

Revised Draft Review Board Guidelines For Considering Wildlife at Risk (including SARA Species) In Environmental Impact Assessment in the Mackenzie Valley

1 Introduction

1.1 Preamble

The Mackenzie Valley Environmental Impact Review Board (the Review Board) has prepared these Guidelines to describe its expectations regarding best practices for considering impacts on wildlife at risk in the environmental impact assessment (EIA) process in the Mackenzie Valley. The purpose of these Guidelines is ultimately to prevent harm to species that are potentially highly vulnerable, by ensuring best practice in EIA. These Guidelines have been produced with substantial input from Environment Canada and the Government of the Northwest Territories (GNWT) Department of Environment and Natural Resources.

These Guidelines take an approach that is consistent with existing federal guidance on the subject.¹ They apply to wildlife species at risk and species that are potentially highly vulnerable, rare or imperiled. This Guideline describes the various relevant listings of wildlife at risk (see section 1.3) and includes species listed under Schedule 1 of the federal *Species at Risk Act* (SARA)². It describes a best practice approach that is practical and reasonable. This approach is consistent with the requirements of s.79 of SARA when applied to SARA Schedule 1 listed species.

Its intended audience is:

- organizations involved in the EIA processes of Preliminary Screening, Environmental Assessment and Environmental Impact Review under the *Mackenzie Valley Resource Management Act* (MVRMA), and
- developers that propose developments in the Mackenzie Valley

¹ This Guideline should be used in conjunction with Canada Wildlife Service's *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* (2004)

² All references to SARA in this document refer to the federal *Species at Risk Act, 2002, c.29*.

These Guidelines have been issued by the Review Board under the authority of s.120 of the MVRMA.³ The Review Board anticipates that these Guidelines will clarify expectations and make the EIA process more efficient and effective when dealing with wildlife at risk. The Review Board also anticipates that these guidelines will encourage early dialogue and discussion about wildlife at risk, prior to the initiation of a project. These Guidelines will be reviewed if NWT species at risk legislation is enacted.

Section 79 of SARA imposes legal obligations on persons required to ensure that the environmental effects of a project are assessed when dealing with species listed under SARA Schedule 1. For other species of wildlife at risk, the steps described in this guideline are required based on the Review Board's authority under MVRMA s.120, but not by SARA. The consideration of wildlife at risk, as described in this guideline, is intended to be consistent with best practices in environmental impact assessment.

1.2 Overview of Guidelines

These guidelines are organized in the following sections:

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| Section 1 | Introduction to the guidelines, objectives and expected audience and definition of "wildlife at risk" |
| Section 2 | Description of SARA, and requirements for EIA |
| Section 3 | Preliminary screening requirements for wildlife at risk, including SARA Schedule 1 listed species |
| Section 4 | Requirements and tools for developers in preliminary screening |
| Section 5 | How requirements apply to environmental assessment and environmental impact review |
| Section 6 | Conclusion |

There are four appendices at the end of the guidelines with tools and resources for project proponents and preliminary screeners.

³ Section.120 of the MVRMA states that the Review Board may establish guidelines to outline how the EIA process should be conducted, including the form and content of reports.

1.3 What is “Wildlife at Risk”?

The term “wildlife” throughout this document refers to all living undomesticated organisms, and includes plants and animals, other than a bacterium or virus. For the purposes of these Guidelines, the term is applied only to species which are native to Canada or with a range that extends into Canada. “Species” means a species, subspecies, variety or geographically or genetically distinct population of wildlife.⁴

Highly vulnerable, rare or imperiled species, or species of special concern are described here as ‘wildlife at risk’. Part Five of the MVRMA requires that the Review Board and others consider environmental impact carefully when making decisions about proposed developments. The Review Board has a mandate to identify potential significant adverse impacts of a development. Adverse impacts on wildlife at risk may be significant adverse environmental impacts. The Review Board is of the view that when the existence of an entire species may rest on the survival of a small number of individuals, an appropriate precautionary approach should be reflected in environmental impact assessment.

The *Canada Wildlife Service Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* (p4) emphasizes best practice. It states:

While legislation concerning wildlife at risk at the federal and provincial or territorial level pertains to certain lists, risk categories and habitats, best practice requires that consideration be given to all wildlife that are rare or imperiled in Canada, as well as the habitat and residences that are essential to their survival and recovery.

This national guidance deliberately includes species listed under SARA, assessed the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and listed under provincial or territorial legislation.

The Review Board supports this approach to best practice. Impacts on any imperiled wildlife species may be important, whether the species is described as “rare”, “endangered”, “at risk”, or “threatened”. For this reason, this document is consistent with the national approach, and uses the term “wildlife at risk” to include the following:

- species listed under Schedule 1 of SARA
- species assessed and designated as endangered, threatened or of special concern by the Committee on the Status of Endangered Wildlife in Canada, and
- species ranked “At Risk” in the *NWT General Status Rankings*

⁴ This is intended to be consistent with the definition of “wildlife species” defined under section 2(1) of SARA.

These Guidelines apply to species with certain designations on any of these lists, as indicated in Table 1.

SARA recognizes that in order to ensure the survival of wildlife species and the protection of critical habitat in Canada, it is necessary that cooperation be fostered among governments, institutions and individuals. Identification, protection and monitoring of wildlife at risk in Canada is a cooperative effort among many jurisdictions.

Three processes or organizations provide information on the status of species occurring in the Northwest Territories.

- The NWT *General Status Ranking Program* (GSRP) ranks the general status of NWT species to provide a priority list of species that would require more detailed assessment.
- The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the biological status of species in Canada, including species occurring in the NWT. COSEWIC uses the general status of species, among other information to prioritize species for its detailed assessment.
- The Competent Ministers under SARA then use COSEWIC's assessments as one factor in the decision to add a species to the SARA Schedule 1 list. Complementary species at risk legislation for the Northwest Territories is currently under development.

COSEWIC assesses the biological status of wild species in Canada. When SARA was enacted, COSEWIC became legally designated as the independent body of experts that assess the biological status of species in Canada. COSEWIC recommends whether the status of a species should be listed under SARA as extinct, extirpated, endangered, threatened or of special concern.⁵ The federal government decision to list a species under SARA Schedule 1 may include socio-economic or political considerations, but assessment of species by COSEWIC is based on biological considerations alone.

The GNWT is a signatory to the *Accord for the Protection of Species at Risk*, and it is responsible for non-migratory birds and other wildlife species not covered by federal jurisdiction. The GNWT is developing legislation for the NWT to deal with wildlife at risk. The GNWT has also implemented the *General Status Ranking Program* to rank the general status of species occurring in the territory and identify species that require further detailed assessment by, for example, COSEWIC at a national level.⁶ Table 1 may be updated with the passing of NWT species at risk legislation.

⁵ **extirpated:** species which no longer exist in the wild in Canada, but exists elsewhere in the wild; **endangered:** species facing imminent extirpation or extinction; **threatened:** species which is likely to become endangered if nothing is done to reverse the factors leading to their extirpation or extinction; **special concern:** species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

⁶ Unlike many other areas of Canada, the NWT does not have a Conservation Data Centre. Readers should contact the GNWT for information on the process for ranking species in the NWT. Contact information is located in Appendix 4.

Table 1. Categories indicating species wildlife at risk in the NWT. These guidelines apply to the species with the designations listed below.

Organization or legislation that provides list of species	Relevant designation
SARA	<ul style="list-style-type: none"> • Species listed under Schedule 1 as endangered, threatened or of special concern
COSEWIC	<ul style="list-style-type: none"> • Species assessed and recommended for designation as endangered, extirpated, threatened or of special concern
GNWT General Status Ranking	<ul style="list-style-type: none"> • Species ranked as “At Risk”

2 The *Species at Risk Act* and Environmental Impact Assessment

2.1 The MVRMA and the *Species at Risk Act*

Part Five of the MVRMA describes how Environmental Impact Assessment will be conducted in the Mackenzie Valley. There are three stages in the EIA process:⁷

1. Preliminary Screening- conducted by Land and Water Boards, government organizations, and certain Aboriginal organizations
2. Environmental Assessment- conducted by the Review Board
3. Environmental Impact Review- conducted by an independent panel struck by the Review Board

When a board or government organization conducts any of these stages, it is a “person” under ss.79(1) of SARA and has certain responsibilities under SARA.

SARA came into force on June 1, 2004. It is intended to prevent wildlife species from becoming extirpated or extinct, to provide for the recovery of extirpated, endangered or threatened species, and to encourage management of species of special concern to prevent them from becoming at further risk⁸. This federal act sets out new requirements for those persons who make decision in the practice and processes of EIA in the Mackenzie Valley.

Section 79 of SARA outlines these responsibilities. It states:

⁷ For further details, please see section 1.8 of the *Environmental Impact Assessment Guidelines*.

⁸ For more information on the *Species at Risk Act*, see www.sararegistry.gc.ca.

Notification of Minister

79. (1) Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.

Required action

(2) The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

Definition of 'person' and 'project'

(3) The definitions in this subsection apply in this section. "person" includes an association or organization, and a responsible authority as defined in subsection 2(1) of the *Canadian Environmental Assessment Act*. "project" means a project as defined in subsection 2(1) of the *Canadian Environmental Assessment Act*.⁹

According to SARA, any adverse effects on a SARA Schedule 1 listed species or its critical habitat must be identified, mitigated and monitored by everyone required to ensure an assessment is conducted.

In the MVRMA the term "development" is used to mean "any undertaking, or any part of an undertaking, that is carried out on land or water...". Throughout this document, the term "development" will be used with a meaning that includes the "project" referred to in SARA s.79.

The MVRMA is an Act of Parliament, and accordingly, any organization that conducts an assessment of the environmental effects of a development under the MVRMA has legal responsibilities under SARA.

Although SARA specifies that the term "person" includes federal responsible authorities as defined by CEAA, it does not limit the definition of "person" to these. Under the MVRMA, the GNWT is identified as a "person or body designated by the regulations as the responsible authority". This means that SARA s.79(1) applies when the GNWT conducts preliminary screenings.

⁹ Subsection 2(1) of the *Canadian Environmental Assessment Act* states that " 'project' means... in relation to a physical work, any proposed construction, operation modification, decommissioning, abandonment or other undertaking in relation to that physical work".

2.2 Specific Actions Required by SARA s.79

When an organization conducting EIA under any stage of the MVRMA Part Five process identifies that a proposed development is likely to affect a wildlife species listed on Schedule 1 of SARA, or its critical habitat¹⁰, that organization must do the following:

1. Provide early written notification to the competent minister or ministers when a listed wildlife species or its critical habitat is likely to be affected by a proposed project.
2. Identify the adverse effects the project may have on listed wildlife species.
3. If the development is carried out, ensure that measures are taken to avoid or lessen those effects
4. Ensure that suitable monitoring of the adverse effects of the project on listed wildlife species occurs and is consistent with species recovery strategies and action plans.

A step-by-step guide on how to do each of these steps in preliminary screening, environmental assessment and environmental impact review is described in Sections 3 - 5. As a matter of best practice in EIA, the same steps apply to all wildlife at risk, for the reasons described in Section 1.2.

2.3 Considering Habitat for Wildlife at Risk

Because habitat is necessary to wildlife, evaluating impacts on species of wildlife at risk requires consideration of impacts to their habitat. Any impact to habitat that is important to wildlife at risk, including the “critical habitat” and “residences” specified under SARA, must be considered during EIA. If the habitat is known to be used by a species of wildlife at risk, and its importance is unclear, a precautionary approach requires treating that habitat as important unless the balance of evidence suggests otherwise, in the opinion of the organization responsible for the preliminary screening, environmental assessment or environmental impact review. This should be reflected in EIA processes, in the context of the steps described below. Any critical habitat in the Northwest Territories that is protected under SARA will be identified in recovery strategies or action plans.

¹⁰ Critical habitat is the legal term used to describe habitat that is necessary for the survival or recovery of a listed species and that is identified as the species’ critical habitat in a recovery strategy or action plan. Under SARA, it is applicable only to extirpated, endangered or threatened species.

3 Preliminary Screening

This section will describe how a preliminary screening organization can fulfill their responsibilities under SARA and implement best practices for considering wildlife at risk. Section 4 of this guidance document will speak specifically to EA and EIR processes.

3.1 Preliminary screening and the determination of “*Might*” vs “*Likely*”

SARA s.79 describes requirements if a development is likely to affect a listed wildlife species or its critical habitat. The MVRMA (s.128) uses the term “likely” to set a threshold of proof for significance determinations in environmental assessments. However, according to the MVRMA s.125, preliminary screeners must determine not whether a project is *likely* to cause significant adverse impacts, but only whether it *might*.¹¹

The test required by SARA is different from the test required by the MVRMA. The MVRMA test that usually¹² applies during preliminary screening is: **Might the development be a cause of significant adverse impacts?** If so, then the development must be referred to the Review Board for an environmental assessment. The test of SARA, which applies at all levels of EIA, is: **Is the project likely to affect a SARA Schedule 1 listed wildlife species or its critical habitat?**

Preliminary screeners therefore face two different questions, one from the MVRMA and the other from SARA. The SARA “likely” test implies a higher probability of occurrence than the MVRMA “might” test. However, unlike the MVRMA test, the effect need not be significant for the SARA test to be met. If the development is likely to affect a critical wildlife species or its critical habitat, then certain SARA responsibilities exist regardless of whether or not that effect is significant.

SARA requirements, in the event that a development is likely to affect a SARA Schedule-1 listed species or its critical habitat, apply not only to preliminary screeners but also to the Review Board during an environmental assessment and to a panel during an environmental impact review.

¹¹ Detailed explanations of these terms are available in the Review Board’s Reference Bulletin titled *Operational Interpretation of Key Terminology in Part Five of the MVRMA*.

¹² Within municipal boundaries a different test applies during preliminary screening, as per MVRMA s.125(2)(a).

3.2 Requirements for preliminary screeners

Preliminary screeners are required to ensure that proponents provide adequate information on wildlife at risk that is likely to be affected by a proposed project, and must provide early notification to appropriate government agencies about species that will likely be affected.

In summary, preliminary screeners must ensure:

1. The appropriate agency has been alerted
2. Potentially affected wildlife at risk has been identified
3. Any potential adverse impacts have been identified
4. A determination is made-- Is it likely to affect wildlife at risk? If so, notify competent ministers
5. Mitigations are reviewed
6. Monitoring is reviewed
7. Mitigations and monitoring fit with species recovery strategies, action plans or management plans

Each of these steps is described in more detail below:

Step 1: Tell appropriate government agencies if the materials submitted in support of a preliminary screening indicate that the proposed development overlaps with the range of a listed species of wildlife at risk. This should occur at the beginning of the preliminary screening process.¹³ (Section 3.3 describes in detail how to identify the appropriate agencies and Appendix D provides contact information.) These agencies can provide expertise on other considerations (such as seasonality of use) that may be useful considerations, and can be asked for input in any of the following steps.

Appendix A contains a sample table that could be added to authorization applications, such as land use permits and water licence application package(s), to request information on wildlife at risk. This information should be reviewed by experts in the preliminary screening process to evaluate the anticipated potential impacts the project will have on wildlife at risk, and proposed mitigation and monitoring strategies. Each species of wildlife at risk, and habitat important for its survival, should be treated as valued ecosystem components.

Appendix B contains information resources on wildlife at risk listed by SARA, COSEWIC and the GNWT *General Status Ranking Program*, including range maps and critical habitat descriptions. The guide has been designed to assist preliminary screening organizations and proponents who are completing the wildlife at risk section of authorization applications.

¹³ This is not intended as a substitute for the early notification required by SARA s.79, which should occur after the determination has been in Step 4 (below). Appropriate agencies are informed here as an early “heads-up” so that they may contribute expert input into the preliminary screener.

Step 2: Ensure project proponents have identified all wildlife at risk, and their habitat, that may be affected by the project. Appendix B outlines tools for researching wildlife at risk. When proposed developments are small in scale and level of disturbance, it may be sufficient for proponents to determine the potential existence of wildlife at risk by consulting a government expert or through a literature review. For larger projects, field surveys may need to be undertaken at a level of detail appropriate for the project size and scope. Government agencies described in Step 1 may be asked provide information that is useful to the preliminary screening.

Step 3: Verify that proponents have sufficiently identified the potential adverse effects of the project on the listed species and its important habitat(s)¹⁴. Any potential adverse effects must be identified, regardless of their environmental assessment “significance”.

If the information in the application is inadequate for the above steps, the preliminary screener should suspend consideration of the application until adequate information on wildlife at risk has been provided.

Step 4: Determine whether the development is likely to affect wildlife at risk. This includes effects on wildlife species at risk and their critical or important habitat(s) or residences. This is a subjective test that requires the preliminary screener to exercise professional judgment based on the evidence. The determination should be made when the evidence is sufficient to satisfy the test that the development is “is likely to affect” wildlife at risk. If it is likely to affect wildlife at risk, then provide notification to the appropriate government agencies as soon as possible¹⁵. (see Appendix C for a template notification letter). [*Note: This should happen at any time in these steps, if a preliminary screener determines that that a development is likely to affect a SARA-listed wildlife species.*]

The following steps (5-7) are only required if a preliminary screener determines that the development is likely to affect a listed wildlife species.

Step 5: For the species identified in section 1.3, preliminary screeners must ensure that developers have proposed mitigation measures to avoid or minimize adverse impacts if these species or their habitat could be affected by the development.¹⁶ Mitigation measures that avoid the adverse effects are preferred over those that minimize the adverse effects. Typically, no activities that could destroy the critical habitat of a SARA-listed species can be allowed.

For species ranked ‘May be at Risk’ on the GNWT *General Status Ranking Program*, preliminary screeners should ensure that developers indicate whether the species are likely

¹⁴ For SARA Schedule 1 listed species, this step is intended to partially satisfy SARA s.79(2).

¹⁵ For SARA Schedule 1 listed species, this step is intended to satisfy SARA s.79(1).

¹⁶ For SARA Schedule 1 listed species, this step is intended to partially satisfy SARA s.79(2).

present within the proposed project area. Monitoring procedures may not be required for these species.¹⁷

Step 6: Review monitoring programs proposed by the developer for wildlife at risk.¹⁸ The scale of the proposed monitoring program must be appropriate for the scope of the project, the degree of concern regarding wildlife at risk, level of uncertainty, and potential for adaptive management. Monitoring programs should be carried out by the developer for the most part, although long-term pre-existing monitoring data and programs carried out by other agencies may also provide relevant information.

Step 7: Verify that all proposed mitigation measures and monitoring programs fit with species recovery strategies, action plans or management plans for the species of wildlife at risk, if such documents are available.¹⁹

Table one in Appendix E provides useful information from Environment Canada that may be helpful to preliminary screeners when considering impacts on wildlife at risk.

If adverse impacts on wildlife at risk are likely, and these cannot be reliably reduced or avoided through mitigation, then the proposed development might be a cause of significant adverse impacts on the environment. In that case, the preliminary screener should refer the development to the Review Board for an environmental assessment.

The Review Board may evaluate how well these steps have been followed when considering whether to exercise its MVRMA s.126(3) prerogative to “call up” developments for environmental assessment.

3.3 Early notification of appropriate government agencies

Section 79 of SARA requires that every person or organization that conducts an environmental impact assessment must provide early notification to competent ministers if a proposed project is likely to affect a listed wildlife species or its critical habitat.

Information on wildlife at risk in the land use permit or water license application form should be sent by the preliminary screener to the appropriate government agencies for review. Federal government agencies should be notified if the wildlife at risk is a SARA-listed or COSEWIC-assessed species described in section 1.3 of this Guideline. For species ranked as “At Risk”, “May be at Risk” under the GNWT *General Status Ranking Program*, the GNWT

¹⁷ There is a species listing hierarchy as identified in Table 1. If a species has a SARA- or COSEWIC-listing, this supersedes its GNWT *General Status Ranking Program*-listing, and therefore the SARA or COSEWIC procedures for reporting on the species apply.

¹⁸ For SARA Schedule 1 listed species, this step is intended to partially satisfy SARA s.79(2).

¹⁹ For SARA Schedule 1 listed species, this step is intended to partially satisfy SARA s.79(2).

Environmental Assessment Specialist should be notified.²⁰ Appendix C contains a sample notification letter for government agencies, requesting expert opinions on adverse project effects, mitigation and monitoring, and addresses of government agencies that must be notified.

The preliminary screener must notify at least one federal government agency if the proposed development is likely to affect a SARA-listed species. Under SARA, three different federal departments and ministers have responsibilities for protecting listed species. If the range of a SARA Schedule 1 listed species overlaps with the proposed development location or if the development is near critical habitat, the appropriate competent minister, as outlined in Table 2a, should be notified in writing. A notification letter must be sent even if the proposed project may have a positive effect on a species at risk.

Table 2a. Conditions under which the three federal agencies must be notified if a proposed development is likely to impact a Species at Risk

Affected Species	Federal Agency to be Notified ²¹
<ul style="list-style-type: none"> Any species and their critical habitats found exclusively or partly in or on federal lands administered by the Parks Canada Agency 	Parks Canada
<ul style="list-style-type: none"> Aquatic species and their critical habitats 	Fisheries and Oceans Canada
<ul style="list-style-type: none"> Migratory birds protected by <i>the Migratory Birds Convention Act</i> and their critical habitat All other species and their critical habitat 	Environment Canada

Table 2b. Agencies to notify when a proposed development is likely to affect wildlife at risk besides SARA Schedule 1 listed species

Situation	Notify
Project is likely to affect a species listed on GNWT General Status Ranking "at risk" or "may be at risk"	GNWT
Project is likely to affect an aquatic species assessed by COSEWIC (as described in section 1.3 of this Guideline)	Fisheries and Oceans Canada
The project is likely to affect a terrestrial species listed by COSEWIC assessed by COSEWIC (as described in section 1.3 of this Guideline) if the species occurs outside of lands administered by Parks Canada	Environment Canada

²⁰ For the latter ("May be at Risk"), no further actions are required by the organization conducting the EIA.

²¹ Contact information for each agency can be found in Appendix C.

The project is likely to affect a species listed by COSEWIC assessed by COSEWIC (as described in section 1.3 of this Guideline) and that species occurs on land or water administered by Parks Canada	Parks Canada
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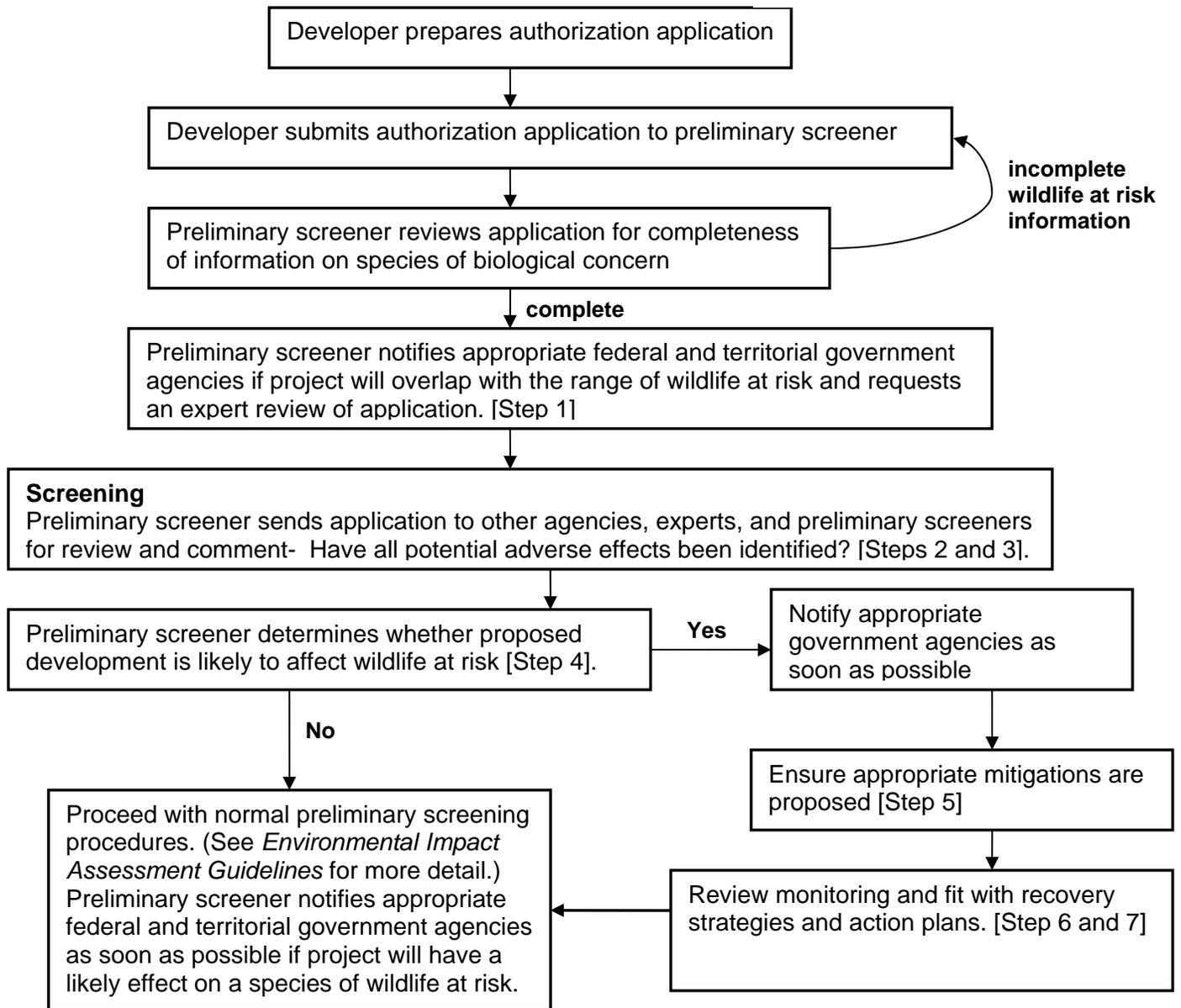
In some circumstances, two or more federal agencies require notification. For example, if the Whooping Crane may be affected by a project, it is necessary to notify Parks Canada, because some of the critical habitat of the Whooping Crane is found within Wood Buffalo National Park, and Environment Canada because the Whooping Crane is a migratory bird.

3.4 Mitigation and Monitoring as Permit Conditions

SARA s.79 requires that preliminary screeners ensure that suitable mitigation measures and monitoring occur if a proposed project that will likely have adverse impacts on a Species at Risk proceeds. Therefore, proposed mitigation and monitoring measures need to be included in an approval as developer’s commitments or permit conditions. Mitigation and monitoring requirements should be appropriate for both the scale of the development and the types of impacts that are predicted.

If monitoring programs show that adverse effects of the project on wildlife at risk or their important habitat are greater than anticipated, appropriate adaptive management measures may be needed, or the project may need to be changed. If monitoring reports are received by preliminary screeners, they will be forwarded to appropriate territorial and federal government agencies for review, and to determine if project changes are needed to minimize impacts to species.

Figure 1. Steps for considering wildlife at risk in preliminary screening



4 Requirements and Tools for Developers in Preliminary Screening

The responsibilities imposed by SARA on those conducting environmental impact assessments create a need for more information from proponents who are preparing an authorization application that will go through the preliminary screening process. Preliminary screeners may add a new section on wildlife at risk in authorization applications that requires developers to complete a table similar to that found in Appendix A. This table requests information on wildlife at risk that will likely be affected by the proposed project, a description of potential adverse effects on species or their habitat, and proposed mitigation and monitoring activities.

The criteria preliminary screeners will be using to evaluate the information that project proponents provide about wildlife at risk have been outlined above (see Section 3). Steps 2 – 6 in Section 3 are particularly relevant for project proponents as a guide in preparing their authorization applications.

From the developer's perspective, the steps are summarized below:

1. Identify whether your proposed development overlaps with the ranges of wildlife at risk. If there is no overlap between the area of the proposed development and the range of any species at risk, no further actions regarding species at risk are necessary.
2. Identify all possible adverse effects of the proposed development on wildlife at risk.
3. Proposed mitigation measures to avoid or minimize adverse impacts on wildlife at risk.
4. Describe any monitoring efforts proposed. Include a description of how monitoring results will be evaluated and how any adaptive management will result.
5. Describe how proposed mitigation measures and monitoring programs fit with species recovery strategies, action plans or management plans for the species of wildlife at risk, if such documents are available.

Appendix B contains a list of information resources on wildlife at risk designated by SARA, COSEWIC and the NWT *General Status Ranking Program*, including range maps and critical habitat descriptions.

In the conceptual stages of project development, the Review Board recommends that all project proponents contact species at risk biologists with the GNWT, Environment Canada and Fisheries and Oceans Canada to discuss wildlife at risk. Contact information for these organizations is listed in Appendix D. These agencies can make suggestions on how to identify wildlife at risk and their habitats for a project area, assist with predicting adverse effects, and help propose mitigation measures and monitoring procedures that are suitable for the scope of a given project.

Regarding steps two to four, the Review Board recognizes that there is a wide discrepancy in the size and scope of projects and project proponents that go through the preliminary screening process, and that many factors affect the capacity of a project proponent to adequately access

information on wildlife at risk. Developers proposing larger projects should expect to put forth more effort in evaluating potential impacts on wildlife at risk.

Table two in Appendix E provides useful information from Environment Canada that may be helpful to developers when characterizing impacts on wildlife at risk.

Table three (below) provides a general outline of the level of effort to expect for developments of different sizes. Project costs in this table are approximated and used only as convenient general indicators of levels of proposed activity. The degree of potential impacts may be more or less depending on other project details, such as location (including presence of particularly sensitive habitat) or timing. For this reason, the actual level of effort will likely vary on a case-by-case basis. Table three is only intended to provide a rough approximation for illustrative purposes.

Table 3. Level of effort from developer and government expert agencies when completing species at risk information requirements for a preliminary screening authorization application

[Note to reviewers: Examples that help better illustrate the categories below would be appreciated]

Scale of project (appx. cost)	Level of government assistance in preparing species at risk section of authorization application
Small (< \$500,000)	<ul style="list-style-type: none"> • Developer can rely on government experts to help identify potential adverse effects, and propose plans for mitigation and monitoring
Medium (~ \$500,000 - \$10 000 000)	<ul style="list-style-type: none"> • Government may provide some assistance to identify potential adverse effects, and propose plans for mitigation and monitoring. Depending on capacity, developer is expected to conduct some of its own investigations into wildlife at risk
Large (~ > \$10 000 000)	<ul style="list-style-type: none"> • Developer is expected to identify potential adverse effects, and propose plans for mitigation and monitoring, with or without the assistance of hired consultants • Government agencies remain a point of contact and provide recommendations regarding adverse effects, mitigation and monitoring

Developers should ensure that their applications clearly describe the results of the above steps. If information on wildlife at risk is incomplete, the preliminary screener will return the application until the information has been provided.

5 Requirements during Environmental Assessment and Environmental Impact Review

The species at risk requirements for the Review Board when conducting an environmental assessment, or for a panel formed by the Review Board when carrying out an environmental impact review, are the same as those outlined for preliminary screeners in Section 3. The Review Board or Panel must provide written notification to the appropriate government agencies if a species at risk will likely be impacted by a proposed development undergoing EA or EIR, as described in Section 3 and Appendix C. The terms of reference for a project must request that developers identify potential adverse effects to wildlife at risk that could be caused by the proposed project, and strategies for mitigation and monitoring.

The *Terms of Reference for the Gahcho Kué Environmental Impact Statement* for a review of a proposed diamond mine provide an example of how wildlife at risk, including SARA Schedule 1 listed species, can be addressed in the EIA process. Box 1 outlines the section of the *Terms of Reference* dealing with species at risk. Although Terms of Reference are issued on a case-by-case basis, developers may expect a consistent approach to be followed in other environmental assessment and environmental impact reviews, unless special considerations dictate otherwise.

When reviewing a proposed project, each species of wildlife at risk, and habitat important for its survival, will be treated as valued components.

Box 1. Terms of Reference regarding species at risk for the Gahcho Kué Environmental Impact Statement

The analysis provided in the EIS must be of sufficient detail to allow the Panel, as well as relevant other parties, to discharge its responsibilities under the *Species at Risk Act*, which includes:

- determining whether the proposed development is likely to affect a listed species or its critical habitat;
- identifying the adverse effects on the species and its critical habitat;
- ensuring that measures are taken to avoid or lessen those effects, consistent with any applicable recovery strategy and action plan; and
- monitoring the effects.

For the purpose of this environmental impact review, the term “species at risk” includes all species listed under any applicable schedule of the *Species at Risk Act*, as well as any species listed by the Committee on the Status of Endangered Wildlife in Canada. It also includes any species listed by the GNWT with designations “may be at risk”, “at risk” or “sensitive” in the *General Status Rankings for Species in the NWT*.

Any measures resulting from the environmental assessment or environmental impact review regarding wildlife at risk should be captured in regulatory conditions for the development, to the extent possible.

6 Conclusions

These guidelines have been written to clarify the expectations of the Review Board regarding how individuals and organizations involved in the EIA process must consider wildlife at risk, including SARA Schedule 1 listed species. The Review Board has produced these Guidelines according to s.120 of the MVRMA, with substantial input from Environment Canada and GNWT Department of Environment and Natural Resources.

The Guidelines describe how organizations conducting EIA processes can consider impacts on species wildlife at risk and meet legal requirements outlined in SARA. If in a given EIA situation, special circumstances regarding species wildlife at risk should apply, situations can be evaluated on a case-by-case basis.

These guidelines reflect the laws affecting EIA in the Mackenzie Valley, including both the MVRMA and SARA, and the current thinking and good practices for implementing EIA processes. Careful consideration of the potential impacts a proposed project may have on wildlife at risk is an important contribution towards conserving biological diversity and protecting wildlife at risk in the Mackenzie Valley.

Appendices

Appendix A Template Form for Considering Wildlife at Risk in Preliminary Screening

For each species at risk for which range overlaps with the location of a project, a table similar to the one below should be completed during the preliminary screening:

Table A.1. Sample table

Species Name List(s) - Status	Potential adverse impacts	Proposed mitigation measures	Proposed monitoring activities	Describe how proposed plans conform with existing species recovery strategy, action plan or management plan

Table A.2. Fictional Example – Whooping crane and Northern leopard frog

Species Name List(s) - Status	Potential adverse impacts	Proposed mitigation measures	Proposed monitoring activities	Do the proposed plans conform with existing species recovery strategy, action plan and/or management plan?
Ie. Whooping crane (<i>Grus americana</i>) SARA – Endangered COSEWIC – Endangered GSR – At Risk (Endangered)	Disturbance of cranes during the breeding season by noise from the development.	Operational only when birds are absent.		
	Cranes might hit powerlines	Make powerlines more visible to cranes (work with expert to determine the best method).	Survey powerlines and record dead birds. To be developed in consultation with Environment Canada experts.	Yes
	Increased pollutants entering the watershed of Whooping Crane critical habitat.	Reduce pollutant levels to below effluent guidelines.	Monitor effluent to ensure guidelines are met, to be developed in consultation with Environment Canada experts. Develop a study to ensure WHCR productivity is not adversely affected, incorporate adaptive management.	
Northern leopard frog <i>Rana pipiens</i> SARA: Special concern COSEWIC: Special concern GSR: Sensitive	Destruction of wetland breeding habitat.	Proponent will not destroy wetlands during construction.	Inspection to ensure that no wetlands are destroyed during construction.	Yes

Appendix B How to search for wildlife at risk, species ranges and critical habitat

This Appendix provides resources to help determine if a proposed development will affect wildlife at risk and/or their critical habitat, and answer the following questions:

- What are the species of wildlife at risk according to SARA, COSEWIC and the GNWT General Status Ranking?
- Which species have ranges that overlap with the location of the project or development?
- Is there any important habitat in or near the development area?

Table B.1. Resources to help identify SARA Schedule 1 listed species and their ranges

<p>SARA Registry www.sararegistry.gc.ca</p>	<ul style="list-style-type: none"> • List of SARA Schedule 1 species, status reports, recovery strategies and action plans • For the most current list of Schedule 1 species in the Northwest Territories: <ol style="list-style-type: none"> 1) Go to SARA public registry: http://www.sararegistry.gc.ca/ 2) Click on ‘Advanced search’ 3) Check the following: <ul style="list-style-type: none"> Range: Northwest Territories Taxonomy group: All Schedule: Schedule 1 • Range maps are included in each species status report and will soon be available on the GNWT and EC websites: www.nwtwildlife.com/Publications/speciesatriskweb/default.htm • Recovery strategies, action plans and management plans can be found on this website • Critical habitat will be identified in recovery strategies or action plans of each species
<p>Canadian Wildlife Service (CWS) Species at Risk website</p>	<ul style="list-style-type: none"> • Species lists, legislation, recovery programs and publications • http://www.speciesatrisk.gc.ca/publications/default_e.cfm
<p>Species at Risk Web Mapping Application</p>	<ul style="list-style-type: none"> • Shows the presence of SARA Schedule 1 listed species found in any region of Canada • http://www.speciesatrisk.gc.ca/map/default_e.cfm
<p>Contact the Canadian Wildlife Service</p>	<ul style="list-style-type: none"> • E-mail: sara.north@ec.gc.ca • Telephone: (867) 669 – 4700 • Address: 5204 – 50th Avenue, Suite 301, Yellowknife NT X1A 1E2 • Ask for the Species At Risk Biologist • May have draft status reports for Species at Risk

Table B.2. Resources to help identify COSEWIC assessed species and their ranges

<p>COSEWIC website www.cosewic.gc.ca</p>	<ul style="list-style-type: none"> • For the current list of species being considered by the federal government for addition to SARA Schedule 1: <ol style="list-style-type: none"> 1) Go to the COSEWIC website: www.cosewic.gc.ca 2) Click on ‘Wildlife Species Assessment’ 3) Examine the ‘Assessment Results’, that describes species that were assessed at the most recent COSEWIC meeting, and the ‘Canadian Species at Risk’ document that describes all species that COSEWIC has assessed and where they are in SARA listing process.
<p>SARA registry</p>	<ul style="list-style-type: none"> • Status reports for some species assessed by COSEWIC that have not been added to the SARA Schedule 1 list may still be found on SARA registry. • www.sararegistry.gc.ca
<p>GNWT Environment & Natural Resources website</p>	<ul style="list-style-type: none"> • NWT Species on assessed by COSEWIC • http://www.nwtwildlife.com/Publications/speciesatriskweb/default.htm • GNWT Spatial Data Warehouse (shows presence of SARA Schedule 1 and COSEWIC assessed species in NWT) • http://maps.gnwtgeomatics.nt.ca/portal/index.jsp
<p>Contact the Canadian Wildlife Service</p>	<ul style="list-style-type: none"> • Contact information in Table B.1

Table B.3. Resources to help identify GNWT General Status Ranking Program listed species and their ranges

<p>GNWT General Status Ranking Program</p>	<ul style="list-style-type: none"> • General Status Ranks of Wild Species in the NWT 2006-2010 (a copy of this publication can be downloaded) • http://www.nwtwildlife.com/monitoring/default.htm
<p>GNWT Species Monitoring Infobase</p>	<ul style="list-style-type: none"> • Database can be searched by species, ecoregion and general status rank • http://www.nwtwildlife.com/monitoring/speciesmonitoring/default.htm
<p>Contact GNWT Environment and Natural Resources</p>	<ul style="list-style-type: none"> • Contact information in Appendix D • Can provide a list of species under their jurisdiction • Recommendations on potential adverse effects, mitigation, and monitoring • Information on species ranges

Table B.4. Other resources for investigating wildlife at risk

NatureServe Website	<ul style="list-style-type: none">• Distribution maps for birds, mammals and amphibians• http://www.natureserve-canada.ca/
NWT-Nunavut Bird Checklist Survey	<ul style="list-style-type: none">• Information about the location of birds in the NWT• NWTChecklist@ec.gc.ca
Canadian Amphibian and Reptile Conservation Network	<ul style="list-style-type: none">• Species information and range maps for amphibians and reptiles• http://www.carcnet.ca/

Appendix C Sample Notification Letter Template

The following template can be used to notify government agencies that a proposed project will likely impact a species of wildlife at risk and/or its critical habitat.

INSERT ADDRESS OF SENDER, DATE, ADDRESS OF RECIPIENT

Dear Mr./Ms. _____:

RE: Notification pursuant to the requirements of subsection 79(1) of the *Species at Risk Act* / notification regarding wildlife at risk.

Please be advised that (*name of organization or agency*), as responsible for the (*preliminary screening, environmental assessment etc.*) for (*name of project*), has determined that this proposed project is likely to affect the following listed wildlife species or its critical habitat:

Species	Status	List (Schedule 1, COSEWIC, NWT General Status Ranks)	Near Critical Habitat?
<i>Eg. Whooping Crane</i>	<i>Endangered</i>	<i>Schedule 1</i>	<i>Yes</i>

This determination is based on information from (*Information source, e.g., range on SARA registry overlaps with project, sightings, recent surveys, proponent's application materials etc.*).

Details about (*name of project*), located at (*location information*), are attached. At this point, the following mitigation measures and alternatives are being considered (*insert mitigation and/or alternative means of carrying out the project, if known*).

The proposed project is subject to a (*type of screening and/or environmental assessment*) under the (*applicable legislation*). Additional information about the screening/environmental assessment is available through the (*location, e.g., Assessment Registry*) at (*reference number*).

As part of your regular review of this project, please help (*name of organization conducting assessment*) to determine the likelihood that the proposed project would affect the species and/or their critical habitats listed in the table above. Also, please review any proposed mitigations and monitoring and provide expert advice in this area as well, including providing your views on whether these are consistent with any recovery planning undertaken for the species.

If you have any questions please feel free to call the contact for this assessment: (*name of contact, address, e-mail and phone number*).

Sincerely, *Organization Representative (Signatures of all appropriate regulators if applicable)*

Notification Addresses:

Parks Canada

If a **SARA-listed** species and/or its critical habitat occurs in lands administered by the Parks Canada Agency, the notification letter should be sent to Parks Canada Agency at the following address:

Environmental Assessment Scientist
Western and Northern Service Centre
Parks Canada
145 McDermot Ave.
Winnipeg, MB, R3B 0R9
Phone: (204) 984-1929 Fax: (204) 983-0031

Department of Fisheries and Oceans

If a **SARA-listed** species and/or its critical habitat is aquatic, the notification letter should be sent to the Department of Fisheries and Oceans at the following address:

Habitat Management Team Leader
Fisheries and Oceans Canada
Western Arctic Area
101 5204-50th Avenue
Yellowknife, NT X1A 1E2
phone: (867) 669-4942
fax: (867) 669-4940

Environment Canada

For all other **COSEWIC-listed** and **SARA-listed** species or their critical habitat, the notification letter should be sent to Environment Canada at the following address:

Environmental Assessment Coordinator
Environmental Protection Operations Division
Environment Canada
Suite 301, 5204 – 50th Avenue
Yellowknife, NT X1A 1E2
Phone: (867) 669-4763 Fax: (867) 873-8185

Government of the Northwest Territories

For all and **GNWT General Status Ranking-listed** species, a notification letter should be sent to the Government of the Northwest Territories at the following address:

Environmental Assessment Specialist – Wildlife
Wildlife Division, Environment & Natural Resources, GNWT
Yellowknife, NT X1A 2L9
Phone: (867) 920-6362 Fax: (867) 873 - 0293

Appendix D: Contact Information for Government Agencies

Government of the Northwest Territories (GNWT)

Environmental Assessment Specialist – Wildlife
Wildlife Division, Environment & Natural Resources, GNWT
Box 1320
Yellowknife, NT X1A 2L9
Phone: (867) 920-8064

Species at Risk Specialist
Wildlife Division, Environment & Natural Resources, GNWT
Box 1320
Yellowknife, NT X1A 2L9
Phone: (867) 873 - 7588

Wildlife Biologist – Ecosystem Management
Wildlife Division, Environment & Natural Resources, GNWT
Box 1320
Yellowknife, NT X1A 2L9
Phone: (867) 920-6327

Environment Canada

Environmental Assessment Coordinator – Canadian Wildlife Service
Environmental Protection Operations Division
Environment Canada
Suite 301, 5204 – 50th Avenue
Yellowknife, NT X1A 1E2
Phone: (867) 669-4763
Fax: (867) 873-8185

Species at Risk Biologist
Environmental Protection Operations Division
Environment Canada
Suite 301, 5204 – 50th Avenue
Yellowknife, NT X1A 1E2
Phone: (867) 669 - 4765
Fax: (867) 873 – 8185

Department of Fisheries and Oceans

Habitat Management Team Leader
Fisheries and Oceans Canada
Western Arctic Area
101 5204-50th Avenue
Yellowknife, NT X1A 1E2
phone: (867) 669-4942
Fax: (867) 669-4940

Parks Canada

Environmental Assessment Scientist
Western and Northern Service Centre
Parks Canada
145 McDermot Ave.
Winnipeg, MB, R3B 0R9
Phone: (204) 984-1929
Fax: (204) 983-0031

Appendix E: Selected tables from existing guidance

The following two tables are adapted from the *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada*, published by the Canada Wildlife Service (2004). Although not specific to the MVRMA process, this guide contains useful how-to advice of a general nature.

The entire original document may be viewed online at:

http://www.cws-scf.ec.gc.ca/publications/eval/guide/EA_Best_Practices_2004_e.pdf

Table 1: A summary of best practice guidelines

For considering wildlife at risk in environmental assessment

Initiating the project and assessment

1. Consider relevant plans and strategies for conservation and sustainable development at the landscape, ecosystem, community and species levels. In this way, project siting, design and timing can be tailored to the habitat and residence requirements of all wildlife, including wildlife at risk.
2. When considering site or design alternatives, direct projects and physical activities away from biodiversity or extinction hotspots, rare ecosystems and other areas identified as conservation priorities.

Scoping the assessment

3. Investigate whether wildlife at risk—or their survival or recovery habitat or residences—are located within the project study area by referring to existing information sources, including wildlife experts, specialists and local and Aboriginal communities. Conduct field surveys if it is likely that wildlife species at risk are present in the study area or if wildlife data for the site are lacking or outdated. Document as part of the assessment all efforts to identify wildlife at risk.
4. Involve the appropriate government departments and specialists if wildlife at risk are an issue in the assessment or in the case of any uncertainty about whether they are an issue. Work through environmental assessment coordinators to make appropriate contacts.

Assessing environmental effects

5. Identify wildlife species at risk as valued ecosystem components, and include them among the species selected to focus the assessment.
6. Describe project effects on wildlife at risk with rigour and detail, reflecting the current understanding of the ecology of species. Use status reports, recovery strategies, action plans and species management plans as main information sources where available, and consult with wildlife experts, specialists and local and Aboriginal communities. Consider all direct, indirect and cumulative effects in the analysis.

Mitigating adverse environmental effects

7. Plan the project to avoid or minimize effects on all species designated as being at risk anywhere in Canada, as well as the habitat and residences that are essential to their survival or recovery.
8. Work out the best approach to mitigation on a case-by-case basis. Pay particular attention to recognized threats that negatively affect species populations and habitat requirements. The mitigation plan should be aimed at ensuring the survival of wildlife at risk and contributing to their recovery.

Determining the significance of residual adverse environmental effects

- 9. Residual effects that will reduce the likelihood of achieving of self-sustaining population objectives or recovery goals should be deemed significant.
- 10. Apply the precautionary approach/principle when making decisions concerning significance of effects on wildlife species at risk.

Follow-up: Verifying accuracy of predictions and ensuring success of mitigation

- 11. Verify the accuracy of predictions and ensure the success of mitigation measures for wildlife at risk through follow-up programs; plan contingencies and implement midcourse corrections if necessary to protect species.

Table 2: Considerations for assessing effects on wildlife at risk

Environment description: characterization of wildlife at risk and their vulnerabilities	Proposed project/environment interactions
Status/rank: global, national, provincial/territorial	
Population size and extent of occurrence . Size of area used . Percentage of range in Canada / province / territory?	What is the proportion of the population that uses the project study area?
Trend in population	How can the project influence these trends? What is the quantitative or qualitative assessment of population viability? How might the project affect this viability model?
Geographic distribution	What is the proportion of the extent of occurrence or area of occupancy represented by the study area?
Natural or human-induced threats that are thought to be negatively affecting species population viability	How can the project contribute to/affect these threats?
Potentially limiting intrinsic attributes: key characteristics of the species' life history or ecology that may make it particularly susceptible to disturbance and/or influence its recovery potential	How can the project affect these attributes?
Activities likely to affect individuals or populations	Does the project involve any of these activities? How many individuals or what proportion of the population might be affected? To what degree? Will other projects or activities intensify these effects?
Seasonality Also, climate extremes	Which project activities could interfere with seasonal activity? How? Which project activities and design features could contribute to increased stresses on species if climate extremes considered?

<p>Species interrelationships</p> <ul style="list-style-type: none"> • Significance of the ecological/ecosystem role where the species occurs in significant numbers (keystone? ecologically dominant? significant role in ecosystem?) • Species that share the same threats and/or would benefit from recovery activities? 	<p>How might the project affect predator/prey and other species relationships?</p>
<p>Habitats and residences</p> <ul style="list-style-type: none"> • Occupied habitats and areas that potentially may be utilized • Critical, survival or recovery habitat • Residences • Key habitat attributes • Trends in habitat 	<p>What types of habitat occur in the project study area? What proportion of the total survival or recovery habitat occurs in the study area? How might the project directly or indirectly influence these habitats/key habitat attributes? What effect might this have on individuals or populations?</p>
<p>Ecological processes and functions critical to the maintenance of habitats</p>	<p>How might the project influence these processes and functions?</p>
<p>Relevant policies or legal requirements</p>	<p>What are the requirements for species protection?</p>
<p>Goals, objectives, approaches for recovery</p>	<p>How can the project influence recovery of the species?</p>
<p>Ongoing recovery activities</p>	<p>How can the project influence ongoing recovery activities?</p>