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## **ID Topic**

1 Traditional

Knowledge

#### **Reviewer Comment/Recommendation**

maximize safety and cost-efficiency.

of Traditional Knowledge (TK) in the design and execution of AEMPs. As referenced in the Guidelines, TK can offer unique and useful perspectives on environmental systems, and can ensure data is collected in ways which

#### **GNWT and Board Staff Response**

Comment ADKFN recognizes that the Guidelines promote the incorporation We appreciate the acknowledgement that the Guidelines promote incorporation of TK in an appropriate manner. No changes to document requested.

**Recommendation** Proponents should solicit TK from ADKFN and other local Indigenous communities during the design and implementation of AEMPs.

#### 2 Engagement Recommendations

**Comment** ADKFN acknowledges the various Engagement Recommendations offered throughout the Guidelines at each stage of AEMP design and execution.

**Recommendation** It should be stressed to proponents that these recommendations be followed at each stage of an AEMP, to ensure the meaningful and effective engagement of Indigenous communities.

We appreciate the acknowledgement that the Guidelines promote incorporation of TK in an appropriate manner. No changes to document requested.

#### De Beers Canada Inc. - Snap Lake: Alexandra Hood

#### **ID Topic Reviewer Comment/Recommendation**

**1** Definitions **Comment** The definition of waste details the waters act but excludes the environmental protection act and how it influences the deposition of

waste.

**Recommendation** Include considerations for the EPA within the definitions as well as under authority if necessary.

**2** Table of Contents

**Comment** The table of contents has many requirements, some of which appear to be unnecessary, or can become onerous (such as listing accountability, and environmental assessment sections such as the project description. The AEMP is comprehensive and redundancy with other documents will only make it more difficult to review.

**Recommendation** Remove unnecessary requirements.

that require an **AEMP** 

3 Section 1.1 Projects Comment Section 1.1.1 notes that water licenses may be required for projects with an indirect deposit of waste via seepage, run-off, groundwater or air

#### **GNWT** and Board Staff Response

Because the Waters Act applies to both the GNWT and the Land and Water Boards of the Mackenzie Valley, its definition is the most appropriate for these guidelines

It is assumed that the reviewer is referring to Appendix 1 since the Table of Contents of the main document does not contain references to accountability etc. The introduction to the Appendix states that proponents may suggest alternative formats for the AEMP Design with rationale if necessary. No changes were made to document.

The Guidelines are meant to be applicable to a wide variety of project types, all operating in very different receiving environments. As it is not possible to provide specific details for each potential project, the Guidelines **Recommendation** The AEMP requirements are clear as to how effects are monitored through impacts to water. However it is uncertain as to how these measures will be applied as it relates to air quality. The Board needs to be clear as to what legislative mechanism allows the Board to govern air available on a case-by-case basis. Proponents and affected parties who quality and how the associated requirements would trigger a water license. wish to discuss project-specific details should speak to staff at the LWBs or The mechanism for deposition and associated thresholds related to air are unclear and need to be fleshed out.

only contain information that is likely applicable to most projects requiring an AEMP. As reiterated throughout the Guidelines, the Board will set the specific AEMP requirements for each project based on the evidence ENR directly.

objectives

4 Section 1.1.3 AEMP Comment Section 1.1.3 notes "By monitoring effects to water quality as well as fish food (i.e., plankton, benthos) and fish health, assumptions about the cumulative impact of the simultaneous increase in contaminant concentrations can be better understood." The use of plankton as an indicator is difficult as there are many potential stressors and a lot of potential contributing factors to results. It is suggested that the Boards reevaluate the usefulness of this indicator.

The monitoring parameters proposed by the proponent, and that of expert reviewers will be considered. Equipped with this evidence, specific AEMP requirements for each project will be determined by the Board. A discussion on usefulness of plankton and a discussion to include it as part of an AEMP will be determined on a case-by-case basis.

**Recommendation** The Boards should collectively review the necessity and value of plankton as an indicator species for environmental change.

objectives

the regulatory process is the ability to measure cumulative effects of a project in combination with other developments. The AEMP should be designed to collect the data necessary to test predictions of cumulative effects made during the environmental assessment or operation of the project whether from anthropogenic activities or natural processes." The onus of collecting data for cumulative effects for future projects should not be the burden of the company being permitted. It is also unclear in this section as to what requirements will be dictated by the GNWt and boards in regards to "regional monitoring". Often times it is difficult to ascertain the source of potential contaminants if discharging in this area and it is difficult for a company to synthesize multiple data sets from different companies. It would be useful for the Board to develop clear guidance on this aspect.

5 Section 1.1.3 AEMP Comment Section 1.1.3 item 3 notes that "An important consideration11 in The requirement to examine cumulative effects has been outlined already. The Board and GNWT acknowledges future work is required on processes and methods. No changes were made to the document.

> **Recommendation** Cumulative effects monitoring has been discussed frequently in recent stakeholder comments, however the metrics for implimentation and roll of the GNWt and the Boards is unclear and needs to be fleshed out.

6 Table 2 **Comment** Table 2 discusses the timing of action levels and how it will be stipulated in the design plan.

> **Recommendation** As the timing for a response plan varies depending on the nature of the exceedance, De Beers suggests that the submission date should be left variable and be stipulated in the notification of action level exceedance.

In Table 3 entitled, Regulatory Requirements for an AEMP Response Plan, the Guideline indicates that the timeline for submission of a Response Plan shall be set out in the approved AEMP Design Plan. This allows the proponent to propose the best time for response and notification. No changes to document.

**7** 1.3.3 **Comment** Section 1.3.3 stipulates various examples of best practices but does not take into account the requirements for solutions to be based on technologies that are also technologically achievable

As the reviewer notes, the Guidelines anticipates Use of Best Practices, and that this includes current practices, lessons learnt, precedents, etc. Proponents may suggest best practices on a case by case basis, including BATEA, to the Board during any proceeding. No changes to document.

**Recommendation** De Beers suggests that the Board include provisions for BATEA in this document and how it impacts decision making.

8 Section 2.1.2 **Comment** Section 2.1.2 includes engagement recommendations for this component. De Beers notes that identifying all potential possible impacts may not be realistic or relevant.

> **Recommendation** It is suggested that engagement recommendations be included as its own appendix as considerations as opposed to entrenched within the main document, which convolutes the document. Furthermore, the kinds of actions and response timing is more relevant to the process then identifying every potential "what if" as such De Beers argues that this include engagement and TK considerations where they are appropriate in requirement should not be included in the guidance document.

The Board has heard from proponents and interested parties that there were gaps in the level of guidance related to engagment and inclusion of traditional knowledge in environmental monitoring. The Board has now provided many examples to help proponents with engagement and inclusion of TK in all steps of the AEMP in an integrated manner. Separating engagement and TK considerations in an appendix may lead to it being overlooked during the design of an AEMP. GNWT/Board staff have aimed to AEMP development phases.

**9** Section 2.3.1 **Comment** Section 2.3.1 States "Depending on the type of Action Level exceedance, appropriate actions may range from further studies to implementation of additional mitigations to reduce the amount waste that needs to be discharged from site."

**Recommendation** Fix grammatical error and include of (amount of waste)

A change was made as follows: ".. of additional mitigations to reduce the amount 'of' waste that needs to be discharged.."

#### Dominion Diamond Ekati Corporation: Laura Pacholski

#### **ID Topic**

## **1** Section 3.2.2, Action Levels and Responses

### **Reviewer Comment/Recommendation**

Comment In Section 3.2.2, the guidelines specify that "Three tiers of Action It has been our experience recently that in the setting of moderate and Levels need to be set in a Response Framework: Low, Moderate, and High". high action levels, reviewers spend an inordinate amount of time focusing Establishing low, moderate, and high action levels can be time consuming, technically challenging, and expensive. As recognised in the guidelines; "...moderate and high action levels are more complex and, therefore, more proponents. Proponents should scope out medium and high action levels challenging to set than the low action level". Limiting this investment for proponents to establishing low action levels only, is still protective of the aquatic receiving environment by providing a measure that functions as an made to the document. early warning system to provide protection of the aquatic recieving environment. Should the low action level be exceeded, then the added time and expense can be invested in establishing moderate and high action levels, in addition to mitigation and control measures.

#### **GNWT** and Board Staff Response

on next steps after a Low Level exceedance. This has led to delays in approving Response Plans and has required multiple submissions by and provide an indication of severity and spatial extent. Planning for worst case scenario is sound environmental management. No changes were

**Recommendation** Revise the recommendation to negate the need for a moderate and high action level until a low action level is exceeded.

2 Section 3.2.2, Action Levels and Responses **Comment** The guidelines recommend that at a minimum, Action Levels should be set for: - all measured ecological indicators of a Valued Ecosystem Component identified in a preliminary screening or environmental assessment; and, - all contaminants of concern that were identified through the licensing process. While it is reasonable to recommend establishing action levels for identified contaminants of potential concern, it would be an enormous undertaking to establish action levels for all measured ecological indicators of a Valued Ecosystem. Including all measured ecological indicators of a Value Ecosystem could equate to over 50 constituents with three action levels per constituent. Concentrations of many measured ecological indicators may not exeed or even come close to exceeding a low action level in the life of a mine, so this additional recommendation is excessive and unnecessary. Furthermore, the recommendation does not make allowance for exclusion of action levels for constituents that are numerical indicators of water quality and not constituents of the water themself (e.g., total alkalinity, hardness, specific conductivity) or constituents that are adequately and appropriately represented by other constituents (e.g., calcium, magnesium, turbidity). Action levels function as an early warning system to provide protection of the uses of the aquatic recieving environment and thus, are set well in advance of when water quality benchmarks might be reached. However, water quality benchmarks may not have been established for all measured ecological indicators and therefore, water quality benchmarks would need to be established prior to setting action levels. Water quality benchmarks may not have been established where constituents are not deemed to be of concern or where no existing water guidelines exist or there is limited published literature.

**Recommendation** Revise the recommendation to only include contaminants of potential concern.

Ecological indicators are not equivalent to water quality parameters. The proponent can propose the number and type of ecological indicators it sees fit based on the evidence it has collected; for consideration by the Board. However, Action Levels will be required to be set for relevant ecological indicators. The words "All" was removed from the text to reflect use of best judgement.

**3** Section 3.2.2. Relationship of **Effect Predictions** and Action Levels

actions to be taken to stop a negative environmental trend even if the trend was predicted in the project's environmental assessment". Should a negative environmental trend have been predicted, then reasonable actions would already have been considered during the environmental assessment process and implemented where feasible and worthwhile during subsequent monitoring of the trend. Additional actions could be considered as part of the Aquatic Response Framework and associated Response Plans.

**Comment** The guidelines state that ". the Boards could require reasonable The reviewer suggests that it is obvious that actions be taken to prevent negative effects identified in the EA and the text should be revised to remove this obvious statement. It is GNWT/ Board staff's experience that the statement is not always obvious to all parties. No changes to text.

#### **Recommendation** Consider revising text.

Environment a	nd Climate C	hanga Canac	la: Melissa Pinto
	mo Ciimale C	mange Canac	ia: Melissa Pinto

**ID Topic Reviewer Comment/Recommendation** 

1 General **Comment** Environment and Climate Change Canada has reviewed the Guidelines for Aquatic Effects Monitoring Programs Draft 2 and has no

comments at this time.

Recommendation N/A

#### **GNWT - ENR: Central Email GNWT**

**Reviewer Comment/Recommendation ID Topic** 

1 General File **Comment** No Comments or Recommendations at this time.

Recommendation

# **GNWT** and Board Staff Response

No changes to text.

No changes to text.

**ID Topic** 

#### **Golder Associates: Leah James**

## 1 General:

#### **Reviewer Comment/Recommendation**

Incorporation of TK be incorporated into the design and execution of an AEMP. It is agreed that whether the information is anecdotal, scientific, or traditional knowledge, inclusion of TK is an important consideration in the development of a monitoring program; however, the decision to include TK should be made on a case-by-case basis and in circumstances where the information is available and appropriate to include. For instance, permission to use TK should be granted prior to including information in a report or study.

> **Recommendation** Include a qualifier that incorporation of TK should be considered where available and appropriate information exists. This would be evaluated on a project by project basis.

**GNWT** and Board Staff Response

#### **GNWT** and Board Staff Response

Comment The guidance document recommends that traditional knowledge Decisions are made based on available evidence that is presented before it, therefore the suggested qualifier is not required. However, the processes outlined in the Guideline would also assist proponent to gather TK where this knowledge does not explicitly exist. By developing a relationship with knowledge holders and asking the right questions as suggested in the Guideline, the proponent may be able to uncover relevant TK and local knowledge.

**2** Section 1.1.1 **Comment** Consideration of inputs other than direct discharges provide input on the level of detail required to characterize loadings form nonwater discharges (e.g., dust deposition). The level of detail and depth of

> **Recommendation** Provide input on the level of detail required to characterize loadings from non-water discharges (e.g., dust deposition).

review on this aspect are currently inconsistent among AEMPs.

The Guidelines are meant to be applicable to a wide variety of project types, all operating in very different receiving environments. As it is not possible to provide specific details for each potential project, the Guidelines only contain information that is likely applicable to most projects requiring an AEMP. As reiterated throughout the Guidelines, the specific AEMP requirements for each project will be determined on a case-by-case basis and will be based on the evidence presented and available to the Board.

3

be used to assess cumulative effects and impact prediction. During review of the first draft of the guidance document, several reviewers commented on the need for further guidance specific to cumulative effects. Board and GNWT staff acknowledged these suggestions and indicated that they will be cumulative effects predictions could rest on them. The sentence has been taken into consideration for future work. However, the wording of Section 1.1.3 remains problematic. The text implies that the burden of developing and overseeing a cumulative effects monitoring program should fall solely the proponent. While it is acknowledged that proponents are responsible for contributing to these programs, typically, responsibility for oversight and initial development of a regional cumulative effects monitoring programs would fall to a government agency. However, there is no mention monitoring is the responsibilities of others but, for situations in which of involvement of the boards or GNWT in coordinating or contributing to such an effort.

**Recommendation** The text should be revised so that the roles and responsibilities for proponents and government entities regarding regional cumulative effects monitoring are more clearly defined. More guidance is needed on how to implement this aspect, clarification on what government agency is responsible to coordinate this and what their requirements are; who's responsible for standardizing field methods to achieve consistency with data collected by other developments.

3 Section 1.1.3, Bullet Comment Section 1.1.3 states that proponents must provide data that can The AEMP and section 1.1.3 of the Guideline focuses on the proponent's responsibilities with respect to their obligations to monitor for the cumulative effect contribution of their project. Bullet 3 of section 1.1.3 could be misinterpreted by proponents that the onus of being able to test revised to read: "The AEMP should be designed to collect the data necessary to 'help' test predictions of cumulative effects made during the environmental assessment or operation of the project whether from anthropogenic activities or natural processes."

> The last sentence of this section suggests that regional cumulative effects individual proponents can offer contributing data points, the Guidelines identify the the Board 'may' require methods, parameters, and sampling locations in the AEMP that facilitate integration with such 'other' programs.

The Guidelines may be revised in future should additional information become available with respect to regional cumulative effects monitoring. 4 Section 1.1.3 and Appendix 1

**Comment** Section 1.1.3 states that AEMPs must provide data that can be used to assess cumulative effects and impact predictions. However, the AEMP Design Plan Template provided in appendix 1 does not include mention of, or guidance for reporting on cumulative effects monitoring.

At this time, there are no standard test methods related to cumulative effects monitoring in the NWT. The Guidelines may be revised in future should specific information be required with respect to the reporting of monitoring data that is relevant to regional cumulative effects studies. Until then, the need for providing data relevant to cumulative effects studies will be decided on a case by case basis. No changes were made to the document.

**5** Section 2.1.5. first paragraph

**Recommendation** Guidance for reporting on cumulative effects monitoring should be added to Appendix 1. **Comment** Section 2.1.5 states that "The proponent must produce a Design

Plan document which includes the AEMP sampling design, the analysis and sampling plan, the quality assurance plan, data quality objectives, the field health and safety plan, and the Response Framework". The requirement to Guideline and the Board's jurisdiction in general. This requirement has include a "field health and safety plan" in the AEMP Design Plan is unnecessary and is not a technical aspect of the AEMP. The responsibility for health and safety relevant to an AEMP rests with the proponent and their consultants and requires no regulatory review. Proponents and their consultants carrying out the field programs have their own internally generated and managed health and safety programs that are specific to the project site and study areas. These plans are continually updated and revised to be responsive to health and safety needs at the time of monitoring. Further, this aspect does not appear to be captured in the template in Appendix 1.

**Recommendation** The requirement to include the field health and safety plan as a component of the design plan should be removed.

Proponents have cited conflict with a field health and safety plan to explain an inability to collect environmental information. We agree with the reviewer, including the H&S plan seems outside of the scope of the been removed from the Guideline.

6 Section 2.1.5

**Comment** The requirement for the AEMP Design Plan to provide "information on all the previous steps" relating to development of the AEMP design is an unnecessary requirement that increases the size of the Design Plan, without a useful purpose. Additionally, this aspect is not captured in the template in Appendix 1. This point is also relevant to other steps in the implementation of an AEMP such as the re-evaluation that is mandatory every three years. It is not efficient and repetitive to provide a substantial amount of the information included in the re-evaluation in the design plan as well. If there is a specific reason to include specific information from the design plan, then that would be appropriate but otherwise, a short synopsis and clear reference to sections of the design plan would be sufficient. This approach would improve efficiency in the AEMP reporting process.

**Recommendation** The requirement to include "information on all previous steps" relating to development of the Design Plan should be removed. Consideration should be given to limiting the level of repetition in the AEMP re-evaluation report.

1.3

7 Appendix 1, Section Comment Section 1.3 of the proposed AEMP Design Plan template is entitled "AEMP Team Accountability". It is not clear what is meant by the requirement to include accountability, and the usefulness for providing reporting relationships. The AEMP Design Plan is a product of the proponent, and authorship is typically clearly indicated in the final document. Information beyond this is not necessary for the purposes of the for Board approval. Section 1.3 of the Design Template was removed. document.

> **Recommendation** The requirement to include detailed information related internal and external organizational relationships and responsibilities should be removed.

The AEMP Design Plan should include information on all the steps outlined in section 2.1, including a) a definition of the issue, b) identifying key connections, c) gathering information, and d) asking the right questions. However, section 2.1 provides guidance only. The proponent should use best judgement in formatting the document, the use of clear references, use of a synopsis, and approaches to avoid repetition.

Acknowledged, butan AEMP is reviewed by a diverse audience including communities and regulators. Inclusion of the steps outlined in section 2.1 is important in providing context and explaining what is and is not monitored, and the reasons for these decisions. A sentence was added to the Guideline stating: "as future versions of the AEMP are developed/considered, reference to earlier documents could be made". This would eliminate repition in the future, but this type of background is only required during the first interations of the Plan.

The Team Accountability section is new to the AEMP document and not something that has typically been part of the AEMP. This is something that could change year to year, based on available consultants and budgets. It would seem onerous to require an update to the Design Plan if there was a change in consultant. It is agreed that a change in consultant shouldn't be

from 2009, which is not consistently being followed by proponents, nor are end-users as they see fit. Efforts have been made to avoid duplications and its recommendations consistently enforced. As indicated in the template in conflicts between guidance documents. Some minor editorial changes Appendix 1. The INAC guidance document from 2009 is not necessarily consistent with the draft AEMP guidelines being reviewed and so it creates clarify the relationship to the 2009 INAC Guidelines. No further changes confusion to be referring to the 2009 document. It would be more appropriate to concentrate the guidance on the newly drafted guidelines and then leave it to the proponent's discretion as to whether they use information from the 2009 document that has now been superseded by these draft guidelines. Furthermore, the draft guidelines advocate an approach to effects monitoring that incorporates elements of a risk assessment approach rather than the more rigid risk assessment approach to AEMP monitoring described in the 2009 document. Effects monitoring programs such as AEMPs have different requirements from standard risk assessments.

8 Appendix 1, Section Comment This guidance document refers to the INAC guidance document These guidances should be used as required by reviewers, Board staff and were made to version 1 in the Purpose section of the Guidelines to help were made to the Guidelines.

> **Recommendation** Remove specific reference to the INAC guidance document from 2009, other than acknowledging it exists.

**9** Section 3.2.2, Description for low Action Level on Page 34

**Comment** The description given for a low Action Level in the table shown on page 34 suggests that a low trigger would occur if "any" measurable effect can be detected. This is a very low trigger for a low Action Level. Small measurable changes are typically subject to uncertainty and may qualify as an early-warning indication of effects but are not appropriate as Action Levels.

**Recommendation** The description for a low Action Level should be revised so that it does not imply that "any" effect could be considered to trigger a

The text was reviewed but no language was detected that suggested "any" detected effects are considered for Low Action levels. GNWT/Board staff encourage the proponent to outline in the AEMP design and response framework the methods used to identify action level thresholds. No changes were made to the document.

**10** Section 3.2.2

low Action Level.

**Comment** Based on prior experience, it is recommended that proponents test new Action Levels (or revisions to existing Action Levels) using real monitoring data (e.g., baseline or AEMP data, if available) prior to proposing an Action Level. Testing a new Action Level will help confirm that it is being triggered as expected and that it is sequential within the overall Response Framework. If possible multiple years and parameters should be considered in this analysis.

The Guideline aimed to provide minimum requirements. The suggestion made by the reviewer is an excellent suggestion, but is above a minimum requirement. No changes were made to the document.

**Recommendation** Section 3.2.2 should include a recommendation to test Action Levels in the response framework as part of Design Plan development.

**11** Section 3.2.2. second bullet **Comment** The text states that at a minimum, Action Levels should be set for "all contaminants of concern that were identified through the licensing process". In this context are "contaminants of concern" variables with effluent quality criteria? If so, our experience has shown that constituents with EQC are not always the variables that show the most apparent trends. document. It is recommended that at a minimum, COPCs identified through the licensing process and all other variables that show trends be considered in the Action Level screening.

The Guideline envisions examining monitored parameters that are most useful in examining trends. At a minimum, ecological indicators and contaminants of concern are required. Other parameters and COPCs could also be included on a case by case basis. No changes were made to the

**Recommendation** The Action Level screening should include at a minimum, variables identified as COPCs as part of the licensing process as well as any other variables that show trends.

**12** Section 3.2.2 Setting all Action Plan

Comment Based on experience with developing Response frameworks, this See DDEC comment #1 represents a level of effort and level of regulatory review that requires Levels in the Design efficiency to be considered. During the initial years of an AEMP, the low Action Level often requires adjustment, which then may require all Action Levels to be adjusted, with full review. It is unlikely that all measured ecological indicators for all monitoring components would trigger a low Action Level during the course of an AEMP, calling into question the necessity to expend effort to develop medium and high Action Levels for all indicators. The currently applied approach for developing the moderate Action Level upon a verified Low Action Level trigger appears reasonable. & nbsp; Low Action Level triggers are frequently reported for single variables, which then necessitate developing medium Action Levels, whether the trigger by the single variable represents a spurious result or is supported by changes in other variables/components. Therefore, development of higher Action Levels is suggested as a follow-up action after confirmed low Action Levels triggers supported by other monitoring results.

**Recommendation** Development of higher Action Levels is suggested as a follow-up action after confirmed low Action Levels triggers supported by other monitoring results.

**INAC - CARD: Dinah Elliott** 

**ID Topic Reviewer Comment/Recommendation**  **GNWT** and Board Staff Response

#### **1** Section 1.1.1

**Comment** It is somewhat unclear what kinds of projects will require an AEMP. Should it be deemed a project requires an AEMP late in the regulatory process, project delays can occur, which can have economic impact and affect the feasibility of a project.

**Recommendation** Please clarify what kinds of projects will require an AEMP.

Given the wide variety of projects requiring water licences, it is not possible to produce an exhaustive list of circumstances for when AEMPs would be required outside of mining/milling and oil/gas operations requiring a Type "A" licence. If the Guidelines were to present a non-exhaustive list, proponents might believe that if their specific circumstances were not on the list then it automatically does not require one when, in fact, it will be decided on a case-by-case basis. For this reason, no additional criteria have been listed in the Guidelines. Proponents are encouraged to speak to GNWT/Board staff to discuss the specific needs of their projects well in advance of submitting a water licence application.

#### **2** Components of **AEMPs**

**Comment** It is unclear if all AEMPs will require all components, if no effect is expected (hydrology, water quality, plankton, sediment, benthos, fish health/population, fish tissue). If all these components are required and require a baseline, it may have an impact on projects that are already permitted or in the process.

Recommendation Clarify if all AEMPs will require all components or if it will available on a case-by-case basis. Proponents and affected parties who be project specific.

The Guidelines are meant to be applicable to a wide variety of project types, all operating in very different receiving environments. As it is not possible to provide specific details for each potential project, the Guidelines only contain information that is likely applicable to most projects requiring an AEMP. As reiterated throughout the Guidelines, the Board will set the specific AEMP requirements for each project based on the evidence wish to discuss project-specific details should speak to staff at the Board or **GNWT-ENR** directly.

### **3** "Best professional standards"•

**Comment** What is the definition of "best professional standards"?

professional standards

Section 1.3.3 of the Guidelines anticipates Use of Best Practices, and that this includes current practices, lessons learned, precedents, etc. The Recommendation Define "best professional standards" or revise to current proponent is welcome to identify or suggest any best practice which will be reviewed and approved on a case by case basis. No changes were made to the document.

#### **4** Engagement Recommendations

**Comment** Engagement recommendations are not scaled to the size of the project.

**Recommendation** Consider revising or providing scaled engagement for AEMPs for smaller and/or short term projects.

The Guidelines are meant to be applicable to a wide variety of project types, all operating in very different receiving environments. As it is not possible to provide specific details for each potential project, the Guidelines only contain information that is likely applicable to most projects requiring an AEMP.

**ID Topic** 

**Reviewer Comment/Recommendation** 

**Board Staff Response**No changes proposed

1 Whole Report

Comment The SRRB has reviewed the Guidelines and has only a couple of comments. Version 2 of the Guidelines provides a general overview of what is suggested for an AEMP but provides few details as to how a proponent would achieve the objectives of the AEMP. It is assumed that many of those details would be specified by the relevant Board in the Water Licence. It is likely that setting meaningful "Action Levels" would be very difficult for many projects because of the large uncertainty in detecting changes in many endpoints (e.g., reduction of 10% of the fish population, or impacts to the benthic population). This high uncertainty will always lead to differences in interpretation of whether effects have occurred or if changes are due to natural variation. To be able to detect effects and attribute them to a mine or oil and gas operation, particularly in the examples given in the guidelines, would require very robust baseline data over a number of years. This will lead to an expectation by the public that the AEMP is protective of the environment but, in reality, is not. The guidelines indicate that the AEMP should begin when the Water Licence takes effect yet expect that a sampling program has been conducted for baseline conditions, key components (water, air, fish, vegetation) have been sampled and that a Working Group has been actively involved. The final AEMP outlined by a Board might differ from the plan worked on by the proponent prior to Water Licence application.

**Recommendation** None. Details of the individual AEMPs will be set by individual Boards in the Water Licence and specific conditions relevant to the SRRB will be reviewed at that time.