

February 17, 2020

Ms. Carolyn Hedley
Project Manager
Stratos Inc.
1404-1 Nicholas Street
Ottawa ON K1N 7B7

Sent via Email

Dear Ms. Hedley,

RE: Land and Water Board Responses to 2020 NWT Environmental Audit Recommendations

Thank you for the opportunity to provide our responses to the recommendations outlined in the 2020 NWT Environmental Audit (please see the attached Table).

Should you have any questions about our submission, please contact Angela Plautz at (867) 766-7461 or aplautz@mvlwb.com.

Sincerely,



Mavis Cli-Michaud
Chair
Mackenzie Valley Land and Water Board



Joseph Mackenzie
Chair
Wek'èezhii Land and Water Board



Larry Wallace
Chair
Sahtu Land and Water Board



Elizabeth Wright
Chair
Gwich'in Land and Water Board

Attachment: 2020 NWT Environmental Audit Response Table

2020 NWT Environmental Audit

Recommendations and Responses (Updated)

January 15, 2020

Please provide your final responses to the recommendations in the table below. Where accountable parties are grouped (i.e. in a single row; for example “GNWT and the Audit Steering Committee”), you are expected to provide a collective response. The final responses are required by **February 19, 2020** to the Audit Team, via chedley@stratos-sts.com. Please contact Carolyn Hedley (Audit Team – chedley@stratos-sts.com) or Jane Fitzgerald (GNWT Audit Secretariat – Jane.Fitzgerald@gov.nt.ca) should you have any questions or concerns.

#	Recommendation	Accountable	Responses
PART 1			
1-1	The GNWT and ASC consider a focus on climate change for the 2025 NWT Environmental Audit to test whether the Strategic Framework and Action Plan are effective and whether additional tools (regulatory or policy) need to be developed. <i>The outcome we expect is that climate change is recognized as a core issue underlying environmental/resource management and impacts/considerations are being adequately regulated.</i>	GNWT and the Audit Steering Committee	
1-2	The GNWT and CIRNAC establish a process for parties to meet on a regular basis and discuss implementation opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. At times, this process will need to include IGOs and industry as appropriate. We further recommend CIRNAC ensure a record of findings, actions, and outcomes are published to ensure transparency and to facilitate monitoring and auditing of progress. <i>The outcome we expect is for a process to be established for frequent dialogue between relevant parties in order to discuss issues as they arise with the goal of fostering an integrated system of land and water management.</i>	GNWT	
		CIRNAC	
1-3	Organizations/departments with a mandate for monitoring and mitigating community well-being work together to make their efforts complementary by developing a common agenda for their goals with a set of shared measures or indicators, and a plan for making results available to decision-makers during the EA and regulatory phases of projects. <i>The outcome we expect is that community well-being is monitored consistently, and the results are used to inform and improve regulatory decision-making.</i>	GNWT	
1-4	The GNWT refresh its NWT Mineral Development Strategy with the express goal of demonstrating unity in messaging and approach. Opening statements from the Premier, the Minister, and the Chamber of Mines should be enhanced by messaging from IGOs. <i>The outcome we expect is that the GNWT, Indigenous governments and boards work together to create common messaging and an approach related to responsible mineral development in the NWT. Further, we expect the topics and the overall approach described in the new Mineral Development Strategy to address some of the raised needs of industry about the regulatory system. Finally, we expect this exercise should be informed by outcomes from our recommendation in Section 1.3.2.</i>	GNWT	
1-5	The GNWT include a section in the Mineral Development Strategy describing aspects of the regulatory system that are important to industry such as clarity on timelines and regulatory improvements that are felt to be limiting mineral development. This may require engagement with a range of	GNWT	

#	Recommendation	Accountable	Responses
	regulators including the LWBs to ensure the accuracy of any messages or conclusions. <i>The outcome we expect is that the GNWT, Indigenous governments and boards work together to create common messaging and an approach related to responsible mineral development in the NWT. Further, we expect the topics and the overall approach described in the new Mineral Development Strategy to address some of the raised needs of industry about the regulatory system. Finally, we expect this exercise should be informed by outcomes from our recommendation in Section 1.3.2.</i>		
1-6	The GNWT create an updated economic development strategy and regularly examine the effectiveness of this strategy against relevant measurable economic indicators such as gross domestic product, unemployment, and economic resilience. <i>The outcome we expect is that the NWT has an economic development strategy where it monitors indicators of success, and the results of monitoring are used to improve the strategy over time.</i>	GNWT	
1-7	The LWBs regularly meet with key client groups outside of specific regulatory processes to discuss opportunities and challenges with the goal of continuing to improve the regulatory system. We further recommend the LWBs use the information from these engagement sessions to inform priorities and workplans. <i>The outcome we expect is for the LWBs to create opportunities outside of specific regulatory processes, to understand the needs of groups of proponents (e.g., mineral exploration proponents). We also expect the LWBs to consider creating guidance and products that address the expressed needs identified by proponents.</i>	LWBs	<p>The LWBs have multiple opportunities in place for meetings and information sharing with parties involved in the permitting and licensing processes. These include:</p> <ul style="list-style-type: none"> • Bi-monthly to quarterly joint meetings (joint meetings) of senior level staff from GNWT-Lands, GNWT-ENR, CIRNAC, CanNor, and MVEIRB. • “MVRMA in a Day” presentations are given many times each year to various parties (e.g., in 2019 there were 24 such sessions with an average of 7-8 people per meeting, with participants including GNWT Lands, ECE, Health, and ENR; DFO; ECCC; various First Nations; and independent oversight bodies). • For the last several years LWB staff have been key members of the organizing committee for the annual MVRMA Practitioner’s workshops held in various regions of the NWT. • LWB staff have participated in recent tradeshow organized by GNWT-ITI through their REDI initiative. • In October 2018 the LWBs created and filled a Community Outreach Coordinator position. Through that position LWB staff have conducted multiple information, dialogue and training sessions in schools, at tradeshow, gatherings of Indigenous government organizations, and events held by other professional or municipal organizations (e.g., LGANT, NWTAC). • The LWBs are a member of the organizing committee for the Regulatory Dialogue initiative spearheaded by CIRNAC and CanNor, and focused primarily on concerns with the regulatory processes raised by industry. The first workshop is planned for mid-March 2020. <p>In addition to the ongoing initiatives, in early January 2020 the LWB EDs reached out to the NWT and Nunavut Chamber of Mines to propose periodic meetings for the purpose of informal discussions on various topics of their choosing.</p> <p>With respect to the LWBs “creating guidance and products that address the expressed needs identified by proponents”, there are multiple examples of such guidance on the LWB websites (under the Resources tab or via the “Apply for a Permit/Licence” button). To assist all applicants, clarify expectations, and improve consistency, the LWBs have been prioritizing updates to existing guidance and development of additional guidance documents, which includes information specific to particular types of projects where appropriate:</p> <ul style="list-style-type: none"> • The LWBs recently updated the permit and licence application forms, and are in the process of updating the associated guidance documents. • The LWBs have guidelines available for each of the management plans that are required with all applications, and these guidelines all contain templates or examples. • A Standard Land Use Permit Conditions Template is available, and a similar template for licences is in the process of being finalized. Additionally, applicants can access copies of permits and licences for similar types of applications on the LWBs’ public registry. • The LWBs and the GNWT are currently in the process of developing a <i>Guideline for Determining Water Source Capacity in the Mackenzie Valley</i>. <p>LWB staff are always open to participating in other opportunities for dialogue on the regulatory processes in the NWT, should another party wish to take the initiative.</p>

#	Recommendation	Accountable	Responses
1-8	<p>The LWBs and the GNWT develop a standardized mineral exploration permitting bundle, in consultation with affected parties, similar to what the MVLWB has already done for municipal water licences. <i>The outcome of such an approach would be to streamline the approval of low-risk exploration activities while maintaining the made-in-the-north environmental protection and management system operating in the Mackenzie Valley. A standardized, or “fill-in-the-blanks”, permitting bundle for low-risk mineral exploration could include such items as a draft project description, draft management plans, draft engagement plans, a draft screening report, and draft authorizations.</i></p>	LWBs	<p>In considering this recommendation, it is important to recognize that municipal operations and mineral exploration are distinctly different types of projects. Municipal projects are stationary, affect a limited area, and, for the most part in the NWT, consist of existing operations, so potential concerns and impacts are generally already known and limited to a localized area. Mineral exploration projects are much more variable in terms of location and project area, so there is greater potential for these projects to overlap with culturally significant areas and with other land and water uses. Accordingly, there is greater potential for variability in what is considered acceptable and low-risk for different projects and even within a given project boundary. It is important that each applicant provide adequate project-specific information for potentially-affected parties and the LWBs to understand and assess the potential impacts of the project. Further, if a project requires a water licence, the LWBs require information regarding water sources to fulfill additional requirements under the <i>Waters Act</i> and MVRMA (e.g. to assess potential claims for water compensation and determine precedence).</p> <p>To assist all applicants, clarify expectations, and improve consistency, the LWBs have been prioritizing updates to existing guidance and development of additional guidance documents, which includes additional information specific to particular types of projects where appropriate:</p> <ul style="list-style-type: none"> • The LWBs recently updated the permit and licence application forms, and are in the process of updating the associated guidance documents. • The LWBs have guidelines available for each of the management plans that are required with all applications, and these guidelines all contain templates or examples. • A Standard Land Use Permit Conditions Template is available, and a similar template for licences is in the process of being finalized. Additionally, applicants can access copies of permits and licences for similar types of applications on the LWBs' public registry. • The LWBs and the GNWT are currently in the process of developing a <i>Guideline for Determining Water Source Capacity in the Mackenzie Valley</i>. <p>This information is applicable to all types of applications, including mineral exploration, and while the LWBs will continue to evaluate the need for development of additional general guidance on an on-going basis, the LWBs currently have no plan to develop further guidance based on specific project types. If another party (e.g., the NWT and Nunavut Chamber of Mines or GNWT-ITI through its Client Services and Community Relations Division) was to take the initiative to build on the above-noted guidance documents to develop more specific management plan templates for their members/clients, LWB staff would be available to assist and review the templates; however, it should be noted that the LWBs will continue to assess each application on a case-by-case basis and will continue to conduct their standard public review process for each application. Should applicants have questions about the application process, they are encouraged to contact LWB staff. In the longer term, the LWBs may work towards providing online applications.</p> <p>In developing the response to this recommendation, the LWBs have engaged with the GNWT.</p>
1-9	<p>The MVEIRB and the LWBs, in cooperation with other relevant regulators and affected Indigenous communities, establish, where necessary, a project TK Advisory Committee or talking circle to advise on the use of TK for the purpose of enhancing decision-making of the project. Such TK committees would advise project proponents and regulators and conduct monitoring, if required, from pre-regulatory through regulatory reviews, construction, operation, and beyond as required. To be most effective, a TK Advisory Committee would need to be established as early as possible, but no later than the start of an EA, and live through to the end of the project, advising both regulators as well as the project proponent. <i>The outcome we expect is that TK has an opportunity to be meaningfully incorporated and used in decision-making throughout the life of a project from project design, through operations, and closure. Project proponents are strongly encouraged to help fund such initiatives, as it could form an important element of community engagement and increase awareness about impacts, mitigation, and best operational practices.</i></p>	<p>GNWT MVEIRB LWBs</p>	<p>The LWBs agree that more efforts need to be made to enhance the use of TK throughout the regulatory process. MVEIRB's methods are an illustration of progressive solutions that incorporate community knowledge into decision making. The LWBs' permitting and licensing processes consist of much longer and more complex relationships between project proponents, communities, and regulators. As such, instruments of partnership and collaboration are necessary between communities and proponents as the 2020 Audit suggests - through the life of the project, the regulator's role is to promote and foster those relationships while utilizing their proceeds in its process of review. The LWBs will examine our guidelines and our reviews over the coming years to better foster these relationships and to create a respectful integrated approach.</p>

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1-10	The GNWT and the federal departments with responsibility for engagement and consultation under the MVRMA work with their respective clients to review and improve engagement strategies. <i>The outcome we expect is that strategies for engagement and consultation are regularly reviewed and improved as necessary.</i>	GNWT GoC	
1-11	The MVLWB re-examine its engagement process and enhance the process where appropriate to better detect emerging public concerns and to adapt their plan for engagement as required. <i>The outcome we expect is for MVLWB to be aware of community issues prior to hearings.</i>	MVLWB	<p>The LWBs are pleased to note that the 2020 Audit found the majority of survey respondents indicated satisfaction with current engagement approaches, and acknowledge the need to update policy and process to reflect lessons learned and ensure engagement with affected parties remains robust.</p> <p>The LWBs and MVEIRB are currently in the process of developing a joint engagement and consultation policy (joint policy). The purpose of this exercise is to both update the existing MVLWB Engagement and Consultation Policy to reflect experience over the past several years, incorporate emerging best practices, and expand the policy to include environmental assessment and impact review. In addition to considering past experience, the LWBs and MVEIRB are seeking input from interested parties to inform development of the joint policy. It is envisioned that the joint policy will cover the roles of the Boards, the Boards' expectations for project proponents, and the interface between Board processes and overall Crown Consultation.</p> <p>As noted in the MVLWB Policy and 2020 Audit, there are aspects of engagement and consultation which fall outside of the LWBs' jurisdiction, and will be more appropriately addressed by the GNWT and federal government. The LWBs are committed to working with governments to ensure efforts regarding engagement and consultation are complimentary. The LWBs will investigate and adopt, where appropriate and feasible, practices which ensure public concerns are identified early in review processes, as noted in Recommendation 1-11.</p>
1-12	The Land Use Planning Boards work with the GNWT to identify key capacity challenges and develop and implement a plan to help alleviate the identified challenges (e.g., to share administrative components amongst planning boards). <i>The outcome we expect is that land use planning efforts are sufficiently resourced.</i>	LUPBs GNWT	
1-13	The Land Use Planning Boards develop monitoring and evaluation frameworks for all established plans, using the Sahtu LUP as an example/template to reduce capacity challenges. We also recommend that those responsible for monitoring the environment and community well-being (e.g., GNWT ENR; GNWT ITI; GNWT Education, Culture and Employment) participate in LUP reviews and updates, at a minimum, to ensure community well-being and environmental monitoring information is considered and integrated into updated plans. <i>The outcomes we expect are monitoring and evaluation frameworks for all established plans as well as improved integration of community well-being and environmental monitoring information into the land use planning process.</i>	LUPBs	
1-14	The GNWT and the GoC work collaboratively to adequately fund land use pre-planning/planning activities in regions without settled land claims; it is incumbent on the GNWT and the GoC to adequately fund this process in these areas. <i>The outcome we expect is that the process for development of new LUPs is adequately and consistently resourced.</i>	GNWT GoC	
1-15	The GNWT offer training for LUP implementation to the broader NWT community responsible for LUP implementation and monitoring, namely the LWBs, Land Use Planning Boards, and all regulators responsible for conformance authorizations. <i>The outcome we expect is that appropriate training is available both for land use planners as well as others responsible for LUP implementation and monitoring.</i>	GNWT	
1-16	The LWBs seek to develop a participant funding program, funded by the federal and territorial governments, to support regulatory decisions within its jurisdiction. The funding would provide capacity support to Indigenous	LWBs	The LWBs have identified the need for a participant funding program in the past. For example, on page 11 of the 2011 MVLWB Perspectives on Regulatory Improvement in the Mackenzie Valley Paper , the LWBs state:

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	<p>parties requiring assistance to participate in the regulatory process, as well as technical support. <i>The outcome we expect is that Indigenous parties have adequate resources to meaningfully participate in licensing/permitting processes. In the interim, and until such time as a capacity funding program can be developed, we encourage the GNWT provide staff services (in-kind support) to provide technical advice and information to interested Indigenous parties in order to allow Indigenous parties to understand the project impacts and potential mitigations for development of recommendations to the LWBs.</i></p>		<p>As many parties have put forth over many years since the establishment of the MVRMA, there is a need for intervenor funding to enable affected communities and broader public participation in project reviews. This is clearly a federal responsibility. As was raised under our discussion of Crown consultation policy, there is also a need for funding to enable Aboriginal organizations to effectively participate in project reviews as it relates to their section 35 rights and interests and for increased funding to enable government agencies to effectively support Board reviews in this context, including the provision of expert legal, policy, scientific, and technical advice. Additionally, there is a need for financial, institutional, and human resource capacity for Aboriginal organizations to ensure that among other things Traditional Knowledge is effectively incorporated into decision-making processes.</p> <p>Recently, during the environmental assessment for Diavik Diamond Mines Inc.'s proposal to deposit kimberlite into pits and underground, parties raised the issue about the need for funding following the environmental assessment phase. To illustrate, the Łutsel K'e Dene First Nation stated in its closing arguments that, "Funding should be made available for affected Indigenous governments and organizations to participate in the water licence and land use permit phase of the regulatory process in order to allow Indigenous parties [to] meaningfully participate in the entire regulatory process."</p> <p>However, the LWBs wish to re-iterate that a funding program, including its administration, is a responsibility held by the federal government. The LWBs are quasi-judicial decision-making bodies and as such, administering a participant funding program could 1) create a perception of bias towards groups who do or do not receive funding, and 2) become an unnecessary administrative burden on the LWBs.</p> <p>As identified in the 2020 Audit, CIRNAC has now developed the Northern Participant Funding Program to provide capacity funding for impact assessment review of major projects, and the LWBs strongly recommend that this Program be expanded to cover the LWBs' permitting and licensing process as well. This expansion of the current program would fulfill the intent of the Audit's recommendation.</p> <p>In developing the response to this recommendation, the LWBs have engaged with the GNWT.</p>
1-17	<p>The GNWT introduce a multi-year funding envelope for a portion of the IRMA funds; this is a leading practice for grant and contribution funding programs. We also recommend that the GNWT increase the IRMA funding envelope by an incremental amount commensurate with an appropriate index, such as cost-of-living differential or inflation, in order to continue to support Indigenous organizations at a similar level year-over-year. We further recommend GNWT help facilitate coordination opportunities between applicants where appropriate, since only the GNWT as the fund manager can identify similar project proposals that may benefit from cooperation. <i>The outcome we expect is reduced administrative requirements (with multi-year funds), adequate resources to meaningfully participate, and greater coordination and cooperation between applicants.</i></p>	<p>GNWT CIRNAC GNWT</p>	
1-18	<p>The LWBs and the inspection units of GNWT and the GoC establish a process to meet and discuss challenges and solutions with respect to the inspection regime in the Mackenzie Valley, specifically as it relates to clarifying roles and responsibilities, ensuring adequate inspector capacity, as well as timely and transparent inspections, reporting and follow-up. We further recommend boards ensure a record of findings, actions, and outcomes are published to ensure transparency and facilitate future auditing of progress. <i>The outcome we expect is that there is a clear understanding of roles and responsibilities related to enforcement and compliance, that inspectors have the capacity and necessary tools and resources to execute these responsibilities, and that the LWBs and GNWT Inspection work together with the goal of ensuring a functioning enforcement and compliance regime for MVRMA authorizations.</i></p>	<p>LWBs</p>	<p>There has been an informal process in the past for the LWBs, GNWT, and CIRNAC to meet to discuss compliance and enforcement issues, including annual inspector meetings and bi-monthly to quarterly joint meetings of senior level staff from GNWT-Lands, GNWT-ENR, and CIRNAC. Last year, the Executive Directors of the LWBs met with the Assistant Deputy Ministers (ADMs) of GNWT-ENR and GNWT-Lands to discuss the roles and responsibilities of inspectors regarding the enforcement of activities that require an authorization but do not have one; and the capacity of inspectors to conduct inspections and complete inspection reports. The LWBs aim to have regular meetings with the GNWT and CIRNAC to discuss specific compliance and enforcement issues, which largely fall under the governments' jurisdiction.</p> <p>As noted in the 2020 Audit, the LWBs have expressed concern about the capacity of inspectors, particularly for water licences, to conduct inspections and complete inspection reports. The LWBs are pleased to note that according to the 2020 Audit, the GNWT has confirmed that coordination and the division of roles between GNWT Lands and ENR inspectors could use improvement to enhance clarity and effectiveness. This is particularly important for regions of the Mackenzie Valley (e.g. the Dehcho) that seem to have a shortage of Water Resource Officers.</p>

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			Regarding the need for records of findings, actions, and outcomes to be published to ensure transparency and facilitate future auditing of progress, the LWBs place every document that is received on the public registry, unless it is deemed to be confidential. Therefore, it is essential that inspection reports are submitted to the LWBs on a timely basis. The LWBs will continue to work with inspectors to ensure that these records are up-to-date and available to the public. In developing the response to this recommendation, the LWBs have engaged with the GNWT.
		GNWT	
		GoC	
1-19	The GNWT develop and publish an overall project inspection scheme to assist regulators, the public, and permit holders in tracking of 'unacceptable' items from previous inspections all the way to their satisfactory conclusion and inspector sign-off. Furthermore, improvements could be made in the consistency of information collected to ensure future inspectors, the proponent, and regulators appreciate the context of an inspection. We encourage the GNWT to work with their Federal counterparts on this initiative, including CIRNAC and the Canada Energy Regulator. <i>The outcome we expect is that the GNWT adopt a publicly viewable singular common inspection scheme, to accompany the filing of multiple disparate inspector reports. Such a scheme would have a common numbering system to label an observation, event, or location. For each observation or event, the inspector would clearly describe their observation, the compliance tool deployed (surveillance, advice, direction, etc.), a description of the specific company action required, the due date for the company action, the date that the issue is closed in the opinion of the inspector, and the reason for closing the matter. Such a reporting scheme would greatly help multiple inspectors and regulators better track progress, and would assist auditing of the inspection regime.</i>	GNWT	
PART 2			
2-1	The RA to work with TK-holders to consider how best to recognize and utilize TK-based information in the evaluation of water quality and quantity trends and to develop a transparent process to guide the use of TK. <i>The outcome we expect is that TK-based information is available and utilized in water trend analysis in a way that is compatible and respectful for TK-holders.</i>	GNWT	
2-2	The RA develop and/or provide descriptions of the rationale and study design for individual monitoring stations sampled by the federal and territorial government and make this information available at a central electronically-accessible location. <i>The outcome we expect is that the network of long-term water monitoring stations in the NWT is described in a way that makes it possible to see gaps and overlaps and to understand the intent and purpose of monitoring stations.</i>	GNWT	
2-3	The RA perform a periodic review (e.g., every five years) of the overall monitoring network in the NWT to ensure that the network is sufficient to detect and explain trends in water quality and quantity. Monitoring locations should be added or dropped with the key consideration being their maintenance over the long term. Short-term monitoring programs are of limited use unless they are intended to answer a specific question over the short term. <i>The outcomes we expect are that water monitoring efforts are focused on stations located at sites that are representative of relevant watersheds and that can be maintained over the long term.</i>	GNWT	
2-4	The RA develop a lake-specific monitoring program. While there are hundreds of thousands of lakes in the NWT, reliable tracking of	GNWT	

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	<p>environmental trends could be conducted on a small subset of lakes stratified by size, watershed area and ecoregion. Ontario's Broad Scale Monitoring Program is referenced as an example of a program addressing large numbers of lakes in a systematic manner to document a) trends over time and b) the state of the resource. <i>The outcome we expect is that long-term water trend information is available to the RA for both rivers and lakes, to provide a comprehensive picture of aquatic health.</i></p>		
2-5	<p>The various large mining operations are compiling long-term (20+ years) records of water quality and biology in lakes as part of their AEMPs. These include reference lakes which document regional and climate-related changes. These records may be lost or discontinued after mines close. We recommend the GNWT consider assuming monitoring programs (or at least key stations within those programs) initiated by industry as an efficient way to build a database for lakes and rivers. <i>The outcome we expect is that the RA curtail the loss of millions of dollars in monitoring investments made by industry and increase their ability to detect changes over the long term. Overall, the recommendations in this section are meant to support a cost-effective and focused network of long-term water monitoring stations that can produce data suitable for the detection of trends and their potential causes in key NWT watersheds.</i></p>	GNWT	
2-6	<p>The GNWT improve the consistency and quality of trend analyses performed on available water monitoring data by implementing a consistent methodological framework for water. This would include:</p> <ol style="list-style-type: none"> 1. Core parameter list - Additional parameters could be included per the individual study goals, but a core list of required parameters for all monitoring in the territory would greatly increase the compatibility between data sets 2. Consistent analytical laboratory methods and detection limits required for all core parameters 3. Establish a statistical framework for: <ol style="list-style-type: none"> a. Outlier detection and removal b. Censored data handling prior to or as part of trend analysis <ol style="list-style-type: none"> i. Allowable percentage of non-detect samples ii. What concentrations to substitute for non-detects c. Trend Analysis methodology <ol style="list-style-type: none"> i. parametric or non-parametric testing <ul style="list-style-type: none"> • preferred trend method (Mann Kendall or other – we note that the more recent trend assessments all used Mann Kendall so some consistency seems to have established itself) ii. Critical p value for determining significance of trends iii. Defining Seasons (Flow regime vs. Calendar Year) <p><i>The outcome we expect is that trend analyses for all watersheds are performed using a consistent methodological framework to support consistent interpretation of results.</i></p>	GNWT	
2-7	<p>The GNWT implement a system of qualified peer review of all internally and externally produced reports on environmental trends. <i>The outcome we expect is that trend analyses for all watersheds are of consistent and adequate quality and that reports meet acceptable professional standards.</i></p>	GNWT	

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2-8	<p>The GNWT provide a framework for future trend reports to follow for the evaluation of data such as a requirement that the authors interpret the significance and potential causes of any observed environmental trends, and that they address the potential for cumulative effects. <i>The outcome we expect is that watershed trend reports by contractors for the GNWT follow a consistent framework of interpretation and provide a discussion of significance of any trends in order to inform the GNWT such that they can respond in an appropriate way.</i></p> <p><i>The overall outcome of Section 2.1.3 and 2.1.4 is that trend analyses and summary reports prepared for each watershed accurately and defensibly describe the presence, causes and environmental significance of detected trends.</i></p>	GNWT	
2-9	<p>The RA work with other appropriate GNWT divisions and parties in the NWT to evaluate how best to improve their water monitoring efforts with the goal of ensuring that any data collected reflect the information needs of residents and could be used for trend analysis and CIM of water. With respect to trend analyses, the evaluation should focus on how best to optimize the availability of long-term data sets to provide good coverage of the NWT and address the gaps identified in Section 2.1.2. <i>The outcome we expect is that water monitoring efforts in the NWT adequately address stakeholder concerns.</i></p>	GNWT	
2-10	<p>The GNWT improve the communication of available water monitoring information to residents. These efforts should include increased recognition of public concerns in program design (see also Recommendation 2-9), interpretation of trend monitoring information (see also Recommendation 2-8), the reasons for monitoring and site selection (see also Recommendation 2-2), increased emphasis on plain language summaries and interpretations derived from more detailed technical analyses and improved awareness of where and how such information can be accessed. <i>The outcome we expect is that NWT residents are aware of and understand water trends in their regions.</i></p>	GNWT	
PART 3			
3-1	<p>The RA identify an overarching coordinator to ensure the RA's responsibilities under MVRMA Section 146 are fulfilled; a logical coordinator could be the existing NWT CIMP. The coordinator for the RA must be given the authority including appropriate resources to direct the monitoring of other parties such that various entities collect information in a coherent manner according to an accepted monitoring structure and with the authority of regulations to ensure cooperation. <i>The outcome we expect is that the relevant business units with responsibility for CIM and trend monitoring are coordinated in delivering the RA's responsibility.</i></p> <p>We recognize that implementation of Recommendations 3.1 and 3.2 may result in several business units having increased responsibilities. Therefore it will be important to ensure the GNWT provides adequate resources to carry out their new responsibilities.</p>	GNWT	
3-2	<p>The GNWT, on the advice of the overarching coordinator identified in Recommendation 3-1, formally assign roles, responsibilities, and accountabilities, to relevant business units (i.e. other departments, expert divisions and programs that are involved in monitoring). <i>The outcome we expect is that relevant business units have clarity in their contribution to fulfilling the RA's responsibility under MVRMA Section 146.</i></p> <p>We recognize that implementation of Recommendations 3.1 and 3.2 may result in several business units having increased responsibilities. Therefore</p>	GNWT	

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	it will be important to ensure the GNWT provides adequate resources to carry out their new responsibilities.		
3-3	<p>The RA develop a monitoring structure that will ensure that individual monitoring programs undertaken across the NWT can contribute to baseline description, trend analyses and CIM by the RA. This should be done in consultation with other organizations or departments that conduct or direct monitoring in the NWT. This structure could be implemented through policy, guidelines and/or regulations and should define standards for monitoring such as:</p> <ul style="list-style-type: none"> • Rationale for site selection • Core parameter or indicator lists for each VEC • Sampling methods and analytical methods (e.g., detection limits, etc.) • QA/QC and other data handling methods • Statistical methodology • Evidence that the results of individual monitoring programs were being reviewed by the RA, the methods and interpretation verified, and the results disseminated <p><i>The outcome we expect is that there is a common set of rules and expectations to guide monitoring in the NWT such that results across a range of monitoring programs are compatible for the purpose of trend and CIM analysis.</i></p>	GNWT	
3-4	<p>The co-management boards use their ability to impact the design of monitoring programs to ensure the adoption of consistent monitoring requirements for proponents. The outcome we expect is that industry's monitoring efforts will be able to aide the RA in meeting its Section 146 responsibilities <i>The overall outcome we expect from the above recommendations is that existing and future monitoring programs in the NWT contribute meaningfully to environmental trends analyses and CIM efforts by the RA.</i></p>	LWBs, including IWB	<p>There are examples of LWB efforts made to ensure the adoption of consistent monitoring requirements by proponents. Page 63 of the 2020 Audit describes the CIMP and LWB joint initiative on guidelines for reporting water quality data. The LWBs are involved in an initiative to standardize Surveillance Network Program (SNP) requirements for municipal water licences through the development of guidance manuals for communities.</p> <p>The design of monitoring programs required by the LWBs through permit and/or water licence conditions is impacted by evidence gathered during regulatory proceedings. With respect to monitoring effects in aquatic environments, the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs (AEMP) is a high-level document that guides proponents with the development of their monitoring program, but does not include required technical specifications for sampling methods (e.g. specific QA/QC procedures, minimum detection limits, sampling schedules). Consequently, the data collected by different proponents through water licence AEMP requirements are not necessarily standardized, and may not contribute meaningfully to a dataset that is to be analysed for environmental trends or cumulative impacts.</p> <p>If the GNWT does not provide evidence for monitoring programs to be designed in a certain way, it is challenging for the LWBs to include conditions and/or approve monitoring plans that will result in consistent monitoring requirements for proponents. Standards or guidelines with specifications that would help inform cumulative impacts monitoring could potentially be used to help guide the development of these monitoring programs and help inform Board decisions. The development of such standards/guidelines is currently hindered by the lack of an overarching framework within which to obtain and consider cumulative impacts data in a meaningful and consistent manner.</p>
		RRBs, including FJMC and WMAC-NWT	
		MVEIRB, EISC and EIRB	
		LUPBs	
3-5	The GNWT and CIRNAC work together to develop regulations under Section 150(a) of the MVRMA to ensure implementation of a monitoring structure for the NWT that would help the RA to successfully fulfill Section 146 responsibilities. <i>The outcome we expect is that entities that conduct</i>	GNWT	
		CIRNAC	

#	Recommendation	Accountable	Responses
	<i>monitoring or cause others to conduct it are required to contribute usable data to the RA in support of its Section 146 responsibilities.</i>		
PART 4			
4-1	<p>The MVEIRB and the LWBs clearly describe the specific information required from government, including the RA, that would aid the boards in considering cumulative impacts in making decisions. We encourage the boards to consider what data, analyses, interpretation, and significance requirements would help inform cumulative effects assessment (MVEIRB) and cumulative impact management (LWBs).</p> <p>We would expect, for example, that the boards might outline requirements for government to provide baseline status of VECs subject to a development proposal and that this would form the basis of the cumulative impact assessment by the proponent. <i>The outcome we expect is for board process participants to better understand what is expected of them allowing them to improve their submission in individual proceedings and, more broadly, to assist the RA in identifying monitoring priorities.</i></p>	<p>MVEIRB</p> <p>LWBs</p>	<p>It is currently difficult for the LWBs to consider cumulative impacts because there is no overarching framework within which to be able to obtain or consider cumulative impacts information in a consistent matter. The LWBs are of the opinion that it is the responsibility of the GNWT, in collaboration with relevant partners (e.g., Indigenous Governments and Organizations, LWBs, MVEIRB), to develop such a framework.</p> <p>Currently, the LWBs are limited to making decisions on a case-by-case basis as a result of evidence provided during proceedings. When information is provided, or if potential cumulative impacts are known, then these can be reflected with conditions to a permit and/or licence. For example, the LWBs have included conditions in permits related to limiting activities during nesting season for birds. As another example, if evidence is presented during a proceeding for a water licence that other Effluent Quality Criteria (EQC) values from other projects should be considered for a certain waterbody, as there could be cumulative impacts to the waterbody based on all discharges, the LWBs could take this evidence into account when making a decision on the final EQC for the project that is under review.</p>
4-2	<p>The RA consider a risk-based, CIM strategy, prescribing the design and delivery of a CIM program to meet Section 146 of the MVRMA, in response to evidence that a particular VEC is demonstrating a concerning negative trend. Traditional knowledge may be a particularly valuable method of tracking wildlife populations such as caribou, in which TK observations could alert the RAs to a change and could then inform development of a response framework. <i>The outcome we expect is that when a substantial concern in a VEC is identified, comprehensive CIM is deployed in order to help determine the possible cause of the change.</i></p>	GNWT	
4-3	<p>The RA design a coherent cumulative impacts monitoring and assessment framework for the NWT that includes clarity on language, the role of different organizations, policy directions for boards and departments, monitoring protocols, and advice for industry to manage and consider cumulative impacts. <i>The outcome we expect is that the roles and responsibilities of all entities with respect to CIM in the NWT are clear and agreed upon.</i></p>	GNWT	
4-4	<p>The boards publish their CIM knowledge gaps on a regular schedule and request a response from government on how they may assist in providing information. <i>The outcome we expect is that the RA is consistently updated on the needs of the boards with respect to knowledge gaps that if filled would aid in the board's decision-making.</i></p>	<p>LWBs, including IWB</p> <p>RRBs, including FJMC and WMAC-NWT</p> <p>MVEIRB, EISC and EIRB</p> <p>LUPBs</p>	<p>All information submitted to the LWBs and all LWB decisions are posted to the LWBs' public registry. Thus, any decisions or issues raised with respect to cumulative impacts are publicly available.</p> <p>In addition, the LWBs collate issues/questions that have arisen during proceedings related to cumulative effects. This information is regularly communicated to CIMP.</p> <p>The biggest limitation/gap at the moment is the absence of a framework within which to be able to obtain or consider cumulative impacts information in a consistent matter. It is difficult to identify gaps in the absence of a framework. The LWBs are of the opinion that it is the responsibility of the GNWT, in collaboration with relevant partners (e.g., Indigenous and Government Organizations, LWBs, MVEIRB), to develop such a framework.</p>
4-5	<p>When evaluating NWT CIMP funding proposals, the NWT CIMP Steering Committee ensure they consider the needs of decision-makers and document how these concerns were addressed in their funding decisions. <i>The outcome we expect is that the results of projects funded by NWT CIMP are increasingly relevant for decision-makers.</i></p>	NWT CIMP Steering Committee	
4-6	<p>The NWT CIMP continue to evaluate its monitoring priorities on a five-year cycle in response to findings from monitoring and research, and that it</p>	GNWT	

#	Recommendation	Accountable	Responses
	provide specific directions and conclusions to decision-makers in the form of memoranda, NWT CIMP-certified monitoring protocols, policies, and customized project-specific advice. <i>The outcome we expect is that NWT CIMP enhances the delivery of products that are usable by decision-makers.</i>		