

Application Procedures under the *Public Lands Act* - Temporary Field Authorization and the *Water Act* for Shoreline Stabilization Projects

Wabamun Lake/Lac Ste. Anne

Most shoreline stabilization projects on Wabamun Lake and Lac Ste. Anne in the Province of Alberta are required to obtain at least two authorizations from Alberta Environment and Parks (AEP) prior to commencement:

- Authorization under the *Public Land Act* (PLA):
 - Temporary Field Authorization (TFA); or
 - Department Licence of Occupation (DLO)
- Approval under the *Water Act* (WA).

This document will help applicants:

- Plan their project
- Prepare the required applications
- Understand the application process

Planning stage:

Applicant reviews documents below during the planning stage of the project. Contact Public Lands (PLA) Officer <https://www.alberta.ca/assets/documents/ep-land-management-contacts.pdf> if further guidance needed:

- Respect our Lakes Infographic
- Fact Sheet – Riparian Rights and Shoreline Applications
- Municipal/Environmental Reserve infographic

(Optional) Applicant seeks advice from PLA Officer for the proposed Shoreline Stabilization Project.

- TFA (temporary works) The remainder of this guide explains the application process (Proceed to Step 1 c)
- DLO (permanent works) Please follow the weblink <https://www.alberta.ca/shorelands-approvals-and-regulatory-requirements.aspx> for further information about DLO application requirements.
 - Examples: Retaining walls, gabion baskets

Application stage:

Applicant obtains Crown Land Client ID:

- Application for Client ID PDF

Applicant compiles the following documents and supporting information described in the documents below:

- TFA Form <https://www.alberta.ca/assets/documents/aep-tfa-application-form-jan2019.pdf> (use Internet Explorer)
 - TFA Manual details how to complete this form <https://www.alberta.ca/assets/documents/aep-tfa-manual-jan-24-2020.pdf>
 - Proposed construction timing should consider Restricted Activity Periods for Fish Species <https://open.alberta.ca/dataset/5145cda2-41aa-47ab-96dc-29810e7aca81/resource/b1fef90a-74b6-4d3f-b458-2ec0a711bd2a/download/restrictedperiodsfishspecies10fmzs-jan2010.pdf>
- Example Diagrams – Location Plans, Site Plans, Cross Section Plans
- If semi-waterfront property, written consent required from the registered owner of Municipal Reserve (Example: County or Summer Village)
- Supporting Information

Applicant submits TFA Application by email (attach PDFs) using email addresses found here <https://www.alberta.ca/temporary-fields-authorizations-contacts.aspx>

- PLA Officer will inform Applicant by email or phone, using contact information in application, if TFA application is complete or if further information is required.

Applicant compiles information for Water Act application, starting here: <https://www.alberta.ca/environmental-approvals-system-onestop.aspx>. Once MADi account is created, the following guide can be used to help with the application process: <https://www.alberta.ca/assets/documents/eas-water-act-general-guide.pdf>

Applicant submits Digital WA Application that includes all required information:

- Submit information that was prepared for TFA application (location plan, site plan/real property report, cross-sections etc.)
- Supplemental information may be requested through the Water Act process
- Applicant may be required to complete Public Notice as directed.

Once complete, WA approval will be sent to applicant through digital system; Applicants receive approved TFA by email from PLA Officer.

Construction phase:

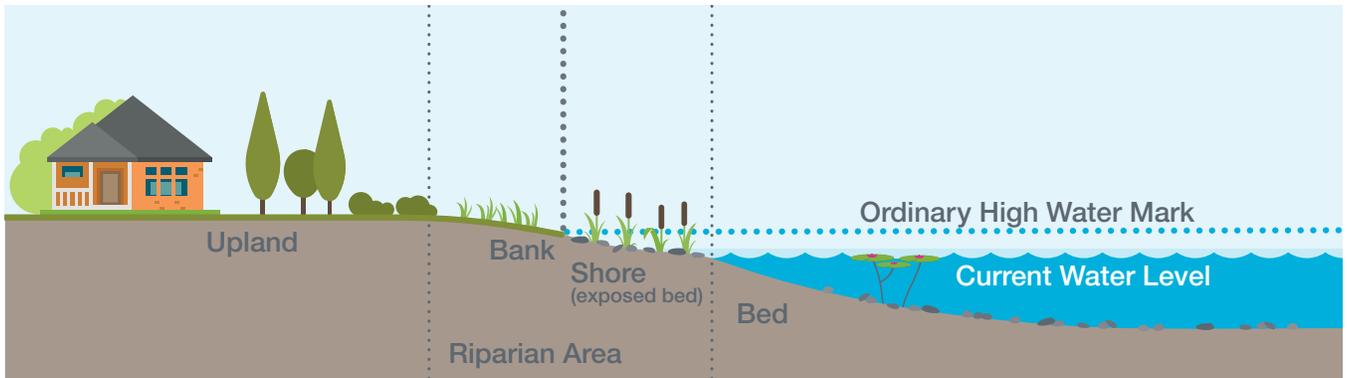
Applicants may then complete work according to conditions of TFA and WA authorizations.

Appendix A

Respect our Lakes Infographic

Respect Our Lakes

Lake Legislation in Alberta



<p>Water Act Applies to any activities that modify a waterbody, the bed and shore, aquatic vegetation, or may cause a negative effect on the aquatic environment (such as quality or quantity). Water diversion also requires an approval.</p>		<p>Provincial</p>
<p>Environmental Protection and Enhancement Act Prohibits the release of substances into the environment, and covers pesticide regulations, fertilizer storage and application, storm water drainage and municipal wastewater treatment facilities.</p>		
<p>Fisheries Act (Provincial) Identifies 52 prohibited aquatic invasive species, mandatory stopping at watercraft inspection stations, removal of the drain plug while transporting watercraft, and mandatory reporting of invasive species.</p>		
<p>Safety Codes Act Outlines private sewage disposal system regulations and standards of practice for dealing with sewage.</p>	<p>Public Lands Act Any activities that are likely to result in soil erosion or damage to the bed and shore, or land within the vicinity, require an authorization. The occupation and use of public lands (like the bed and shore) of any waterbody requires an approval. The area of bed and shore fronting a waterfront property and located below the bank is owned by the Province and is open for public passage.</p>	
<p>Municipal Government Act Provides delegated authority to municipal governments to create environmental reserves to protect the wellbeing of the environment. Check with your local municipality for specific bylaws around your lake.</p>		
<p>Surveys Act Defines the bed and shore, and the natural boundary, referred to as the bank.</p>		
<p>Federal Fisheries Act Any activities that are in or near fish-bearing waterbodies that support a recreational or aboriginal fishery require approval. This act also provides prohibitions on the transport and introduction of aquatic invasive species.</p>		
<p>Canada Shipping Act Vessel Operation Restriction Regulations provides province-wide speed limits of 10km/hour within 30m of the shore.</p>		<p>Federal</p>

Appendix B

Riparian Rights and Shoreline Applications Factsheet

Riparian Rights and Shoreline Modifications

FACTS AT YOUR FINGERTIPS

Riparian Rights - Accretion and Erosion

Water levels naturally rise and fall in lakes across Alberta. For a lakefront landowner this can result in a decrease in property by the washing away of soil (erosion) or an increase in property by the permanent recession of a lake or by the deposit of sediment attaching to the property (accretion).

Lakefront landowners who own land directly bounded by a natural watercourse or waterbody have a legal “**riparian right**” to add any new land that may accrete to their property.

Where accretion has occurred and the landowner wishes to add the land to their land title, the landowner must apply to the **Registrar of Land Titles** to amend the property description on title to reflect the current location of the natural boundary. Evidence of the boundary change must be provided, the land must be legally surveyed, and consent must be given by any landowners who may be adversely affected by an amendment, including the Crown who owns the adjoining lake bed.

The riparian right to accretion is often misinterpreted as “I own the property to the water’s edge”. The vast majority of lakefront property owners in Alberta do not own the land right to the water’s edge. In fact, even if a municipal or environmental reserve doesn’t separate the land from the lake, the most lakeward part of your property is usually the legal bank of the waterbody. The land title and survey plan will state the extent of the property and its boundaries.

Very few exceptions exist. The only way a landowner owns to the water’s edge is if the land title document makes it clear that the landowner owns to the water’s edge.

Boundary between Crown-owned and Private Land

The line that separates the Crown-owned bed and shore of a water body from the adjacent private land is called the legal bank (defined in the *Surveys Act*). Its location is synonymous with what is commonly known as the ordinary high water mark .

In most cases, it is a distinct line formed by the normal, long-continued action or presence of surface water along the land at the edge of the lake (not affected by occasional periods of drought or flooding). *See below diagram.*

It is the responsibility of a landowner to know where his/her property boundaries are. If the current location of a property boundary next to a water body needs to be established, the services of an Alberta Land surveyor should be sought.

Shoreline Work/Activities

Notwithstanding the riparian right to accretion or to access the shore frontage, use of shorelands is governed by provincial and federal laws. Before starting any project that might alter the shoreline of a waterbody, you must contact **Alberta Environment, Alberta Sustainable Resource Development, and Fisheries and Oceans Canada** for the appropriate approvals.

Additional authorization may be required from your local municipality, county, and/or other federal and provincial regulators.

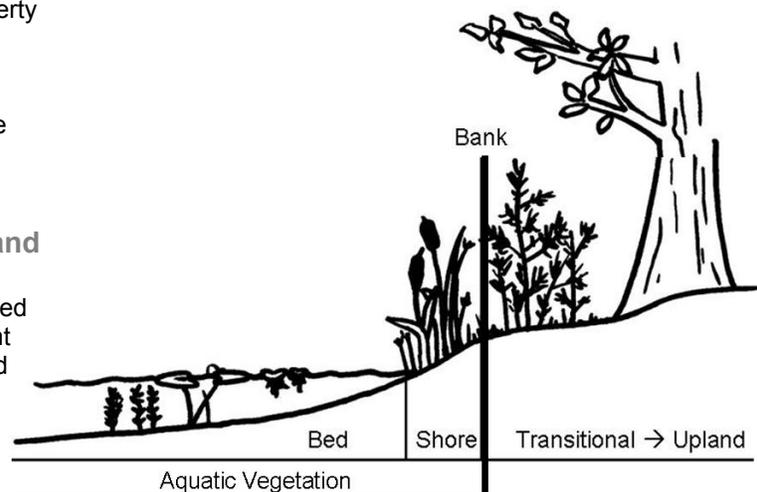
Enforcement

Modifying a shoreline without appropriate approval is subject to enforcement action and provincial fines of up to \$50,000 for an individual or \$500,000 for a company or organization. Other regulator penalties may apply.

If you observe shoreline activity or water-related activity that seems questionable, contact the Alberta Environment hotline at **1-800-222-6514**.

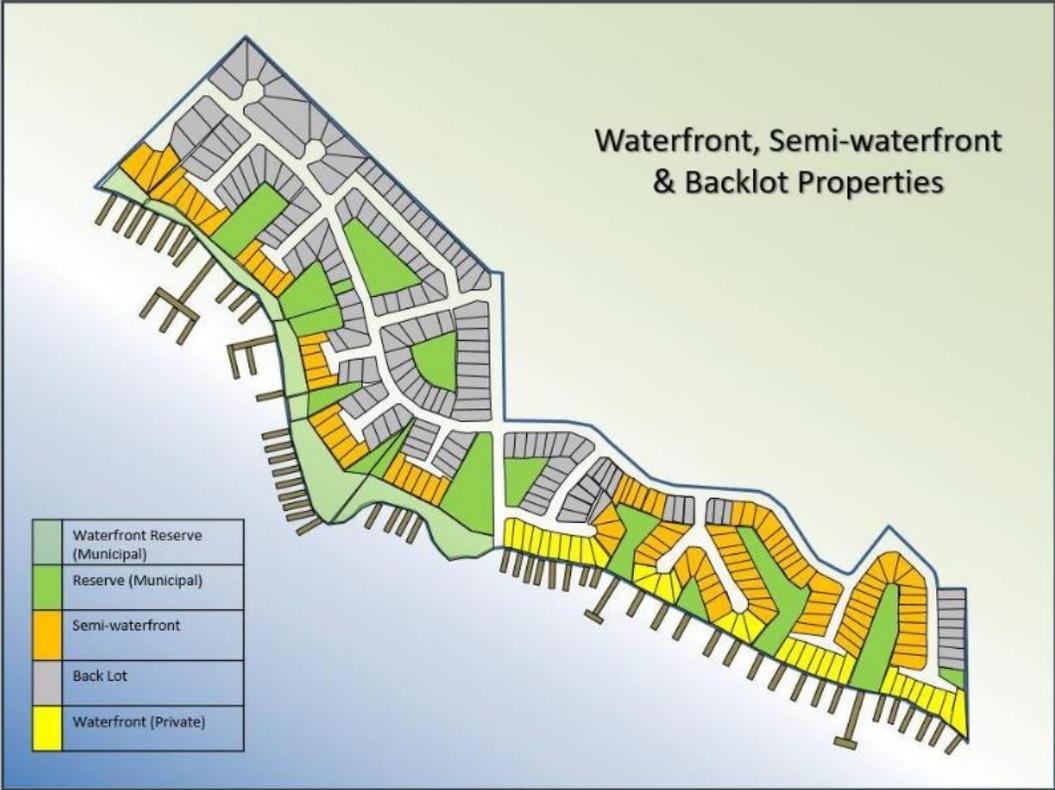
The riparian right to accretion does not mean “I own the property right to the water’s edge”

Contact the appropriate regulators before starting any project that might alter the shoreline of a waterbody



Appendix C

Municipal/Environmental Reserve Infographic

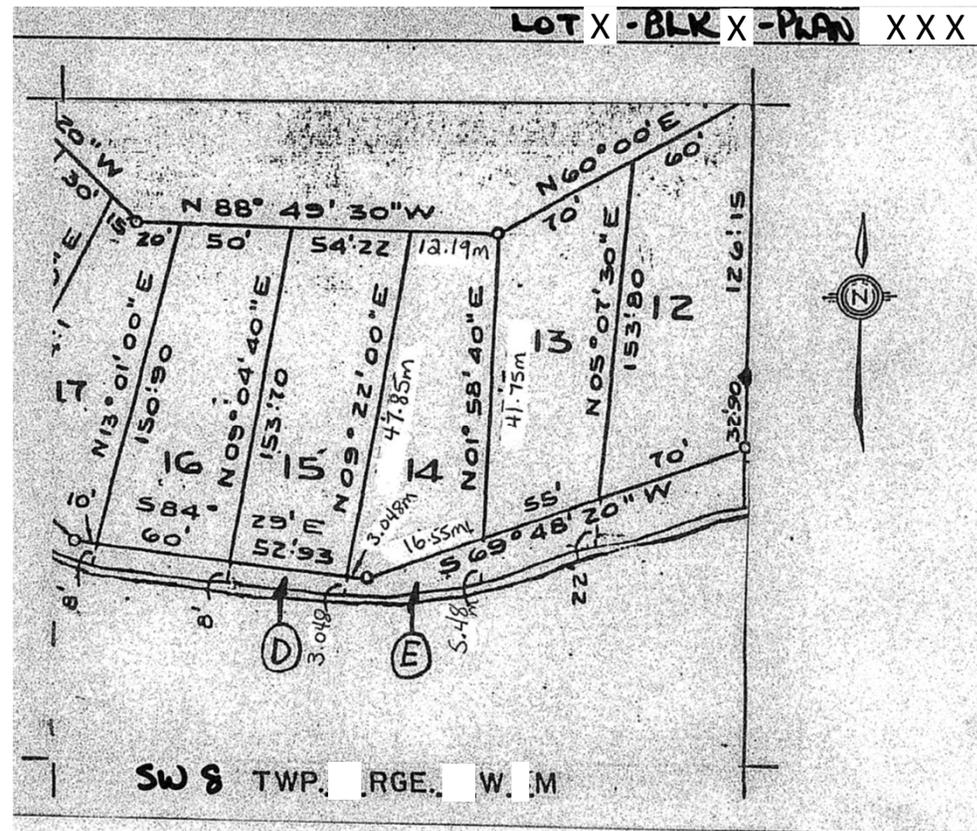


Appendix D

Example Submittals – Location Plans, Site
Plans, Cross Section Plans

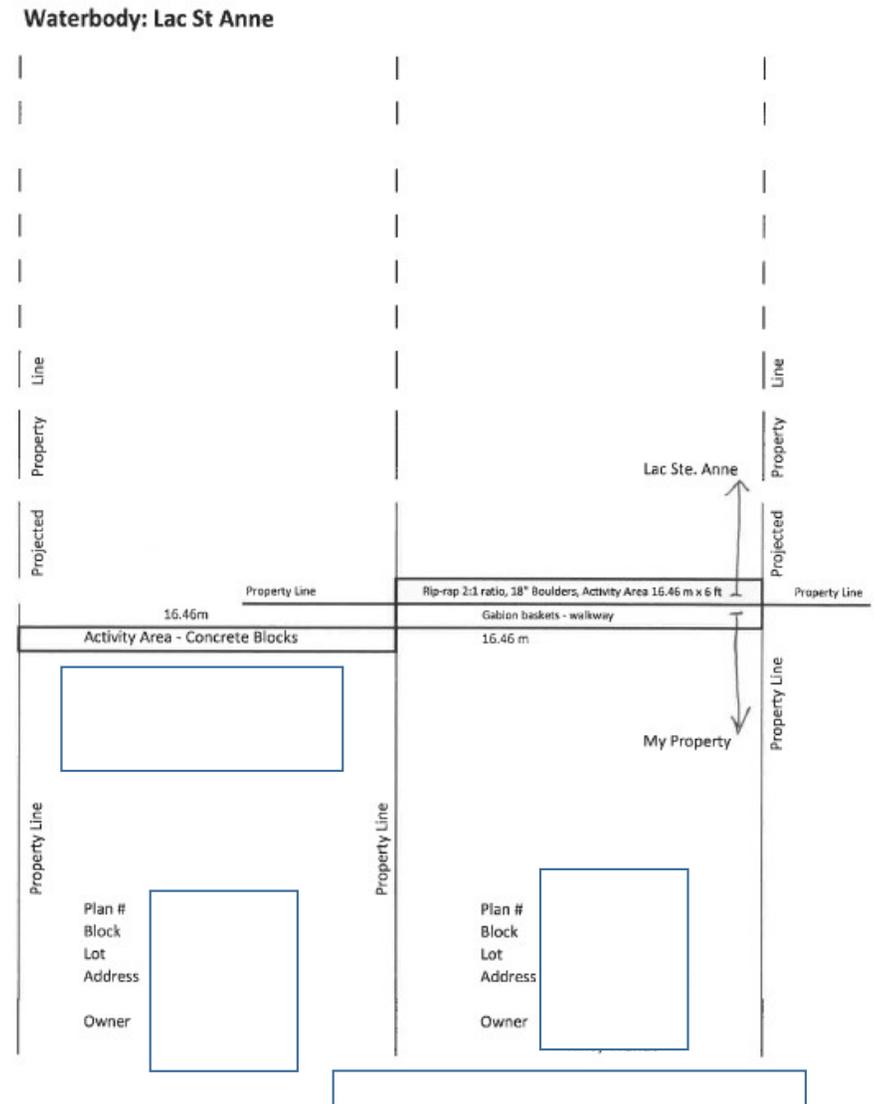
Example Plans – Location Plan

- Ensure the following is labelled:
 - Quarter section
 - Name of the lake
 - Lot Block Plan of the adjacent land
 - The location of the works
- Can use Alberta Geodiscover Tool to create
- Can Obtain Survey Plan from County

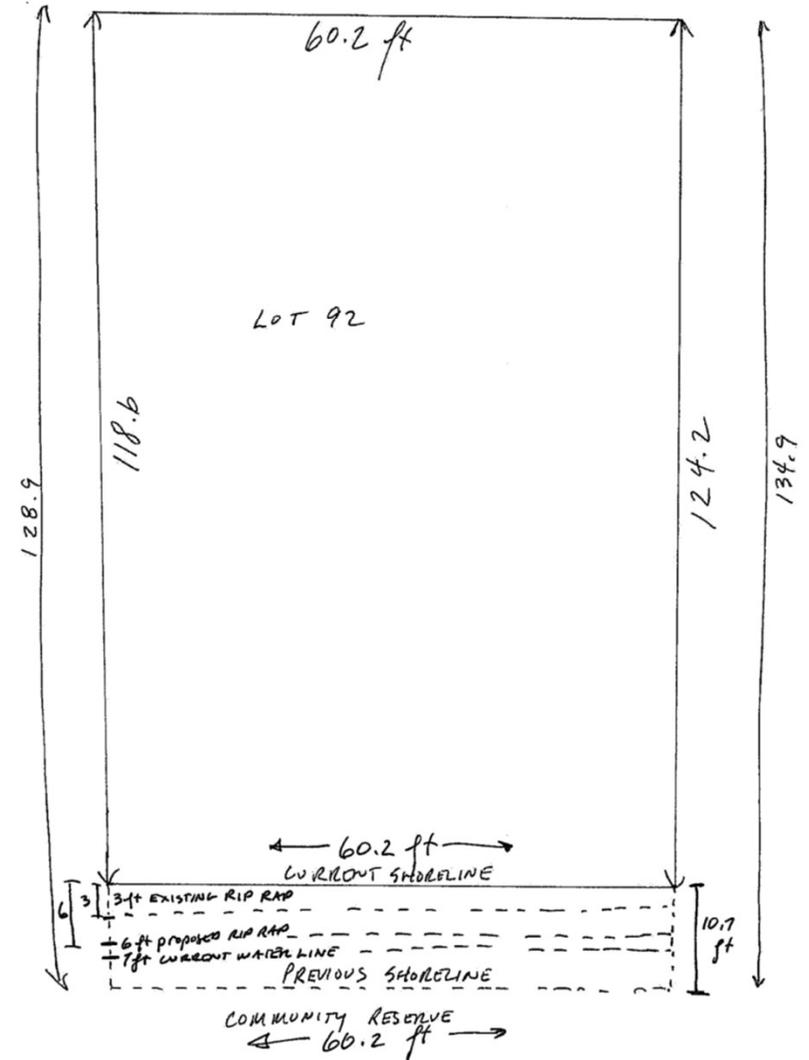
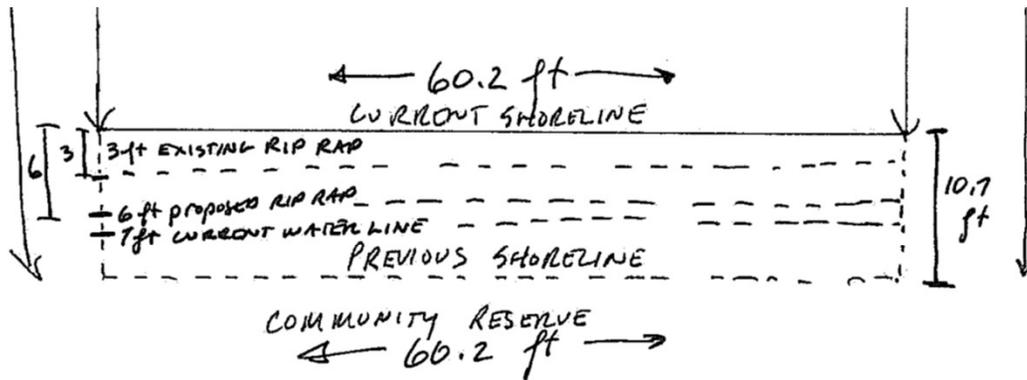


Example Plans – Site Plan

- Ensure Site Plans indicate:
 - The current location of the bank (no property lines)
 - The entire footprint of the works (riprap, retaining wall) relative to the current bank
 - The location of any works, excavation
 - The edge of water (the edge of water is not the location of the bank, not the property line)

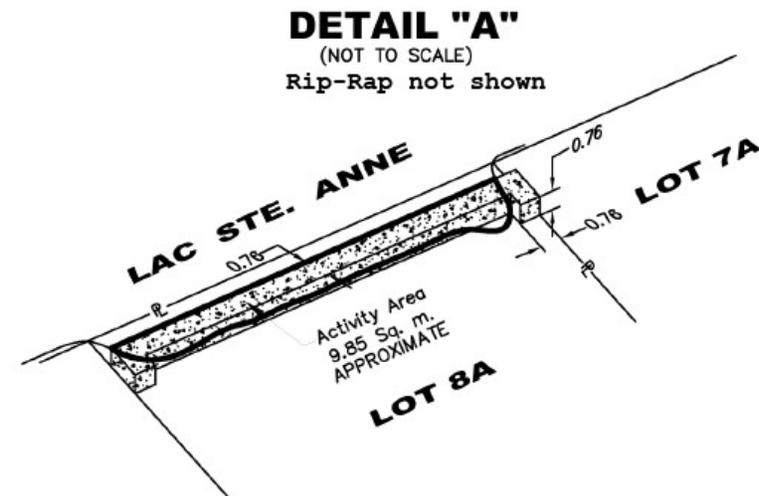
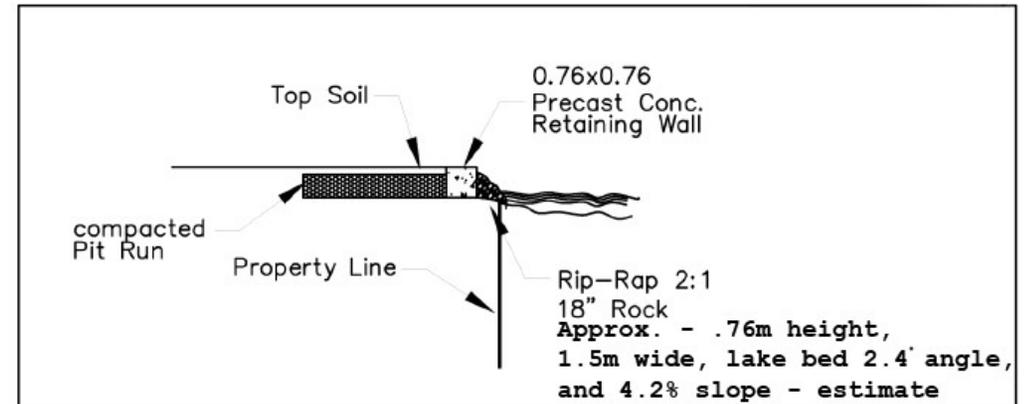


Example Plans – Site Plan

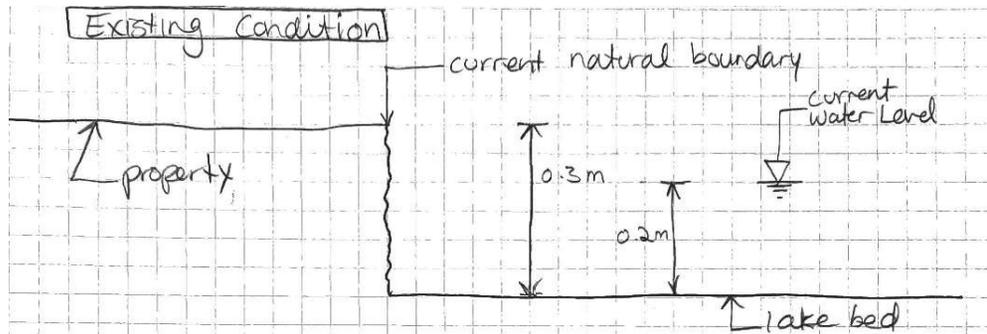


Example Plans – Cross Section

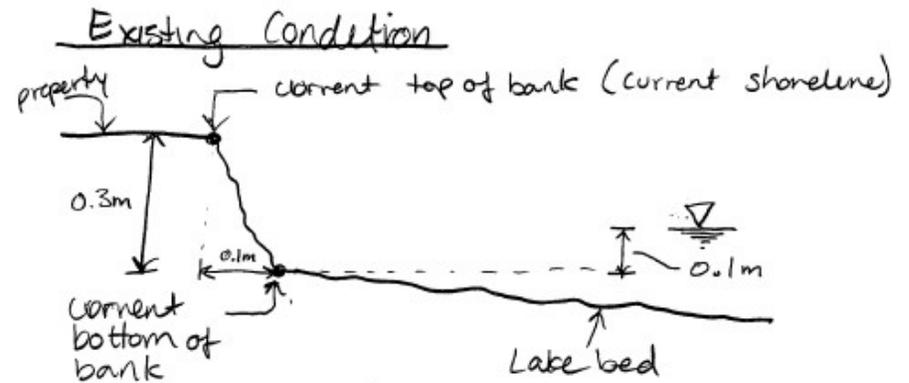
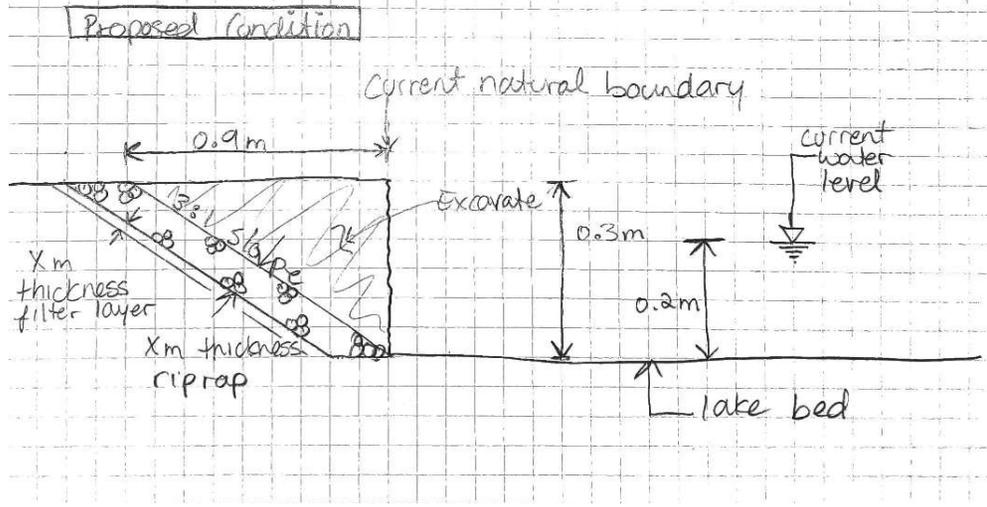
- Ensure the cross-section plan indicates:
 - Relevant dimensions for all components of work (i.e. horizontal and vertical dimensions for riprap, gravel bedding, gabion baskets, concrete walls, filter fabric)
 - Relevant dimensions for the bank
 - All dimensions are in alignment with plan view
 - Current water level (include date)
 - The location of the current shoreline or bank (especially if a survey is required)



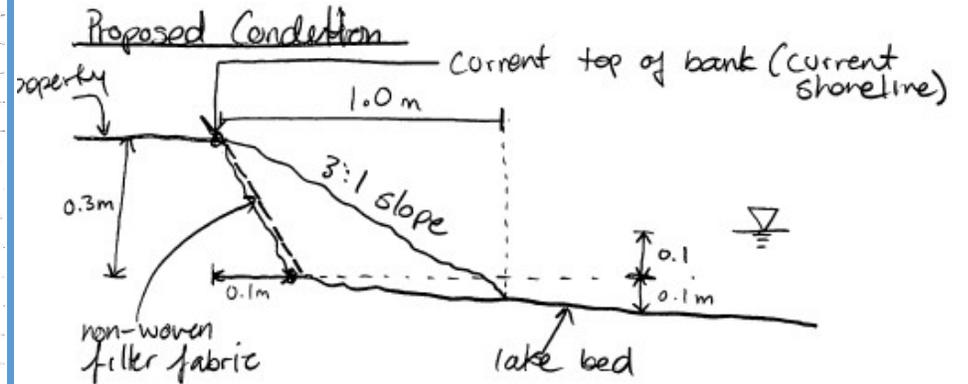
Example Plans – Cross Section



Note this approach may require a Public Lands TFA



Note this approach may require a Public Lands DLO

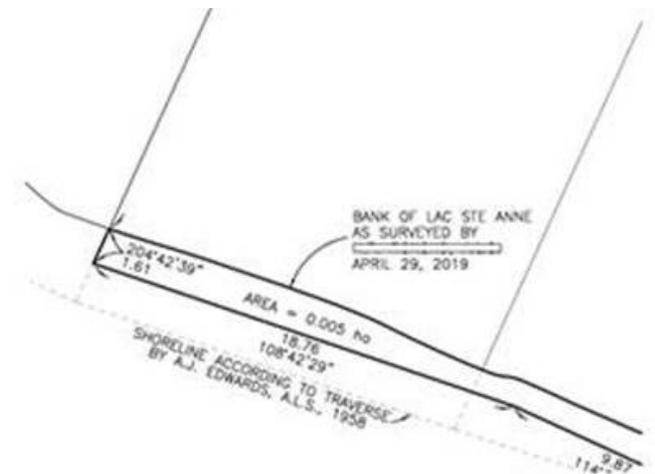


Attached Supplemental Information Form

- Ensure to Clarify:
 - What the minimum, maximum and average boulder size will be.
 - If bedding or filter will be required, what will be used, and where is it located.
 - The tools and or machinery that will be used, and where they will be operating from (from the top of bank, in the water, in the dry).
 - Measures you will be taking to minimize effects to the aquatic environment, sedimentation or erosion. (Will you use a floating silt curtain?)
 - What maintenance is expected over the

Additional Considerations

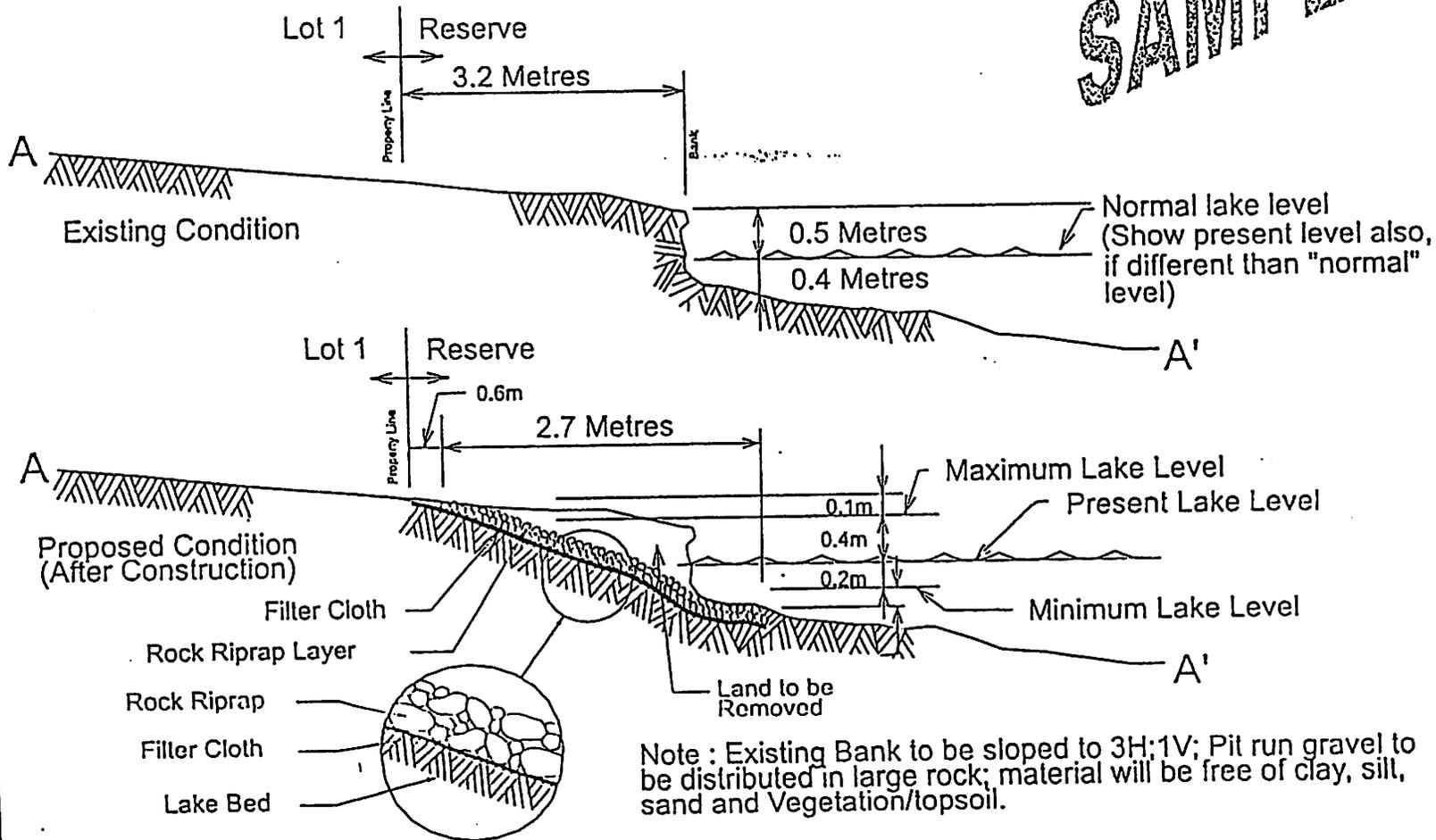
- Depending on the site characteristics, engineered plans may be required. If not supplied at the time of application, we may ask for this in a Supplemental Information Request.
- A survey plan of the site and the current location of the natural boundary (current location of shoreline) may be required.
- Photos help, accurate drawings and well thought-out supplemental information is very important
- Public Lands and Water Act may be different application requirements. Be sure to talk to you local Public Lands officer about your plans before submission



BANK STABILIZATION CROSS SECTION A-A

Subdivision Plan 187 MC Block 7 Lot 1
(TOWNSHIP 56, RANGE 2, WEST 5 MERIDIAN)
(South east Quarter of Section 34)

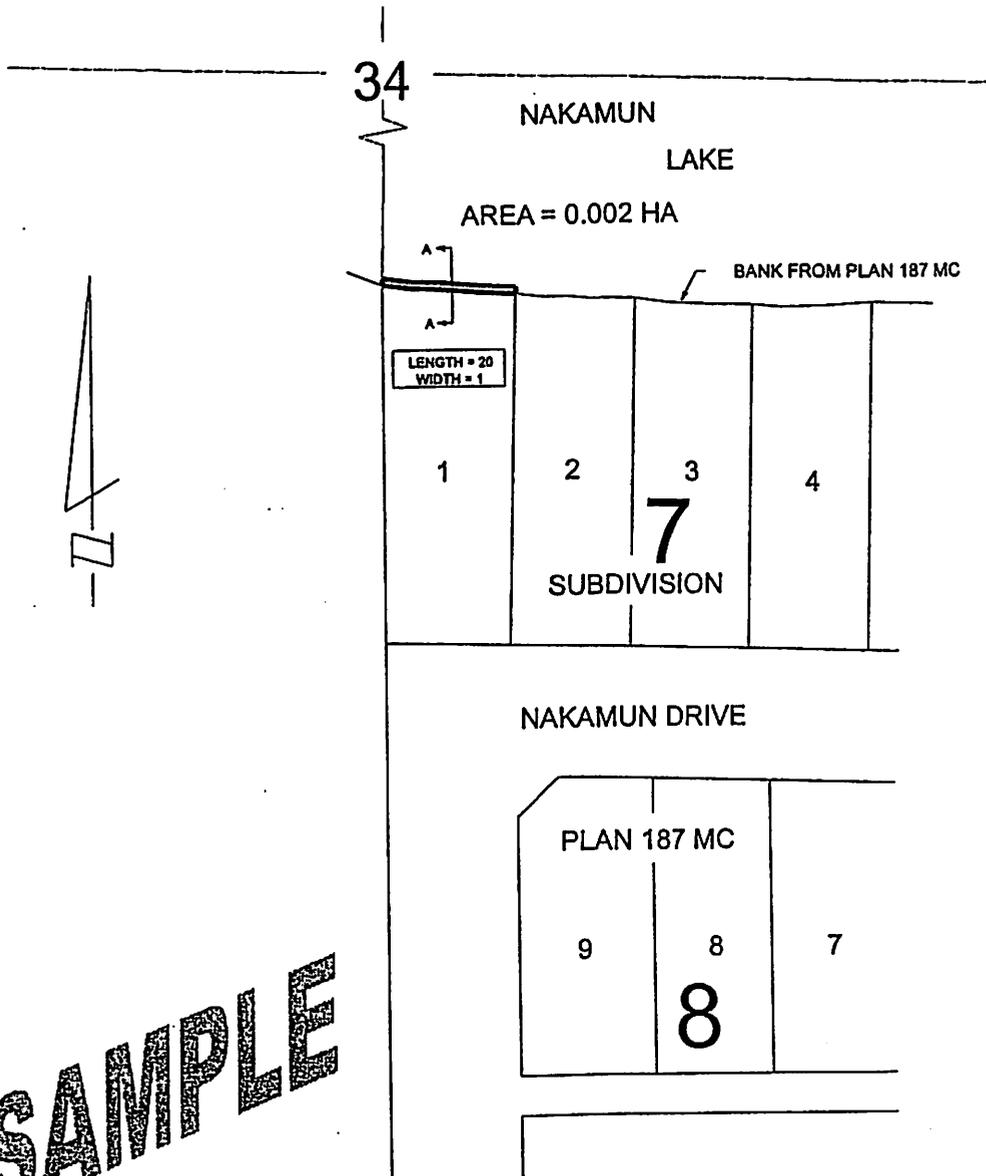
SAMPLE



PLAN PREPARED FOR :
PLAN PREPARED BY :
FILE #:

DISTANCES IN METRES

TOWNSHIP 56, RANGE 2 WEST 5



SAMPLE

PLAN SHOWING LOCATION
OF
BANK STABILIZATION

PLAN PREPARED FOR :
PLAN PREPARED BY :
FILE #:

SCALE: 1:1000
DISTANCES IN METRES

SAMPLE OF PLAN REFERENCING BASE "D"

Appendix E

Supporting Information

Public Lands Act TFA Applications and Water Act Approval Application for Shoreline Erosion Protection, Summer 2021

1. A location plan identifying the location of your activity relative to the quarter section location, nearby communities, the lake, and other cadastral lines.
2. Provide location plan/plan view (aerial view of the activity), sections and profiles of the proposed activity, identifying changes from current and proposed conditions.
 - a. The location of the activity (aerial view of the activity), where the new materials will be placed, disturbance areas (including length and widths of the work and your activity, distances from property lines and waterbodies).
 - b. If alterations to the bed and shore are required, indicate dimensions of the rock riprap (thickness, length, width height as appropriate) before and after construction,
 - c. If possible identify the water level currently, and whether or not work will take place in the water
 - d. If your application is for new erosion protection works (you are not repairing, or maintaining an existing work), a survey plan establishing the current natural boundary or current bank could speed up the review process eliminating uncertainties regarding location of works. If you chose to go this route, it is important to find a legal land surveyor to establish this. If you are completing repair or maintenance, then a sketch plan will suffice.
3. Provide a description of how you will be proceeding with construction.
 - a. Describe your methods for completing the activity (e.g. the machinery you will be using or by hand, dewatering, laydown areas, materials usage, staging, etc.).
 - b. A description of the materials you will be using to complete construction (i.e. riprap, willows, bedding, filter fabric).
 - c. How you plan minimize/mitigate environmental impacts during and after construction (e.g. erosion and sediment control, silt curtains around the site, etc.).
 - d. You can also use the supporting information form attached to help describe all of this.
 - e. Indicate the duration of the activity (how long will the construction take).
4. If the activity will occur on land other than yours, please provide consent from the respective landowners.

1. Is this a new application? Yes No

Authorizations issued under the Water Act can be viewed on the department Authorization Viewer on our website: <https://aww.alberta.ca/ApprovalViewer.aspx>

2. If no, is this an update or resubmission? Update Resubmission

Application Resubmission	Date Issued	Expiry Date
Previous Water Act #		
Previous TFA #		

3. Provide a general description of the project and the work involved:

4. Do you own the land next the water body where the activity will occur? Yes No

5. If no, has the registered landowner/disposition holder provided written access consent? Yes (if yes, attach a copy) No

Note: Applications without written consent from the landowner/disposition holder will not be accepted.

6. Will you be crossing or accessing a Municipal Reserve or Environmental Reserve to access the water body?
 Municipal Reserve Environmental Reserve Both

7. Describe the siltation and erosion prevention measures you propose to use in order to minimize adverse impacts to the water body, fish and the aquatic environment (i.e. silt fences, diversion structure, isolation):

8. Describe your plans for soil management and reclamation during construction (topsoil stripping, salvage, handling and stockpiling):

9. Describe your post construction reclamation plan:

10. Describe what equipment will be used, what land or properties it will cross, and if it will be entering the water body:

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.).