

Debris Removal

1. Describe the material to be removed. Identify any of the following (i.e. trees, rock, building materials, silt muds, potentially hazardous materials such as fuel slip tanks, propane tanks, vehicles):
2. Method of removal (explain how works will be conducted, including equipment to be used):
3. Will sand, rock or gravel material removed from the water body remain on site (reconstituted)? Yes No
4. Will the sand, rock or gravel material be removed from the site? Yes No
5. Disposal site destination (where will you dispose of the debris):
6. Estimate the volume of material to be removed in cubic metres:

Erosion And Bank Protection

1. Construction Design Details (i.e. construction technique, construction footprint, area of crown bed and shore to be occupied (per site plan), erosion/siltation mitigation, slopes, etc.):

Note: An additional detailed plan, including cross-section, should be included for activities such as erosion protection works.

Fisheries

The questions in this section are intended to guide applicants through a critical review of the design elements of the proposed project which may affect fish and fish habitat. The intent of these questions is to ensure that no further impacts to fisheries resources and habitat occur as a result of proposed repair work. Your answers to these questions should clearly demonstrate how the required design elements are incorporated into your plans, or clearly describes a design alternative that adequately addresses impacts to fish and fish habitat.

AEP considers applications to be 'high risk' to fish and fish habitat when the application for a proposed activity suggests that:

- There is a moderate or high probability of causing increased harm or mortality of fish as a result of the activity;
- There is a moderate or high probability of long-term or permanent damage to fish habitat as a result of the activity.

Confirmation of Submission to Department of Fisheries And Oceans Canada

Have you conducted a self-assessment on the DFO website in relation to this project? Yes No

If a review was required, date submitted to DFO:

What was the result of the submission?

- Unknown. No response from the DFO at this time.
- DFO provided a letter of advice, or comment, for the project (attach letter with application).
- An authorization under the *Fisheries Act* is required. Specify:

- Other. Specify:

Erosion And Bank Protection Design

Basic Design Requirements: Plans for erosion and bank protection works should be generated by a qualified individual and employ fundamental best practices for working in or near a water body.

Provide a description or submit plans to address the following questions:

1. How will repaired slopes be tied-in to existing bank elevations and profiles?

2. What measures will be used to ensure riprap treatments are adequately stabilized with underlain filter material (i.e. geotextile fabric, granular material, etc.)?

3. How will the slope be embedded or 'keyed-in' appropriately?

4. How will slope “toes” be designed to ensure future toe-scour is addressed (i.e. appropriate launching apron, toe berm, etc.)?

5. Have you considered using an undulating or scalloped shoreline in your plan design? Yes No
If no, please describe why:

Note: An undulating or ‘scalloped’ shoreline may more closely emulate natural conditions with benefits to the aquatic environment and fisheries. A scalloped shoreline should be considered where practical and technically feasible.

Materials for use in Bank Stabilization

Basic Riprap Requirements: Riprap should be sized sufficiently to resist displacement during seasonal high water events. The preferred shape for riprap is blocky angular rock, which will also help keep the rock in-place.

Provide a description or submit plans to address the following questions:

1. How are you proposing to use riprap (i.e. slope stabilization, isolation berm, etc.)?
2. What size riprap are you planning to use?
3. What measures have you taken to ensure that the riprap size, shape, and composition are suitable for the location, potential river flows and proposed use?
4. What is the source, shape and composition of the riprap? Is it mostly angular? If not, please describe the rationale for the use of different shaped rock.
5. Will you be using bioengineering* as a potential alternative to riprap? Yes No If yes, please describe project scope, vegetation type, and source:

* **Note:** Bioengineering is an approach to stabilizing exposed soil that uses natural materials (logs, rocks, live stakes, live bush bundles, etc.) in combination with native vegetation. These techniques can be better for the aquatic environment and can provide for fish habitat. Bioengineered solutions should be considered as a potential alternative to riprap where practical and technically feasible.

Spoil Management

1. Describe your plans for spoil management. Your plans should consider measures for stabilization of stockpiled spoil (i.e. covering with biodegradable mats, planting with native vegetation, etc.).

Vegetation Management

1. Describe your plans to minimize vegetation removal from the construction site. Your plans should consider the topping or pruning of vegetation where practical and technically feasible.
2. Describe your plans for revegetation of disturbed areas (i.e. planting of native vegetation, mulching, hydro-seeding, etc.).

Additional Fact Sheets and Information Requirements

- [Application Information Requirements Information Sheet](#) - Jun 10, 2016 (7 pages, <1 MB)
- [Approval Amendment Fact Sheet](#) - Apr 2016 (2 pages, <1 MB)
- [Aquatic Environment Fact Sheet](#) - Apr 2016 (3 pages, <1 MB)
- [Authorizations Under the Public Lands Act For Work Within the Bed and Shore of Water Bodies](#) - Jun 2016 (1 page, <1 MB)
- [Debris Removal Fact Sheet](#) - Jun 2016 (1 page, <1 MB)
- [Restricted Activity Period Fact Sheet](#) - Apr 2016 (3 pages, <1 MB)