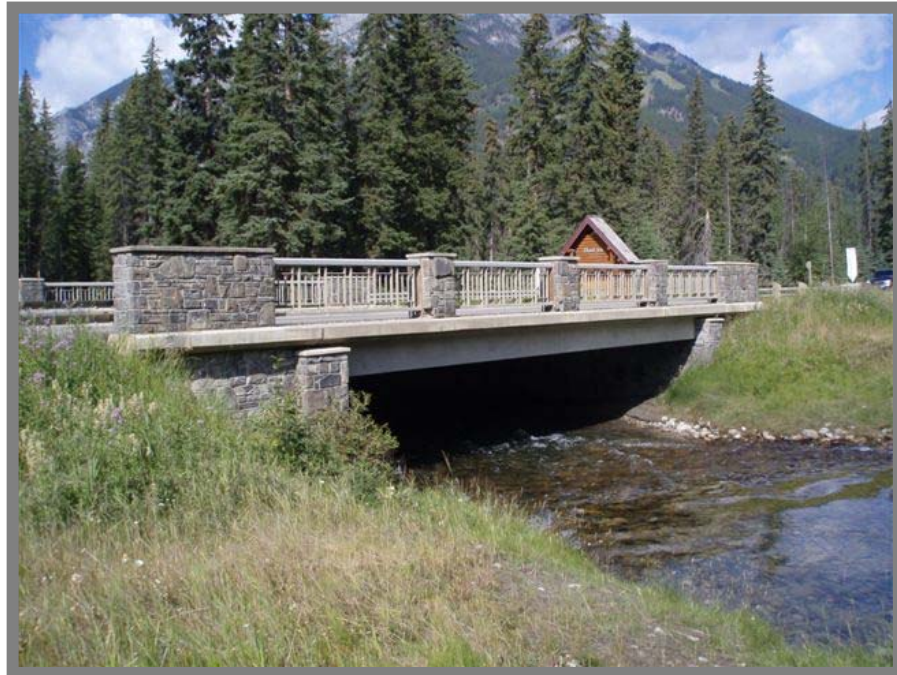


CONSIDERING SMALL PROJECT ASSESSMENT



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1. INTRODUCTION

Each year in Canada, approximately six to seven thousand projects go through the environmental assessment (EA) process prescribed by the Canadian Environmental Assessment Act (CEAA or the Act). This process enhances the planning of projects through assessment of their potential environmental effects. Incorporating this environmental planning step into project planning is sometimes seen as an unnecessary barrier to the implementation of well-intentioned proposals. Consequently, as the Act has been applied to projects and activities in recent years, there has been discussion about whether the right projects are being assessed.

Much of this debate has been generated by concern that projects perceived as small or having inconsequential environmental effects take up time and resources that could be better used to assess proposals with greater potential to cause harm to the environment. As a result, it has been suggested that there should be no requirements to conduct environmental assessments of small projects or that requirement should be reduced. This paper argues for continued diligence in assessing and reducing the adverse environmental effects of all projects to ensure they benefit from the planning process elements defined by the Act.

This argument is based on the perspective that ensuring sound engineering, public health, and financial responsibilities are part of diligent project planning. Just as important to Canadians and certainly environmental non-government organizations (ENGOS) is the expectation that environmental protection should be part of “the way things are done” in Canada and internationally where Canadian government influence is present. There is an obligation to provide assurance to Canadians that environmental planning and protection consistent with the principles of good environmental assessment are being incorporated into projects. It is recognized, however, that there needs to be a common sense rationalization between the level of effort applied to considering the environmental effects of a project and the known environmental risks it may pose.

2. HOW DOES THE CEAA CURRENTLY DEFINE “SMALL” PROJECTS?

The CEAA currently does not directly use project size to prescribe which projects require environmental assessment. All projects (“project” is defined in the Act) that meet certain conditions of federal government involvement (such as federal land, federal permits, federal financing) require an assessment known as a screening. In the context of the CEAA, screenings cover a wide range of project sizes and levels of effort and require that a formal written report be prepared. Small projects can be exempted from assessment by being reviewed and recognized in the Exclusion List Regulation. Class screenings also provide a process for streamlining the screening of similar small or routine projects. Relatively small projects can also be referred for more rigorous assessment if potential environmental effects or public concerns warrant such action or regulation specifies a more EA rigorous process. In this manner the Act currently recognizes that all projects have potential for causing adverse environmental effects uses some form of assessment to try to match the level of assessment effort to environmental risk and public concern.

EXAMPLE EXCLUSIONS
Examples of exclusion list wording for identifying small projects that are exempt from federal environmental assessment:
The proposed construction, installation, operation, expansion, modification or removal of a fence that does not prevent the passage of wild animals if the project
(a) is not to be carried out within 3 m of a water body; and
(b) does not involve the likely release of a polluting substance into a water body.
The proposed construction, installation, operation, expansion, modification, decommissioning, abandonment or removal of a hydrant or hook-up if
(a) the hydrant or hook-up is part of a farm or municipal system of distribution; and
(b) the project does not involve the crossing of a water body, other than an aerial crossing by a telecommunication or electrical power line.

It is worthwhile noting that there is an important difference between having fewer projects initially captured by the Act and using the Exclusion List regulation to identifying those small projects that do not require assessment. The former is likely to use a broad brush approach to avoiding the need for assessment. The latter involves a process of assessing specified projects or activity types to confirm they have no harmful environmental effects. The Exclusion List also provides an opportunity to specify site conditions or project parameters that can be applied to a specific project or group of projects once its potential for adverse environmental effects are known.

3. ASSESSING THE RIGHT PROJECTS

A number of criteria have been used to define small projects or those projects that warrant minimizing environmental assessment effort. Typically, small projects falling below a specified threshold or using predictable technology are deemed to pose lower risk and therefore warrant reduced EA or exemption from EA. These criteria can include:

- Amount of project cost.
- Size of physical footprint.
- Whether the project or its technology is routine.
- Whether the location of the project is previously disturbed ground or not.
- Whether the project involves constructing a physical structure (based on an assumption that activities alone have less potential to cause environmental harm).
- Whether a project is some arbitrary distance from a water body.

The problem with these approaches is that they are arbitrary and generic administrative criteria that do not necessarily reflect interactions with environmental systems. Disturbed ground would seem a valid criterion for exemption. But disturbed ground alone does not consider the potential for sediment runoff during construction and in fact may be an indicator of increased sediment transport during and after construction. The installation of a small drainage culvert or a park bench are often mentioned as small projects that are well intentioned and should not be hindered by the burden of conducting an environmental assessment. Yet each of these projects has potential for affecting the environment. It is not until the project is examined for environmental interactions that these effects are known. The culvert may drain or flood a new area affecting existing activities, infrastructure or ecosystems. The bench may alter pedestrian movement patterns causing disturbance to flowers that are important to the experience of local trail users. Procurement policies for material used in both of these projects could specify use of recycled materials and support the energy, economic and environmental advantages that result from efficient resource use. The small project example outlined in the Appendix identifies a situation where two small projects were being proposed and assessed separately by different managers. An efficient screening of one of these projects was able to recognize the interrelationships among projects and make recommendations for economic efficiency and better environmental protection.

Have Some Commercial Practitioners Have Done A Disservice to Small Project EA?

One of the common barriers to support for small project environmental assessment is a perception that it costs too much to have an EA prepared for small projects. This perception is not unfounded. It is common to hear a project proponent claim they simply want to erect a simple 3m x 3m wooden storage shed or get approval for a charitable event only to be told by a federal authority they needed an environmental assessment. They are then told by a consultant that an assessment will cost \$10,000.

With stories like this it is not surprising that there is resistance to environmental assessment and calls for less assessment of small projects. Yet, this scenario can only be the case if the consultant is more interested in billing than in conducting a credible small project scoping exercise. In order to protect the public credibility of small project assessments proponents need to have access to an EA procurement process that provides them with a common sense approach to cost and level of effort.

Other examples how EA of small projects can provide environmental benefits include:

- Identification of interactions with other projects and associated cumulative effects.
- Recognition of special site conditions that have potential to create unexpected impacts.
- Identification of public values affected by the project.
- Identification of appropriate project timing based on patterns of local environmental regimes or public activity patterns.
- Identification of different project designs that have less environmental impact.
- Reduced project costs, which often translates into less resource consumption and associated environmental advantages.

Including environmental planning into a project or activity is always valuable, whether it's replacing a light bulb and taking time to choose an energy efficient technology or using a complex geographical information to plan an electrical transmission line across a few hundred kilometers of landscape. Environmental considerations simply need to be part of doing the job right. That is, to ensure that for any project its need, design, implementation and operation considers how it interacts with and has potential to harm or improve the environment.

From an environmental management perspective, the issue is not whether the project is large or small or how its environmental effects compare to a threshold of significance changes in the environment. If Canada is to build an environmentally sustainable society all projects are the right projects to assess. The challenge is how to ensure project planning incorporates a reasonable level of environmental assessment effort that reflects the likely environmental risks and public concerns raised by the project.

4. WAS THIS AN ISSUE IN THE PREVIOUS REVIEW?

During the last review of the Act, stakeholders recognized that large numbers of projects were being assessed and creating both a drain on resources and a large workload for federal authorities responsible for implementing the requirements of the Act. While small projects make up the majority of these assessments, stakeholders in the last review did not define the problem in terms of project size. Rather, it was recognized that assessing too many projects "with known inconsequential effects is a key issue." (RAC 2000). The Minister's Report to Parliament during the previous review (House of Commons 2001) makes suggestions for addressing this concern but does so in the context of using tools such as the Exclusion List and class screenings which allow for setting the conditions (e.g. avoidance of sensitive habitat) under which risk of adverse environmental effects is limited. The Report of the Standing Committee on Environment and Sustainable Development (including dissenting opinions) offered no specific recommendations for addressing the small projects workload issue (House of Commons 2003).

The Minister's Report made one suggestion to exempt projects from environmental assessment based on project cost. Recently has here been a tangible attempt to modify the Exclusion List by applying project cost criteria to reducing the environmental assessment requirements. This effort was made in the context of encouraging fairly large infrastructure projects to stimulate a slowing economy rather than being an attempt to address the small projects workload. Kwasniak (2009) provides a preliminary analysis on the environmental and legal implications of this recent approach. Otherwise, to the extent the consultations in the previous review addressed the small projects issue, the desire seems to have been to bring this heavy EA workload in line with the likely risk of environmental damage by confirming what is known about the risk of adverse effects of the projects and adjusting level of effort accordingly by improving the existing tools provided by the Act.

The Department of Fisheries and Oceans (DFO ND) has attempted to design their own administrative tool for reducing their workload for small projects assessments under the CEAA. This Risk Management Framework seeks to undertake a certain amount of environmental assessment activity outside of the requirements of the CEAA. In doing so the framework raises questions (Duck 2006, Unger 2005). There are concerns about whether components of the CEAA process that are important to the public are lost, whether projects are scoped to avoid assessment of cumulative effects and whether developing a separate small project assessment process creates duplication of other required government processes. Having different assessment processes in different government departments may also create confusion in the public's mind about the nature of the federal environmental assessment process.

5. RESULTS FROM THE QUALITY ASSURANCE PROGRAMME.

Screenings Identify Environmental Benefits

One of the developments arising out of the last review of the CEAA was the establishment of a quality assurance program. This programme is intended to have the capacity to track and report on data relating to a variety of important questions relating to the implementation of the CEAA. The issues relating to small projects (defined by screenings) were given priority and the Canadian Environmental Assessment Agency should be commended for moving forward on this initiative.

The first report of the Quality Assurance Programme was recently published (CEAA 2007). Relevant data from this report are included in the Appendix. These data provide some insight into the value of complying with the CEAA and whether compliance is causing unreasonable delays. The report concludes, based on information reported in notices of commencement posted on the internet project registry, that a vast majority of projects subject to screening level assessment have a low to minimal potential to cause adverse environmental effects:

“Preliminary analysis of a subsample of 2259 screenings commenced in the year 2004 suggests that over 90% dealt with projects that appeared unlikely to cause more than minor adverse environmental effects or pose more than minor environmental risks.”

The report recognizes that 44.2 percent of these projects are

“Routine projects with minimal potential to cause adverse environmental effects or to pose environmental risks.”

and that for 49.8 percent of these projects

“Some project-specific environmental benefit could be derived from conducting a screening...”



Applying recognized best environmental practices can make small project effective and efficient. This can be supported by a programme of cost effective project surveillance to make sure the paper commitment translates into action on the ground.

While the risk most screened projects pose to the environment is low, there is benefit to ensuring that environmental planning reduces the level of risk present. For half of these projects it would seem that an efficient and effective environmental screening has some value. For about 44 percent it can be argued that while risk is minimal there are likely minor ways the project could be improved and that environmental assessment is the planning tool could be used to ensure these improvements are identified and implemented. It is also likely that finding a simplified method to identify and apply environmental protection procedures to these projects consistent with the reduced level of risk is possible and appropriate.

The Small Projects Bottle-Neck: Myth or Reality?

It has been suggested that assessing a large number of small or routine projects creates a "bottle-neck" in moving projects through to the approval stage by occupying too much staff time and resources. One response to this concern is that if there are so many projects being proposed then there is clearly a need to take the time necessary to ensure that the environment is not overwhelmed by the cumulative effects of so many small developments. However, many of the projects being proposed relate to routine maintenance or upgrades of infrastructure such as water or sewer lines for which timely maintenance is critical to both providing essential services and in addressing sustainability goals such as water conservation and preventing pollution of aquatic systems. For this reason it is important to confirm whether project delays related to complying with environmental assessment requirements are becoming a barrier to improving essential community services and timely environmental protection.

Data from the Quality Assurance Programme (See Appendix) demonstrate that environmental screenings are not taking an unreasonable amount of time. The first report of the Quality Assurance Programme concludes that the

"time taken to complete a screening is quite short and appears to be decreasing".

According to the report, median screening duration was reduced by about 30 percent from 60 days in 2004 to 41 days in 2006. It should also be noted that not only is the time to complete a screening becoming shorter but since 2004 a number of new class screenings have been developed that reduce the number of small or routine projects subject to full screening requirements.

Are Mitigative Measures Implemented?

Many assessments of small projects are simply a matter of ticking off the appropriate boxes. These checklists can include questions such as "Is there any chance this project could release a polluting substance into a water body or wetland during construction or after the project begins operation?" or "Does the project involve the cleanup, storage, handling, use or disposal of potentially hazardous materials?" "Are additional phases to the project planned or envisioned relating to this project?" Providing answers to these questions on paper does not take up much time, shouldn't cost much money and does not in any significant way contribute to a bottle-neck. If these simple and time efficient assessments are completed by proponents of small projects and project managers they can serve two important purposes. First, they get the proponent or project manager thinking about what they are doing and how it may affect the environment. Second, it means that someone has put their name on a document outlining their intentions. If a stream is later damaged by equipment working in a stream buffer zone and the proponent has answered "No" to the question "Will heavy equipment be used during construction of the project, or once the project is operational?" there is some recourse. But, more importantly, the proponent is aware in advance of their commitment and might choose to find alternatives to operating in a buffer zone.

The Quality Assurance Programme is not capable of tracking whether mitigative measures recommended in environmental assessments are actually applied to projects. However, the programme has reviewed the number of follow-up programmes that are recommended and suggests that the number of these

programmes is very small and getting smaller relative to the number of projects being proposed. A recent survey of environmental groups also indicates that respondents are not satisfied that appropriate practices to ensure recommended measures to mitigate environmental effects and monitor their level of success have been implemented for past projects (Duck and Schneider 2009). This does not give the public much confidence that small project environmental assessment, in practice, is more than an arms-length paper exercise in which the commitment to the environment ends at project approval. Improvement and streamlining of small project assessments should, as a minimum, include mechanisms to ensure there is direct involvement of the proponent in completing the assessment and in making a written commitment to implementing mitigative measures.

6. SUGGESTIONS FOR ADDRESSING THE SMALL PROJECT EA LOAD

What tools can be used to ensure that the level of assessment is consistent with the degree of risk for adverse environmental effects? Some suggestions are provided below based on the following principles:

1. All projects interact with the environment in some way, whether with the immediate environment or with environments beyond the site of the project or activity (e.g. through the life cycle of materials that are used in or flow from a project).
2. It is not necessarily obvious how a project, or class of projects, can have reduced effects on the environment until a credible assessment has been undertaken and documented.
3. Documented experience with a certain type of project and environmentally sound ways of implementing that project can provide an opportunity to provide and develop public confidence in a more efficient environmental assessment process.
4. Simple assessment tools such as checklists if completed and signed by project managers and contractors can lead to an increased level of engagement in environmental protection and provide a tool by which projects can be held accountable to even simple mitigative measures.

With these principles in mind the following suggestions are made to ensure the public can have confidence that the process for assessing small projects considers the environment while adjusting the level of assessment effort to match the risk of adverse environmental effects. Some of these suggestions may lead to amendments to the Act, while some encourage continued and increased use of the tools provided by the Act. There are also suggestions that could be adopted as standard administrative tools applied by federal and other regulatory offices outside of the Act in order to give the public confidence that there are day-to-day safeguards in place to ensure environmental protection is not overlooked in the desire to move worthy projects forward.

1. There should be continued development of class screenings through a diligent review and publicly accountable documentation of the effects and appropriate mitigative measures relevant to the class of projects under consideration.
2. There should be continued review of projects for listing on the Exclusion List. This review should be conducted by a standing review committee. This committee should include independent environmental professionals, as well as members of the public, including persons familiar with environmental assessment of small projects.
3. Assessments of project eligibility for placement on the Exclusion List should include:
 - Independent documentation of assessment of the environmental risks posed by the candidate projects.

- Public involvement throughout the assessment.
 - Evidence that the projects have been successfully undertaken with no changes or acceptable change to the environment.
 - Evidence that a federal authority has the capacity to ensure that the conditions for exclusion are being met.
4. Where logistics permit there should be some level of independent professional environmental surveillance during the implementation of all projects including class screenings.
 5. Within a federal authority's area of responsibility there should be a mandatory programme for independently auditing for compliance with mitigative measures and the success of these measures. While this suggestion has cost implications, it is proposed as a reasonable trade-off for reducing the level of effort committed to more detailed assessment of every project.
 6. Exclusions, class screenings, and screenings should reference independently-recognized best practices and application of independently recognized standard mitigative measures.
 7. Procurement contracts and development permits should require the application of recognized environmental best practices and established standard mitigative measures.
 8. Simplified assessment tools such as checklists may be used in appropriate circumstances but they should include mechanisms such as sign-on by project managers and contractors to ensure awareness of and commitment to environmental protection measures.
 9. Where possible, a pool of preferred local small project environmental assessment practitioners should be established. These practitioners would be familiar with local projects, environmental systems and ecosystems sensitivity, public issues and planning decision history in the area.

7. CONCLUSION

Many small projects can derive some benefit from being subject to an environmental assessment. There are ongoing efforts to use and improve existing tools to ensure an efficient assessment process is established for these projects. Increasing development of class assessments and ongoing review of the exclusion list combine with a documented reduction in the time required to complete screenings to suggest that the practice of small project assessment is maturing and becoming more efficient with experience and with appropriate amendments to the Act.

The upcoming review should not look to reduce the number of projects initially subject to environmental assessment under the Act. Instead, Any changes to the current legislation and associated regulations should ensure that planning to reduce adverse environmental effects remains a normal part of "doing business" for federal authorities and their clients by reinforcing the efforts aimed at improving the efficiency and effectiveness of small project assessments.

8. REFERENCES AND BACKGROUND DOCUMENTS

- CEAA 2007. Federal Screenings: An Analysis Based on Information from the Canadian Environmental Assessment Registry Internet Site. Government of Canada Quality Assurance Program for Environmental Assessments under the Canadian Environmental Assessment Act Report #1. Ottawa.
- Department of Fisheries and Oceans. N.D. "Practitioners Guide to the Risk Management Framework for DFO Habitat Management Staff, Version 1.0"
- Duck P. 2006 An ENGO Perspective Of The Department Of Fisheries And Oceans' Risk Management Framework Prepared For The Canadian Environmental Network. Ottawa.
- Duck P. and Schneider G. 2009. Experiences with Federal Environmental Assessments; Responses to a Questionnaire. Prepared for the Canadian Environmental Network. Ottawa.
- House of Commons 2001. Strengthening Environmental Assessment for Canadians. Report of the Minister of the Environment to the Parliament of Canada on the Review of the Canadian Environmental Assessment Act. Ottawa.
- House of Commons 2003. Sustainable Development and Environmental Assessment; Beyond Bill C-9. Report to the 37th Parliament of Canada from the Standing Committee on Environment and Sustainable Development. Ottawa.
- Kwasniak A. 2009. Amendments to the Exclusion List Regulations and New Infrastructure Projects Environmental Assessment Adaptation Regulations. Preliminary analysis prepared in response to amendments to the Exclusion List Regulations under the Canadian Environmental Assessment Act registered by Cabinet on March 12, 2009. Calgary.
- RAC 2000. Report to the Minister of Environment from the Regulatory Advisory Committee (RAC) on the Five-Year Review of the Canadian Environmental Assessment Act. Ottawa.
- Unger J. 2005. DFO Sets New Policy Course for Fisheries Act Enforcement. Environmental Law Centre News Brief Vol. 20 No. 4 pp.4-7.

APPENDIX

A SMALL PROJECT CASE STUDY

Proposal

Replace three small culverts with short reaches of elevated boardwalks.

Setting

Two walking trails join together to form a “Y” in a small area involving about 35 metres of trail that crosses small pockets of wetland including two small flowing stream channels. The trails have been built on elevated berms and are used by pedestrians, horses and cyclists.

The streams cross the trail in three places by passing through a 30 centimetre diameter culvert under each branch of the “Y”. It is recognized that due to the nature of the streams the three small culverts will either become blocked by vegetation, shift their position or otherwise become dysfunctional over time. It is also recognized that the streams are prone to shift their position over time due to natural disturbances above the culverts. Either of these scenarios could result in trail flooding or wash out that would limit trail use and possibly cause sedimentation damage to the wetlands. In order to avoid disturbing the wetlands and stream ecosystem with repeated culvert maintenance the site manager proposes to remove the culverts and replace them with boardwalks that are slightly elevated in order to allow the stream to seek its own course and flood levels over time.

Environmental Risk

It is proposed to build the boardwalks on top of the trail berms and the construction crew confirms that this can be done without a need to work in the wetland or the streams. Concern is raised about managing sediment disturbance to the wetland ecosystem when the culverts are removed from flowing water. There is also concern that culverts are now an integrated component of the wetland environment after being in place for many years.

Environmental Assessment Advantage

Initial, well-intentioned proposals by the site manager involved plans to install sediment fences downstream of the culverts and to carefully and temporarily dam the streams. A limited amount of bypass pumping would be used to avoid having flowing water in the channel during the time the culverts were being removed. A site meeting was held with an experienced environmental assessment practitioner to review the proposals in advance of preparing an environmental assessment report. After a couple of hours of discussion and examining the site, two key changes to the projects were proposed. It was recommended that the culverts remain in place and the streams be allowed to find their own course in their own time. As long as the boardwalk was elevated enough to allow water to pass under it was not important whether the culverts remained in place. Secondly, the discussion identified that one of the trail branches received little use and changes to parking at the site under another separate project proposal would be such that the trail would receive less use in the near future. With the advantage of looking at the interaction between both projects it became clear that one trail could be closed and completely avoid the need to remove the culvert and the need to build one section of boardwalk. The result was less disturbance to the environment and reduced project cost with suggestions for how a second project could be modified to support mitigative measures applied to the first.

DATA FROM THE QUALITY ASSURANCE PROGRAMME

Duration of Screenings Conducted under the Canadian Environmental Assessment Act Screening Duration (CEAA (2007)).

Year NOC Posted	Duration of Screening *	
	Median (days)	Average (days)
2004	60	110.5
2005	50	93.8
2006	41	61.9

* Calculations of screening durations were based on the date of commencement and the date of the "section 20" indicated in the Notice of Commencement (NOC) and Notice of Decision (NOD), respectively, and did not take into account the time between the decision and the completion of any required follow-up program.

Overall Distribution of Ratings of Projects described in a Sample of 2259 Notices of Commencement from the Year 2004 (CEAA 2007).

Rating	Rating Criteria	Percentage of Screenings
1	Routine projects with minimal potential to cause adverse environmental effects or to pose environmental risks. The potential project-specific environmental benefit derived from conducting a screening would tend to be correspondingly small.	44.2%
2	Routine projects with minor potential to cause adverse environmental effects or to pose environmental risks. Some project-specific environmental benefit could be derived from conducting a screening , although this might be quite variable from one project to another.	49.8%
3	Projects with clear potential to cause adverse environmental effects or to pose environmental risks of local importance. Considerable project-specific environmental benefit could be derived from conducting a screening.	5.8%
4	Projects with clear potential to cause adverse environmental effects or to pose environmental risks of regional or even national importance. Substantial environmental benefit could be derived from conducting a screening, or in certain cases, a comprehensive study or panel review.	0.3%

Distribution of Ratings, by Project Category, of Projects described in a Sample of 2259 Notices of Commencement from the Year 2004. (CEAA 2007).

Project Type	Number of Screenings Given a Rating of:				Total
	1	2	3	4	
Agriculture (access permit)	263				263
Buildings (commercial, industrial or institutional)	59	62	2		123
Agriculture (fencing)	91	1			92
Vegetation management/control	24	54	3		81
Wharf, jetty or breakwater	5	74			79
Small craft facility	17	52	1		70
Agriculture (cattle watering facility)	64	4			68
Dredging/spoil disposal (routine)	1	66			67
Agriculture (drainage)	52	9			61
Shoreline stabilization works	1	51	1		53
Property development (commercial, industrial or institutional)	36	12			48
Bridge (maintenance, repair, replacement, removal)	4	40	1		45
Buildings (single family residential)	34	8	1		43
Biological field research	41				41
Wells (land, gas)	1	39			40
Outdoor tourism enterprise (not otherwise specified)	34	5			39
Culverts (maintenance, repair, replacement, removal)	3	30	3		36
Agriculture (grazing permit)	35				35
Bridge (new)	4	14	17		35
Roads (maintenance, repair, minor upgrade, paving)	7	28			35
Property development	20	13	1		34
Wastewater treatment/disposal system	6	26	2		34
Bank or shoreline stabilization works		33			33

Wells (land, oil)		32			32
Roads (new or major upgrade)	4	19	5		28
Stream channel realignment/alteration		26	1		27
Manufacturing/processing facility	4	16	6		26
Piped services (water and sewer lines)	9	16			25
Hiking, cross-country skiing or bicycle trail	8	14	2		24
Buildings (demolition)	15	7			22
Forestry (selective)	1	20			21
Water supply treatment	2	17	2		21
Aquaculture facility (finfish)		2	18		20
Pipelines (buried, natural gas)	3	16	1		20
Permit (land use/access)	11	8			19
Pipelines (buried, oil or natural gas)	1	14	3		18
Petroleum storage tanks (removal, modification, replacement)	8	9			17
Fish waste disposal		16			16
Wells (land, oil or natural gas)		15			15
Permit (explosives)		14			14
Remediation of contaminated land/groundwater (other)	5	9			14
Water supply intake	1	13			14
Cable (land, buried)	8	4			12
Property or building appurtenances (unclassified)	5	6			11
Telecommunication towers	7	4			11
Aquaculture facility (shellfish)		2	8		10
Military exercise	5	5			10
Power generation (wind)		2	6	2	10
Wildlife management/control	5	4	1		10
Buildings (miscellaneous)	7	2			9
Culverts (new)		8	1		9
Other field research	5	4			9
Parking lot (new/expansion)	8	1			9

Permit (unspecified)	7	2			9
Remediation of petroleum/petrochemical contaminated land/groundwater	1	8			9
Airport infrastructure	3	3	2		8
Land drainage	1	7			8
Pipelines (unspecified)		8			8
Property or building appurtenances	5	3			8
Fence	4	3			7
Filling		7			7
Land restoration	1	5	1		7
Petroleum storage (new)	3	3	1		7
Storm sewers and drains		7			7
Water supply well	3	4			7
Agriculture (livestock operation)		6			6
Attraction development	2	2	2		6
Pipelines (buried, oil)		5	1		6
Sport field or arena	1	5			6
Agriculture (buildings)	3	2			5
Agriculture (irrigation facility)	1	4			5
Geological field research		5			5
Log dump		5			5
Motorized recreation vehicle trail or area	2	2	1		5
Public outdoor event	4	1			5
Water supply reservoir	1	2	2		5
Boat docks		4			4
Broadband towers		4			4
Dam (maintenance, repair)		4			4
Harbour land lease		4			4
Highways (new or major upgrade)			3	1	4
Hydroelectric facility (<20MW)			4		4
Other (ownership transfer)	4				4
Pits and quarries (new or expansion)		4			4

Port infrastructure	1	2	1		4
Property development (single family residential)	3	1			4
Seismic exploration (offshore)		1	3		4
Seismic exploration (on land)	1	2	1		4
Agriculture (waste management facility)		3			3
Arena or stadium	2	1			3
Buildings (multi-unit residential)	1	2			3
General use park		3			3
geothermal heating/cooling system		3			3
Landfill		2	1		3
Mineral exploration		2	1		3
Weir (construction)		3			3
Aircraft landing facility (fixed wing)		1	1		2
Aircraft landing facility (helicopter)		2			2
Antenna installation	1	1			2
Bridge (widening)		1	1		2
Buildings (mixed use)		2			2
Golf course		1	1		2
Mine (expansion)			1	1	2
Mine (new)			1	1	2
Other (land demarcation)	2				2
Power generation (bio-fuel)		2			2
Power generation (solar)	1	1			2
Power plant (cogeneration)		1	1		2
Refuelling facility	2				2
Remediation of heavy metal contaminated land/groundwater	1	1			2
Roads (winter)			2		2
Storm water treatment and management system		1	1		2
Stream restoration			2		2
Unclear description	1	1			2
Wetland alteration/infilling		1	1		2

Abandonment	1			1
Agriculture (land conversion)			1	1
Agriculture (land lease)		1		1
Agriculture (vegetable farm)	1			1
Beacon replacement	1			1
Cable (underwater)		1		1
Channel blasting			1	1
Chemical storage facility		1		1
Commuter rail facility		1		1
Culverts (temporary)		1		1
Dam (new or modified)		1		1
Dam (removal)			1	1
Downhill ski facility			1	1
Dredging/spoil disposal (contaminated sediments)			1	1
Engineering investigation		1		1
Hazardous waste (removal)		1		1
Hazardous waste (storage facility)		1		1
Hazardous waste (transportation)		1		1
Highways (maintenance, repair, minor upgrade, paving)			1	1
Hydroelectric facility (operational modification)			1	1
Industrial Park (new, expansion)			1	1
Low/medium voltage power lines	1			1
Other (cruise ship visit)		1		1
Other (facility upgrade)	1			1
Other (floating boom)		1		1
Other (pipeline facility decommissioning)		1		1
Other (pipeline transfer)	1			1
Other (satellite dish)	1			1
Other (school energy project)	1			1
Permit (fishing)	1			1
Power line maintenance/repair/decommissioning	1			1

Power plant (unspecified)	1				1
Radar installations		1			1
Remediation of toxic organic compound contaminated land/groundwater		1			1
Service upgrade (unspecified)	1				1
Site investigation	1				1
Track upgrade		1			1
Transfer station		1			1
Wastewater outfall		1			1
Waterfront redevelopment project				1	1
Total	999	1124	130	6	2259