoration of damage done to the natural and built environments.
5. Integrated Watershed Management: The cooperative and coordinated stewardship of shared water resources where decisions are made in a watershed context and for the greatest collective benefit for all Canadians and in particular for residents of the Mackenzie Valley.
6. Multiple Uses and Values: Decisions should address multiple, diverse, and sequential uses of water – many of which depend at the same time on the same water body.

³ section 18 of the *Northwest Territories Waters Act*

7. Shared Responsibility: In our co-management system, all stakeholders have a responsibility to meaningfully participate in decisions that will affect water.
8. Jurisdiction Best-Placed: Although policy development should take place at all jurisdictional levels, policy implementation should be the responsibility of the level most appropriate to resolving the issue at hand.

6.0 Objectives for Regulating the Deposit of Waste

The Boards regulate the “quantity, concentration, and types of waste”⁴ that may be deposited from a project to the receiving environment. In accordance with the guiding principles listed in section 5, the Boards regulate, through water licence requirements, the deposit of waste such that the following two objectives are met:

1. Water quality in the receiving environment is maintained at a level that allows for current and future water uses.

Protection of water quality in the receiving environment is the primary objective. The level of protection will be defined by the water quality standards⁵ that have been set site-specifically for the receiving environment in question. Effluent Quality Criteria (EQC) will be set for a project to ensure that water quality standards will be met. A Board may set other terms and conditions in the water licence that, in its opinion, will aid in achieving this objective.

2. The amount of waste to be deposited to the receiving environment is minimized.

The Boards expect proponents to identify and implement waste prevention and/or minimization measures, whenever feasible. Implementation of such measures may be stipulated in the terms and conditions of a water licence. The Boards can assess how these measures are expected to impact effluent from a project in order to set EQC that proponents can reasonably and consistently achieve.

There are several different types of water licence requirements (e.g., EQC, management plans, monitoring, etc.) that can be used by the Boards to ensure that, collectively, the water licence meets the objectives above. The key requirements, also called terms and conditions, used in water licences are described in section 7, below. The types of information that the Boards require to set the terms and conditions necessary to achieve the objectives above are summarized in section 8.

7.0 Typical Water Licence Requirements Used to Regulate the Deposit of Waste

Boards will set terms and conditions in a water licence to ensure that the objectives set out in section 6.0 for regulating the deposit of waste are met. Such terms and conditions will be set on a project-specific basis, but the types of requirements typically used by the Boards are described below.

7.1 Waste Management Practices

The Boards may require proponents to use practices that are known to be effective in managing waste and protecting the environment. Such practices may be stipulated directly as conditions in water licences or through Board-approved management plans that describe the proponent’s practices (see also subsection 7.4).

⁴ paragraph 15(1)(b) of the *Northwest Territories Waters Act*

⁵ *The Northwest Territories Waters Act* states that “any waste that would be produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of water quality standards” (subsection 4(c) of the *Northwest Territories Waters Act*). There is no definition of the term “water quality standard” in the *Northwest Territories Waters Act*, but the Boards believe it to be equivalent to the more widely accepted term “water quality objective” which has been defined by the Canadian Council of Ministers of the Environment (CCME) as: “a numerical concentration or narrative statement that has been established to support and protect the designated uses of water at a specified site.” (CCME (1999), Canadian Environmental Quality Guidelines. Guidelines and Standards Division, Winnipeg, MB.)

In general, waste management practices should be guided by the waste prevention/minimization hierarchy⁶ of preferred options, as follows:

1. Source reduction – waste should be prevented or reduced at the source whenever feasible;
2. Reuse/recycle – waste that cannot be prevented should be reused or recycled in an environmentally safe manner whenever feasible;
3. Treatment – waste that cannot be prevented or recycled/reused should be treated in an environmentally safe manner whenever feasible; and
4. Discharge – discharge or deposit of waste into the environment should be employed only as a last resort and must meet EQC.

An example of prescribing a management practice would be a condition in a water licence stipulating the use of a specific erosion control method known to reduce the amount of sediment that enters water (i.e., source reduction). In all cases, the intent of prescribing specific management practices is to achieve the objectives listed in section 6.

7.2 Effluent Quality Criteria

Once all reasonable measures have been taken to limit the amount of waste, concerns may still exist about the quantity, concentration, and type of waste to be deposited, and in these cases the Boards will set EQC in the water licence. EQC define the maximum allowable concentrations (e.g., mg/L), quantities (e.g., kg/year), or limits (e.g., pH range) of any contaminant or parameter of the waste which, in the Boards' opinion, has the potential to adversely affect water quality in the receiving environment. Sampling and analysis of effluent will be specified in the Surveillance

Network Program (SNP) of the water licence and the proponent must ensure that the waste discharged meets the EQC in order to remain in compliance with the water licence.

Figure 1 illustrates, with an example, the relationship between EQC and the receiving body's water quality standards. At a minimum, EQC for a project must be set at levels that will ensure water quality standards for the receiving environment will be met. As no pre-defined water quality standards have been established for water bodies in the NWT, the level of water quality to be maintained in the receiving environment has been, and will continue to be, decided on a site-specific basis⁷ (note: information that the Boards will consider when setting site-specific water quality standards is outlined in Section 8). On a case-by-case basis, the Boards may decide to define a mixing zone between the point of effluent discharge and the point at which water quality standards need to be met. Guidelines on when mixing zones may be prescribed as well as how such zones will be defined will be developed by the Boards as noted in Appendix A.

Note that in accordance with the Boards' objective to minimize waste discharge, proponents are expected to minimize and, where feasible, to prevent waste from entering water in the NWT. Therefore, and consistent with the CCME nondegradation policy⁸, the Boards may set EQC that are more stringent than what is necessary to meet water quality standards in the receiving environment. When making this determination, the Boards will ensure that EQC are set at levels that the proponent can reasonably and consistently achieve.

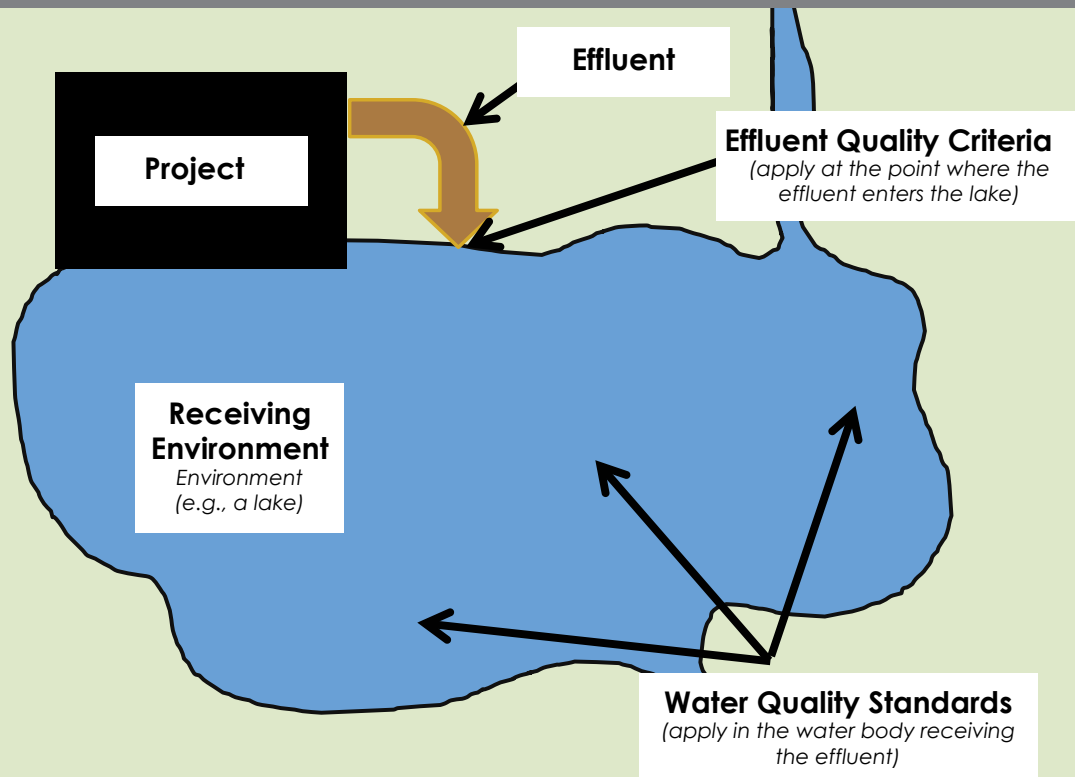
Further details on the procedure for setting EQC will be addressed in the guidelines that will be developed by the Water/Effluent Quality Guidelines Working Group to support this Policy.

⁶ the waste prevention/minimization hierarchy as written above has been adapted from the following reference: F. Henry Habicht II. Memorandum: EPA Definition of Pollution Prevention. U.S. Environmental Protection Agency, May 28, 1992.

⁷ MacDonald Environmental Sciences Ltd. (2006), Toward the Development of Northern Water Standards, prepared for Indian and Northern Affairs. Chapter 3.

⁸ "For waters of superior quality or that support valuable biological resources, the CCME nondegradation policy states that the degradation of the existing water quality should always be avoided." CCME (1999), Canadian Environmental Quality Guidelines. Guidelines and Standards Division, Winnipeg, MB.

Figure 1: An Example of the Relationship Between Effluent Quality Criteria and Water Quality Standards



Water quality standards define the quality of water that must be maintained in the receiving environment. In this example, water quality standards would be defined for the lake into which effluent is being discharged from a project. EQC would be set as described in section 7.2 and would, in this example, apply at the point at which the effluent discharge enters the lake (i.e., the end-of-pipe)

7.3 Monitoring Requirements

Environmental monitoring programs are essential for providing the information needed to determine if the waste prevention/minimization and water quality protection measures (including EQC) are successfully meeting their stated objectives. Monitoring will be required for various activities during the construction, operation and closure of a project; the most common monitoring programs are described below:

1. Surveillance Network Programs (SNPs), consist of specific sites within a development at which water quality and quantity are measured; sampling requirements are decided on a site-specific basis. SNPs are designed to aid the proponent and the regulators in ensuring that waste management activities are being effective. Typically, one of the SNP stations is assigned to the end-of-pipe and is the point at which the proponent must comply with the

EQC. Other SNP stations are often located at points of waste transfer or treatment prior to the end-of-pipe to ensure that the waste-handling system is working as expected and to identify any source control issues as they arise.

2. Aquatic Effects Monitoring Programs (AEMPs) monitor the short- and long-term effects of a project on the wider receiving environment; such programs are currently only required of projects that require a type A water licence. AEMPs in particular can tell us if the water quality standards set for a receiving environment are being met. In addition to water quality monitoring, AEMPs often include requirements for monitoring biota at different levels of the food chain (e.g., plankton, small-bodied fish, large-bodied fish, etc.) to ensure the water quality standards as set are sufficiently protective and to identify any effects that were not originally predicted. Monitoring results can be used to guide adaptive management actions as described below. Guidelines for the development of AEMPs are available (Appendix A).

7.4 Adaptive Management

While selecting the best possible approach to water and effluent quality management is very important, the use of adaptive management acknowledges that it can be difficult to predict all the effects of projects and developments on water resources. As a result, adaptive management involves monitoring the effects of actions and, where necessary, adjusting actions based on the monitoring results. For example, if monitoring results show the effects of a project on the environment are different or worse than predicted, further mitigation measures may be prescribed or EQC may be changed appropriately. While the concept of adaptive management has been integrated, to a certain extent, into the water licensing process, the Boards are developing further guidelines specifying how the principles of adaptive management will be applied to projects.

7.5 Management Plans

As discussed in section 7.1 above, the Boards may require the submission of management plans that will detail how certain aspects of the waste prevention/minimization hierarchy (e.g., source control, reuse/recycle, and/or treatment of waste) or other environmental protection methods will be implemented. Such management plans as the Boards deem necessary will be required by the terms and conditions of a water licence. In general, the water licence will stipulate the management objectives but will allow the proponent to describe how, for their project, those objectives can be best achieved. In general, management plans will require Board approval (to ensure the plan is able to meet the stated objectives) prior to implementation by the proponent. Management plans may include, but not be limited to: waste management plans, spill contingency plans, site-water management plans, erosion and sediment control plans, and closure and reclamation plans. Please refer to Appendix A for a list of management plan guidance documents that are either approved or require development.

8.0 Information Required to Regulate the Deposit of Waste

In their water licence applications, proponents are required to submit the information necessary for the Boards to set appropriate water licence terms and conditions. Most of the information requirements are listed in the standard water licence application form⁹. This section of the Policy is only meant to highlight some specific types of information that the Boards consider when setting terms and conditions that, collectively, will result in a water licence that meets the objectives stated in section 6.

8.1 Information Required from the Proponent

The types of information required from proponents include, but are not limited to:

- Information on proposed waste prevention and minimization measures for a project;

⁹ as set out in Schedule III and Section 6 of the Northwest Territories Waters Regulations SOR/93-30.

- Technically accurate predictions of the concentration and quantities of waste that the proponent proposes to deposit after all feasible proposed waste prevention and management measures have been employed;
- Predictions of how the effluent, once discharged, will mix and disperse in the receiving environment;
- Recommended site-specific water quality standards for the project's receiving environment including the evidence upon which the recommendations are based. During the water licencing process, the proponent's proposed standards will be evaluated by all parties and a final decision on the applicable standards will be made by the Boards. Information that the Boards will consider with respect to applicable water quality standards includes, but is not limited to, the items listed below. Note that this information should be submitted by the proponent to support the proposed site-specific standards.
 - Pre-development (baseline) conditions of the receiving waters (e.g., water quality, water quantity as well as the resident species of plants, animals, and fish that live in or use the water);
 - Traditional Knowledge, including knowledge about the environment, knowledge about interacting with the environment, and environmental values;
 - Traditional and potential uses of the receiving water bodies (e.g., sustenance, recreational, cultural, etc.)
 - Cultural significance of the water bodies to local residents;
 - Inputs of waste from other projects or activities located in the same watershed

or region in order to evaluate potential cumulative effects;

- Published water quality guidelines (e.g., CCME Guidelines) and scientific studies that are relevant and appropriate for the receiving waters, based on the information listed above; and
- Measures and suggestions, including predictions and limits of acceptable change, listed in Reports of Environmental Assessment or Environmental Impact Review.

In gathering information for their applications, proponents can and should avail themselves of relevant information that has already been collected by other parties or through other initiatives (e.g., governmental agencies, regional land use or water management plans). As well, and although the CCME has published some guidance documents on the development of site-specific water quality standards, the Boards recognize the need to develop specific guidance for proponents that provides details on the above information requirements and describes how each of the above factors will be considered during a water licensing process (also see Appendix A). While the same types of information will be required by each proponent, the amount of detail required will often vary depending on the size, type, and duration of the project.

Finally, some of the information listed above (in particular the information needed to set water quality standards), requires stakeholder input prior to the submission of the application. As listed in Appendix A, public engagement policy and guidelines are currently under development by the Boards. Pre-submission engagement, which is described in more detail under section 8.2, is key to an efficient and effective regulatory process.

8.2 Stakeholder Involvement and Community Participation

Although the onus is on the proponent to provide the information (as outlined above) in their applications, the Boards believe that the best decisions will be made only if all parties share their relevant expertise and knowledge during the water licensing process. Having input from all stakeholders, with a variety of backgrounds, expertise, values, and interests, is invaluable to the Boards in making fair and balanced decisions that provide for the optimum benefit of the residents of the management areas, the Mackenzie Valley, and all Canadians. There are several opportunities during the water licensing process for stakeholder input.

Firstly, the Boards require proponents to engage impacted communities and Aboriginal governments/organizations prior to making submissions to the Boards. The purpose of this engagement is to provide an opportunity for all parties involved to learn from each other, to develop a relationship based on mutual respect and trust, and to explore solutions to stakeholder concerns that meet the needs of all parties. Proponent engagement with stakeholders needs to be ongoing and continue during the water licence proceeding and for the life of the project. Evidence of these efforts must be filed with the Boards.

After a water licence application is submitted, the Boards distribute all documents to stakeholders for review and comment. The Boards encourage stakeholders to provide comments and recommendations specific to the project to help develop water licence terms and conditions. As well, for all type A water licence applications the Boards are required to call a public hearing. The Boards also have the option of holding public hearings for type B water licence applications. Public hearings provide an opportunity for stakeholders to present directly to the Boards with their input on specific applications. The Boards consider all contributions and statements

important, whether they are based on Traditional Knowledge, scientific knowledge, local values or other relevant information.

The Boards also involve stakeholders when developing policy and guidance documents. Stakeholder input helps shape policies and guidelines that are clear, transparent, and reflect the interests and values of stakeholders.

As noted in Appendix A, the Boards are developing a policy and guidelines to describe how stakeholders are involved with Board processes.

8.3 Consideration of Other Applicable Legislation

In addition to the information sources discussed above, the Boards recognize that there is other legislation that must be adhered to. For example, the Boards may not include any conditions in water licences relating to the deposit of waste that are less stringent than the provisions of regulations made under subsection 36(5) of the *Fisheries Act*.

(Note that proponents must adhere to all legal requirements (e.g., *Fisheries Act*, Metal Mining Effluent Regulations, etc.) relevant to their respective operation. It is the proponent's responsibility to be aware of and comply with these requirements.)

9.0 Policy Implementation

Section 106 of the *MVRMA* gives the MVLWB the responsibility to "issue directions on general policy matters or on matters concerning the use of land or waters or the deposit of waste that, in the Board's opinion, require consistent application throughout the Mackenzie Valley". This Policy is issued under section 106 and, as such, the MVLWB will establish the procedures necessary to ensure that this Policy is appropriately implemented and periodically reviewed.

Under the authority outlined in section 2, the MVLWB may establish working groups from time to time to address specific policy, technical, or scientific matters related to effluent and water quality management and the water licensing process, including the development of guidelines.

Individual Land and Water Boards (MVLWB, GLWB, SLWB, and WLWB) are responsible for processing, administering, and monitoring water licences in accordance with this Policy.

10.0 Measuring Performance and Reviewing the Policy

Mechanisms will be required to monitor and measure performance and to evaluate the effectiveness in achieving the Policy objectives articulated above. In accordance with the principles of a management systems approach (i.e., plan-do-check-act), the MVLWB will develop a performance measurement framework that specifies reporting requirements against the Policy objectives including indicators, sources of information, and frequency of reporting. This Policy will be reviewed and amended as necessary within that framework. The framework will also describe how stakeholders will be involved in the Policy review process.

APPENDIX A: Guidelines/Strategies That Will Support Implementation of This Policy

SUBJECT AREA	GUIDANCE REQUIRED	AVAILABILITY OF NWT-SPECIFIC GUIDANCE
Cumulative effects	Cumulative effects assessment strategy.	INAC's Environmental Stewardship Framework (www.ainc-inac.gc.ca/ai/scr/nt/ntr/pubs/CEG-eng.asp)
	Cumulative impact monitoring tools.	Not yet available.
EQC setting	Municipal wastewater discharge.	<ul style="list-style-type: none"> Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories (1992), prepared by Indian and Northern Affairs Canada (INAC) for the NWT Water Board. Environment Canada is developing recommendations for municipal wastewater discharge limits in northern Canada (under the CCME Canada-wide Strategy for the Management of Municipal Wastewater Effluent). Also, see information on the Northern Research Working Group at http://www.mvlwb.ca/nrwg.
	Setting site-specific water quality standards.	Not yet available but under development by INAC.
	Collection of baseline information for water bodies.	Not yet available.
	Establishment and characterization of mixing zones.	Not yet available.
	General objectives for effluent discharges.	Not yet available.
	Guidance document from INAC on technologies for mining effluents in the NWT.	INAC, Water Resources Division. 2002: Applicable Technologies for the Management of Mining Effluents in the Northwest Territories. Prepared by Lakefield Research Limited in association with SENES Consultants Limited.

Management Plans	Closure and reclamation planning.	Mine Site Reclamation Guidelines (2007 INAC). Also, joint guidelines are being developed by INAC and the Land and Water Boards.
	Spill contingency planning.	Guidelines for Spill Contingency Planning (2007), INAC.
	Adaptive management planning.	<ul style="list-style-type: none"> • Guidance has been developed in draft by the WLWB and was under public review until December 6, 2010. • Some guidance provided in INAC's Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs for Development Projects in the NWT (2009).
	Waste management planning.	Guidelines have been developed and will be presented for approval by the MVLWB in December 2010.
Monitoring	Aquatic effects monitoring programs.	Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs for Development Projects in the Northwest Territories, (2009), INAC.
	Establishment of surveillance network programs for water licences.	Not yet available.
	Sampling and Testing Requirements (elements).	<ul style="list-style-type: none"> • For drinking water: Summary Table – NWT Drinking Water Sampling and Testing Requirements (http://www.hlthss.gov.nt.ca/pdf/brochures_and_fact_sheets/environmental_health/2007/english/nwt_drinking_water_sampling_and_testing_requirements.pdf).
Stakeholder engagement	Public Engagement and Consultation Policy.	Under development by the Boards.
	Public Engagement Guidelines.	Under development by the Boards.



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