

## **POLICY GUIDANCE**

# **ADAPTIVE MANAGEMENT IN YESAA ASSESSMENTS**

April 16, 2026



## VERSION HISTORY

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**Disclaimer:** This document is not intended to provide legal advice or direction. It is for information purposes only and should not be used as a substitute for the Act or its associated regulations and rules. In the event of a discrepancy, the Act, regulations, and rules prevail. YESAB retains the discretion to deviate from the procedures described in this guidance where appropriate.

### **Yukon Environmental and Socio-economic Assessment Act** **and the Umbrella Final Agreement**

This policy guidance includes references to the *Yukon Environmental and Socio-economic Assessment Act* (YESAA). Where applicable, the corresponding provisions of the Umbrella Final Agreement (UFA) are also identified.

YESAA was enacted to meet a commitment in the UFA between the Government of Canada, the Council of Yukon First Nations and the Government of Yukon.

The UFA, and Chapter 12 in particular, sets out an over-arching framework for a development assessment process in Yukon. The agreement required and contemplated that elements of this process would be further developed through legislation enacted by Canada or Yukon.

In 2003, ten years after the UFA was signed, YESAA was given Royal Assent. YESAA specifies that in the event of an inconsistency or conflict between a final agreement and YESAA, the agreement prevails to the extent of the inconsistency or conflict.

The Yukon Environmental and Socio-economic Assessment Board (YESAB) has a special relationship with the UFA and the unique environmental and socio-economic assessment legislation that it created. We recognize that we are one of many organizations with a role to play in meeting its spirit, intent and purpose.

We further acknowledge that the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP) is also relevant to the interpretation and implementation of our mandate. As the Government of Canada works towards the implementation of the *United Nations Declaration of the Rights of Indigenous Peoples Act*, YESAB will continue to incorporate many of the principles underlying UNDRIP and the Truth and Reconciliation Commission's calls to action via YESAB rules and organizational initiatives. We will also consider UNDRIP, where applicable, when interpreting our statutory framework.

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### Explanation of Terms

**Action level:** A level of change that prompts a management action identified in the adaptive management plan. Each level represents an increasing level of severity and has a corresponding set of management actions or responses commensurate with the action level reached. Action levels form the link between monitoring and response and establish the nature and scope of the response.

**Adaptive management:** A methodical, multi-step, iterative process for continually improving environmental and socio-economic management practices by learning from their outcomes and adjusting management responses accordingly.

**Adaptive management initiative:** A specific condition (or event, performance uncertainty, or risk) that is anticipated to require monitoring, assessment, and management as part of the adaptive management plan.

**Adaptive management plan:** The formal written plan describing the proponent's approach to adaptive management for the project or project component(s).

**Assessment:** An evaluation of a proposed project by a Designated Office, a screening by the Executive Committee, or a review by a Panel of the Board.

**Effects:** Environmental and socio-economic effects.

**Effects monitoring:** The monitoring of environmental and socio-economic effects, or of the effectiveness of mitigative measures. (Definition from YESAA s.2)

**Indicator:** An environmental or socio-economic component or parameter to be monitored which provides early detection of changes. It indicates something is happening (or not happening).

**Indigenous government:** Includes elected Indigenous governments as well as entities formally designated to represent individual rights-holders.

For the purposes of this policy guidance, the terms "Indigenous government", "Indigenous groups", and "Indigenous peoples" are used to include all Indigenous participants in the YESAB process, including Yukon First Nations, Inuvialuit, and transboundary Indigenous Nations.

**Indigenous Knowledge:** The knowledge and perspectives of Indigenous peoples.

**Management action:** A specific responsive action initiated by the proponent when a monitoring program indicates that an action level has been reached, with the goal of stabilizing or reversing a change in the conditions. Also called a management response.

**Management response plan:** A description of the management actions that will be taken in response to an action level or trigger being reached.

**Mitigation(s):** measures for the elimination, reduction or control of adverse environmental or socio-economic effects (YESAA definition).

**Significance threshold:** The point beyond which an adverse effect is considered significant.

**Traditional Knowledge:** the accumulated body of knowledge, observations and understandings about the environment, and about the relationship of living beings with one another and the environment, that is rooted in the traditional way of life of First Nations.  
(Definition from YESAA s.2)

**Trigger:** A predetermined threshold or trend that, when reached, indicates the onset of an effect and the need to initiate a corresponding management action. Triggers are set for each action level.

**Valued environmental and socio-economic components:** Components of the physical and socio-economic environment that are viewed as important in the setting of a given project (such as for environmental, scientific, social, traditional, or cultural reasons) and are predicted to be adversely affected by the proposed project, warranting consideration in an assessment.

***Yukon Environmental and Socio-economic Assessment Act (YESAA):*** Federal legislation enacted to fulfil the requirements of Chapter 12 of the Umbrella Final Agreement. YESAA outlines the assessment process for assessable projects in Yukon.

***Yukon Environmental and Socio-economic Assessment Board (YESAB):*** YESAB is an independent, arm's-length body, responsible for the assessment responsibilities of the *Yukon Environmental and Socio-economic Assessment Act (YESAA)* legislation and regulations.

## Introduction

This policy guidance (Guidance) provides Decision Bodies, [Indigenous governments](#), proponents, and other assessment participants with information regarding the use of [adaptive management](#) for projects submitted to the Yukon Environmental and Socio-economic Assessment Board ([YESAB](#)).

The information in this document supports YESAB's assessment responsibilities required by the *Yukon Environmental and Socio-economic Assessment Act* ([YESAA](#)). There are three levels of assessment described in YESAA: the Designated Office Evaluation, the Executive Committee Screening, and the Panel of the Board Review. For the purposes of this document, the three levels are referred to collectively as YESAB [assessments](#).

For more information on YESAB's assessment methodology and steps, refer to YESAB's [Environmental and Socio-economic Assessment Methodology Information Bulletin](#).

## Purpose

The purposes of this document are to:

1. Articulate the role of adaptive management in YESAB assessments.
2. Clarify what adaptive management can and cannot be used for in YESAB assessments.
3. Provide guidance to proponents on YESAB's basic information requirements for adaptive management plans.

## What is Adaptive Management?

In general, adaptive management is a methodical, multi-step, iterative process for continually improving environmental and socio-economic management practices by learning from their outcomes and adjusting management responses accordingly.

When used in a project planning context, adaptive management involves a cycle of designing and implementing management strategies, continuous monitoring and evaluating, and responding if unexpected circumstances arise or if impacts differ from those predicted (Figure 1).

Adaptive management can support making informed decisions in the face of uncertainty by planning and identifying when to act and what actions to take. It provides flexibility for proponents and regulators to respond to changes in conditions observed and to implement additional [management actions](#) (e.g., [mitigation](#)) or modify existing ones, with the goal of limiting the project's adverse [effects](#) on the environment and people.

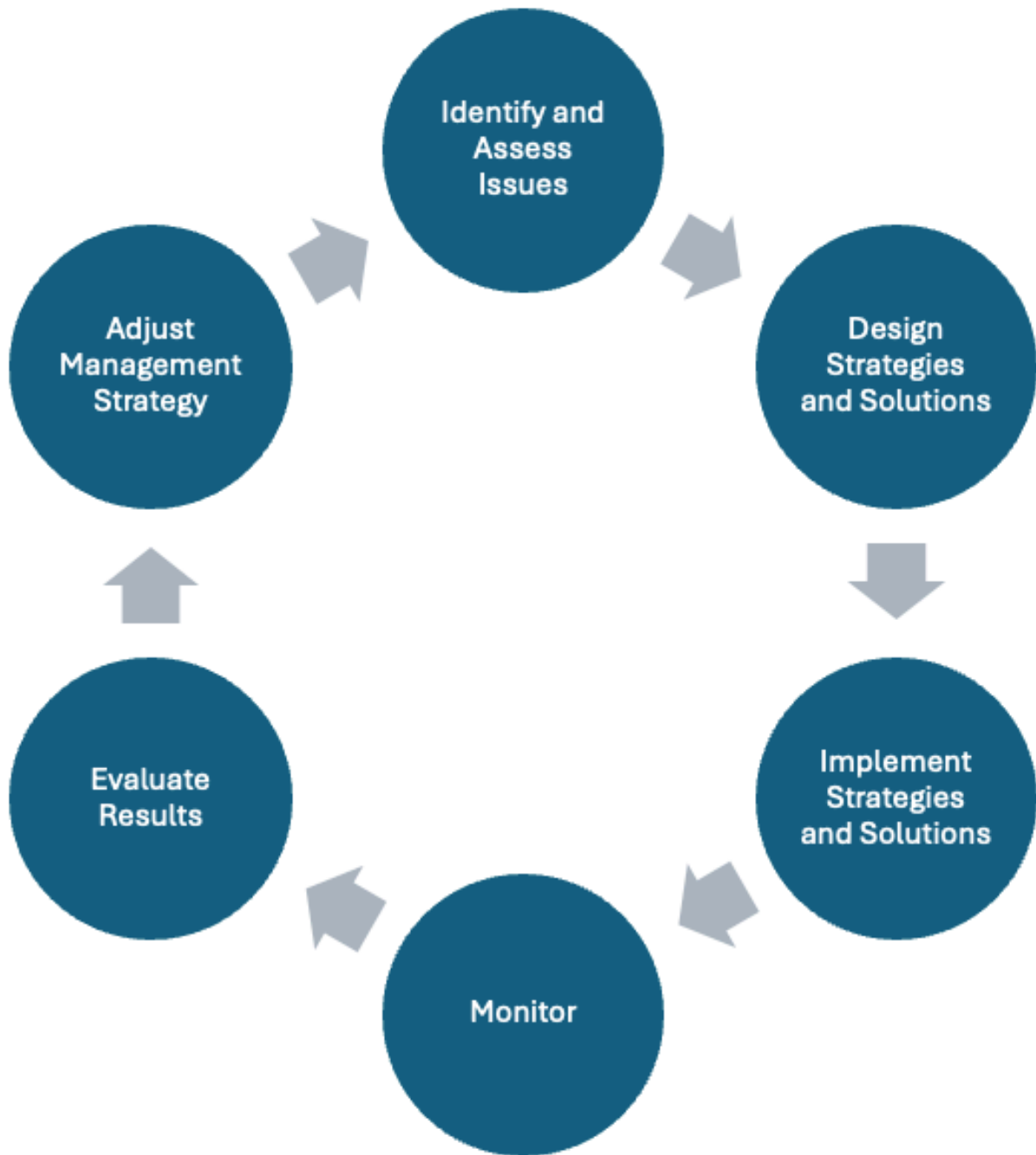


Figure 1: General Adaptive Management Cycle

An [adaptive management plan](#) provides a proponent's framework for the use of adaptive management throughout the life of a project. It demonstrates that the proponent has considered and addressed uncertainties related to the project or project component(s), provides enough information to enable YESAB to gain sufficient confidence that the implementation of the plan will adequately mitigate effects, and is flexible enough that some details can be finalized at the regulatory stage.

Despite this flexibility, it must show “proof of concept” – evidence demonstrating that the management concepts included in the plan, such as the management actions proposed to be taken when [action levels](#) are reached, are feasible.

Adaptive management should begin early in the project planning phase and continue throughout the life of a project.

Yukon's regulatory process (i.e., outside of YESAB) may have different requirements for adaptive management plans. For information on regulators' requirements, including requirements with respect to adaptive management, contact the regulators directly.

### Legal Context

YESAA does not expressly address how adaptive management may be relevant to assessments. However, likelihood of project effects is central to the assessment outcomes under YESAA. Recommendations made at the conclusion of the assessment hinge upon whether the project is likely to have significant adverse effects, and whether these can be mitigated by recommended terms and conditions.

Furthermore, at the Designated Office and Executive Committee level, the project must be referred<sup>1</sup> if YESAB is unable to determine likely,

significant adverse effects. Specifically, the project must be referred if YESAB is unable to determine whether the project is likely to cause significant adverse effects, after taking into account any mitigative measures included in the proposal.

Adaptive management plans can help address uncertainties in predicting a project's effects throughout its lifespan. When they are prepared in line with this guidance, these plans can provide important support in the assessment process by demonstrating how remaining uncertainties will be managed.

### The Role of Adaptive Management in Yukon's Assessment Process

Most new projects in the Yukon involving government decision-making must first undergo an assessment. This assessment helps support planning and decision-making by providing information and analysis about the project's potential adverse environmental and socio-economic effects. In the Yukon, the assessment's outcome is contingent on the significance of adverse effects. YESAB can only recommend a project proceed if it has reasonable confidence that the project will not have significant adverse effects either as proposed or subject to specified terms and conditions that can mitigate the project's significant adverse effects.

### Addressing Uncertainty

Uncertainty is an inherent part of environmental and socio-economic assessment because these systems are complex and constantly changing. As a result, uncertainty can arise at many stages of project planning and assessment, including understanding baseline conditions, predicting effects, characterizing

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<sup>1</sup> refer the project to the Executive Committee for a screening in YESAA 56(1)(d) or to a Panel of the Board for a review in YESAA 58(1)(d).

adverse effects, and evaluating the effectiveness of proposed mitigation measures. Several factors contribute to this uncertainty, such as:

- Natural environmental variability (e.g., wildfires, weather patterns, earthquakes, wildlife movement).
- Human-driven changes (e.g., climate change, population increases, new technologies).
- Incomplete knowledge about environmental and social systems (e.g., data gaps, uncertain cumulative effects).

Recognizing and understanding these uncertainties can help proponents develop stronger project proposals – and projects – by identifying risks and information gaps, the need for monitoring and follow-up plans, and – possibly – adaptive approaches.

**When developing a project proposal** – whether or not adaptive management is used – all proponents should identify:

- The key uncertainties relevant to the project.
- How these uncertainties may affect the project and its interactions with the environment and communities.
- How these uncertainties have been considered when describing effects, determining significance, and identifying appropriate mitigation measures and alternatives.

In some cases, adaptive management can be an effective tool for planning for and responding to these uncertainties.

### Incorporating Adaptive Management into Assessment

Where considerable uncertainty is identified during project planning, proponents are encouraged to develop an adaptive management plan as part of the project proposal. When well designed, an adaptive management plan can help address

uncertainties in effects predictions during project planning and assessment and can provide YESAB with reasonable confidence that adverse effects will be effectively managed and that significant adverse effects will be avoided despite uncertain future conditions.

Adaptive management can be applied to an entire project or to specific project components (such as wildlife, water, or community-related elements). If adaptive management is identified – either before or during the assessment – as a suitable way to address project uncertainties, proponents may include an adaptive management plan in their proposal. During the assessment, YESAB may request information to obtain further detail, and may also recommend additional adaptive management measures in its terms and conditions.

YESAB also encourages early engagement with Indigenous governments, regulators, communities, and stakeholders. Such engagement can help identify uncertainties and issues that should be incorporated into the adaptive management plan, including specific adaptive management initiatives and relevant [Traditional and Indigenous Knowledge](#).

## Basic Information Requirements

[Appendix A](#) sets out the basic information requirements proponents must include in adaptive management plans submitted to YESAB for the purposes of the assessment. The level of detail required in an adaptive management plan will vary depending on factors such as project scale, the complexity or severity of predicted effects, the robustness of proposed mitigation measures, and the degree of uncertainty involved. Regardless of these factors, the plan must give YESAB reasonable confidence of its effectiveness. At the proposal stage, effectiveness can be demonstrated through a combination of:

- logical design (clear cause and effect);
- appropriate and precautionary thresholds;
- feasible and implementable management actions;
- tiered and adaptive response options;
- defined roles, responsibilities, and decision pathways; and
- commitment and capacity over the project life.

Using adaptive management does not eliminate the need to provide sufficient information during the assessment about project effects, the significance of those effects, or the mitigation measures needed to eliminate, reduce, or control them. Appendix A outlines the level of detail YESAB expects for each adaptive management initiative.

The plan should also explain how it will reduce the uncertainties that make adaptive management necessary. By addressing these uncertainties, the plan should strengthen proposed mitigations or increase confidence in the strategies being used.

Proponents may also have additional responsibilities under regulatory processes; for details on those requirements, proponents should contact the relevant regulators directly.

### Factors to be Considered

When reviewing the information provided in accordance with Appendix A, factors that will inform YESAB's consideration of a proponent's adaptive management plan include<sup>2</sup> but are not limited to:

- Does the proponent demonstrate an understanding of adaptive management?
- Has the proponent clearly stated their objectives, and are the objectives measurable (i.e., are [indicators](#) indicated)?

- Has the proponent set and committed to specific action levels that signal a response is needed and that trigger management action(s)?
- Will it actually be possible for the proponent to check whether those thresholds are reached and adjust mitigation(s) before serious effects occur?
- Is there clear indication of who is responsible for implementing specific actions or responses when change is detected?
- Are the proposed management actions technically feasible?
- Is there sufficient monitoring planned (i.e., monitoring enough indicators and for long enough) for the proponent to tell the difference between project impacts, natural changes, and other factors?
- What are the risks of failure?
- Is the adaptive management plan sustainable over the life of the project and is the proponent committing adequate resources to it?

A consideration of these factors helps ensure that adaptive management is appropriate for the circumstances, and that a particular adaptive management plan can reasonably be expected to generate knowledge that would support effective mitigation of the effects identified.

YESAB may recommend changes to a proposed or existing adaptive management plan as a condition of project approval.

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<sup>2</sup> Adapted from M. Olszynski, "Adaptive Management in Canadian Environmental Assessment Law: Exploring Uses

and Limitations," 21 J. Env. L. & Prac. 1 (2010) and discussions with Dr. Bram Noble (2025).

### When Adaptive Management is not Appropriate

Adaptive management is not suitable for all projects. The following situations suggest that adaptive management may be unnecessary, inappropriate, or unsuccessful, and should **not** be used.

#### Lack of Data

Adaptive management cannot be used to avoid collecting the baseline or effects-related data needed for assessment. Adequate data must be provided up front.

#### Mitigations are not Identified

Adaptive management cannot replace the identification (where required) of alternatives, mitigation measures, or compensation to address adverse effects. It is not acceptable for a proponent to rely on adaptive management for an adverse effect when they have not identified a mitigation and instead state they will “figure it out later.”

Similarly, proponents cannot use adaptive management to delay identifying project risks, effects, or mitigation measures until the regulatory stage. If a plan does not identify mitigation measures as required under Appendix A, YESAB cannot rely on it to address likely, significant adverse effects.

If a proponent is proposing active (experimental) adaptive management to test multiple mitigation designs for some future component (e.g., the end of project life), YESAB must still have confidence in the plan to determine significant adverse effects will not occur.

While monitoring is an important component of adaptive management, monitoring alone is not a mitigation. Monitoring supports flexibility to adjust or add mitigation measures over time.

#### Likelihood of Significant Adverse Effects after Application

Adaptive management may not be appropriate if the risk of a significant adverse effect remains high after application of a plan – such as when outcomes are too difficult to control (e.g., if indicators being measured are impacted by a variety of factors), potential effects are large-scale and irreversible, it is not possible to respond in an appropriate timeframe necessary, or there is no adaptation reasonably available.

#### Lack of Follow-Up or Capacity

Adaptive management is not appropriate if the proponent is unlikely to collect required monitoring data, assess results, or adjust management actions when needed. The proponent must demonstrate how they will carry out and sustain adaptive management for the entire life of the project, including having sufficient resources, robust monitoring, and a sound understanding of indicators.

#### High Level of Certainty in Predictions

Many projects assessed by YESAB will not benefit from adaptive management. If there is a high degree of certainty about the project design, associated mitigations, and the nature and magnitude of adverse effects, then adaptive management may not be necessary because project outcomes are more predictable.

### Adaptive Management and s.110 Effects Monitoring

It is acknowledged that there is some overlap between the process set out under s.110 of YESAA, and adaptive management plans put forward and considered during the assessment. Specifically, both include [effects monitoring](#). However, as it relates to the assessment process and outcomes, there are several functional differences between s.110 recommendations and adaptive management plans that have been put forward and considered during the assessment.

An adaptive management plan includes and prescribes specific management responses to be undertaken in the event that certain action levels are reached. Section 110, in contrast, enables the assessor to recommend effects monitoring, and sets out some non-binding processes which may follow upon receipt of the monitoring results. Specifically, the assessor “may provide advice” to the decision body (s.110(3)). These processes and potential outcomes, however, are unknown and unspecified at the time of the assessment.

As set out in this guidance, an adaptive management plan proposed during the assessment can be relied upon to address uncertainty present in the assessment and can inform assessors’ determinations as to whether the otherwise, significant, adverse effect can be mitigated by a recommended term and condition. In contrast, a s.110(1) recommendation to undertake effects monitoring does not inform the assessment outcome.

### Conclusion

Adaptive management can be an effective tool for addressing uncertainty in predicting adverse project effects and in evaluating the effectiveness of mitigation measures throughout the life of a project. However, adaptive management must **not** be used to delay or avoid identifying potential project effects, determining appropriate mitigation measures, or establishing the significance of those effects during the planning and assessment stage.

If a proponent chooses to include an adaptive management plan with their proposal, YESAB requires – consistent with Appendix A – a clear, detailed, and feasible plan that demonstrates a commitment to implementing adaptive management *effectively* over the life of the project. When these requirements are met, and where appropriate, YESAB may reasonably rely on the adaptive management plan in its determinations and recommendations under YESAA.

Given the potential complexity of adaptive management in assessment, proponents who are considering including an adaptive management plan with their project proposal are encouraged to contact YESAB directly to discuss it.

For more information regarding YESAB, please contact YESAB or visit <a href="http://www.yesab.ca">www.yesab.ca</a> . All YESAB guidance referred to in this document is available on the website.
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## APPENDIX A: Overview of Information Requirements and Annotated Table of Contents

### Basic Information Requirements for Adaptive Management Plans Submitted to YESAB

Where adaptive management has been identified by the proponent as an appropriate tool to address uncertainties in project planning, the following information is required to support YESAB's consideration of the adaptive management plan. Proponents who are considering incorporating adaptive management into their project design are encouraged to discuss this with YESAB prior to proposal submission.

Proponents have the flexibility to determine how to organize the adaptive management plan in a way that is practical for the project. For example, proponents can decide whether to have separate plans for each [valued environmental or socio-economic component](#) (VESEC) or prepare a combined plan for several VESECs.

YESAB cannot consider any additional components that are proposed to be developed after the assessment is complete (e.g., within the regulatory process).

### Information Requirements:

#### 1. Adaptive Management Plan Approach

##### 1.1. Purpose, Objectives, and Scope

Provide a detailed narrative that includes the following contextual information:

- An overview of why adaptive management is being proposed, which includes a description of the purpose, goals, objectives, and scope for each component being proposed within the overall adaptive management plan for all phases of the proposed project.
- A list of the specific conditions that are expected to require monitoring, assessment, and management as part of the adaptive management plan.
- A description of the proposed monitoring program(s).
- A summary of the selection of adaptive management initiatives
  - This should be based on the areas of uncertainty associated with the project, as well as issues raised during the YESAB assessment process and engagement. It may also be informed by Traditional and Indigenous Knowledge.

#### 2. Adaptive Management Initiative(s) 1, 2, 3, ...

For each adaptive management initiative listed, provide the following information:

##### 1.1. Specific Adaptive Management Initiative

- Describe each specific event, condition, or risk that is being addressed, and/or the potential adverse effect being avoided.

##### 1.2. Indicator(s)

- Describe the environmental or socio-economic components or parameters (i.e., the indicators) that will be monitored.

- Indicators selected should adequately characterize and/or measure the condition, provide early detection of changes, and be representative of the issue being addressed.
- Provide baseline data for each indicator to establish a baseline against which monitoring data can be compared. The level of effort in establishing baseline data should be tailored to the project.

### 1.3. Monitoring Requirements

- Provide a monitoring framework that describes the type and frequency of monitoring that will occur for each indicator.
- The detailed monitoring requirements are to be determined in the regulatory process (e.g., YESAB does not require details on each specific monitoring location).

### 1.4. Thresholds, Triggers and Action Levels

- For each indicator:
  - Define the [significance threshold](#) – the point that must *never* be reached.
  - Identify the action levels that reflect increasing levels of concern (e.g., low, medium, high) about the state or properties of the system. Action levels should form a tiered system that initiates progressively stronger and more targeted responses, allowing sufficient time to determine causes and take appropriate action.
  - For each action level, define the [trigger\(s\)](#) that will initiate a specific action or management response.
  - Quantify triggers and action levels so they function as early-warning thresholds – ensuring responses can be initiated before any significant adverse effects occur.

### 1.5. Monitoring Results and Management Response Plan

- Describe the framework (i.e., methods and frequency) planned to be used for evaluating the monitoring results to determine whether triggers and action level have been reached.
- Provide a general description of the overall approach, development, and content of [management response plans](#).
- Include clear, detailed descriptions of the proposed management responses (mitigations) that will be taken upon reaching various action levels (i.e., when triggered) for each adaptive management initiative.
  - These are the specific, feasible mitigations the proponent may implement to address adverse effects, and that YESAB will consider in the assessment.
  - Where possible, demonstrate a range of management responses should a mitigation measure not function as intended.
  - Management responses may include increased monitoring to confirm cause and effect. In some cases, no management action may be required if the observed change is within normal variation or unrelated to the project. The determination must occur early enough to avoid any risk of significant adverse effects.
- Indicate who will be responsible for undertaking the management responses.