

Report 4: July 2011

AN AUDIT OF THE ENVIRONMENTAL ASSESSMENT OFFICE'S OVERSIGHT OF CERTIFIED PROJECTS

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The Honourable Bill Barisoff
Speaker of the Legislative Assembly
Province of British Columbia
Parliament Buildings
Victoria, British Columbia
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Dear Sir:

As mandated under Section 11 of the *Auditor General Act*, I have the honour to transmit to the Speaker of the Legislative Assembly of British Columbia my 2011/2012 Report 4: *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*.

This audit examined the post-certification stage of government's environmental assessment process. The report makes six recommendations to improve the effectiveness of the Environmental Assessment Office in this area.

I look forward to receiving updates on the Environmental Assessment Office's progress in implementing the recommendations.

John Doyle, MAcc, CA
Auditor General

Victoria, British Columbia
July 2011

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AUDITOR GENERAL'S COMMENTS



JOHN DOYLE, MAcc, CA
Auditor General

When major projects such as mines, dams or tourist destination resorts are undertaken in the province, British Columbians expect that any potentially significant adverse effects (whether environmental, economic, social, heritage and/or health related) will be avoided or mitigated. The Environmental Assessment Office is expected to provide sound oversight of such projects. However, this has not been happening.

The audit found that the Environmental Assessment Office cannot assure British Columbians that mitigation efforts are having the intended effects because adequate monitoring is not occurring and follow-up evaluations are not being conducted. We also found that information currently being provided to the public is not sufficient to ensure accountability.

I am encouraged that, during the course of our audit, the Environmental Assessment Office introduced some key measures to address some of the noted deficiencies, such as appointing a Director of Strategy and Quality Assurance. Government has accepted our six recommendations, and I look forward to receiving updates on their implementation through our follow-up process.

My thanks to the staff involved for the cooperation and assistance they provided to my Office during this audit.

A handwritten signature in black ink, appearing to read "John Doyle". The signature is written in a cursive, flowing style.

John Doyle, MAcc, CA
Auditor General
July 2011

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EXECUTIVE SUMMARY

IN BRITISH COLUMBIA, major projects, such as mines or power plants, must be considered for an environmental assessment prior to their development. Such an assessment is intended to consider not only the potential environmental effects of the project, but its potential economic, social, heritage and health effects as well.

If a project is approved following that process, the provincial government then grants an environmental assessment certificate that sets out the conditions and commitments the project proponent is legally bound to meet.

The agency responsible for conducting environmental assessments in the province is the Environmental Assessment Office (EAO), which reports to the Minister of Environment. The EAO is also responsible for overseeing approved projects to ensure that proponents comply with all certificate conditions and commitments.

In this audit, we focused on the post-certification part of the environmental assessment process. We did not evaluate that portion of the process leading up to the approval of a project.

We carried out the audit to determine whether the EAO is:

- ♦ providing oversight to ensure that potential significant adverse effects of certified projects are avoided or mitigated;
- ♦ evaluating the effectiveness of environmental assessment mitigation measures; and
- ♦ making appropriate monitoring, compliance and outcome information about certified projects available to the public.



We concluded the following:

The EAO's oversight of certified projects is not sufficient to ensure that potential significant adverse effects are avoided or mitigated.

- ♦ Specifically, the EAO is not ensuring that:
 - certificate commitments are measurable and enforceable;
 - monitoring responsibilities are clearly defined; and
 - compliance and enforcement actions are effective.
- ♦ The EAO is not evaluating the effectiveness of environmental assessment mitigation measures to ensure that projects are achieving the desired outcomes.
- ♦ The EAO is not making appropriate monitoring, compliance and outcome information available to the public to ensure accountability.

SUMMARY OF RECOMMENDATIONS

WE RECOMMEND THAT THE ENVIRONMENTAL ASSESSMENT OFFICE:

- 1** Ensure commitments are clearly written in a measureable and enforceable manner.
- 2** Continue to work with the Ministry of Environment to finalize a policy framework that will provide provincial guidance on environmental mitigation.
- 3** Clarify the post-certification monitoring responsibilities and compliance mechanisms for each commitment.
- 4** Develop and implement a comprehensive compliance and enforcement program that includes an integrated information management system to monitor project progress and ensure compliance.
- 5** Conduct post-certificate evaluations to determine whether environmental assessments are avoiding or mitigating the potentially significant adverse effects of certified projects.
- 6** Provide appropriate accountability information for projects certified through the environmental assessment process.

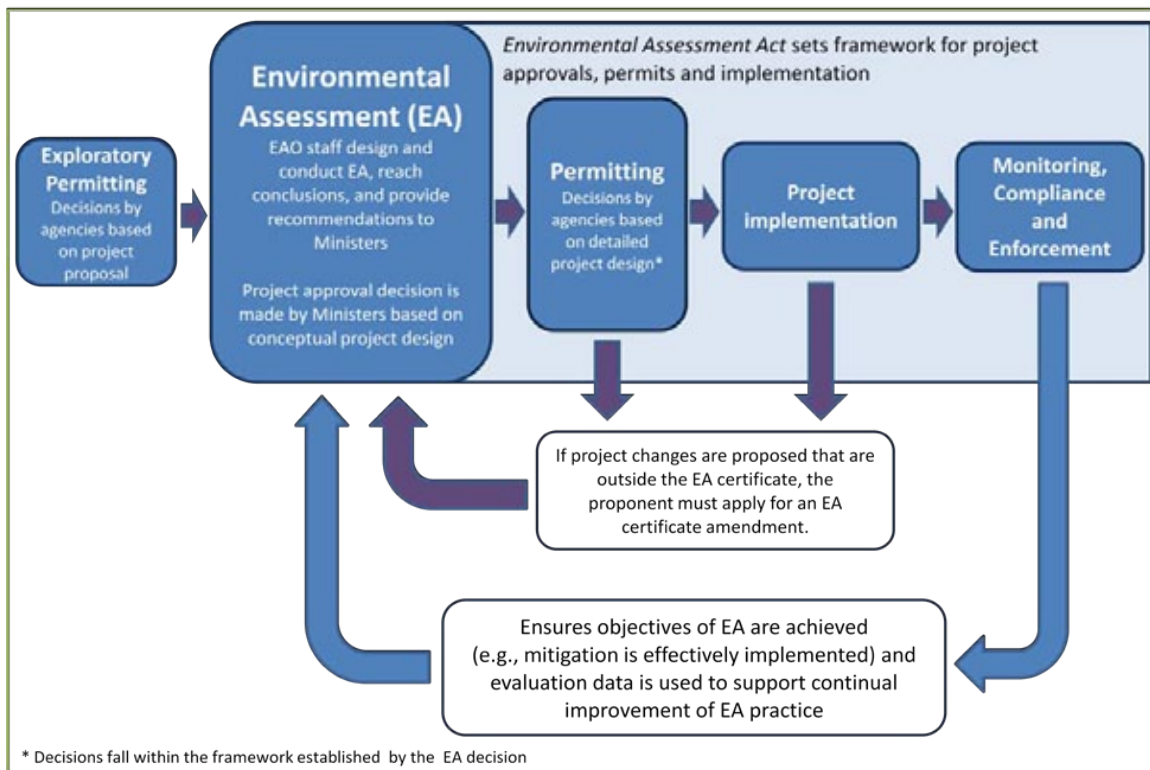
RESPONSE FROM THE ENVIRONMENTAL ASSESSMENT OFFICE

The Environmental Assessment Office (EAO) appreciates the opportunity to receive and respond to the findings and recommendations of the audit conducted by the Office of the Auditor General on EAO's oversight of certified projects. It is critically important that environmental assessment in British Columbia is effective and rigorous to ensure public confidence in the process and to make certain that economic development is carried out in ways that preserve and support the integrity of the environment, communities and the economy. Ensuring that environmental assessment in British Columbia has a high degree of integrity is a vital element of supporting government's goals relating to families, jobs and the protection of the environment.

While the audit focused on the post-certification part of the environmental assessment process, the EAO also considers the process leading up to certification as integral to achieving high quality environmental assessment and ensuring that potential significant adverse effects are avoided or mitigated. As part of its process of continuous improvement, EAO is undertaking several initiatives designed to strengthen the entire environmental assessment process, including pre and post-certification phases.

EAO administers a neutral, transparent assessment process that considers the views of local, provincial and federal government agencies, First Nations and the public. EAO obtains technical advice from provincial government agencies across government and any other external sources it deems necessary to conduct objective assessments that examine the potential for adverse environmental, economic, social, health and heritage effects. Once the EAO determines it has sufficient information needed to reach its conclusions respecting potential adverse effects, the EAO develops an assessment report within the requirements set out by the Environmental Assessment Act, which along with recommendations from the Executive Director, are provided to ministers for decision. Should ministers decide to certify a project, the environmental assessment certificate provides the overall framework for subsequent permitting decisions and activities undertaken by government agencies and proponents (see Environmental Assessment Project Approval Framework).

Environmental Assessment Project Approval Framework



EAO acknowledges the audit findings concerning challenges and opportunities during the post-certification phase of environmental assessment and has, in fact, been working with other government agencies to enhance its activities in this area prior to the audit. The audit findings will serve to strengthen EAO's prioritization of this important component of environmental assessment.

Response to Specific Recommendations

RECOMMENDATION 1: *Ensure that commitments are clearly written in a measurable and enforceable manner.*

Response

EAO agrees with this recommendation and has been focused on making commitments measurable and enforceable since 2009.

In June 2011, EAO initiated a process to revise its environmental assessment certificate to make certificate commitments measurable and enforceable, and will continue to make this a priority.

RECOMMENDATION 2: *Continue to work with the Ministry of Environment to finalize a framework that will provide provincial guidance on environmental mitigation.*

Response

The EAO has provided, and will continue to provide, input to this important policy initiative being led by the Ministry of Environment. We believe that the framework will enhance consistency and certainty regarding the application of mitigation and compensation policies and best practices across all environmental assessments.

The environmental assessment must take into account and consider government policies as part of the environmental assessment process. However, the EAO's conclusions regarding the significance of potential adverse effects, and the specific mitigation measures required, are developed based on a variety of information sources that the EAO deems necessary. In addition, EAO's conclusions will vary depending on the context of the effects undergoing assessment and are case-specific.

This means that EAO will fully take into account the policy framework as we work with proponents, First Nations, the public and other government agencies to develop project-specific mitigation and compensation measures. This approach is consistent with our accountability to provide objective, neutral and sound recommendations to ministers for each environmental assessment.

RECOMMENDATION 3: *Clarify the post-certification monitoring responsibilities and compliance mechanisms for each commitment.*

Response

EAO agrees with this recommendation, and as part of the process for revising environmental assessment certificate commitments, EAO will ensure that monitoring responsibilities will be specified for each certificate commitment.

RECOMMENDATION 4: *Develop and implement a comprehensive compliance and enforcement program that includes an integrated information management system to monitor project progress and ensure compliance.*

Response

EAO is in the process of enhancing its monitoring, compliance and enforcement program. As part of this process, EAO is pursuing partnerships with other government agencies to ensure effective monitoring, compliance and enforcement which has already led to improved and on-going communication about roles and responsibilities.

EAO has initiated discussions with other government agencies to examine opportunities to build on existing information systems and identify future needs in order to effectively monitor and track project environmental certificate conditions and commitments, project progress, permitting, and monitoring, compliance and enforcement functions.

RECOMMENDATION 5: *Conduct post-certificate evaluations to determine whether environmental assessments are avoiding or mitigating the potentially significant adverse effects of certified projects.*

Response

The monitoring, compliance and enforcement program that EAO is currently enhancing will include a framework to monitor and evaluate project effects and will use evaluation data to support the advancement of environmental assessment knowledge and practice. This framework will be developed in consultation with other agencies and will include provisions for participating agencies to also benefit from monitoring and evaluation data.

RECOMMENDATION 6: *Provide appropriate accountability information for projects certified through the environmental assessment process.*

Response

As part of EAO's enhanced monitoring, compliance and enforcement program, information will be made available to the public concerning project monitoring and compliance. Once the program is functional and generating the accountability information, EAO will make this information transparent and available to the public on its website and through other reporting mechanisms such as the Annual Service Plan Report.

BACKGROUND

Environmental Assessment in British Columbia

In British Columbia, major projects, such as mines or power plants, must be considered for an environmental assessment prior to their development. Such an assessment is important to ensure that major projects meet the goals of environmental, economic and social sustainability. The assessment process is also needed to ensure that the issues and concerns of the public, First Nations and government agencies are considered.

The agency responsible for environmental assessments in the province is the Environmental Assessment Office (EAO). The EAO is a provincial agency created in 1995 by provincial statute (*Environmental Assessment Act* and five Regulations¹). An Executive Director, appointed by the Lieutenant Governor in Council, heads the EAO.

Under the *Environmental Assessment Act*, projects become reviewable in three ways:

- ♦ **Reviewable Projects Regulation** – The Act gives power to the EA Office to evaluate proposed major projects that are reviewable if they meet certain thresholds. A broad range of projects are automatically reviewable if they equal or exceed thresholds for total project footprint, production volume and/or other factors. Most major projects are reviewed based on this regulation.
- ♦ **Proponent “Opt In”** – For projects that are not automatically reviewable, a proponent may see advantages in requesting a formal environmental assessment review.
- ♦ **Ministerial Designation** – The Minister of Environment may also direct that an assessment be conducted on a project if he or she believes that the project may have a significant adverse environmental, economic, social, heritage or health effect, and that the designation is in the public interest.

¹ (1) Concurrent Approval Regulation, (2) Prescribed Time Limits Regulation, (3) Public Consultation Policy Regulation, (4) Reviewable Projects Regulation, (5) Transition Regulation



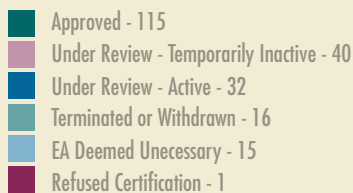
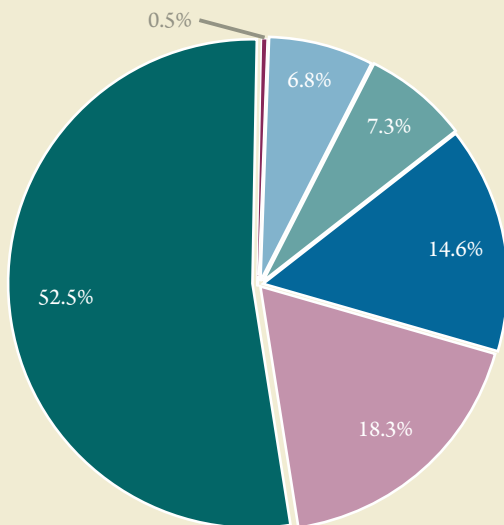
The EAO does not provide oversight for projects that are assessed by other responsible ministries and agencies. For example, the Clean Energy Project Office coordinates the approval of hydroelectric, thermal or other power plants that are not assessed under the *Environmental Assessment Act*.

When the assessment has been completed, the proponent’s application for an “environmental assessment certificate,” the EAO’s assessment report, and any Executive Director’s recommendations are submitted for decision to the Minister of Environment and the other ministers responsible. For example, the Minister of Energy and Mines participates in decisions related to the environmental assessments of proposed mine projects.

The EAO employs nearly 55 staff and has a budget of approximately \$8.75 million. This includes \$1 million in grants to First Nations for funding capacity to participate in the EA process and \$1.3 million to other government agencies to provide technical expertise to support the EAO in the assessments. The EAO estimates that the potential capital investment value for projects in the environmental assessment process in 2010/11 will exceed \$30 billion.

219 projects have undergone or are currently undergoing an environmental assessment. Nearly 53% (115, as of April 1, 2011) have been approved (see Exhibit 1).

Exhibit 1: Status of projects (219) that have undergone or are currently undergoing an environmental assessment – 1995 to present



Source: Environmental Assessment Office

Energy and mining sector developments account for nearly 70% of the certified projects. The remainder are industrial, water management, waste management, transportation, food processing and tourist destination resort projects (see Exhibit 2).

Exhibit 2: Certified projects by sector (115 as of April 1, 2011)

Energy	51
Mining	27
Water Management	11
Transportation	9
Waste Disposal	7
Industrial	4
Tourist Destination Resorts	3
Other	3
Total	115

Source: Environmental Assessment Office

Environmental Assessment Process

The environmental assessment process in British Columbia provides a mechanism for reviewing major projects to identify potential adverse effects, identify measures to avoid, reduce or mitigate these effects, and assess the net impacts. In an application, a proponent must describe: the predicted environmental, economic, social, heritage and health effects of the project; and the proposed measures to mitigate those impacts.

For each of the five types of impacts – environmental, social, economic, heritage and health – the proponent must consider components that are important to stakeholders. These components may include, for example, environmental features, sites of social and cultural importance, First Nation community interests, business opportunities, and labour income generated. Proponents often hire consultants to help them with this process.

When assessing these components, the EAO considers cumulative impacts. Information regarding cumulative impacts can be obtained through:

- ♦ examination of approved land use plans that designate the most appropriate activities on the land;
- ♦ review of current conditions as set out in baseline studies that factor in effects of prior development;
- ♦ identification of potential overlapping impacts that may be the result of other nearby developments; and
- ♦ identification of predicted impacts from future developments that are reasonably likely to proceed.

The EAO considers its environmental assessment to be rigorous and comprehensive (see Exhibit 3). EAO staff rely on the advice of experts from government agencies, and each project has a dedicated working group with representatives from stakeholder groups such as:

- ♦ provincial ministries, including:
 - the Ministry of Environment, who advise on environmental protection issues such as air and water quality,
 - the Ministry of Forests, Lands and Natural Resource Operations, who advise on issues regarding ecosystems, wildlife and hydrology, and
 - the Ministry of Energy and Mines, who advise on issues regarding mines such as water quality and acid rock drainage;
- ♦ federal agencies, including Fisheries and Oceans Canada and Environment Canada;
- ♦ First Nations;
- ♦ local governments; and
- ♦ as appropriate, neighbouring jurisdictions (for example, Alberta or Washington State).

The working group advises the EAO about issues related to the proposed project's assessment and helps to assess the adequacy of any proposed mitigation measures.

The EAO will only refer a project to the Ministers for a decision once it is satisfied that:

- ♦ federal and provincial government assessment and impact management expectations have been addressed;
- ♦ there has been appropriate consultation with First Nations that may be impacted by the project and that those First Nations' interests have been appropriately considered and addressed; and
- ♦ there has been appropriate public consultation, and issues raised by the public that are within the scope of the review have been appropriately considered and addressed.

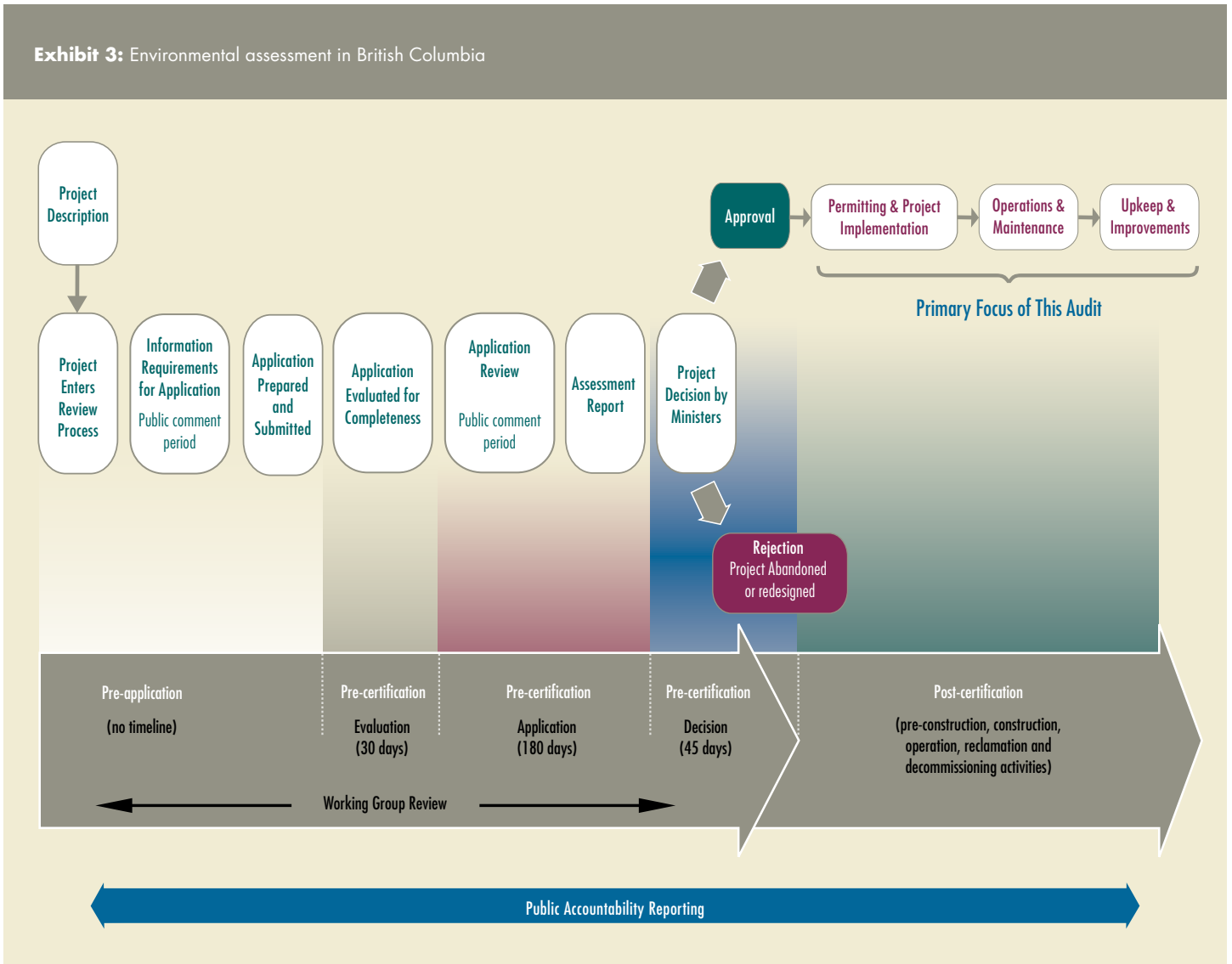
Over two-thirds of the projects now undergoing a provincial environmental assessment also require a federal assessment under the *Canadian Environmental Assessment Act*.

For projects that fall under both provincial and federal assessment responsibility, an agreement ensures that the two government levels will carry out a cooperative environmental assessment while retaining their respective decision-making powers. The purpose of this harmonized approach is to create greater efficiency and effectiveness for both the private and public sectors.

There is no guarantee, however, that the two governments will arrive at the same recommendation as their respective legislative mandates differ. The project cannot proceed if it does not receive the support of both governments. In these cases, the proponent may redesign or abandon the project.

DETAILED REPORT

Exhibit 3: Environmental assessment in British Columbia



Source: Adapted by the Office of the Auditor General from Environmental Assessment Office information

The Environmental Assessment Certificate

An environmental assessment certificate is a legal document that a proponent must adhere to for the life of the project.

Project requirements are separated into two main sections: conditions and commitments.

- ◆ **Conditions** – Each certificate contains approximately 10 conditions. Conditions address legal procedural issues common to every project certified under the *Environmental Assessment Act*. They are essential and do not change significantly from project to project. Examples of conditions include the requirement to adhere to the details of the application, compliance reporting requirements for the project, duration of the certificate, and reasons for suspension, cancellation or amendment of the certificate.
- ◆ **Commitments** – Commitments, unlike conditions, are project-specific and critical to reducing adverse project impacts. Some certificates identify over 100 commitments.

Commitments are made by a proponent to:

- avoid or mitigate potential significant adverse environmental, economic, social, heritage and health effects of a project; and
- address aboriginal rights (established and asserted), including treaty rights.

Commitments are prepared by the proponent with guidance from the EAO and other agencies but are finalized by the EAO. Once the certificate is issued, the conditions and commitments are legally binding.

The EAO is responsible for monitoring certified projects throughout their life to ensure that proponents comply with their certificate conditions and commitments. Both the *Environmental Assessment Act* and the EAO's user guide clearly state the expectation that proponents will comply with the environmental assessment certificate. Proponents are required to track compliance and report on their progress at specified milestones such as construction, operation and decommissioning.

The EAO relies on other agencies to ensure that certain certificate conditions and commitments are met, particularly the Ministry of Forests, Lands and Natural Resource Operations and the Ministry of Environment.

Proponents also require permits from these agencies in order to undertake work that may have an impact on water quality, air quality, protected habitat and other values. Some of the commitments identified in an environmental assessment certificate are often addressed in greater detail in an associated permit. The EAO is only responsible for ensuring compliance with the EA certificate and is not responsible for ensuring compliance with permits.

AUDIT OBJECTIVES AND SCOPE

We carried out the audit to determine whether the EAO is:

- ◆ providing oversight to ensure that potential significant adverse effects of certified projects are avoided or mitigated;
- ◆ evaluating the effectiveness of environmental assessment mitigation measures; and
- ◆ making appropriate monitoring, compliance and outcome information about certified projects available to the public.

We developed the audit objectives and criteria from the following sources:

- ◆ requirements of British Columbia's *Environmental Assessment Act*;
- ◆ guidance material prepared by the Environmental Assessment Office;²
- ◆ national and international good practice principles for environmental impact assessments, as well as environmental compliance and enforcement;
- ◆ interviews with staff of the Environmental Assessment Office; and
- ◆ preliminary review of projects that have been certified under the provincial environmental assessment process.

² The *Environmental Assessment Act* states that "significant adverse environmental, economic, social, heritage or health effect" are considered, "taking into account practical means of preventing or reducing to an acceptable level any potential effects of the project," whereas EAO guidance material uses the language "avoid or mitigate potential significant adverse environmental, economic, health, heritage and social effects." In consultation with the EAO, we chose the latter wording for our audit objectives. The latter is more consistent with international standards for environmental assessments.

The focus of our audit was the EAO, but we did consider the role and actions of the Ministry of Environment and other natural resource ministries. This audit examined the post-certification part of the environmental assessment process. We did not evaluate that portion of the process leading up to the approval of a project.

We carried out our audit between October 2010 and April 2011 and reviewed a sample of projects certified between 1995 and 2010. We conducted the audit in accordance with section 11 (8) of the *Auditor General Act* and the standards for assurance engagements established by the Canadian Institute of Chartered Accountants.

OVERALL CONCLUSION

We concluded the following:

- ◆ The EAO's oversight of certified projects is not sufficient to ensure that potential significant adverse effects are avoided or mitigated. Specifically, the EAO is not ensuring that:
 - certificate commitments are measurable and enforceable;
 - monitoring responsibilities are clearly defined; and
 - compliance and enforcement actions are effective.
- ◆ The EAO is not evaluating the effectiveness of environmental assessment mitigation measures to ensure that projects are achieving the desired outcomes.
- ◆ The EAO is not making appropriate monitoring, compliance and outcome information available to the public to ensure accountability.

KEY FINDINGS AND RECOMMENDATIONS

Oversight of certified projects

If a proponent's project is approved as a result of the environmental assessment process, the proponent has a legal obligation to comply with conditions and commitments set out in the environmental assessment certificate. These stipulate the EAO's expectations about how the proponent is to avoid or mitigate potential significant adverse effects and address aboriginal rights, including treaty rights. The EAO is responsible for monitoring certified projects throughout their life to ensure that proponents comply with the conditions and commitments of their certificate.

To oversee a certified project effectively, we expected the EAO to have:

- ◆ set certificate conditions and commitments that are measurable and enforceable;
- ◆ assigned clear responsibilities for each aspect of oversight; and
- ◆ implemented a comprehensive compliance and enforcement program – one that involves periodically checking whether certificate conditions and commitments are being met by project proponents and taking enforcement action when necessary.

We concluded that the EAO's oversight of certified projects is not sufficient to ensure that potential significant adverse effects are avoided or mitigated.

Measureable and enforceable certificate language

We selected a sample of certificates approved between 1995 and 2010 and reviewed the wording of their conditions and commitments.

We found that, after 2002, conditions were written in a measureable and enforceable manner. Commitments, however, were not always expressed in a way to ensure measurability and enforceability.

We looked for the use of measureable and enforceable language, for example the use of “must” instead of “will” or “may.” We also looked for clear:

- ◆ references to timing of actions;
- ◆ references to specific locations of actions; and
- ◆ stipulation of which parties are accountable for implementing commitments and ensuring compliance.

We found that numerous commitments contain vague phrasing that may be difficult to implement, measure and enforce, for example:

- ◆ “The proponent will maintain a high level of integrity with regard to environmental communications and reporting ...”
- ◆ “The proponent has agreed to explore daycare options for local employees.”
- ◆ “Vegetation clearing will be minimized and clearing in old growth areas will be avoided wherever possible and kept to a 15m maximum right-of-way width as much as possible.”
- ◆ “The proponent will continue to work with existing placer tenure holders to make best efforts to secure the fish compensation development.”

We also were made aware of two issues that may lead to commitments that are difficult to implement, measure and enforce.

1. There is an absence of provincial legislation or policy concerning options for mitigation, including offsetting of environmental impacts resulting from major projects. This often leads to disagreement between proponents and ministry staff during the development of environmental mitigation measures.

For example, Ministry of Forests, Lands and Natural Resource Operations ecosystem program staff may strive to include commitments for environmental mitigation. These include monitoring the success of mitigation measures, restoring ecosystems or applying in-lieu fees for environmental resources that will be temporarily or permanently lost because of a project. However, proponents may be reluctant to include these commitments because there is no provincial law requiring, or policy guiding, these actions or offsets. This situation generates disparate practices among provincial decision-makers, as well as uncertainty and frustration for the EAO, natural resource ministries and proponents.

The Ministry of Environment has recognized this issue and is developing a provincial environmental mitigation policy. The EAO has provided input throughout this process.

2. Some commitments set expectations for proponents that will subsequently be considered separately and permitted by another government agency. It is important that these commitments are written in a manner that is considerate of the permitting process. For example, one commitment in a certificate reads:

“The Land Tenure for the ... access roads will include an initial 5-year License of Occupation authorized by Integrated Land Management Bureau to cover the construction period and will be issued contingent upon approval of an Access Safety Management Plan. The license will make provision for a long term (life of project) secure tenure to be issued to the Proponent for its use of the road during the operations phase ...”

In this case, the permitting agency was not prepared to reiterate the commitment verbatim. Instead, the agency worded the permit according to conditions it deemed appropriate, as it was entitled to do. This led to uncertainty for the proponent because the commitment created an expectation that it had resolved the proponent's rights and obligations, only for these to change when the permitting agency considered the issue.

The EAO has recently developed preliminary internal and external guidance documents to assist staff and proponents in developing measureable and enforceable commitments. It is too early to tell if the guidance will be effective in addressing the issues identified above.

RECOMMENDATION 1: *We recommend that the EAO ensure commitments are clearly written in a measureable and enforceable manner.*

RECOMMENDATION 2: *We recommend that the EAO continue to work with the Ministry of Environment to finalize a policy framework that will provide provincial guidance on environmental mitigation.*

Monitoring responsibilities

Agency roles and responsibilities for monitoring proponents' compliance with their environmental assessment certificates must be clear.

While the EAO is responsible for providing oversight of each certified project, monitoring of certain environmental assessment certificate conditions and commitments is often delegated to other agencies. For example, the EAO relies on staff of the Ministry of Forests, Lands and Natural Resource Operations to monitor ecosystem-related commitments. (See Appendix A for examples of reported environmental monitoring good practices.) In addition, because many commitments are also incorporated into permits, they become the monitoring and enforcement responsibility of the agency issuing the permits. (See Appendix B for examples of monitoring responsibilities.)

We found that, with the exception of commitments that are tied to specific permits, agency responsibilities for monitoring compliance with environmental assessment certificates are not clear. Most interviewees reported that they had little if any communication with the EAO on these matters once a certificate had been issued.

The situation is further complicated because the various agencies involved use different methods and systems to track certificate commitments and conditions. None of these systems are integrated.

RECOMMENDATION 3: *We recommend that the EAO clarify the post-certification monitoring responsibilities and compliance mechanisms for each commitment.*

Compliance and enforcement

We found that the EAO is not adequately fulfilling its compliance and enforcement responsibilities for certified projects. Its activities are reactive rather than proactive, and they do not constitute a comprehensive compliance and enforcement program to ensure that all certificate conditions and commitments are met.

The EAO acquires information about compliance and enforcement with certificate conditions from the following sources:

Oversight of proponent self-monitoring: The majority of environmental assessment certificates contain a condition requiring proponents to submit periodic compliance reports. This is referred to as "proponent self-monitoring." Staff at the EAO review the self-monitoring report when it is submitted. We noted that compliance reports are not always submitted. If the report appears to be complete, it is accepted as proof of compliance. When questions arise, staff contact the proponent by phone or email.

The EAO does not formally track certified project conditions and commitments for compliance.

Complaints monitoring: The EAO occasionally receives complaints from interested parties about a certified project. It follows up with the proponent, generally by phone or email, to address the issue.

The EAO does not formally track these complaints.

Compliance verification activities such as inspections, together with well-defined enforcement actions, provide greater assurance that proponents will comply with environmental assessment certificates. However, the EAO is not significantly active in either of these areas.

Compliance verification: Both the *Environmental Assessment Act* (section 33) and the EAO user guide state that the EAO may undertake site inspections when appropriate. From 2000 to 2004, the EAO implemented a pilot program to verify certificate compliance of three projects. The EAO carried out these reviews using a mix of EAO staff, ministry staff and consultants. While the projects were found to be mostly in compliance, issues of non-compliance were also identified and rectified where possible.

Despite these positive results, the pilot did not lead to a full-time program, and formal site inspections are not carried out regularly by the EAO.

Enforcement: In keeping with Part 5 of the *Environmental Assessment Act*, the EAO has developed a progressive enforcement approach. Where it appears that a proponent may be in non-compliance with an environmental assessment certificate or with the Act, EAO staff have several options they may apply in progression, for example: education, formal letters, penalties and ultimately certificate suspension or cancellation.

To date, however, the EAO has not deemed penalties, certificate suspension or cancellation necessary.

In 2010, the EAO joined the provincial interagency compliance and enforcement committee, which was formed to support the natural resource and environment agencies in their efforts to co-ordinate compliance and enforcement activities. Because of subsequent reorganizations of the natural resource ministries, the committee has not had many meetings over the last year, so the EAO's role in the provincial compliance and enforcement coordination framework remains unclear.

RECOMMENDATION 4: *We recommend that the EAO develop and implement a comprehensive compliance and enforcement program that includes an integrated information management system to monitor project progress and ensure compliance.*



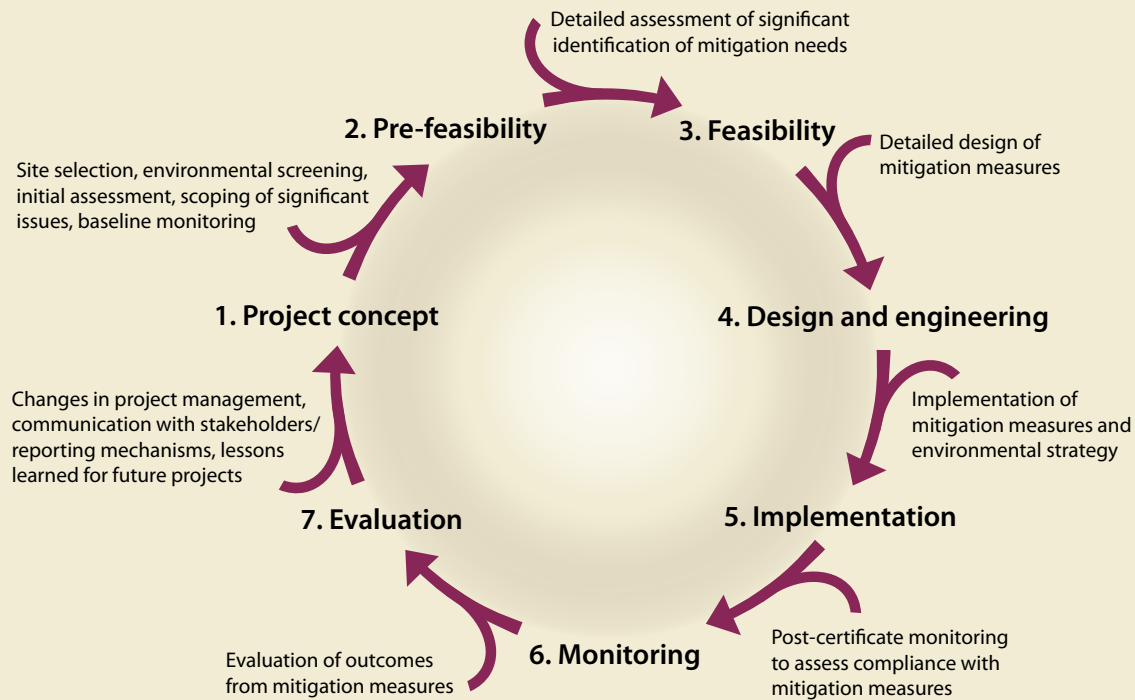
Effectiveness of environmental assessments

Since 1995, 115 projects have received environmental assessment certificates (see Appendix C for a map of certified projects).

We concluded, however, that even if these projects have complied with their conditions and commitments, the EAO has no assurance that the intended environmental outcomes as well as the benefits of the projects are being achieved. To obtain this assurance, effectiveness evaluations need to be completed. As the EAO does not conduct effectiveness evaluations on individual projects, it cannot say with certainty whether:

- ◆ the environmental assessment process is effective at ensuring that certified projects do in fact avoid or mitigate the potential significant adverse environmental, economic, social, heritage and health effects (both individually and cumulatively); or
- ◆ the anticipated benefits of each project are being achieved.

Exhibit 4: Effective environmental assessment: an iterative process



Source: Adapted by the Office of the Auditor General

Information generated through evaluations can contribute to the improvement of future environmental assessment practice because the outcome of each stage is fed back into the system. Evaluation helps to ensure that environmental assessment operates as an iterative process of continuous improvement (see Exhibit 4).

Although the EAO is not carrying out effectiveness evaluations, they are aware of the importance of monitoring and improving overall effectiveness. As we were carrying out our audit, the EAO created and filled a new position: Director of Strategy and Quality Assurance. Responsibilities for the position include ensuring the effectiveness of the environmental assessment process, and monitoring the results of the EAO and the assessment process with an aim to improving overall effectiveness.

RECOMMENDATION 5: *We recommend that the EAO conduct post-certificate evaluations to determine whether environmental assessments are avoiding or mitigating the potentially significant adverse effects of certified projects.*

Accountability information

We found that neither the accountability information reported by the EAO online nor that reported through the Ministry of Environment’s annual service plan report is providing adequate information on certified projects.

The EAO maintains an online Project Information Centre (e-PIC) to provide public access to project information. The information includes the proponents’ applications for environmental assessment certificates and project monitoring information. The latter is primarily self-monitoring information for proponents and is not consistent or timely.

Because the EAO does not carry out comprehensive compliance and enforcement activities or evaluations, it does not have information of this nature available. The Ministry of Environment and other natural resource ministries do conduct compliance and enforcement activities related to environmental assessment projects, but do not regularly publish detailed information on their findings.

LOOKING AHEAD

The EAO also accounts for its performance in the Ministry of Environment's annual service plan report. In the 2009/10 report, one of the goals reported on is "the environmental assessment process is effective and efficient." However, we found that the measures selected do not address effectiveness in the context of whether expected environmental outcomes have been realized. Instead, the measures focus on process issues.

RECOMMENDATION 6: *We recommend that the EAO provide appropriate accountability information for projects certified through the environmental assessment process.*

LOOKING AHEAD

We will follow-up on the status of the implementation of these recommendations in our October 2012 follow-up report.

We also noted that government is now establishing an interagency compliance and enforcement group for the environment and natural resource sectors. This key function will be an important means of providing the Legislative Assembly and public with assurance that proponents of all projects – those included in the environmental assessment process and those excluded from it – are meeting their obligations. We will consider the appropriate time to carry out an examination of how well that group is functioning.

APPENDIX A: EXAMPLES OF REPORTED ENVIRONMENTAL MONITORING GOOD PRACTICES

Environmental monitoring is fundamental to each environmental assessment project, and describes the collection of activity and environmental data both before project construction and after activity implementation. Various monitoring forms (including baseline, effects/impacts and compliance) can enable the auditing of mitigation measures, refinement of assessment methods and use of adaptive management to improve project outcomes.

While we were carrying out our audit, interviewees identified several environmental assessment projects that they believed incorporated good practice principles into their monitoring activities. Adopting good practices used by others is not a guarantee for success. Each situation requires careful consideration of which of these types of practices, if any, will work best in a particular circumstance. We summarize some examples below.

Independent monitors

Hiring an environmental monitor who is independent of the proponent to carry out post-certification monitoring is sometimes included as an environmental assessment certificate requirement. These individuals offer valuable, on-site expertise throughout the critical construction phase.

For instance, independent monitors were negotiated for the South Fraser Perimeter Road and Port Mann Highway 1 projects. While monitors are usually consultants, the environmental issues associated with these two projects were determined to warrant the use of Ministry of Environment staff, who were temporarily assigned to the projects. These individuals monitored, evaluated and reported on the effectiveness of mitigation measures with respect to the terms and conditions of the environmental assessment and other regulatory permits and authorizations. In each case, the monitor was responsible for making on-site decisions and taking action if necessary to avoid or respond to potential environmental effects.

For other environmental assessment projects, the monitors have been private consultants (e.g. Fishtrap Island Collector Well in Prince George).

Multi-stakeholder committees to facilitate communication and environmental stewardship

Cooperative initiatives provide an opportunity to accommodate the interests of those who may be affected by environmental assessment projects.

For example, the Ruby Creek Project Management Committee was created for the proposed molybdenum mine in northwestern British Columbia to provide joint oversight and collaborative decision-making in post-certification regulatory and environmental matters. If the project had gone forward, the committee would have been comprised of representatives from the Taku River Tlingit First Nation government and various provincial and federal government agencies. The proposed terms of reference indicated the committee would be responsible for ensuring the design and implementation of follow-up programs to provide information on the residual environmental effects and effectiveness of mitigation resulting from the project.

Wildlife monitoring programs

Environmental assessment certificates usually stipulate that proponents must develop wildlife monitoring programs to address project impacts to individual species. The Ruby Creek Project initiatives were cited during our audit by Ministry of Forest, Lands and Natural Resource Operations staff as a model for future wildlife plans. Created by key stakeholders, the individualized programs were designed for five wildlife Valued Ecosystem Component species in the Ruby Creek watershed: woodland caribou, Stone's sheep, moose, grizzly bears and hoary marmots.

The Ruby Creek Wildlife Working Group compiled information from a range of sources to assess potential residual project impacts remaining after all proposed mitigation measures are considered. Monitoring will be based on specific surveys designed to assess the effectiveness of mitigation measures proposed to offset the potential residual impacts. The monitoring regime represents best efforts to evaluate direct and indirect project impacts based on current knowledge, and provides a basis for ongoing adaptive management during the project life. Frequent evaluation and reporting are essential to assess the effectiveness of the individual mitigation measures and of the overall program.

APPENDICES

Currently, these types of species-specific monitoring programs are created after the environmental assessment certificate has been granted. Ministry staff would prefer that monitoring plans be created during the environmental assessment application process and incorporated into the certificate as a means of helping ensure compliance and enforcement.

Pre-approved funding for monitoring plans

Pre-approved funding arrangements are becoming increasingly prevalent in environmental assessment certificates.

For example, the Greenville-to-Kincolith Road project was expected to have significant direct and indirect residual impacts on grizzly bears. Approaches to mitigate impacts resulted in an extensive program of bear-human conflict avoidance, education, enforcement and a monitoring program from 2000 to 2009. The plan, estimated to cost over \$500,000, was jointly funded by the proponent (Ministry of Transportation) and the federal Department of Indian Affairs and Northern Development. Interviewees reported that this plan was successfully implemented because the budget (including resources and personnel) was secured before the environmental assessment certificate was approved.



APPENDICES

APPENDIX B: EXAMPLES OF MONITORING RESPONSIBILITIES AND COMPLIANCE MECHANISMS FOR DIFFERENT TYPES OF CERTIFICATE COMMITMENTS

Type of commitment	Agency responsible for compliance	Compliance mechanism
<p>Covered by permits from other ministries</p> <ul style="list-style-type: none"> ◆ Emissions to the air ◆ Discharge of effluent ◆ Storage and handling of industrial waste ◆ Mine plans ◆ Reclamation plans ◆ Water licensing ◆ Acquisition of rights-of-way ◆ Avoidance/mitigation ◆ Disturbances on Crown land ◆ Handling/transporting dangerous goods 	<p>EAO responsible to provide oversight of transition from commitment to permit</p> <p>Provincial agencies</p> <ul style="list-style-type: none"> ◆ Ministry of Environment ◆ Ministry of Forests, Lands and Natural Resource Operations ◆ Ministry of Energy and Mines <p>Federal agencies</p> <ul style="list-style-type: none"> ◆ Fisheries and Oceans Canada ◆ Environment Canada 	<ul style="list-style-type: none"> ◆ Environmental Assessment Certificate ◆ Mines Act Permit ◆ Discharge Permit ◆ Water Licence ◆ Land Tenure ◆ Road Use Permit ◆ Fisheries Act Authorization ◆ Species at Risk Authorization
<p>Social/Economic</p> <ul style="list-style-type: none"> ◆ Hiring and employment preferences for local workers ◆ Plans related to the following: <ul style="list-style-type: none"> • Accidents and malfunctions • Emergency response • Traffic management • Nuisance (noise, light) control • Vehicle inspection and maintenance 	<p>EAO</p>	<ul style="list-style-type: none"> ◆ Environmental Assessment Certificate
<p>Ecosystem and Groundwater</p> <ul style="list-style-type: none"> ◆ Wildlife management ◆ Ecosystem/habitat mitigation and compensation <ul style="list-style-type: none"> • Riparian zones • Wetlands 	<p>EAO</p> <p>Provincial agencies</p> <ul style="list-style-type: none"> ◆ Ministry of Forests, Lands and Natural Resource Operations ◆ Health Authorities 	<ul style="list-style-type: none"> ◆ Environmental Assessment Certificate ◆ Authorizations and permits, such as Land Licences and Mines Act Permits, may include some provisions pertaining to ecosystems and groundwater
<p>Heritage/Archaeological</p> <ul style="list-style-type: none"> ◆ Procedures to avoid and protect archaeological sites 	<p>EAO</p>	<ul style="list-style-type: none"> ◆ Environmental Assessment Certificate ◆ Heritage Conservation Act
<p>First Nations Consultation and Accommodation</p> <ul style="list-style-type: none"> ◆ Procedures to address traditional land use ◆ Time constraints on public fishing activities in a project area ◆ Hiring and employment opportunities 	<p>EAO</p>	<ul style="list-style-type: none"> ◆ Environmental Assessment Certificate

APPENDICES

APPENDIX C: MAP OF 115 PROJECTS THAT HAVE RECEIVED ENVIRONMENTAL ASSESSMENT CERTIFICATES IN BRITISH COLUMBIA³



³ These projects are in various stages – permitting, construction, operation and decommissioning.